

# Klauke®



## KLAUKE CATALOGUE 2024

Electrical connection systems, Crimping and cutting tools, Hydraulic safety tools, Punching tools, Hand tools, Universal tools, Cable-pulling technology



### WORLDWIDE DISTRIBUTION AND SERVICE NETWORK



**Your contact to Klauke:  
Representatives worldwide**

see from page i-34

### MORE THAN 145 YEARS OF EXPERIENCE



**MADE IN GERMANY  
SINCE 1879**



### OUR COMPANY CERTIFICATES



**ISO 9001:2015**  
Quality management system

**ISO 14001:2015**  
Environmental management system

# ALWAYS THE BEST TOOL FOR YOUR NEEDS.



Electrical connection  
systems



Crimping



Cutting



Hydraulic safety tools



Punching



Universal tools



Pumps



Hand tools



Cable-pulling  
technology

Technical Appendix  
Alphabetical Index  
Alpha Numerical Index

# OUR FIELDS OF EXPERTISE FOUR SECTORS, ONE QUALITY

We take your needs seriously. For us, “Made by Klauke” means that all products are produced to the highest quality.

## TRUSTED SOLUTIONS FOR SOLAR PARK INSTALLATIONS



In a solar park you will find Klauke products every time when you connect a combiner box, an inverter or a transformer.

Solar power systems are an essential green energy source for the present and future generations. But if we talk about the optimal efficiency of the solar panels, a factor that is often underestimated is the quality and reliability of the electrical connection elements.

## TRUSTED SOLUTIONS FOR WIND TURBINE INSTALLATIONS



We offer exactly the right Klauke tools and associated Klauke connection material for the various electrical components in a wind turbine.

Wind turbines play a key role in generating green electricity. High safety requirements apply to the installation. It is therefore essential to comply with the relevant quality criteria for both the electrical connections and the installation tooling.

## TOOLS FOR ENERGY SUPPLY



Klauke offers you - energy generators, network operators and service providers in the energy sector - an expanded product range. Alongside Klauke brand products, Greenlee brand test and measurement equipment is also offered.

The measurement and safety products are developed and produced by Greenlee itself in the USA and reflect state-of-the-art technology. All inspection, test and measuring devices conform to national and international directives and standards, thereby guaranteeing maximum safety for the user.

## CONTROL CABINET CONSTRUCTION – CUTTING, STRIPPING, CRIMPING, PUNCHING – IT'S ALL IN THERE



Efficiency and safety in panel-building are now available in an all-round no-hassle package. Whether it's cutting, stripping, crimping or punching: in our power package you'll find precisely the right tool! EK30IDML and EKWF120ML: fast and safe crimping without changing inserts

In panel-building, different conductors, cable lugs and wire end sleeves are usually used at the same time. This means that during crimping the required pressing inserts must be changed frequently. This takes time and effort. With the EK30IDML and the EKWF120ML, we now offer you ideal solutions.

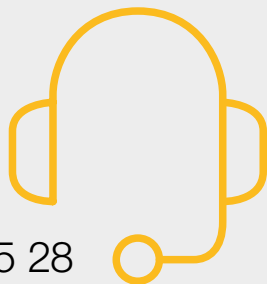
# KLAUKE AFTER SALES SERVICE - PERFECTLY TAILORED FOR YOUR DAY-TO-DAY WORK

Information exchange and close cooperation are an important Klauke quality feature, which is key to our customers' success. We look at the initial requirements through product development to find the best solution together. The best solution for us, though, does not end when the product is delivered, but continues with advice and service support.

## KLAUKE HOTLINE

**HOTLINE:**

0800 4 68 55 28



Your direct link to our tool service offers:

<https://www.klauke.com/ee/en/inspecting-and-servicing-tools>



## KLAUKE SERVICE OFFERS



- Video support with live demonstration of your application and the product
- Your questions are answered immediately after prior agreement
- Service van for on-site service

## KLAUKE GUARANTEE

- Worldwide repair and maintenance service through over 60 authorised Service Centers (Klauke ASC).
- Full maintenance service with annual inspection and maintenance at fixed prices





**Klauke ASC**  
Authorised Service Center

# THE BEST CONNECTION.

Thanks to the Klauke system, you can be sure that your connection will withstand any load. We find the right connector for every conductor.







# Electrical connection systems

<b>Copper tubular cable lugs and connectors</b>	<b>1.4</b>	<b>Aluminium/copper compression cable lugs and connectors</b>	<b>1.92</b>
Tubular cable lugs	1.6	Aluminium/copper compression cable lugs	1.94
Tubular cable lugs for switchgear connections	1.10	Aluminium/copper compression joints	1.97
Angle tubular cable lugs	1.11	Bi-metallic washer	1.100
Connectors	1.15	Tool application chart	1.101
Insulated tubular cable lugs und connectors	1.19		
Tubular cable lugs and compression joints for solid conductors	1.22	<b>Clamps and screw connectors</b>	<b>1.102</b>
Tubular cable lugs and connectors for fine stranded conductors	1.25	Punched cable lugs - copper	1.104
Tool application chart	1.30	Screw connectors with soldering hole - brass	1.105
		Parallel groove clamps - copper	1.106
		C- and H-shaped clamps - copper	1.107
		Screw connector for shielded copper wires	1.109
		Screw connectors for street lighting - brass	1.109
		Screw connectors, high-resistant aluminium alloy	1.110
		Compact tab connectors, high resistant aluminium alloy	1.115
		Tool application chart	1.117
<b>Tubular cable lugs and connectors - nickel, stainless steel</b>	<b>1.36</b>	<b>Cable end-sleeves</b>	<b>1.120</b>
Tubular cable lugs and connectors - stainless steel	1.38	Cable end-sleeves DIN 46228, part 1 and part 2	1.122
Tubular cable lugs and connectors - nickel	1.40	Insulated cable-end sleeves acc. to DIN 46228, part 4 and similar versions	1.125
Tool application chart	1.43	Insulated cable end-sleeves for short circuit resistant conductors	1.130
		Insulated twin cable-end sleeves	1.131
		Insulated cable-end sleeves, strips and tapes	1.132
		Tool application chart	1.134
<b>Copper compression cable lugs and connectors acc. to DIN</b>	<b>1.44</b>	<b>Cable connections, insulated and non insulated</b>	<b>1.136</b>
Compression cable lugs acc. to DIN 46235	1.46	Insulated terminals	1.138
Angle compression cable lugs	1.48	Non insulated flat connectors	1.149
Compression cable lugs, special type	1.52	Flexible connectors	1.154
Compression joints acc. to DIN 46267, part 1 and similar versions	1.54	Tool application chart	1.157
Tool application chart	1.59		
<b>Copper terminals, connectors and pin terminals acc. to DIN</b>	<b>1.62</b>	<b>Assortments</b>	<b>1.160</b>
Solderless terminals acc. to DIN 46234	1.64	Pocket boxes with cable end-sleeves	1.162
Insulated solderless terminals	1.66	Pocket boxes with insulated cable end-sleeves	1.163
Solderless terminals, fork and pin type	1.68	Assortment boxes with cable end-sleeves	1.167
Insulated solderless terminals for meter connections	1.70	Assortment boxes with insulated cable-end sleeves	1.168
Solderless connectors acc. to DIN 46341, part 1	1.70	Assortment boxes with tubular and compression cable lugs	1.171
Tool application chart	1.72	Assortment boxes with insulated terminals	1.173
		Steel carrying cases / bags	1.175
<b>Sleeves for compacted conductors and sector-shaped conductors - copper</b>	<b>1.74</b>	<b>L-BOXes</b>	<b>1.180</b>
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>	<b>1.80</b>		
Aluminium compression cable lugs acc. to DIN 46329 and similar versions	1.82		
Aluminium compression joints acc. to DIN 46267 part 2 and similar versions	1.85		
Aluminium reduction compression joints	1.87		
Aluminium compression joints, full tension	1.89		
Tool application chart	1.90		



# THE CLASSIC - COPPER TUBULAR CABLE LUGS

Not every product becomes a classic at Klauke. Only the best ones. Tubular cable lugs made from high-quality electrolytic copper have been part of the Klauke standard range since 1960. The hallmarks: We handle all phases, from development to production. We monitor each and every step. The result: The certified classic remains - in every version.



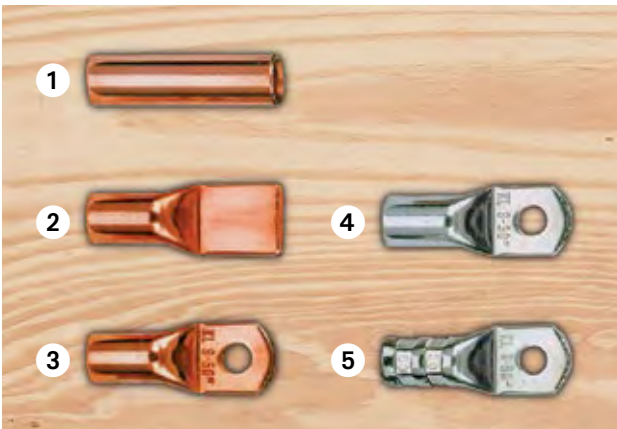
#### In brief

- ▶ Everything from a single source, from development to production
- ▶ Best electrical conductivity thanks to electrolytic copper
- ▶ Available for all cross sections and in many special versions
- ▶ Tested to international standards

## ► The system - Klauke connectors

At Klauke all products are matched to one another and we manufacture in our own factories. We think in your work steps – and produce everything systematically. Every cable lug, every tool for the perfect connection.

- Full flexibility through solutions for all conductor classes to EN 60228
- For cables with compacted round conductors, cables with sector-shaped conductors and to suit individual requirements
- A single source - for everything from the cable lug to the tool for professional electrical installations



- 1 Source material
- 2 Folding and crimping
- 3 Punching
- 4 Tinned end product
- 5 After crimping

## ► The preparation - Traditional quality

The best material is the basis for quality products. For our classics we use - as for all Klauke products - exclusively high-quality material from certified suppliers. You get all our cable lugs with the optimum features.

- Optimum conductivity, high loading capacity and increased safety thanks to high-quality materials
- Outstanding processing properties

## ► The proof - independent quality tests

Klauke aspires to its own high standard. We have this verified by several independent inspection authorities and have put ourselves through the tough IEC tests - with success.

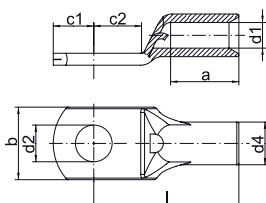
- IEC (International Electric Commission): The IEC is an advisory board for standards in the electrical engineering and electronics sector. The certifications encompass all areas of electrical engineering that have to meet especially high demands.
- UL (Underwriters Laboratories): UL is an independent organisation that examines and certifies products for safety. The certification is particularly important on the American market.

- DNV (Det Norske Veritas) and GL (Germanischer Lloyd): DNV and GL have now merged to form the world's largest consulting company for onshore and offshore systems.





## Tubular cable lugs, Cu, standard type



- ▶ Cable lug for fine-stranded round conductors, e.g. to EN 60228 Cl. 5
- ▶ Simple processing thanks to inspection hole for monitoring full conductor insertion



### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug



### Material

- Copper (EN13600)



### Surface

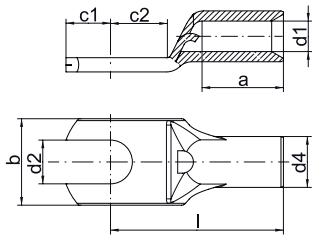
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
0.75	M3	<b>91R3</b>	1.3	6	6.0	3,2	2.8	3.25	4.0	12	0.060	100
	M4	<b>91R4</b>	1.3	6	6.5	4,3	2.8	4.00	5.0	13	0.060	100
	M5	<b>91R5</b>	1.3	6	7.5	5,3	2.8	4.75	5.5	14	0.060	100
1.5	M3	<b>92R3</b>	1.8	6	6.5	3,2	3.3	3.25	4.0	12	0.080	100
	M4	<b>92R4</b>	1.8	6	6.5	4,3	3.3	4.00	5.0	13	0.080	100
	M5	<b>92R5</b>	1.8	6	7.5	5,3	3.3	4.75	5.5	14	0.080	100
	M6	<b>92R6</b>	1.8	6	9.0	6,4	3.3	6.50	6.5	16	0.090	100
2.5	M3	<b>93R3</b>	2.3	6	7.5	3,2	4.2	3.25	4.0	12	0.120	100
	M4	<b>93R4</b>	2.3	6	7.5	4,3	4.2	4.00	5.0	13	0.120	100
	M5	<b>93R5</b>	2.3	6	8.5	5,3	4.2	4.75	5.5	14	0.130	100
	M6	<b>93R6</b>	2.3	6	9.5	6,5	4.2	6.50	6.5	16	0.150	100
	M8	<b>93R8</b>	2.3	6	13.0	8,4	4.2	7.75	9.5	20	0.180	100
4	M4	<b>94R4</b>	3.0	8	8.5	4,3	5.0	4.75	5.5	17	0.210	100
	M5	<b>94R5</b>	3.0	8	9.0	5,3	5.0	4.75	6.0	17	0.213	100
	M6	<b>94R6</b>	3.0	8	10.0	6,4	5.0	6.50	6.5	19	0.220	100
	M8	<b>94R8</b>	3.0	8	13.0	8,4	5.0	8.50	9.5	22	0.280	100
6	M4	<b>95R4</b>	4.0	9	9.5	4,3	6.0	5.00	5.5	18	0.290	100
	M5	<b>95R5</b>	4.0	9	9.5	5,3	6.0	6.00	6.0	19	0.300	100
	M6	<b>95R6</b>	4.0	9	10.0	6,4	6.0	7.00	6.5	19	0.300	100
	M8	<b>95R8</b>	4.0	9	14.0	8,5	6.0	8.50	9.5	22	0.320	100

## Tubular cable lugs, Cu, fork type



- ▶ Cable lug to 6 mm<sup>2</sup> for fine-stranded round conductors Cl. 5, 10 mm<sup>2</sup> and 16 mm<sup>2</sup> for multi-stranded round conductors Cl. 2, e.g. to EN 60228
- ▶ Simple fork-type mounting
- ▶ Simple processing thanks to inspection hole to check the inserted conductor

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

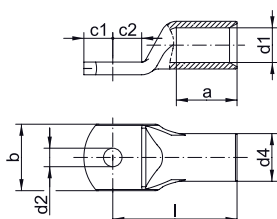
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
0.75	M3	<b>91C3</b>	1.3	6	6.0	3,2	2.8	3.25	4.0	12	0.06	100
	M4	<b>91C4</b>	1.3	6	6.5	4,3	2.8	4.00	5.0	13	0.05	100
	M5	<b>91C5</b>	1.3	6	7.5	5,3	2.8	4.75	5.5	14	0.06	100
1.5	M3	<b>92C3</b>	1.8	6	6.5	3,2	3.3	3.25	4.0	12	0.07	100
	M4	<b>92C4</b>	1.8	6	6.5	4,3	3.3	4.00	5.0	13,5	0.07	100
	M5	<b>92C5</b>	1.8	6	7.5	5,3	3.3	4.75	5.5	14	0.07	100
	M6	<b>92C6</b>	1.8	6	9.0	6,4	3.3	6.50	6.5	16	0.08	100
2.5	M4	<b>93C4</b>	2.3	6	7.5	4,3	4.2	4.00	5.0	13	0.11	100
	M5	<b>93C5</b>	2.3	6	8.5	5,3	4.2	4.75	5.5	14	0.12	100
	M6	<b>93C6</b>	2.3	6	9.5	6,4	4.2	6.50	6.5	16	0.10	100
4	M4	<b>94C4</b>	3.0	8	8.5	4,3	5.0	4.75	5.5	17	0.19	100
	M5	<b>94C5</b>	3.0	8	9.0	5,3	5.0	4.75	6.0	17	0.19	100
	M6	<b>94C6</b>	3.0	8	10.0	6,4	5.0	6.50	6.5	19	0.21	100
	M8	<b>94C8</b>	3.0	8	13.0	8,5	5.0	8.50	9.5	22	0.24	100
6	M4	<b>95C4</b>	4.0	9	9.5	4,3	6.0	5.00	5.5	18	0.27	100
	M5	<b>95C5</b>	4.0	9	9.5	5,3	6.0	6.00	6.0	19	0.32	100
	M6	<b>95C6</b>	4.0	9	10.0	6,4	6.0	7.00	6.5	19	0.27	100
	M8	<b>95C8</b>	4.0	9	14.0	8,5	6.0	8.50	9.0	22	0.31	100
10	M5	<b>96C5</b>	4.5	10	12.0	5,3	7.0	6.50	7.5	22	0.45	100
	M6	<b>96C6</b>	4.5	10	12.0	6,4	7.0	6.50	7.5	22	0.41	100
	M8	<b>96C8</b>	4.5	10	15.0	8,4	7.0	10.00	10.0	25	0.52	100
16	M5	<b>97C5</b>	5.5	13	12.0	5,3	8.5	5.50	6.5	26	0.81	100
	M6	<b>97C6</b>	5.5	13	12.0	6,4	8.5	6.25	7.5	27	0.81	100
	M8	<b>97C8</b>	5.5	13	15.0	8,4	8.5	8.50	9.5	29	0.90	100

## Tubular cable lugs, Cu, standard type with and without inspection hole



- ▶ Approval of the tin-plated cable lugs for use with high-temperature cables 180 °C (based on IEC 61238-1-1): The cable lugs can be used with tin-plated conductors of class 5 (fine-wire)
- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Ideal cable lug for control cabinet construction
- ▶ In combination with EKM 60 ID and EK 30 ID suitable for fine-stranded conductors

### Characteristics

- To DIN EN 61373 class 1B vibration-tested
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	without insp. hole Part No.	with insp. hole Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
				d1	a	b	d2	d4	c1	c2	l		
6	M5	<b>1R5</b>	<b>1R5MS</b>	3,5	9	10	5,3	6,5	6,50	7,5	21	0,50	100
	M6	<b>1R6</b>	<b>1R6MS</b>	3,5	9	12	6,4	6,5	6,50	7,5	21	0,47	100
	M8	<b>1R8</b>	<b>1R8MS</b>	3,5	9	15	8,4	6,5	10,00	10,0	23	0,54	100
	M10	<b>1R10</b>	<b>1R10MS</b>	3,5	9	17	10,5	6,5	12,00	12,0	25	0,59	100
	M12	<b>1R12</b>	<b>1R12MS</b>	3,5	9	19	13,0	6,5	13,00	13,0	28	0,63	100
10	M5	<b>2R5</b>	<b>2R5MS</b>	4,5	10	12	5,3	7,0	6,50	7,5	22	0,50	100
	M6	<b>2R6</b>	<b>2R6MS</b>	4,5	10	12	6,4	7,0	6,50	7,5	22	0,49	100
	M8	<b>2R8</b>	<b>2R8MS</b>	4,5	10	15	8,4	7,0	10,00	10,0	25	0,58	100
	M10	<b>2R10</b>	<b>2R10MS</b>	4,5	10	17	10,5	7,0	12,00	12,0	27	0,62	100
	M12	<b>2R12</b>	<b>2R12MS</b>	4,5	10	19	13,0	7,0	13,00	13,0	29	0,64	100
16	M5	<b>3R5</b>	<b>3R5MS</b>	5,5	13	12	5,5	8,5	5,50	6,5	26	0,84	100
	M6	<b>3R6</b>	<b>3R6MS</b>	5,5	13	12	6,4	8,5	6,25	7,5	27	0,86	100
	M8	<b>3R8</b>	<b>3R8MS</b>	5,5	13	15	8,3	8,5	8,50	9,5	29	0,93	100
	M10	<b>3R10</b>	<b>3R10MS</b>	5,5	13	17	10,5	8,5	10,50	11,5	31	0,99	100
	M12	<b>3R12</b>	<b>3R12MS</b>	5,5	13	19	13,0	8,5	12,00	13,0	33	1,02	100
25	M5	<b>4R5</b>	<b>4R5MS</b>	7,0	15	14	5,3	10,0	7,50	7,5	30	1,22	25
	M6	<b>4R6</b>	<b>4R6MS</b>	7,0	15	14	5,3	10,0	7,50	7,5	30	1,20	100
	M8	<b>4R8</b>	<b>4R8MS</b>	7,0	15	16	8,4	10,0	10,00	10,0	32	1,31	100
	M10	<b>4R10</b>	<b>4R10MS</b>	7,0	15	18	10,5	10,0	12,00	12,0	34	1,57	100
	M12	<b>4R12</b>	<b>4R12MS</b>	7,0	15	19	13,0	10,0	13,00	13,0	35	1,39	25
35	M14	<b>4R14</b>	<b>4R14MS</b>	7,0	15	21	15,0	10,0	14,50	14,5	38	1,49	25
	M6	<b>5R6</b>	<b>5R6MS</b>	8,5	17	17	6,4	12,0	7,50	7,5	32	1,85	100
	M8	<b>5R8</b>	<b>5R8MS</b>	8,5	17	17	8,4	12,0	10,00	10,0	34	2,00	100
	M10	<b>5R10</b>	<b>5R10MS</b>	8,5	17	19	10,5	12,0	12,00	12,0	37	2,13	100
	M12	<b>5R12</b>	<b>5R12MS</b>	8,5	17	21	13,0	12,0	13,00	13,0	38	2,12	100
	M14	<b>5R14</b>	<b>5R14MS</b>	8,5	17	21	15,0	12,0	14,50	14,5	40	2,18	25
	M16	<b>5R16</b>	<b>5R16MS</b>	8,5	17	26	17,0	12,0	16,00	16,0	42	2,24	25

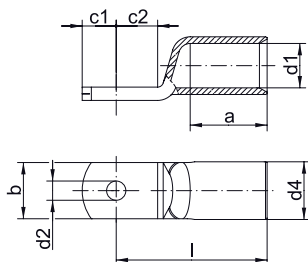
See next page

### Tubular cable lugs, Cu, standard type with and without inspection hole

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	without insp. hole Part No.	with insp. hole Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
				d1	a	b	d2	d4	c1	c2	l		
50	M6	<b>6R6</b>	<b>6R6MS</b>	10,0	19	20	6,4	14,0	10,00	10,0	37	3,00	25
	M8	<b>6R8</b>	<b>6R8MS</b>	10,0	19	20	8,4	14,0	10,00	10,0	37	2,93	50
	M10	<b>6R10</b>	<b>6R10MS</b>	10,0	19	20	10,5	14,0	12,00	12,0	39	3,08	50
	M12	<b>6R12</b>	<b>6R12MS</b>	10,0	19	23	13,0	14,0	13,00	13,0	43	3,23	50
	M14	<b>6R14</b>	<b>6R14MS</b>	10,0	19	23	15,0	14,0	14,50	14,5	45	3,32	25
	M16	<b>6R16</b>	<b>6R16MS</b>	10,0	19	28	17,0	14,0	16,00	16,0	46	3,38	25
	M20	<b>6R20</b>	<b>6R20MS</b>	10,0	19	30	21,0	14,0	19,00	19,0	48	3,46	25
70	M6	<b>7R6</b>	<b>7R6MS</b>	12,0	21	23	6,4	16,5	10,00	10,0	43	4,49	25
	M8	<b>7R8</b>	<b>7R8MS</b>	12,0	21	23	8,5	16,5	10,00	10,0	43	4,38	50
	M10	<b>7R10</b>	<b>7R10MS</b>	12,0	21	23	10,5	16,5	12,00	12,0	44	4,54	50
	M12	<b>7R12</b>	<b>7R12MS</b>	12,0	21	23	13,0	16,5	13,00	13,0	46	4,63	50
	M14	<b>7R14</b>	<b>7R14MS</b>	12,0	21	23	15,0	16,5	14,50	14,5	48	4,76	25
	M16	<b>7R16</b>	<b>7R16MS</b>	12,0	21	28	17,0	16,5	16,00	16,0	50	4,24	25
	M20	<b>7R20</b>	<b>7R20MS</b>	12,0	21	30	21,0	16,5	19,00	19,0	53	5,09	25
95	M8	<b>8R8</b>	<b>8R8MS</b>	13,5	25	26	8,4	18,0	12,00	12,0	48	5,44	25
	M10	<b>8R10</b>	<b>8R10MS</b>	13,5	25	26	10,5	18,0	12,00	12,0	48	5,40	50
	M12	<b>8R12</b>	<b>8R12MS</b>	13,5	25	26	13,0	18,0	13,00	13,0	49	5,56	50
	M14	<b>8R14</b>	<b>8R14MS</b>	13,5	25	26	15,0	18,0	14,50	14,5	51	5,62	25
	M16	<b>8R16</b>	<b>8R16MS</b>	13,5	25	28	17,0	18,0	16,00	16,0	54	5,82	50
	M20	<b>8R20</b>	<b>8R20MS</b>	13,5	25	36	21,0	18,0	22,00	22,0	60	6,71	25
	M8	<b>9R8</b>	<b>9R8MS</b>	15,0	26	28	8,4	19,5	14,00	14,0	51	6,72	25
120	M10	<b>9R10</b>	<b>9R10MS</b>	15,0	26	28	10,5	19,5	14,00	14,0	51	6,57	50
	M12	<b>9R12</b>	<b>9R12MS</b>	15,0	26	28	13,0	19,5	14,00	14,0	51	6,38	50
	M14	<b>9R14</b>	<b>9R14MS</b>	15,0	26	28	15,0	19,5	15,00	15,0	52	6,45	25
	M16	<b>9R16</b>	<b>9R16MS</b>	15,0	26	30	17,0	19,5	16,00	16,0	54	6,51	50
	M20	<b>9R20</b>	<b>9R20MS</b>	15,0	26	36	21,0	19,5	22,00	22,0	63	7,74	25
	M8	<b>10R8</b>	<b>10R8MS</b>	16,5	30	31	8,5	21,0	14,00	14,0	56	7,78	10
	M10	<b>10R10</b>	<b>10R10MS</b>	16,5	30	31	10,5	21,0	14,00	14,0	56	7,62	10
150	M12	<b>10R12</b>	<b>10R12MS</b>	16,5	30	31	13,0	21,0	15,00	15,0	57	7,73	25
	M14	<b>10R14</b>	<b>10R14MS</b>	16,5	30	31	15,0	21,0	15,00	15,0	57	7,64	10
	M16	<b>10R16</b>	<b>10R16MS</b>	16,5	30	31	17,0	21,0	16,00	16,0	58	7,53	10
	M20	<b>10R20</b>	<b>10R20MS</b>	16,5	30	36	21,0	21,0	22,00	22,0	66	8,80	10
	M10	<b>11R10</b>	<b>11R10MS</b>	19,0	30	35	10,5	24,0	18,00	18,0	65	11,75	10
	M12	<b>11R12</b>	<b>11R12MS</b>	19,0	30	35	13,0	24,0	18,00	18,0	65	11,82	10
	M14	<b>11R14</b>	<b>11R14MS</b>	19,0	30	35	15,0	24,0	18,00	18,0	65	11,39	10
185	M16	<b>11R16</b>	<b>11R16MS</b>	19,0	30	35	17,0	24,0	18,00	18,0	65	11,24	25
	M20	<b>11R20</b>	<b>11R20MS</b>	19,0	30	39	21,0	24,0	22,00	22,0	69	12,00	10
	M10	<b>12R10</b>	<b>12R10MS</b>	21,0	35	39	10,5	26,0	21,50	19,0	72	14,72	10
	M12	<b>12R12</b>	<b>12R12MS</b>	21,0	35	39	13,0	26,0	21,50	19,0	72	14,55	10
	M14	<b>12R14</b>	<b>12R14MS</b>	21,0	35	39	15,0	26,0	21,50	19,0	72	14,24	10
	M16	<b>12R16</b>	<b>12R16MS</b>	21,0	35	39	17,0	26,0	21,50	19,0	72	14,09	25
	M20	<b>12R20</b>	<b>12R20MS</b>	21,0	35	39	21,0	26,0	21,50	19,0	72	13,60	10
240	M12	<b>13R12</b>	<b>13R12MS</b>	23,5	44	43	13,0	29,5	24,00	24,0	87	23,33	5
	M14	<b>13R14</b>	<b>13R14MS</b>	23,5	44	43	15,0	29,5	24,00	24,0	87	23,14	5
	M16	<b>13R16</b>	<b>13R16MS</b>	23,5	44	43	17,0	29,5	24,00	24,0	87	22,74	5
	M20	<b>13R20</b>	<b>13R20MS</b>	23,5	44	43	21,0	29,5	24,00	24,0	87	22,19	5
	M12	<b>14R12</b>	<b>14R12MS</b>	27,0	44	49	13,0	34,0	24,00	24,0	90	32,41	5
	M14	<b>14R14</b>	<b>14R14MS</b>	27,0	44	49	15,0	34,0	24,00	24,0	90	32,24	5
	M16	<b>14R16</b>	<b>14R16MS</b>	27,0	44	49	17,0	34,0	24,00	24,0	90	31,98	5
400	M20	<b>14R20</b>	<b>14R20MS</b>	27,0	44	49	21,0	34,0	24,00	24,0	90	31,41	5



## Tubular cable lugs for switchgear connections, standard type



- ▶ For multi-stranded, round conductors e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ For connecting in switch cabinets with reduced connecting space
- ▶ Narrow palm version manufactured without material loss
- ▶ In combination with EKM 60 ID and EK 30 ID suitable for fine-stranded conductors

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“



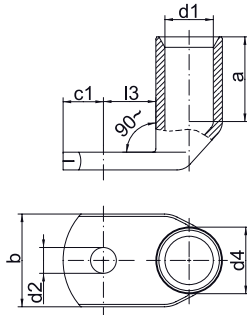
### Additional information

- Possible as a special version with inspection hole on request. Part Number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
35	M6	<b>5SG6</b>	8.5	17	15.0	6.4	12.0	7.5	7.5	32	1.78	25
		<b>6SG6</b>	10.0	19	15.0	6.5	14.0	10.0	10.0	37	2.95	25
50	M8	<b>6SG8</b>	10.0	19	17.0	8.5	14.0	10.0	10.0	37	2.82	25
	M10	<b>6SG10</b>	10.0	19	19.0	10.5	14.0	11.5	12.0	39	3.08	25
70	M6	<b>7SG6</b>	12.0	21	17.0	6.5	16.5	10.0	10.0	43	4.22	25
	M8	<b>7SG8</b>	12.0	21	17.0	8.5	16.5	10.0	10.0	43	4.10	25
	M10	<b>7SG10</b>	12.0	21	19.0	10.5	16.5	11.5	12.0	44	4.45	25
	M12	<b>7SG12</b>	12.0	21	19.0	13.0	16.5	13.0	13.0	46	4.22	25
95	M6	<b>8SG6</b>	13.5	25	19.0	6.5	18.0	11.5	12.0	48	5.49	25
	M8	<b>8SG8</b>	13.5	25	19.0	8.5	18.0	11.5	12.0	48	5.46	25
	M10	<b>8SG10</b>	13.5	25	19.0	10.5	18.0	11.5	12.0	48	5.13	25
	M12	<b>8SG12</b>	13.5	25	19.0	13.0	18.0	13.0	13.0	49	5.15	25
120	M6	<b>9SG6</b>	15.0	26	19.0	6.5	19.5	11.5	14.0	51	6.16	10
	M8	<b>9SG8</b>	15.0	26	19.0	8.4	19.5	11.5	14.0	51	5.94	10
	M10	<b>9SG10</b>	15.0	26	19.0	10.5	19.5	11.5	14.0	51	5.81	10
	M12	<b>9SG12</b>	15.0	26	19.0	13.0	19.5	14.0	14.0	51	5.92	10
150	M6	<b>10SG6</b>	16.5	30	19.0	6.5	21.0	11.5	14.0	56	6.85	10
	M8	<b>10SG8</b>	16.5	30	19.0	8.5	21.0	11.5	14.0	56	6.80	10
	M10	<b>10SG10</b>	16.5	30	19.0	10.5	21.0	11.5	14.0	56	6.75	10
	M12	<b>10SG12</b>	16.5	30	19.0	13.0	21.0	15.0	15.0	57	7.15	10
185	M10	<b>11SG10</b>	19.0	30	24.5	10.5	24.0	11.5	18.0	65	10.59	10
	M12	<b>11SG12</b>	19.0	30	31.0	13.0	24.0	18.0	18.0	65	11.09	10
	M16	<b>11SG16</b>	19.0	30	31.0	17.0	24.0	18.0	18.0	65	9.76	10
240	M10	<b>12SG10</b>	21.0	35	31.0	10.5	26.0	11.5	19.0	72	12.70	5
	M12	<b>12SG12</b>	21.0	35	31.0	13.0	26.0	21.5	19.0	72	13.72	5
	M16	<b>12SG16</b>	21.0	35	31.0	17.0	26.0	21.5	19.0	72	13.28	5
300	M10	<b>13SG10</b>	23.5	44	31.0	10.5	29.5	11.5	24.0	87	19.70	5
	M12	<b>13SG12</b>	23.5	44	31.0	13.0	29.5	24.0	24.0	87	22.72	5
	M16	<b>13SG16</b>	23.5	44	31.0	17.0	29.5	24.0	24.0	87	22.50	5



## Angled tubular cable lugs, Cu, 90° angled, standard type



- ▶ For multi-stranded, round conductors e.g. to EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Flat contact surface by special angle pressing technology
- ▶ In combination with the EKM 60 ID and EK 30 ID suitable for fine stranded conductors

### Characteristics

- Simple cable entry due to internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page I-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special version with inspection hole on request. Part Number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
6	M5	<b>41R5</b>	3.5	9	10	5.3	6.5	7.5	9	0.59	50
	M6	<b>41R6</b>	3.5	9	12	6.3	6.5	7.5	10	0.58	50
	M8	<b>41R8</b>	3.5	9	14	8.4	6.5	10.0	13	0.61	50
	M10	<b>41R10</b>	3.5	9	17	10.5	6.5	12.0	15	0.65	50
	M12	<b>41R12</b>	3.5	9	19	13.0	6.5	13.0	17	0.62	50
10	M5	<b>42R5</b>	4.5	10	12	5.5	7.0	6.5	10	0.57	50
	M6	<b>42R6</b>	4.5	10	12	6.4	7.0	6.5	10	0.57	50
	M8	<b>42R8</b>	4.5	10	15	8.4	7.0	10.0	13	0.63	50
	M10	<b>42R10</b>	4.5	10	17	10.5	7.0	12.0	15	0.66	50
	M12	<b>42R12</b>	4.5	10	19	13.0	7.0	13.0	18	0.81	50
16	M5	<b>43R5</b>	5.5	13	12	5.5	8.5	7.5	10	1.01	50
	M6	<b>43R6</b>	5.5	13	12	6.4	8.5	7.5	11	1.01	50
	M8	<b>43R8</b>	5.5	13	15	8.4	8.5	10.0	13	1.08	50
	M10	<b>43R10</b>	5.5	13	17	10.5	8.5	12.0	15	1.09	50
	M12	<b>43R12</b>	5.5	13	19	13.0	8.5	13.0	18	1.15	50
25	M5	<b>44R5</b>	7.0	15	14	5.5	10.0	7.5	11	1.40	25
	M6	<b>44R6</b>	7.0	15	14	6.4	10.0	7.5	11	1.32	25
	M8	<b>44R8</b>	7.0	15	16	8.4	10.0	10.0	13	1.44	25
	M10	<b>44R10</b>	7.0	15	18	10.5	10.0	12.0	15	1.49	25
	M12	<b>44R12</b>	7.0	15	19	13.0	10.0	13.0	18	1.44	25
	M14	<b>44R14</b>	7.0	15	21	15.0	10.0	14.5	20	1.55	25
35	M6	<b>45R6</b>	8.5	17	17	6.4	12.0	7.5	11	2.05	25
	M8	<b>45R8</b>	8.5	17	17	8.4	12.0	10.0	13	2.20	25
	M10	<b>45R10</b>	8.5	17	19	10.5	12.0	12.0	15	2.28	25
	M12	<b>45R12</b>	8.5	17	21	13.0	12.0	13.0	18	2.38	25
	M14	<b>45R14</b>	8.5	17	21	15.0	12.0	14.5	20	2.41	25
	M16	<b>45R16</b>	8.5	17	26	17.0	12.0	16.0	22	2.40	25

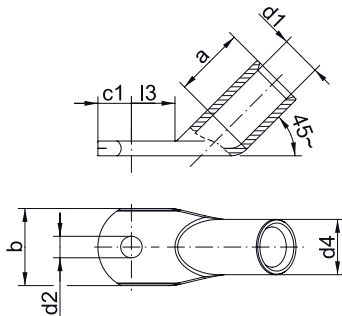
See next page



### Angled tubular cable lugs, Cu, 90° angled, standard type

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
50	M6	<b>46R6</b>	10.0	19	20	6.4	14.0	10.0	13	3.34	25
	M8	<b>46R8</b>	10.0	19	20	8.4	14.0	10.0	13	3.28	25
	M10	<b>46R10</b>	10.0	19	20	10.5	14.0	12.0	16	3.47	25
	M12	<b>46R12</b>	10.0	19	23	13.0	14.0	13.0	18	3.42	25
	M14	<b>46R14</b>	10.0	19	23	15.0	14.0	14.5	20	3.55	25
	M16	<b>46R16</b>	10.0	19	28	17.0	14.0	16.0	22	3.58	25
	M20	<b>46R20</b>	10.0	19	30	21.0	14.0	19.0	24	3.15	25
70	M6	<b>47R6</b>	12.0	21	23	6.4	16.5	10.0	13	4.90	25
	M8	<b>47R8</b>	12.0	21	23	8.4	16.5	10.0	14	4.80	25
	M10	<b>47R10</b>	12.0	21	23	10.5	16.5	12.0	16	4.88	25
	M12	<b>47R12</b>	12.0	21	23	13.0	16.5	13.0	18	4.99	25
	M14	<b>47R14</b>	12.0	21	23	15.0	16.5	14.5	20	5.38	25
	M16	<b>47R16</b>	12.0	21	28	17.0	16.5	16.0	22	5.35	25
	M20	<b>47R20</b>	12.0	21	30	21.0	16.5	19.0	24	5.30	25
95	M8	<b>48R8</b>	13.5	25	26	8.4	18.0	12.0	14	5.89	25
	M10	<b>48R10</b>	13.5	25	26	10.5	18.0	12.0	17	5.88	25
	M12	<b>48R12</b>	13.5	25	26	13.0	18.0	13.0	18	5.93	25
	M14	<b>48R14</b>	13.5	25	26	15.0	18.0	14.5	20	6.03	25
	M16	<b>48R16</b>	13.5	25	28	17.0	18.0	16.0	22	6.17	25
	M20	<b>48R20</b>	13.5	25	36	21.0	18.0	22.0	24	6.42	25
	120	M8	<b>49R8</b>	15.0	26	28	8.4	19.5	14.0	16	7.26
M10		<b>49R10</b>	15.0	26	28	10.5	19.5	14.0	17	7.30	10
M12		<b>49R12</b>	15.0	26	28	13.0	19.5	14.0	18	7.19	10
M14		<b>49R14</b>	15.0	26	28	15.0	19.5	15.0	20	7.30	10
M16		<b>49R16</b>	15.0	26	30	17.0	19.5	16.0	22	7.35	10
M20		<b>49R20</b>	15.0	26	36	21.0	19.5	22.0	24	7.60	10
150		M8	<b>50R8</b>	16.5	30	31	8.4	21.0	14.0	16	8.41
	M10	<b>50R10</b>	16.5	30	31	10.5	21.0	14.0	17	8.27	10
	M12	<b>50R12</b>	16.5	30	31	13.0	21.0	15.0	18	8.34	10
	M14	<b>50R14</b>	16.5	30	31	15.0	21.0	15.0	20	8.52	10
	M16	<b>50R16</b>	16.5	30	31	17.0	21.0	16.0	22	8.62	10
	M20	<b>50R20</b>	16.5	30	36	21.0	21.0	22.0	24	9.10	10
	185	M10	<b>51R10</b>	19.0	30	35	10.5	24.0	18.0	22	12.17
M12		<b>51R12</b>	19.0	30	35	13.0	24.0	18.0	22	11.97	10
M14		<b>51R14</b>	19.0	30	35	15.0	24.0	18.0	22	11.77	10
M16		<b>51R16</b>	19.0	30	35	17.0	24.0	18.0	22	11.53	10
M20		<b>51R20</b>	19.0	30	39	21.0	24.0	22.0	24	12.00	10
240	M10	<b>52R10</b>	21.0	35	39	10.5	26.0	21.5	22	15.60	10
	M12	<b>52R12</b>	21.0	35	39	13.0	26.0	21.5	22	15.60	10
	M14	<b>52R14</b>	21.0	35	39	15.0	26.0	21.5	22	15.41	10
	M16	<b>52R16</b>	21.0	35	39	17.0	26.0	22.0	22	15.18	10
	M20	<b>52R20</b>	21.0	35	39	21.0	26.0	21.5	24	14.80	10
300	M12	<b>53R12</b>	23.5	44	43	13.0	29.5	24.0	24	23.60	5
	M14	<b>53R14</b>	23.5	44	43	15.0	29.5	24.0	24	23.40	5
	M16	<b>53R16</b>	23.5	44	43	17.0	29.5	24.0	24	20.99	5
	M20	<b>53R20</b>	23.5	44	43	21.0	29.5	24.0	24	22.70	5
400	M12	<b>54R12</b>	27.0	44	49	13.0	34.0	24.0	24	32.53	5
	M14	<b>54R14</b>	27.0	44	49	15.0	34.0	24.0	24	33.40	5
	M16	<b>54R16</b>	27.0	44	49	17.0	34.0	24.0	24	32.60	5
	M20	<b>54R20</b>	27.0	44	49	21.0	34.0	24.0	24	31.80	5

## Angled tubular cable lugs, Cu, 45° angled, standard type



- ▶ For multi-stranded, round conductors e.g. to EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Flat contact surface by special angle pressing technology
- ▶ In combination with EKM 60 ID and EK 30 ID suitable for fine-stranded conductors

### Characteristics

- Simple cable entry due to internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special version with inspection hole on request. Part Number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
6	M5	<b>41R545</b>	3.5	9	10	5.5	6.5	7.5	9	0.60	50
	M6	<b>41R645</b>	3.5	9	12	6.4	6.5	7.5	10	0.58	50
	M8	<b>41R845</b>	3.5	9	14	8.4	6.5	10.0	13	0.68	50
	M10	<b>41R1045</b>	3.5	9	17	10.5	6.5	12.0	15	0.70	50
	M12	<b>41R1245</b>	3.5	9	19	13.0	6.5	13.0	17	0.70	50
10	M5	<b>42R545</b>	4.5	10	12	5.5	7.0	6.5	10	0.57	50
	M6	<b>42R645</b>	4.5	10	12	6.4	7.0	6.5	10	0.57	50
	M8	<b>42R845</b>	4.5	10	15	8.4	7.0	10.0	13	0.63	50
	M10	<b>42R1045</b>	4.5	10	17	10.5	7.0	12.0	15	0.68	50
	M12	<b>42R1245</b>	4.5	10	19	13.0	7.0	13.0	18	0.68	50
16	M5	<b>43R545</b>	5.5	13	12	5.5	8.5	7.5	10	1.01	50
	M6	<b>43R645</b>	5.5	13	12	6.4	8.5	7.5	11	1.06	50
	M8	<b>43R845</b>	5.5	13	15	8.4	8.5	10.0	13	1.15	50
	M10	<b>43R1045</b>	5.5	13	17	10.5	8.5	12.0	15	1.09	50
	M12	<b>43R1245</b>	5.5	13	19	13.0	8.5	13.0	18	1.15	50
25	M5	<b>44R545</b>	7.0	15	14	5.5	10.0	7.5	11	1.40	25
	M6	<b>44R645</b>	7.0	15	14	6.4	10.0	7.5	11	1.32	25
	M8	<b>44R845</b>	7.0	15	16	8.4	10.0	10.0	13	1.44	25
	M10	<b>44R1045</b>	7.0	15	18	10.5	10.0	12.0	15	1.49	25
	M12	<b>44R1245</b>	7.0	15	19	13.0	10.0	13.0	18	1.44	25
35	M14	<b>44R1445</b>	7.0	15	21	15.0	10.0	14.5	20	1.55	25
	M6	<b>45R645</b>	8.5	17	17	6.4	12.0	7.5	11	2.05	25
	M8	<b>45R845</b>	8.5	17	17	8.4	12.0	10.0	13	2.20	25
	M10	<b>45R1045</b>	8.5	17	19	10.5	12.0	12.0	15	2.28	25
	M12	<b>45R1245</b>	8.5	17	21	13.0	12.0	13.0	18	2.38	25
	M16	<b>45R1645</b>	8.5	17	26	17.0	12.0	16.0	22	2.40	25

See next page



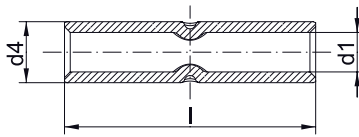
### Angled tubular cable lugs, Cu, 45° angled, standard type

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
50	M6	<b>46R645</b>	10.0	19	20	6.4	14.0	10.0	13	3.43	25
	M8	<b>46R845</b>	10.0	19	20	8.4	14.0	10.0	13	3.28	25
	M10	<b>46R1045</b>	10.0	19	20	10.5	14.0	12.0	16	3.47	25
	M12	<b>46R1245</b>	10.0	19	23	13.0	14.0	13.0	18	3.42	25
	M16	<b>46R1645</b>	10.0	19	28	17.0	14.0	16.0	22	3.76	25
70	M6	<b>47R645</b>	12.0	21	23	6.4	16.5	10.0	13	5.06	25
	M8	<b>47R845</b>	12.0	21	23	8.4	16.5	10.0	14	5.06	25
	M10	<b>47R1045</b>	12.0	21	23	10.5	16.5	12.0	16	5.25	25
	M12	<b>47R1245</b>	12.0	21	23	13.0	16.5	13.0	18	5.30	25
	M14	<b>47R1445</b>	12.0	21	23	15.0	16.5	14.5	20	5.60	25
	M16	<b>47R1645</b>	12.0	21	28	17.0	16.5	16.0	22	5.61	25
95	M20	<b>47R2045</b>	12.0	21	30	21.0	16.5	19.0	24	5.60	25
	M8	<b>48R845</b>	13.5	25	26	8.4	18.0	12.0	14	6.19	25
	M10	<b>48R1045</b>	13.5	25	26	10.5	18.0	12.0	17	5.70	25
	M12	<b>48R1245</b>	13.5	25	26	13.0	18.0	13.0	18	6.67	25
120	M16	<b>48R1645</b>	13.5	25	28	17.0	18.0	16.0	22	6.78	25
	M20	<b>48R2045</b>	13.5	25	36	21.0	18.0	22.0	24	6.80	25
	M8	<b>49R845</b>	15.0	26	28	8.4	19.5	14.0	16	7.92	10
	M10	<b>49R1045</b>	15.0	26	28	10.5	19.5	14.0	17	7.99	10
	M12	<b>49R1245</b>	15.0	26	28	13.0	19.5	14.0	18	7.96	10
150	M14	<b>49R1445</b>	15.0	26	28	15.0	19.5	15.0	20	7.94	10
	M16	<b>49R1645</b>	15.0	26	30	17.0	19.5	16.0	22	8.26	10
	M8	<b>50R845</b>	16.5	30	31	8.4	21.0	14.0	16	9.00	10
	M10	<b>50R1045</b>	16.5	30	31	10.5	21.0	14.0	17	9.15	10
	M12	<b>50R1245</b>	16.5	30	31	13.0	21.0	15.0	18	8.75	10
185	M14	<b>50R1445</b>	16.5	30	31	15.0	21.0	15.0	20	9.20	10
	M16	<b>50R1645</b>	16.5	30	31	17.0	21.0	16.0	22	9.22	10
	M10	<b>51R1045</b>	19.0	30	35	10.5	24.0	18.0	22	13.30	10
	M12	<b>51R1245</b>	19.0	30	35	13.0	24.0	18.0	22	13.32	10
	M14	<b>51R1445</b>	19.0	30	35	15.0	24.0	18.0	22	13.40	10
240	M16	<b>51R1645</b>	19.0	30	35	17.0	24.0	18.0	22	12.80	10
	M20	<b>51R2045</b>	19.0	30	39	21.0	24.0	22.0	24	13.10	10
	M10	<b>52R1045</b>	21.0	35	39	10.5	26.0	21.5	22	16.28	10
	M12	<b>52R1245</b>	21.0	35	39	13.0	26.0	21.5	22	16.80	10
300	M16	<b>52R1645</b>	21.0	35	39	17.0	26.0	21.5	22	16.10	10
	M20	<b>52R2045</b>	21.0	35	39	21.0	26.0	21.5	24	16.10	10
	M12	<b>53R1245</b>	23.5	44	43	13.0	29.5	24.0	24	24.08	5
	M14	<b>53R1445</b>	23.5	44	43	15.0	29.5	24.0	24	24.20	5
400	M16	<b>53R1645</b>	23.5	44	43	17.0	29.5	24.0	24	23.23	5
	M12	<b>54R1245</b>	27.0	44	49	13.0	34.0	24.0	24	34.00	5
	M14	<b>54R1445</b>	27.0	44	49	15.0	34.0	24.0	24	33.40	5
	M16	<b>54R1645</b>	27.0	44	49	17.0	34.0	24.0	24	34.28	5

## Butt connectors, Cu, standard type



- ▶ Approval of the tin-plated cable lugs for use with high-temperature cables 180 °C (based on IEC 61238-1-1): The cable lugs can be used with tin-plated conductors of class 5 (fine-wire)
- ▶ For fine-stranded round conductors, e.g. to EN 60228 Cl. 5, 0,75-4 mm<sup>2</sup>
- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2, 6-400 mm<sup>2</sup>
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Simple cable entry for internal chamfer
- ▶ In combination with EKM 60 ID and EK 30 ID suitable for fine-stranded conductors
- ▶ With reducing sleeves also suitable for connecting different cross-sections



### Characteristics

- Simple and safe processing due to butt mark
- Item identification on cable lug



### Material

- Copper (EN13600)



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 1.58

### Additional information

- Possible as a special version without butt mark on request. Part Number appendix „OM“

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.75	17R	1.3	2.8	20	0.09	100
1.5	18R	1.8	3.3	25	0.12	100
2.5	19R	2.3	4.2	25	0.20	100
4	20R	3.0	5.0	25	0.26	100
6	21R	3.5	6.5	25	0.50	100
10	22R	4.5	7.0	30	0.72	100
16	23R	5.5	8.5	35	1.00	100
25	24R	7.0	10.0	40	1.41	50
35	25R	8.5	12.0	45	2.24	50
50	26R	10.0	14.0	50	3.36	50
70	27R	12.0	16.5	55	4.87	50
95	28R	13.5	18.0	60	5.91	25
120	29R	15.0	19.5	65	7.00	25
150	30R	16.5	21.0	70	8.12	10
185	31R	19.0	24.0	75	10.06	10
240	32R	21.0	26.0	85	13.82	10
300	33R	23.5	29.5	100	21.94	5
400	34R	27.0	34.0	100	29.65	5



## Parallel connectors, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ Ideal for connecting differing cable cross-sections
- ▶ Simple cable entry due to internal chamfer

### Characteristics

- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

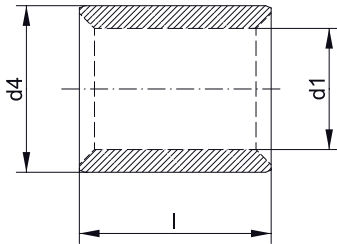
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6

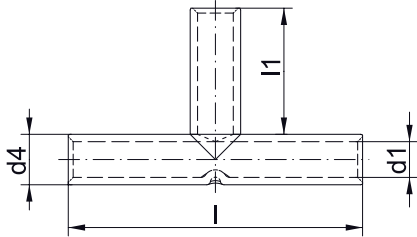
### Additional information

- The stated nominal cross-section corresponds to the total cross-section of the cable
- Additional conductor types and combinations on request



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
1.5	<b>148R</b>	1.8	3.3	5	0.03	100
2.5	<b>149R</b>	2.3	4.2	5	0.04	100
4	<b>150R</b>	3.0	5.0	7	0.08	100
6	<b>151R</b>	4.0	6.0	7	0.09	100
10	<b>152R</b>	4.5	7.0	9	0.17	100
16	<b>153R</b>	5.5	8.5	10	0.28	100
25	<b>154R</b>	7.0	10.0	13	0.44	100
35	<b>155R</b>	8.5	12.0	16	0.78	100
50	<b>156R</b>	10.0	14.0	19	1.22	100
70	<b>157R</b>	12.0	16.5	19	1.62	50
95	<b>158R</b>	13.5	18.0	20	1.90	50
120	<b>159R</b>	15.0	19.5	22	2.28	50
150	<b>160R</b>	16.5	21.0	26	3.00	50
185	<b>161R</b>	19.0	24.0	30	4.37	50
240	<b>162R</b>	21.0	26.0	32	5.10	25
300	<b>163R</b>	23.5	29.5	36	8.05	25

## T-connectors, Cu, standard type



- ▶ For multi-stranded, round conductors e.g. to EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Special version for cable tap conductors
- ▶ With reducing sleeves also suitable for connecting different cross-sections

### Characteristics

- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

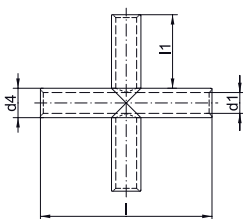
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting different conductor cross-sections you will find on page 1.58

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1		
1.5	<b>TV15</b>	1.8	3.3	30	12	0.23	50
2.5	<b>TV2.5</b>	2.3	4.2	30	12	0.37	50
4	<b>TV4</b>	3.0	5.0	30	12	0.45	50
6	<b>TV6</b>	4.0	6.0	35	14	0.73	50
10	<b>TV10</b>	4.5	7.0	35	14	1.05	50
16	<b>TV16</b>	5.5	8.5	50	21	2.20	50
25	<b>TV25</b>	7.0	10.0	55	23	2.90	25
35	<b>TV35</b>	8.5	12.0	70	30	5.20	25
50	<b>TV50</b>	10.0	14.0	80	34	7.90	25
70	<b>TV70</b>	12.0	16.5	85	35	11.20	10
95	<b>TV95</b>	13.5	18.0	90	36	13.00	10
120	<b>TV120</b>	15.0	19.5	95	38	14.70	10
150	<b>TV150</b>	16.5	21.0	110	44	18.90	10
185	<b>TV185</b>	19.0	24.0	115	45	25.00	5
240	<b>TV240</b>	21.0	26.0	130	52	31.10	5

## Cross-connectors, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Version for double cable tap conductors
- ▶ With reducing sleeves also suitable for connecting different cross-sections

### Characteristics

- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.30
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal conductor sections can be found on page 1.58

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1		
2.5	<b>KV2.5</b>	2.3	4.2	30	12	0.490	25
4	<b>KV4</b>	3.0	5.0	30	12	0.650	25
6	<b>KV6</b>	4.0	6.0	35	14	0.950	25
10	<b>KV10</b>	4.5	7.0	35	14	1.350	25
16	<b>KV16</b>	5.5	8.5	50	21	2.950	25
35	<b>KV35</b>	8.5	12.0	70	30	6.900	15
50	<b>KV50</b>	10.0	14.0	80	34	10.400	15
70	<b>KV70</b>	12.0	16.5	85	35	14.600	15
95	<b>KV95</b>	13.5	18.0	90	36	17.100	15
120	<b>KV120</b>	15.0	19.5	95	38	19.400	5



## Insulated tubular cable lugs, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ No additional insulation of the crimped connection required
- ▶ Is directly crimped with the insulation

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer
- Heat resistant to 105 °C

### Material

- Cable lug: Copper to EN 13600
- Insulation sleeve: PA, halogen-free

### Surface

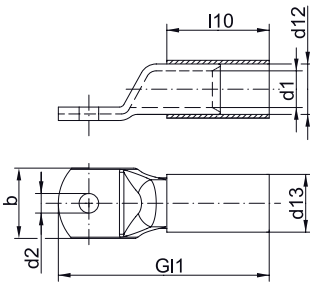
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.32
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Dimensions of tubular cable lugs can be found from page 1.8
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special version with inspection hole on request.  
Part Number appendix „MS“



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Colour	Dimension mm					weight 100 pcs. ~kg Cu	weight 100 pcs. ~kg Total	Packing unit/ pcs
				d12	d13	d2	G1	l10			
10	M5	<b>602R5</b>	■	7.0	9.0	5.5	35.5	17.0	0.50	0.548	25
	M6	<b>602R6</b>	■	7.0	9.0	6.5	35.5	17.0	0.49	0.538	25
	M8	<b>602R8</b>	■	7.0	9.0	8.5	42.0	17.0	0.58	0.628	25
	M10	<b>602R10</b>	■	7.0	9.0	10.5	46.0	17.0	0.62	0.668	25
	M12	<b>602R12</b>	■	7.0	9.0	13.0	49.0	17.0	0.64	0.688	25
16	M5	<b>603R5</b>	■	8.5	10.5	5.5	39.5	21.0	0.84	0.907	25
	M6	<b>603R6</b>	■	8.5	10.5	6.5	41.3	21.0	0.86	0.927	25
	M8	<b>603R8</b>	■	8.5	10.5	8.5	45.5	21.0	0.93	0.997	25
	M10	<b>603R10</b>	■	8.5	10.5	10.5	49.5	21.0	0.99	1.057	25
	M12	<b>603R12</b>	■	8.5	10.5	13.0	54.0	21.0	1.02	1.087	25
25	M5	<b>604R5</b>	■	10.0	12.0	5.5	45.0	24.0	1.22	1.312	25
	M6	<b>604R6</b>	■	10.0	12.0	6.5	46.5	24.0	1.20	1.292	25
	M8	<b>604R8</b>	■	10.0	12.0	8.5	51.0	24.0	1.31	1.402	25
	M10	<b>604R10</b>	■	10.0	12.0	10.5	55.0	24.0	1.57	1.662	25
	M12	<b>604R12</b>	■	10.0	12.0	13.0	57.0	24.0	1.39	1.482	25
35	M14	<b>604R14</b>	■	10.0	12.0	15.0	61.5	24.0	1.49	1.582	25
	M6	<b>605R6</b>	■	12.0	14.5	6.5	49.5	27.0	1.85	2.010	25
	M8	<b>605R8</b>	■	12.0	14.5	8.5	54.0	27.0	2.00	2.160	25
	M10	<b>605R10</b>	■	12.0	14.5	10.5	59.0	27.0	2.13	2.290	25
	M12	<b>605R12</b>	■	12.0	14.5	13.0	61.0	27.0	2.12	2.280	25
	M14	<b>605R14</b>	■	12.0	14.5	15.0	64.5	27.0	2.18	2.340	25
	M16	<b>605R16</b>	■	12.0	14.5	17.0	68.0	27.0	2.24	2.400	25

See next page



**Insulated tubular cable lugs, Cu, standard type**

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Colour	Dimension mm					Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/ pcs
				d12	d13	d2	G11	l10			
50	M8	<b>606R8</b>	■	14.0	16.5	8.5	59.0	32.0	2.93	3.150	25
	M10	<b>606R10</b>	■	14.0	16.5	10.5	63.0	32.0	3.08	3.300	25
	M12	<b>606R12</b>	■	14.0	16.5	13.0	68.0	32.0	3.23	3.450	25
	M14	<b>606R14</b>	■	14.0	16.5	15.0	71.5	32.0	3.32	3.540	25
	M16	<b>606R16</b>	■	14.0	16.5	17.0	77.0	32.0	3.38	3.600	25
	M20	<b>606R20</b>	■	14.0	16.5	21.0	83.5	32.0	3.46	3.680	25
70	M6	<b>607R6</b>	■	16.4	18.9	6.5	65.5	33.5	4.49	4.760	25
	M8	<b>607R8</b>	■	16.4	18.9	8.5	65.5	33.5	4.38	4.650	25
	M10	<b>607R10</b>	■	16.4	18.9	10.5	66.5	33.5	4.54	4.810	25
	M12	<b>607R12</b>	■	16.4	18.9	13.0	70.5	33.5	4.63	4.900	25
	M16	<b>607R16</b>	■	16.4	18.9	17.0	78.5	33.5	4.24	4.510	25
95	M8	<b>608R8</b>	■	17.8	20.8	8.5	74.0	40.0	5.44	5.85	25
	M10	<b>608R10</b>	■	17.8	20.8	10.5	74.0	40.0	5.40	5.81	25
	M12	<b>608R12</b>	■	17.8	20.8	13.0	76.0	40.0	5.56	5.97	25
120	M10	<b>609R10</b>	■	19.3	22.3	10.5	80.5	41.5	6.57	7.03	10
	M12	<b>609R12</b>	■	19.3	22.3	13.0	80.5	41.5	6.38	6.84	10

## Insulated butt connectors, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ No additional insulation of the crimped connection required
- ▶ Is directly crimped with the insulation

### Characteristics

- With buttmarks for precise cable insertion
- Simple cable entry due to internal chamfer
- Heat resistant to 105 °C

### Material

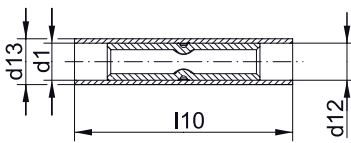
- Connector: Copper (EN 13600)
- Insulation sleeve: PA, halogen-free

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.32
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Dimensions of butt connectors can be found on page 1.15
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm				Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/pcs
			d1	d12	d13	l10			
10	622R	Red	4,5	7,0	9,0	42	0,72	0,84	25
16	623R	Blue	5,5	8,5	10,5	50	1,00	1,16	25
25	624R	Yellow	7,0	10,0	12,0	57	1,41	1,63	25
35	625R	Red	8,5	12,0	14,4	65	2,24	2,60	25
50	626R	Blue	10,0	14,0	16,4	72	3,36	3,81	25
70	627R	Yellow	12,0	16,4	19,0	80	4,87	5,46	25
95	628R	Red	13,5	17,8	20,8	87	5,91	6,74	25



## Tubular cable lugs, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to EN 60228 Cl. 1
- ▶ For pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

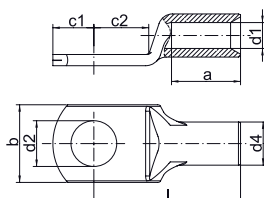
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

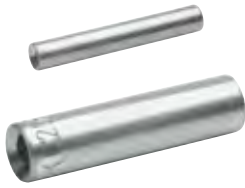
### Technical instructions

- Tool: see page 1.35
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
6	M5	<b>SR65</b>	3.0	8	9.0	5.3	5	4.75	6.0	17.0	0.213	25
	M6	<b>SR66</b>	3.0	8	10.0	6.4	5	6.50	6.5	19.0	0.220	25
10	M6	<b>SR106</b>	4.0	9	10.0	6.4	6	7.00	6.5	19.0	0.300	25
	M8	<b>SR108</b>	4.0	9	14.0	8.4	6	8.50	9.5	22.0	0.320	25
16	M6	<b>SR166</b>	5.0	12	12.5	6.4	8	6.50	7.0	23.5	0.800	25
	M8	<b>SR168</b>	5.0	12	15.0	8.5	8	9.00	9.0	26.0	0.900	25
25	M6	<b>SR256</b>	6.2	15	14.0	6.5	10	7.50	7.5	30.0	1.560	25
	M8	<b>SR258</b>	6.2	15	16.0	8.5	10	10.00	10.0	32.0	1.700	25
35	M8	<b>SR358</b>	7.0	15	16.0	8.5	10	10.00	10.0	32.0	1.310	25
	M10	<b>SR3510</b>	7.0	15	18.0	10.5	10	12.00	12.0	34.0	1.570	25
50	M6	<b>SR506</b>	8.5	17	17.0	6.5	12	7.50	7.5	32.0	1.850	25
	M8	<b>SR508</b>	8.5	17	17.0	8.4	12	10.00	10.0	34.0	2.000	25
	M10	<b>SR5010</b>	8.5	17	19.0	10.5	12	12.00	12.0	37.0	2.130	25

## Butt connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors
- ▶ Ideal for repairing damaged NYM cables

### Characteristics

- Simple cable entry due to internal chamfer

### Material

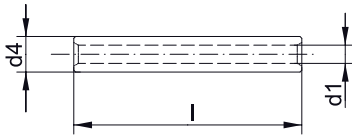
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.35
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
1.5-2.5	<b>SV1525</b>	2.0	3.9	25	0.210	100
4	<b>SV4</b>	2.4	4.4	25	0.240	100
6	<b>SV6</b>	3.0	5.0	25	0.275	100
10	<b>SV10</b>	4.0	6.0	25	0.350	100
16	<b>SV16</b>	5.0	8.0	35	0.960	100
25	<b>SV25</b>	6.2	10.0	40	1.700	50
35	<b>SV35</b>	7.0	10.0	40	1.420	50
50	<b>SV50</b>	8.5	12.0	70	3.550	50

## T-connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors
- ▶ Special version for cable tap conductors

### Characteristics

- Simple cable entry due to internal chamfer

### Material

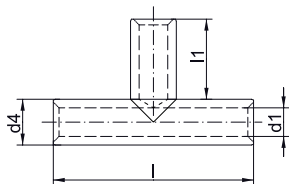
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.35
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Draht-Ø mm	Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1			
1.5-2.5	<b>STV1525</b>	1.9	3.9	30	12	1.38/1.78	0.34	50
4	<b>STV4</b>	2.4	4.4	30	12	2.25	0.40	50
6	<b>STV6</b>	3.0	5.0	30	12	2.75	0.48	50
10	<b>STV10</b>	4.0	6.0	35	14	3.55	0.72	50
16	<b>STV16</b>	5.0	8.0	35	14	4.5	1.40	50
25	<b>STV25</b>	6.2	10.0	50	21	5.65	3.20	25
35	<b>STV35</b>	7.0	10.0	55	23	6.7	2.95	25
50	<b>STV50</b>	8.5	12.0	76	32	8	5.60	25



### Cross-connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors
- ▶ Special version for double cable tap conductors

#### Characteristics

- Simple cable entry due to internal chamfer

#### Material

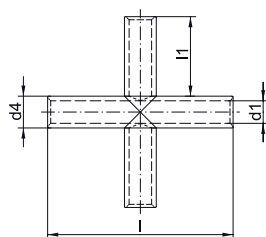
- Copper (EN13600)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- Tool: see page 1.35
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Draht-Ø mm	Weight/100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1			
1.5-2.5	<b>SKV1525</b>	1.9	3.9	30	12	1.38/1.78	0.47	25
4	<b>SKV4</b>	2.4	4.4	30	12	2.25	0.56	25
6	<b>SKV6</b>	3.0	5.0	30	12	2.75	0.67	25
16	<b>SKV16</b>	5.0	8.0	35	14	4.5	1.86	25

## Tubular cable lugs, Cu, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Pipe dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors

### Characteristics

- To DIN EN 61373 class 1B vibration-tested
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Reliable assignment owed to item designation on the cable lug

### Material

- Copper (EN13600)

### Surface

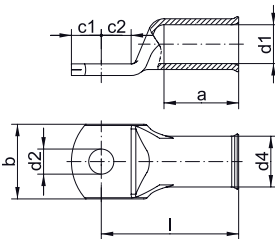
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.33
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Possible as a special bright version on request. Part Number appendix „BK“
- 10 - 240 mm<sup>2</sup> UL-tested



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
10	M5	<b>702F5</b>	5.5	14	12	5.5	8.0	6.25	7.5	27	0.72	100
	M6	<b>702F6</b>	5.5	14	12	6.5	8.0	6.25	7.5	27	0.71	100
	M8	<b>702F8</b>	5.5	14	16	8.4	8.0	9.00	9.5	29	0.77	100
	M10	<b>702F10</b>	5.5	14	16	10.5	8.0	10.50	11.5	31	0.82	100
	M12	<b>702F12</b>	5.5	14	19	13.0	8.0	12.00	13.0	32	0.82	100
16	M5	<b>703F5</b>	6.6	15	13	5.5	9.5	6.25	7.5	30	1.10	100
	M6	<b>703F6</b>	6.6	15	13	6.4	9.5	6.25	7.5	30	1.07	100
	M8	<b>703F8</b>	6.6	15	16	8.4	9.5	10.00	10.0	32	1.21	100
	M10	<b>703F10</b>	6.6	15	17	10.5	9.5	12.00	12.0	34	1.28	100
	M12	<b>703F12</b>	6.6	15	19	13.0	9.5	13.00	13.0	35	1.28	100
25	M5	<b>704F5</b>	7.9	17	15.5	5.3	11.0	7.50	7.5	32	1.52	25
	M6	<b>704F6</b>	7.9	17	15.5	6.5	11.0	7.50	7.5	32	1.50	100
	M8	<b>704F8</b>	7.9	17	17	8.4	11.0	10.00	10.0	34	1.61	100
	M10	<b>704F10</b>	7.9	17	17	10.5	11.0	12.00	12.0	37	1.71	100
	M12	<b>704F12</b>	7.9	17	19	13.0	11.0	13.00	13.0	38	1.74	25
35	M6	<b>705F6</b>	9.2	19	17.5	6.4	12.4	7.50	7.5	35	1.91	100
	M8	<b>705F8</b>	9.2	19	18	8.4	12.4	10.00	10.0	37	2.08	100
	M10	<b>705F10</b>	9.2	19	18	10.5	12.4	12.00	12.0	40	2.24	100
	M12	<b>705F12</b>	9.2	19	19	13.0	12.4	13.00	13.0	41	2.22	25
	M14	<b>705F14</b>	9.2	19	21	15.0	12.4	14.50	14.5	43	2.41	25
50	M6	<b>706F6</b>	11.0	21	21	6.4	15.0	10.00	10.0	41	3.54	25
	M8	<b>706F8</b>	11.0	21	21	8.4	15.0	10.00	10.0	41	3.44	50
	M10	<b>706F10</b>	11.0	21	21	10.5	15.0	12.00	12.0	43	3.64	50
	M12	<b>706F12</b>	11.0	21	21	13.0	15.0	13.00	13.0	46	3.73	50
	M14	<b>706F14</b>	11.0	21	23	15.0	15.0	14.50	14.5	48	3.89	25
	M16	<b>706F16</b>	11.0	21	28	17.0	15.0	16.00	16.0	50	4.02	25

See next page



## Tubular cable lugs, Cu, F-series

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
70	M8	<b>707F8</b>	13.0	25	25	8.5	17.0	10.00	10.0	46	4.46	50
	M10	<b>707F10</b>	13.0	25	25	10.5	17.0	12.00	12.0	48	4.62	50
	M12	<b>707F12</b>	13.0	25	25	13.0	17.0	13.00	13.0	50	4.71	50
	M14	<b>707F14</b>	13.0	25	25	15.0	17.0	14.50	14.5	51.5	4.87	25
	M16	<b>707F16</b>	13.0	25	25	17.0	17.0	16.00	16.0	54	5.85	25
95	M8	<b>708F8</b>	14.5	26	28	8.5	19.0	12.00	12.0	52	6.35	25
	M10	<b>708F10</b>	14.5	26	28	10.5	19.0	12.00	12.0	52	6.23	50
	M12	<b>708F12</b>	14.5	26	28	13.0	19.0	13.00	13.0	53	6.31	50
	M14	<b>708F14</b>	14.5	26	28	15.0	19.0	14.50	14.5	55	6.46	25
	M16	<b>708F16</b>	14.5	26	28	17.0	19.0	16.00	16.0	56	6.56	50
120	M10	<b>709F10</b>	16.2	30	30	10.5	21.0	14.00	14.0	57	8.31	50
	M12	<b>709F12</b>	16.2	30	30	13.0	21.0	15.00	15.0	58	8.39	50
	M14	<b>709F14</b>	16.2	30	30	15.0	21.0	15.00	15.0	58	8.06	25
	M16	<b>709F16</b>	16.2	30	30	17.0	21.0	16.00	16.0	59	8.17	50
	M20	<b>709F20</b>	16.2	30	36	21.0	21.0	22.00	22.0	66	9.56	25
150	M10	<b>710F10</b>	18.0	32	34	10.5	23.0	15.00	16.0	64	10.91	10
	M12	<b>710F12</b>	18.0	32	34	13.0	23.0	16.00	17.0	65	10.89	25
	M14	<b>710F14</b>	18.0	32	34	15.0	23.0	18.00	19.0	67	11.42	10
	M16	<b>710F16</b>	18.0	32	34	17.0	23.0	19.00	20.0	68	11.30	10
	M20	<b>710F20</b>	18.0	32	40	21.0	23.0	21.00	22.0	70	11.36	10
185	M10	<b>711F10</b>	20.6	35	39	10.5	26.0	21.50	19.0	72	15.60	10
	M12	<b>711F12</b>	20.6	35	39	13.0	26.0	21.50	19.0	72	15.40	10
	M14	<b>711F14</b>	20.6	35	39	15.0	26.0	21.50	19.0	72	15.20	10
	M16	<b>711F16</b>	20.6	35	39	17.0	26.0	21.50	19.0	72	15.00	25
	M20	<b>711F20</b>	20.6	35	39	21.0	26.0	21.50	19.0	72	14.20	10
240	M10	<b>712F10</b>	23.1	44	41	10.5	28.0	16.00	17.0	80	16.50	10
	M12	<b>712F12</b>	23.1	44	42	13.0	28.0	16.00	17.0	80	16.30	10
	M14	<b>712F14</b>	23.1	44	41	15.0	28.0	19.00	20.0	83	16.80	10
	M16	<b>712F16</b>	23.1	44	41	17.0	28.0	19.00	20.0	83	16.71	25
	M20	<b>712F20</b>	23.1	44	41	21.0	28.0	21.00	22.0	85	17.12	10
300	M12	<b>713F12</b>	26.1	44	47	13.0	32.0	19.00	22.0	96	25.60	5
	M14	<b>713F14</b>	26.1	44	47	15.0	32.0	19.00	22.0	96	26.56	5
	M16	<b>713F16</b>	26.1	44	47	17.0	32.0	19.00	22.0	96	25.60	5
	M20	<b>713F20</b>	26.1	44	47	21.0	32.0	22.00	22.0	96	26.24	5



## Angled tubular cable lugs, Cu, 90° and 45° angled, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Tube dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors
- ▶ Flat contact surface by special angle pressing technology

### Characteristics

- Tube dimensions suitable for fine stranded conductors
- Flat contact surface and internal chamfer for simple cable insertion

### Material

- Copper (EN13600)

### Surface

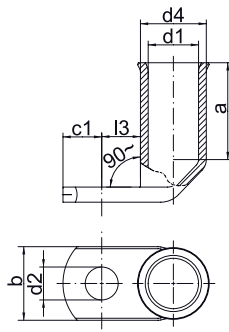
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.33
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Possible as a special version with inspection hole on request. Part Number appendix „MS“
- Possible as a special 45° angled version on request. Part Number appendix „45“
- 90° angled version: 10 - 240 mm<sup>2</sup> UL-tested



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
10	M5	<b>742F5</b>	5.5	14	12	5.3	8.0	6.25	10.5	0.80	50
	M6	<b>742F6</b>	5.5	14	12	6.4	8.0	6.25	10.5	0.78	50
	M8	<b>742F8</b>	5.5	14	16	8.4	8.0	9.00	12.5	0.84	50
	M10	<b>742F10</b>	5.5	14	16	10.5	8.0	10.50	14.5	0.88	50
	M12	<b>742F12</b>	5.5	14	19	13.0	8.0	12.00	16.0	0.90	50
16	M5	<b>743F5</b>	6.6	15	13	5.3	9.5	6.25	9.5	1.12	50
	M6	<b>743F6</b>	6.6	15	13	6.4	9.5	6.25	9.5	1.12	50
	M8	<b>743F8</b>	6.6	15	16	8.4	9.5	10.00	13.0	1.30	50
	M10	<b>743F10</b>	6.6	15	17	10.5	9.5	12.00	15.0	1.38	50
	M12	<b>743F12</b>	6.6	15	19	13.0	9.5	13.00	16.0	1.34	50
25	M5	<b>744F5</b>	7.9	17	15	5.3	11.0	7.50	10.5	1.52	25
	M6	<b>744F6</b>	7.9	17	15	6.4	11.0	7.50	10.5	1.54	25
	M8	<b>744F8</b>	7.9	17	17	8.5	11.0	10.00	13.0	1.80	25
	M10	<b>744F10</b>	7.9	17	17	10.5	11.0	12.00	15.0	1.79	25
	M12	<b>744F12</b>	7.9	17	19	13.0	11.0	13.00	16.0	1.76	25
35	M6	<b>745F6</b>	9.2	19	17	6.5	12.4	7.50	10.5	2.02	25
	M8	<b>745F8</b>	9.2	19	18	8.5	12.4	10.00	13.0	2.18	25
	M10	<b>745F10</b>	9.2	19	18	10.5	12.4	12.00	15.0	2.30	25
	M12	<b>745F12</b>	9.2	19	19	13.0	12.4	13.00	16.0	2.26	25
	50	M6	<b>746F6</b>	11.0	21	21	6.4	15.0	10.00	10.0	3.75
M8		<b>746F8</b>	11.0	21	21	8.5	15.0	10.00	10.0	3.57	25
M10		<b>746F10</b>	11.0	21	21	10.5	15.0	12.00	15.0	3.83	25
M12		<b>746F12</b>	11.0	21	21	13.0	15.0	13.00	16.0	3.74	25
M14		<b>746F14</b>	11.0	21	23	15.0	15.0	14.50	17.5	4.20	25

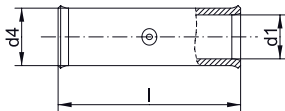
See next page



### Angled tubular cable lugs, Cu, 90° and 45° angled, F-series

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm						Weight/ 100 pcs. ~ kg	Packing unit/pcs	
			d1	a	b	d2	d4	c1			l3
70	M8	<b>747F8</b>	13.0	25	25	8.5	17.0	10.00	15.0	4.83	25
	M10	<b>747F10</b>	13.0	25	25	10.5	17.0	12.00	16.0	5.18	25
	M12	<b>747F12</b>	13.0	25	25	13.0	17.0	13.00	17.5	5.16	25
	M14	<b>747F14</b>	13.0	25	25	15.0	17.0	14.50	19.0	5.38	25
	M16	<b>747F16</b>	13.0	25	25	17.0	17.0	16.00	15.0	6.50	25
95	M8	<b>748F8</b>	14.5	26	28	8.5	19.0	12.00	12.0	6.66	25
	M10	<b>748F10</b>	14.5	26	28	10.5	19.0	12.00	15.0	6.04	25
	M12	<b>748F12</b>	14.5	26	28	13.0	19.0	13.00	16.0	6.58	25
	M14	<b>748F14</b>	14.5	26	28	15.0	19.0	14.50	17.5	7.24	25
	M16	<b>748F16</b>	14.5	26	28	17.0	19.0	16.00	19.0	7.34	25
120	M10	<b>749F10</b>	16.2	30	30	10.5	21.0	14.00	14.0	8.76	10
	M12	<b>749F12</b>	16.2	30	30	13.0	21.0	15.00	18.0	8.76	10
	M14	<b>749F14</b>	16.2	30	30	15.0	21.0	15.00	18.0	9.15	10
	M16	<b>749F16</b>	16.2	30	30	17.0	21.0	16.00	19.0	8.54	10
150	M10	<b>750F10</b>	18.0	32	34	10.5	23.0	15.00	19.0	11.54	10
	M12	<b>750F12</b>	18.0	32	34	13.0	23.0	16.00	21.0	11.58	10
	M14	<b>750F14</b>	18.0	32	34	15.0	23.0	18.00	22.0	11.90	10
	M16	<b>750F16</b>	18.0	32	34	17.0	23.0	19.00	23.0	11.80	10
	M20	<b>750F20</b>	18.0	32	40	21.0	23.0	21.00	23.0	12.00	10
185	M12	<b>751F12</b>	20.6	35	39	13.0	26.0	21.50	22.0	16.36	10
	M14	<b>751F14</b>	20.6	35	39	15.0	26.0	21.50	22.0	16.20	10
	M16	<b>751F16</b>	20.6	35	39	17.0	26.0	21.50	22.0	15.36	10
	M20	<b>751F20</b>	20.6	35	39	21.0	26.0	21.50	22.0	15.80	10
240	M16	<b>752F16</b>	23.1	44	41	17.0	28.0	19.00	20.0	17.80	5

## Butt connectors, Cu, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Pipe dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

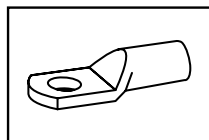
### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.33
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
10	<b>722F</b>	5.5	8.0	38	0.90	100
16	<b>723F</b>	6.6	9.5	38	1.25	100
25	<b>724F</b>	7.9	11.0	38	1.56	50
35	<b>725F</b>	9.2	12.5	45	2.19	50
50	<b>726F</b>	11.0	15.0	45	3.37	50
70	<b>727F</b>	13.0	17.0	54	4.65	50
95	<b>728F</b>	14.5	19.0	56	6.05	25
120	<b>729F</b>	16.2	21.0	60	7.58	25
150	<b>730F</b>	18.0	23.0	68	9.83	10
185	<b>731F</b>	20.6	26.0	75	13.28	10



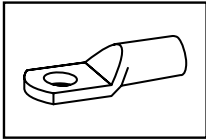
### Tool application chart

#### Tubular cable lugs, butt connectors, parallel connectors and T-connectors „standard type“ and tubular cable lugs for switchgear connections made from Cu

Part 1 of 2




























Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	6 - 50	K5		2.18		
		K05		2.19		
	6 - 120	K06		2.19		
	0,75 - 16	K2		2.16		
	16 - 95	K95		2.17		
	25 - 150	K09		2.20		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	0,75 - 10	K50		2.23	2.82	
		EK50ML		6.6	2.82	
	6 - 25	K50		2.23	2.82	
		EK50ML		6.6	2.82	
	6 - 150	K354		2.24	2.84	
	6 - 300	K22		2.26	2.87	
Hand hydraulic crimping tools	6 - 300	HK6022		2.56	2.87	
	10 - 240	HK60VP		2.58		
	16 - 300	HK60VPFT		2.59		
	16 - 400	HK12030		2.60	2.91	
		HK12042		2.62	2.91	
		HK120U		2.64	2.91	

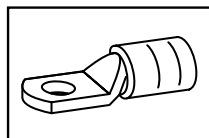
See next page



## Tool application chart

**Tubular cable lugs, butt connectors, parallel connectors and T-connectors „standard type“ and tubular cable lugs for switchgear connections made from Cu**  
Part 2 of 2

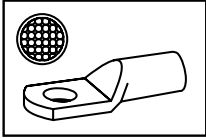
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Battery powered crimping tools	6 - 120	EK30IDML		2.30		
	6 - 150	EK354ML		2.32	2.84	
		EK354		2.36	2.84	
		EKM6022		2.38	2.87	
	6 - 300	EK6022		2.40	2.87	
		EKM6022IS		4.6	2.87	
		EKM60UNV	+UA22	6.11	2.87	
		EK60UNV	+UA22	6.12	2.87	
	10 - 240	EK60VP		2.42		
		EKM60ID		2.44		
		EKM60IDIS		4.8		
	16 - 300	EK60VPFT		2.43		
	16 - 400	EK12032		2.46	2.91	
		EK12042		2.48	2.91	
		EK120U		2.50	2.91	
		EK135FT	+UA15T	2.52	2.91	
		EK120UNV	+UA12TKL	6.13	2.91	
		70 - 185	EK120ID		2.45	
	Hydraulic crimping systems	6 - 300	THK22		2.68	2.87
16 - 400		THK120		2.72	2.91	
		HK252	+25A13	2.78	2.91 + 2.96	
Hydraulic crimping heads	6 - 300	PK22		2.68	2.87	
		PK60UNV	+UA22	6.10	2.87	
	10 - 240	PK60VP		2.70		
		PK60ID		2.71		
	16 - 300	PK60VPFT		2.70		
	16 - 400	PK12042		2.72	2.91	
		PK120U		2.74	2.91	
		PK252	+25A13	2.76	2.91 + 2.96	



## Tool application chart

### Insulated tubular cable lugs and butt connectors „standard type“





























Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	10 - 70	K354		2.24	2.84	○
	10 - 150	K22		2.26	2.87	○
Hand hydraulic crimping tools	10 - 150	HK12030		2.60	2.92	○
		HK12042		2.62	2.92	○
		HK120U		2.64	2.92	○
		HK6022		2.56	2.87	○
Battery powered crimping tools	10 - 70	EK354		2.36	2.84	○
		EK354ML		2.32	2.84	○
	10 - 150	EK12032		2.46	2.92	○
		EK12042		2.48	2.92	○
		EK120U		2.50	2.92	○
		EK120UNV	+UA12TKL	6.13	2.92	○
		EK135FT	+UA15T	2.52	2.92	○
		EK6022		2.40	2.87	○
		EK60UNV	+UA22	6.12	2.87	○
		EKM6022		2.38	2.87	○
		EKM6022IS		4.6	2.87	○
		EKM60UNV	+UA22	6.11	2.87	○
Hydraulic crimping systems	10 - 150	HK252	+25A13	2.78	2.92	○
		THK120		2.72	2.92	○
		THK22		2.68	2.87	○
Hydraulic crimping heads	10 - 150	PK12042		2.72	2.92	○
		PK120U		2.74	2.92	○
		PK22		2.68	2.87	○
		PK252	+25A13	2.76	2.92	○
		PK60UNV	+UA22	6.10	2.87	○



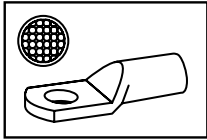
## Tool application chart

### Tubular cable lugs and butt connectors for fine stranded conductors

#### Part 1 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	6 - 50	K5		2.18		
	16 - 95	K95		2.17		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	10 - 35	K354		2.24	2.84	
	10 - 70	K22		2.26	2.88	
Hand hydraulic crimping tools	10 - 70	HK6022		2.56	2.88	
	10 - 150	HK12030		2.60	2.92	
		HK12042		2.62	2.92	
		HK120U		2.64	2.92	
	10 - 240	HK60VP		2.58		
	16 - 300	HK60VPFT		2.59		
Battery powered crimping tools	6 - 120	EK30IDML		2.30		
	10 - 35	EK354ML		2.32	2.84	
		EK354		2.36	2.84	
		10 - 70	EKM6022		2.38	2.88
	EK6022			2.40	2.88	
	EKM6022IS			4.6	2.88	
	EKM60UNV		+UA22	6.11	2.88	
	EK60UNV		+UA22	6.12	2.88	
	10 - 150	EK12032		2.46	2.92	
		EK12042		2.48	2.92	
		EK120U		2.50	2.92	
		EK135FT	+UA15T	2.52	2.92	
		EK120UNV	+UA12TKL	6.13	2.92	
		10 - 240	EK60VP		2.42	
	EKM60ID			2.44		
	EKM60IDIS			4.8		
	16 - 300	EK60VPFT		2.43		
	70 - 240	EK120ID		2.45		
	Hydraulic crimping systems	10 - 70	THK22		2.68	2.88
10 - 150		THK120		2.72	2.92	
10 - 240		HK252	+25A13	2.78	2.92 + 2.96	

See next page



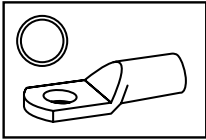
## Tool application chart

### Tubular cable lugs and butt connectors for fine stranded conductors

#### Part 2 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Hydraulic crimping heads	10 - 70	PK22		2.68	2.88	
		PK60UNV	+UA22	6.10	2.88	
	10 - 150	PK12042		2.72	2.92	
		PK120U		2.74	2.92	
	10 - 240	PK252	+25A13	2.76	2.92 + 2.96	
		PK60VP		2.70		
		PK60ID		2.71		
	16 - 300	PK60VPFT		2.70		





## Tool application chart

### Tubular cable lugs and butt connectors for solid conductors

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0,75 - 16	K02		2.16		
	1,5 - 4	K93		2.15		
	6 - 10	K94		2.15		
	25 - 50*	K05		2.19		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	1,5 - 10	K50		2.23	2.82	
		EK50ML		6.6	2.82	
	1,5 - 16	K22		2.26	2.88	
Hand hydraulic crimping tools	1,5 - 16	HK6022		2.56	2.88	
Battery powered crimping tools	1,5 - 16	EKM6022		2.38	2.88	
		EK6022		2.40	2.88	
		EKM6022IS		4.6	2.88	
		EKM60UNV	+UA22	6.11	2.88	
		EK60UNV	+UA22	6.12	2.88	
Hydraulic crimping systems	1,5 - 16	THK22		2.68	2.88	
Hydraulic crimping heads	1,5 - 16	PK22		2.68	2.88	
		PK60UNV	+UA22	6.10	2.88	

\*For cross-sections 25 + 35 mm<sup>2</sup> use the die size 25 mm<sup>2</sup>.  
 For cross-section 50 mm<sup>2</sup> use the die size 35 mm<sup>2</sup>.  
 We recommend 2 crimps on each side



# THE RESISTANT – TUBULAR CABLE LUGS AND CONNECTORS, NICKEL OR STAINLESS STEEL

We also develop for use in tough conditions. Our tubular cable lugs and connectors made from nickel and stainless steel are a cut above: withstanding temperatures of up to 650 °C, our Klauke products have without doubt developed to meet the requirements of the chemical industry, the foodstuff sector and foodstuff industry. You can also rely on our high-quality products for special applications. We know what we are doing.



## In brief

- ▶ Tough to 650 °C
- ▶ Suitable for the chemical and foodstuff industry sectors, for instance
- ▶ Suitable even for aggressive environments, such as contact with salt water

**► When things get hot: Nickel cable lugs**

Nickel cable lugs are especially suitable for use in applications at high temperatures of up to 650 °C. Thanks to their high resilience they no longer need to be frequently replaced at connections exposed to heat.

- High-quality nickel
- Heat-resistant to 650 °C
- No constant replacement of the cable lug at hot locations



**► Safe in aggressive environments with stainless steel**

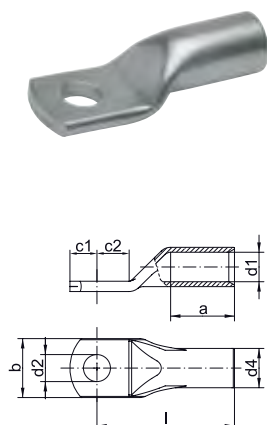
High-quality stainless steel ensures extra resilience, especially in aggressive environments. The resistance is retained.

- High-quality V2A and V4A stainless steel
- Acid resistant
- Can be used at temperatures to 400 °C
- V2A stainless steel for the chemical and foodstuff sectors and salt water applications
- V4A stainless steel in chlorinated environments such as swimming pools, for instance





## Tubular cable lugs, stainless steel



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Ideal for aggressive environmental conditions, acid and rust-resistant
- ▶ Heat resistant up to 400 °C

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- V2A (X5CrNi18-10)

### Technical instructions

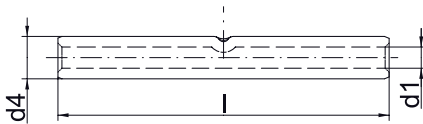
- Tool: see page 1.43
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Also available as featured article in stainless steel V4A (X5CrNiMo17-12-2)

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	a	b	c1	c2	d2	d4	l		
0.5 - 1	M4	<b>79V4</b>	1.6	6	6.5	4.5	4.5	4.3	3.2	13	0.080	100
	M5	<b>79V5</b>	1.6	6	7.5	5	5.5	5.3	3.2	14	0.080	100
1.5 - 2.5	M4	<b>80V4</b>	3.0	8	9.0	5	5.5	4.3	5.0	17	0.260	100
	M5	<b>80V5</b>	3.0	8	9.0	5	6	5.5	5.0	17	0.190	100
	M6	<b>80V6</b>	3.0	8	9.5	6.5	6.5	6.5	5.0	19	0.215	100
4 - 6	M4	<b>81V4</b>	4.0	9	9.0	5	5.5	4.3	6.0	18	0.260	100
	M5	<b>81V5</b>	4.0	9	9.5	6	6	5.5	6.0	19	0.280	100
	M6	<b>81V6</b>	4.0	9	10.0	7	6.5	6.5	6.0	19	0.280	100
10	M5	<b>82V5</b>	5.0	10	12.5	6.5	7.5	5.5	8.0	22	0.710	100
	M6	<b>82V6</b>	5.0	10	12.5	6.5	7.5	6.5	8.0	22	0.780	100
	M8	<b>82V8</b>	5.0	10	15.0	9	10	8.5	8.0	25	0.780	100
16	M5	<b>83V5</b>	6.0	13	12.0	5.5	6.5	5.5	8.0	28	0.500	50
	M6	<b>83V6</b>	6.0	13	12.0	6	7.5	6.5	8.0	28	0.550	50
	M8	<b>83V8</b>	6.0	13	15.0	8.5	9.5	8.5	8.0	29	0.600	50
25	M6	<b>84V6</b>	7.0	15	14.0	7.5	7.5	6.5	10.0	30	1.210	50
	M8	<b>84V8</b>	7.0	15	16.0	9	10	8.5	10.0	32	1.850	50
35	M6	<b>85V6</b>	9.0	17	17.0	7.5	7.5	6.5	12.0	32	1.600	50
	M8	<b>85V8</b>	9.0	17	17.0	10	10	8.5	12.0	35	1.850	50
50	M6	<b>86V6</b>	10.0	19	20.0	10	10	6.5	14.0	37	2.800	50
	M8	<b>86V8</b>	10.0	19	20.0	10	10	8.5	14.0	37	2.600	50
	M10	<b>86V10</b>	10.0	19	20.0	12	12	10.5	14.0	39	2.800	50
	M12	<b>86V12</b>	10.0	19	20.0	13	13	13.0	14.0	43	2.960	50
70	M8	<b>87V8</b>	12.0	21	23.0	10	10	8.5	16.0	43	3.650	25
	M10	<b>87V10</b>	12.0	21	23.0	12	12	10.5	16.0	44	3.930	25
	M12	<b>87V12</b>	12.0	21	23.0	13	13	13.0	16.0	46	3.850	25
	M16	<b>87V16</b>	12.0	21	26.0	16	16	17.0	16.0	46	3.960	25
95	M8	<b>88V8</b>	14.0	25	26.0	12	12	8.5	18.0	48	4.650	25
	M10	<b>88V10</b>	14.0	25	26.0	12	12	10.5	18.0	48	5.610	25
	M12	<b>88V12</b>	14.0	25	26.0	13	13	13.0	18.0	49	5.540	25

## Butt connectors, stainless steel



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Ideal for aggressive environmental conditions, acid and rust-resistant
- ▶ Heat resistant up to 400 °C

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- V2A (X5CrNi18-10)

### Technical instructions

- Tool: see page 1.43
- You will find further information on the cable descriptions in the technical appendix, page i-6

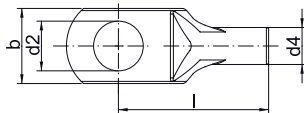
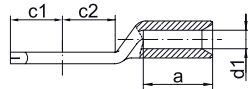
### Additional information

- Also available as featured article in stainless steel V4A (X5CrNiMo17-12-2)

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.5 - 1	<b>79R</b>	1.6	3.2	25	0.135	25
1.5 - 2.5	<b>80R</b>	3.0	5.0	25	0.250	25
4 - 6	<b>81R</b>	4.0	6.0	25	0.325	25
10	<b>82R</b>	5.0	8.0	25	0.360	25
16	<b>83R</b>	6.0	8.0	30	0.510	25
25	<b>84R</b>	7.0	10.0	35	1.100	25
35	<b>85R</b>	9.0	12.0	40	1.560	10
50	<b>86R</b>	10.0	14.0	45	2.670	10
70	<b>87R</b>	12.0	16.0	50	3.400	10
95	<b>88R</b>	14.0	18.0	55	4.300	10



## Tubular cable lug, Ni



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures up to 650 °C

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

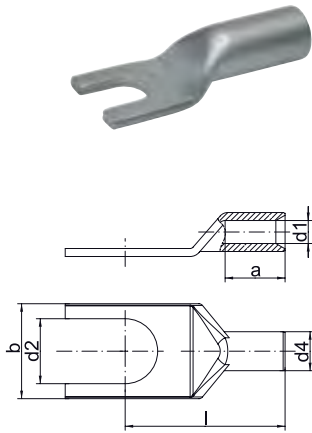
- Nickel alloy

### Technical instructions

- Tool: see page 1.43
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	a	b	d2	d4	c1	c2	l		
0.5 - 1	M3	<b>56N3</b>	1.6	4	6.5	3.2	3.2	3.5	4.5	13	0.080	100
	M4	<b>56N4</b>	1.6	6	6.5	4.3	3.2	4.5	4.5	13	0.080	100
	M5	<b>56N5</b>	1.6	6	7.5	5.3	3.2	5.0	5.5	14	0.080	100
1.5 - 2.5	M3	<b>57N3</b>	2.3	6	7.0	3.2	3.9	3.5	5.0	13	0.105	100
	M4	<b>57N4</b>	2.3	6	7.0	4.3	3.9	4.5	5.0	13	0.105	100
	M5	<b>57N5</b>	2.3	6	7.5	5.3	3.9	5.0	5.5	14	0.105	100
4 - 6	M6	<b>57N6</b>	2.3	6	9.5	6.5	3.9	6.0	6.5	16	0.130	100
	M4	<b>58N4</b>	3.6	9	9.5	4.3	5.6	4.5	5.0	18	0.275	100
	M5	<b>58N5</b>	3.6	9	9.5	5.3	5.6	5.0	5.5	19	0.275	100
10	M6	<b>58N6</b>	3.6	9	9.5	6.5	5.6	6.0	6.5	19	0.260	100
	M8	<b>58N8</b>	3.6	6	14	8.5	5.6	8.5	9.0	22	0.260	100
	M5	<b>59N5</b>	4.5	10	12.0	5.5	6.5	5.5	6.5	21	0.340	100
16	M6	<b>59N6</b>	4.5	10	12.0	6.5	6.5	6.5	7.5	22	0.360	100
	M5	<b>60N5</b>	5.5	13	12.0	5.5	7.5	5.5	6.5	26	0.470	100
	M6	<b>60N6</b>	5.5	13	12.0	6.5	7.5	6.5	7.5	27	0.480	100
25	M8	<b>60N8</b>	5.5	13	13.5	8.5	7.5	8.5	9.5	29	0.560	100
	M10	<b>60N10</b>	5.5	11	17	10.5	7.5	12.0	12.0	31	0.560	100
	M6	<b>61N6</b>	7.0	15	14.0	6.5	10.0	7.5	7.5	30	1.200	50
35	M8	<b>61N8</b>	7.0	15	16.0	8.5	10.0	10.0	10.0	32	1.320	50
	M10	<b>61N10</b>	7.0	13	17.0	10.5	10.0	12.0	12.0	34	1.320	50
	M6	<b>62N6</b>	8.5	17	17.0	6.5	12.0	7.5	7.5	32	1.850	50
50	M8	<b>62N8</b>	8.5	17	17.0	8.5	12.0	10.0	10.0	34	2.000	50
	M10	<b>62N10</b>	8.5	14.5	19.0	10.5	12.0	12.0	12.0	36	2.000	50
	M8	<b>63N8</b>	10.0	19	20.0	8.5	14.0	10.0	10.0	37	2.900	50
70	M10	<b>63N10</b>	10.0	19	20.0	10.5	14.0	12.0	12.0	39	3.100	50
	M10	<b>64N10</b>	12.0	21	23.0	10.5	16.5	12.0	12.0	44	4.600	25
	M12	<b>64N12</b>	12.0	21	23.0	13.0	16.5	13.0	13.0	46	4.660	25
95	M10	<b>65N10</b>	13.5	25	26.0	10.5	18.0	12.0	12.0	48	5.550	25
	M12	<b>65N12</b>	13.5	25	26.0	13.0	18.0	13.0	13.0	49	5.600	25

## Tubular cable lugs, Cu, fork type



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures up to 650 °C
- ▶ Simple fork-type mounting

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Nickel alloy

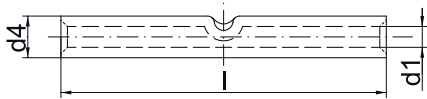
### Technical instructions

- Tool: see page 1.43
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm						Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	a	b	d2	d4	l		
0.5 - 1	M4	<b>56C4</b>	1.6	5	6.5	4.3	3.2	13	0.070	50
	M5	<b>56C5</b>	1.6	6	7.5	5.3	3.2	14	0.075	50
1.5 - 2.5	M4	<b>57C4</b>	2.3	6	7.0	4.3	3.9	13	0.095	50
	M5	<b>57C5</b>	2.3	6	7.5	5.3	3.9	14	0.095	50
	M6	<b>57C6</b>	2.3	6	9.5	6.5	3.9	16	0.110	50
	M4	<b>58C4</b>	3.6	9	9.5	4.3	5.6	18	0.250	50
4 - 6	M5	<b>58C5</b>	3.6	9	9.5	5.3	5.6	19	0.255	50
	M6	<b>58C6</b>	3.6	9	9.5	6.5	5.6	19	0.235	50
10	M5	<b>59C5</b>	4.5	10	12.0	5.5	6.5	21	0.320	50
	M6	<b>59C6</b>	4.5	10	12.0	6.5	6.5	22	0.340	50
16	M5	<b>60C5</b>	5.5	13	12.0	5.5	7.5	26	0.440	50
	M6	<b>60C6</b>	5.5	13	12.0	6.5	7.5	27	0.450	50
	M8	<b>60C8</b>	5.5	13	13.5	8.5	7.5	29	0.520	50



## Butt connectors, Ni



- ▶ For multi-stranded round conductors, e.g. to EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures to 650 °C

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

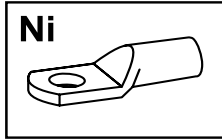
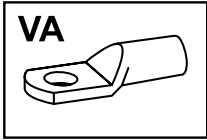
- Nickel alloy

### Technical instructions

- Tool: see page 1.43
- You will find further information on the cable descriptions in the technical appendix, page i-6












































Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.5 - 1	<b>62R</b>	1.6	3.2	25	0.135	50
1.5 - 2.5	<b>63R</b>	2.3	3.9	25	0.170	50
4 - 6	<b>64R</b>	3.6	5.6	25	0.325	50
10	<b>65R</b>	4.5	6.5	25	0.360	50
16	<b>66R</b>	5.5	7.5	30	0.510	50





### Tool application chart

**Tubular cable lugs and butt connectors made from stainless steel or nickel**

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
<b>Mechanical crimping tools</b>	<b>0,5 - 16</b>	K25		2.17		
<b>Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads</b>	<b>1,5 - 16</b>	K354		2.24	2.85	 + 
	<b>10 - 50</b>	K22		2.26	2.88	
<b>Hand hydraulic crimping tools</b>	<b>10 - 50</b>	HK6022		2.56	2.88	
	<b>16 - 95</b>	HK12030		2.60	2.92	 + 
		HK12042		2.62	2.92	 + 
		HK120U		2.64	2.92	 + 
<b>Battery powered crimping tools</b>	<b>1,5 - 16</b>	EK354ML		2.32	2.85	 + 
		EK354		2.36	2.85	 + 
	<b>10 - 50</b>	EKM6022		2.38	2.88	
		EK6022		2.40	2.88	
		EKM6022IS		4.6	2.88	
		EKM60UNV	+UA22	6.11	2.88	
		EK60UNV	+UA22	6.12	2.88	
	<b>10 - 95</b>	EK12032		2.46	2.92	 + 
		EK12042		2.48	2.92	 + 
		EK120U		2.50	2.92	 + 
		EK135FT	+UA15T	2.52	2.92	 + 
		EK120UNV	+UA12TKL	6.13	2.92	 + 
<b>Hydraulic crimping systems</b>	<b>10 - 50</b>	THK22		2.68	2.88	
	<b>16 - 95</b>	THK120		2.72	2.92	 + 
		HK252	+25A13	2.78	2.92	 + 
<b>Hydraulic crimping heads</b>	<b>10 - 50</b>	PK22		2.68	2.88	
		PK60UNV	+UA22	6.10	2.88	
	<b>16 - 95</b>	PK12042		2.72	2.92	 + 
		PK120U		2.74	2.92	 + 
		PK252	+25A13	2.76	2.92	 + 



# CONFORMITY - COPPER COMPRESSION CABLE LUGS AND CONNECTORS TO DIN

Klauke products conform not only to its own standards. But also to DIN standards with strict standardised dimensions. Our compression cable lugs and connectors range to 1000 mm<sup>2</sup> nominal cross-section, with standardised designations and markings. We have the quality certified by the IEC test, including our special versions.



### In brief

- ▶ Standardised sizes even for special versions
- ▶ Clear markings for standardised processing
- ▶ For all conductor classes to EN 60228

**▶ Tested and certified for safety**

Our DIN cable lugs and connectors are strictly manufactured to standard. In addition, the test suggested in the standard has been passed with ease.

- Simple processing with DIN system
- Safety through standardised tests (IEC 61238-1)
- For all conductor classes to EN 60228 and copper wires to DIN 46267-1



**▶ Every version standardised**

We offer cable lugs with tube dimension to DIN in numerous different forms and versions. If there happens to be no suitable connector for you, we will of course make you one to suit your needs.

- Flexible thanks to numerous versions
- Various surfaces available
- Many special versions based on the DIN standard available
- Manufactured to suit your particular requirements

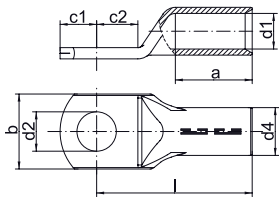
**▶ Clear markings**

Where simplicity and safety are key: Every cable lug to DIN comes with the appropriate crimping instruction. Readily visible markings indicate the crimping location required to work in compliance with the standard. Code numbers on the dies and cable lugs show the correct crimp at a glance.





## Compression cable lugs to DIN, Cu



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ With code number for clear tool assignment
- ▶ To DIN 46235

### Characteristics

- Easy to process due to crimp markings
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special bright version on request. Part Number appendix „BK“
- Possible as a special version with barrier on request
- 10 - 800 mm<sup>2</sup> IEC-tested
- \* = Bore not standardised

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Hint	Code	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
					a	b	d1	d2	d4	c1	c2	l		
6	M 5	<b>101R5</b>		5	10.5	8.5	3.8	5.3	5.5	6.5	7.5	25	0.24	100
	M 6	<b>101R6</b>		5	10.5	8.5	3.8	6.4	5.5	8.0	8.5	25	0.30	100
	M 8	<b>101R8</b>	*	5	10.5	13.0	3.8	8.4	5.5	10.0	10.0	25	0.34	100
10	M 5	<b>102R5</b>		6	10.5	9.0	4.5	5.3	6.0	6.5	9.0	28	0.37	100
	M 6	<b>102R6</b>		6	10.5	9.0	4.5	6.4	6.0	8.0	9.0	28	0.36	100
	M 8	<b>102R8</b>	*	6	13.0	13.0	4.5	8.4	6.0	10.0	10.5	28	0.38	100
16	M 6	<b>103R6</b>		8	20.5	13.0	5.5	6.4	8.5	8.0	9.0	37	1.19	100
	M 8	<b>103R8</b>		8	20.5	13.0	5.5	8.4	8.5	10.5	11.0	37	1.22	100
	M 10	<b>103R10</b>		8	20.5	17.0	5.5	10.5	8.5	12.5	12.5	37	1.30	100
	M 12	<b>103R12</b>	*	8	20.5	18.5	5.5	13.0	8.5	13.0	13.0	38	1.27	100
25	M 6	<b>104R6</b>		10	20.5	14.0	7.0	6.4	10.0	8.0	9.0	39	1.51	50
	M 8	<b>104R8</b>		10	20.5	16.0	7.0	8.4	10.0	10.5	11.0	39	1.54	50
	M 10	<b>104R10</b>		10	20.5	17.0	7.0	10.5	10.0	12.5	13.0	39	1.62	50
	M 12	<b>104R12</b>		10	20.5	19.0	7.0	13.0	10.0	13.5	13.5	39	1.66	25
35	M 6	<b>105R6</b>	*	12	20.5	17.0	8.2	6.4	12.5	8.0	8.5	43	2.77	50
	M 8	<b>105R8</b>		12	20.5	17.0	8.2	8.4	12.5	10.5	10.5	43	2.85	50
	M 10	<b>105R10</b>		12	20.5	19.0	8.2	10.5	12.5	12.5	12.5	43	2.84	50
	M 12	<b>105R12</b>		12	20.5	21.0	8.2	13.0	12.5	13.5	13.5	43	2.79	50
	M 14	<b>105R14</b>	*	12	20.5	21.0	8.2	15.0	12.5	14.0	13.5	43	2.70	25

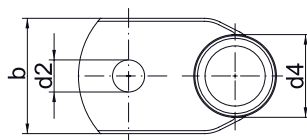
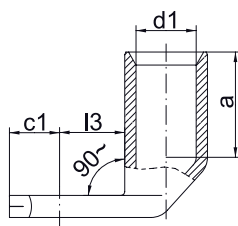
see next page

## Compression cable lugs to DIN, Cu

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Hint	Code	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs	
					a	b	d1	d2	d4	c1	c2			l
50	M 8	<b>106R8</b>		14	28	20.0	10.0	8.4	14.5	10.5	11.0	53	4.46	50
	M 10	<b>106R10</b>		14	28	22.0	10.0	10.5	14.5	12.5	12.5	53	4.48	50
	M 12	<b>106R12</b>		14	28	24.0	10.0	13.0	14.5	13.5	13.5	53	4.40	50
	M 14	<b>106R14</b>	*	14	28	24.0	10.0	15.0	14.5	14	14.5	53	4.30	25
	M 16	<b>106R16</b>		14	28	28.0	10.0	17.0	14.5	16.5	16.5	53	4.57	25
70	M 8	<b>107R8</b>		16	28	24.0	11.5	8.4	16.5	10.5	10.5	56	5.92	50
	M 10	<b>107R10</b>		16	28	24.0	11.5	10.5	16.5	12.5	12.5	56	6.02	50
	M 12	<b>107R12</b>		16	28	24.0	11.5	13.0	16.5	13.5	13.5	56	5.89	50
	M 14	<b>107R14</b>	*	16	28	24.0	11.5	15.0	16.5	14.5	13.5	55	5.80	25
	M 16	<b>107R16</b>		16	28	30.0	11.5	17.0	16.5	16.5	16.5	56	6.13	25
95	M 8	<b>108R8</b>	*	18	35	28.0	13.5	8.4	19.0	12.5	12.5	66	9.21	25
	M 10	<b>108R10</b>		18	35	28.0	13.5	10.5	19.0	12.5	12.5	66	8.97	50
	M 12	<b>108R12</b>		18	35	28.0	13.5	13.0	19.0	13.5	13.5	66	8.62	50
	M 14	<b>108R14</b>	*	18	35	28.0	13.5	15.0	19.0	13.5	14.5	66	8.78	25
	M 16	<b>108R16</b>		18	35	32.0	13.5	17.0	19.0	16.5	16.5	66	9.00	50
120	M 10	<b>109R10</b>		20	35	32.0	15.5	10.5	21.0	12.5	16.0	71	11.40	50
	M 12	<b>109R12</b>		20	35	32.0	15.5	13.0	21.0	13.5	17.0	71	11.31	50
	M 14	<b>109R14</b>	*	20	35	32.0	15.5	15.0	21.0	18.0	18.0	70	11.45	25
	M 16	<b>109R16</b>		20	35	32.0	15.5	17.0	21.0	16.5	18.0	71	11.24	50
	M 20	<b>109R20</b>		20	35	38.0	15.5	21.0	21.0	19.0	21.0	71	11.03	25
150	M 10	<b>110R10</b>		22	35	34.0	17.0	10.5	23.5	12.5	15.5	79	16.38	10
	M 12	<b>110R12</b>		22	35	34.0	17.0	13.0	23.5	13.5	17.0	79	16.29	25
	M 14	<b>110R14</b>	*	22	35	34.0	17.0	15.0	23.5	17.5	20.0	79	16.38	10
	M 16	<b>110R16</b>		22	35	34.0	17.0	17.0	23.5	16.5	20.0	79	16.17	10
	M 20	<b>110R20</b>		22	35	40.0	17.0	21.0	23.5	19.5	22.0	79	15.90	10
185	M 10	<b>111R10</b>		25	40	37.0	19.0	10.5	25.5	12.5	16.5	83	18.96	10
	M 12	<b>111R12</b>		25	40	37.0	19.0	13.0	25.5	13.5	17.5	83	18.11	10
	M 14	<b>111R14</b>	*	25	40	37.0	19.0	15.0	25.5	17.5	19.0	83	19.21	10
	M 16	<b>111R16</b>		25	40	37.0	19.0	17.0	25.5	16.5	20.0	83	18.74	25
	M 20	<b>111R20</b>		25	40	40.0	19.0	21.0	25.5	19.5	22.0	83	18.69	10
240	M 12	<b>112R12</b>		28	40	42.0	21.5	13.0	29.0	13.5	18.0	93	27.00	10
	M 14	<b>112R14</b>	*	28	40	42.0	21.5	15.0	29.0	17.5	20.0	93	27.58	10
	M 16	<b>112R16</b>		28	40	42.0	21.5	17.0	29.0	16.5	21.0	93	27.37	25
	M 20	<b>112R20</b>		28	40	45.0	21.5	21.0	29.0	19.5	23.0	93	26.88	10
300	M 12	<b>113R12</b>	*	32	50	46.0	24.5	13.0	32.0	14.0	22.0	101	32.89	5
	M 14	<b>113R14</b>	*	32	50	46.0	24.5	15.0	32.0	17.0	22.0	101	33.29	5
	M 16	<b>113R16</b>		32	50	46.0	24.5	17.0	32.0	16.5	23.0	101	32.94	5
	M 20	<b>113R20</b>		32	50	46.0	24.5	21.0	32.0	19.5	22.0	101	33.24	5
400	M 14	<b>114R14</b>	*	38	70	54.0	27.5	15.0	38.5	22.5	23.0	116	69.38	5
	M 16	<b>114R16</b>		38	70	54.0	27.5	17.0	38.5	22.5	23.0	116	68.54	5
	M 20	<b>114R20</b>		38	70	54.0	27.5	21.0	38.5	22.5	22.0	116	65.40	5
500	M 16	<b>115R16</b>	*	42	70	60.0	31.0	17.0	42.0	23.5	26.0	126	83.31	1
	M 20	<b>115R20</b>		42	70	60.0	31.0	21.0	42.0	22.5	26.0	126	81.58	1
625	M 16	<b>116R16</b>	*	44	80	64.0	34.5	17.0	44.0	23.0	26.0	137	79.60	1
	M 20	<b>116R20</b>		44	80	64.0	34.5	21.0	44.0	22.5	26.0	136	79.69	1
800	M 16	<b>117R16</b>	*	52	100	75.0	40.0	17.0	52.0	30.0	30.0	166	150.00	1
	M 20	<b>117R20</b>		52	100	75.0	40.0	21.0	52.0	22.5	30.0	166	149.00	1
1000	M 16	<b>118R16</b>	*	58	100	83.0	44.0	17.0	58.0	30.0	30.0	166	199.00	1
	M 20	<b>118R20</b>		58	100	83.0	44.0	21.0	58.0	30.0	30.0	166	195.00	1



## Angled compression cable lugs, Cu, 90° angled



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- With crimp markings for correct crimp positioning
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special bright version on request. Part Number appendix „BK“
- 10 - 240 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
6	M 5	<b>161R5</b>	5	10.5	8.5	3.8	5.3	5.5	6.5	9	0.28	50
	M 6	<b>161R6</b>	5	10.5	8.5	3.8	6.4	5.5	8.0	10	0.32	50
10	M 5	<b>162R5</b>	6	10.5	9.0	4.5	5.3	6.0	6.5	10	0.34	50
	M 6	<b>162R6</b>	6	10.5	9.0	4.5	6.4	6.0	8.0	10	0.35	50
	M 8	<b>162R8</b>	6	10.5	13.0	4.5	8.4	6.0	10.0	13	0.37	50
16	M 6	<b>163R6</b>	8	20.5	13.0	5.5	6.4	8.5	8.0	11	1.20	50
	M 8	<b>163R8</b>	8	20.5	13.0	5.5	8.4	8.5	10.5	13	1.30	50
	M 10	<b>163R10</b>	8	20.5	17.0	5.5	10.5	8.5	12.5	15	1.40	50
	M 12	<b>163R12</b>	8	20.5	18.5	5.5	13.0	8.5	13.0	18	1.33	50
25	M 6	<b>164R6</b>	10	20.5	14.0	7.0	6.4	10.0	8.0	11	1.54	25
	M 8	<b>164R8</b>	10	20.5	16.0	7.0	8.4	10.0	10.5	13	1.60	25
	M 10	<b>164R10</b>	10	20.5	17.0	7.0	10.5	10.0	12.5	15	1.63	25
	M 12	<b>164R12</b>	10	20.5	19.0	7.0	13.0	10.0	13.5	18	1.70	25
35	M 8	<b>165R8</b>	12	20.5	17.0	8.2	8.4	12.5	10.5	13	2.72	25
	M 10	<b>165R10</b>	12	20.5	19.0	8.2	10.5	12.5	12.5	15	2.76	25
	M 12	<b>165R12</b>	12	20.5	21.0	8.2	13.0	12.5	13.5	18	2.85	25
	M 14	<b>165R14</b>	12	20.5	21.0	8.2	15.0	12.5	14.0	20	2.92	25
50	M 8	<b>166R8</b>	14	29.0	20.0	10.0	8.4	14.5	10.5	13	4.39	25
	M 10	<b>166R10</b>	14	29.0	22.0	10.0	10.5	14.5	12.5	16	4.46	25
	M 12	<b>166R12</b>	14	29.0	24.0	10.0	13.0	14.5	13.5	18	4.49	25
	M 14	<b>166R14</b>	14	29.0	24.0	10.0	15.0	14.5	14.0	20	4.73	25
	M 16	<b>166R16</b>	14	29.0	28.0	10.0	17.0	14.5	16.5	22	4.66	25

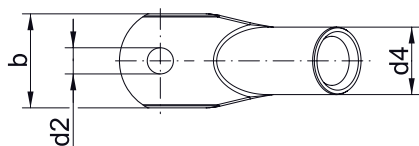
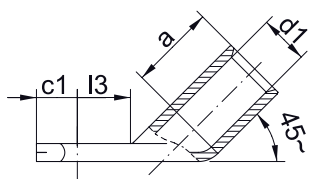
see next page

### Angled compression cable lugs, Cu, 90° angled

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
70	M 8	<b>167R8</b>	16	29.0	24.0	11.5	8.4	16.5	10.5	14	5.92	25
	M 10	<b>167R10</b>	16	29.0	24.0	11.5	10.5	16.5	12.5	16	6.31	25
	M 12	<b>167R12</b>	16	29.0	24.0	11.5	13.0	16.5	13.5	18	6.34	25
	M 14	<b>167R14</b>	16	29.0	24.0	11.5	15.0	16.5	14.5	20	6.50	25
	M 16	<b>167R16</b>	16	29.0	30.0	11.5	17.0	16.5	16.5	22	6.63	25
95	M 10	<b>168R10</b>	18	36.0	28.0	13.5	10.5	19.0	12.5	17	9.03	25
	M 12	<b>168R12</b>	18	36.0	28.0	13.5	13.0	19.0	13.5	18	9.27	25
	M 14	<b>168R14</b>	18	36.0	28.0	13.5	15.0	19.0	13.5	20	9.06	25
	M 16	<b>168R16</b>	18	36.0	32.0	13.5	17.0	19.0	16.5	22	9.18	25
120	M 10	<b>169R10</b>	20	36.0	32.0	15.5	10.5	21.0	12.5	17	10.41	10
	M 12	<b>169R12</b>	20	36.0	32.0	15.5	13.0	21.0	13.5	18	10.65	10
	M 14	<b>169R14</b>	20	36.0	32.0	15.5	15.0	21.0	18.0	20	10.75	10
	M 16	<b>169R16</b>	20	36.0	32.0	15.5	17.0	21.0	16.5	22	10.72	10
	M 20	<b>169R20</b>	20	36.0	38.0	15.5	21.0	21.0	19.5	24	11.00	10
150	M 10	<b>170R10</b>	22	36.0	34.0	17.0	10.5	23.5	12.5	17	14.18	10
	M 12	<b>170R12</b>	22	36.0	34.0	17.0	13.0	23.5	13.5	18	14.33	10
	M 14	<b>170R14</b>	22	36.0	34.0	17.0	15.0	23.5	17.5	20	15.60	10
	M 16	<b>170R16</b>	22	36.0	34.0	17.0	17.0	23.5	16.5	22	15.24	10
	M 20	<b>170R20</b>	22	36.0	40.0	17.0	21.0	23.5	19.5	24	15.70	10
185	M 10	<b>171R10</b>	25	41.0	37.0	19.0	10.5	25.5	12.5	22	18.60	10
	M 12	<b>171R12</b>	25	41.0	37.0	19.0	13.0	25.5	13.5	22	18.69	10
	M 14	<b>171R14</b>	25	41.0	37.0	19.0	15.0	25.5	17.5	22	19.10	10
	M 16	<b>171R16</b>	25	41.0	37.0	19.0	17.0	25.5	16.5	22	19.00	10
	M 20	<b>171R20</b>	25	41.0	40.0	19.0	21.0	25.5	19.5	24	18.72	10
240	M 12	<b>172R12</b>	28	41.0	42.0	21.5	13.0	29.0	13.5	22	25.09	10
	M 14	<b>172R14</b>	28	41.0	42.0	21.5	15.0	29.0	17.5	22	25.70	10
	M 16	<b>172R16</b>	28	46.0	42.0	21.5	17.0	29.0	16.5	22	24.96	10
	M 20	<b>172R20</b>	28	46.0	45.0	21.5	21.0	29.0	19.5	24	25.26	10



## Angled compression cable lugs, Cu, 45° angled



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- Flat contact surface by special angle pressing process
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Possible as a special bright version on request. Part Number appendix „BK“
- 10 - 240 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
6	M 5	<b>161R545</b>	5	10,5	8,5	3,8	5,3	5,5	6,5	9	0,32	50
	M 6	<b>161R645</b>	5	10,5	8,5	3,8	6,4	5,5	8,0	10	0,34	50
10	M 5	<b>162R545</b>	6	10,5	9,0	4,5	5,3	6,0	6,5	10	0,36	50
	M 6	<b>162R645</b>	6	10,5	9,0	4,5	6,4	6,0	8,0	10	0,35	50
16	M 8	<b>162R845</b>	6	10,5	13,0	4,5	8,4	6,0	10,0	13	0,39	50
	M 6	<b>163R645</b>	8	20,5	13,0	5,5	6,4	8,5	8,0	11	1,20	50
	M 8	<b>163R845</b>	8	20,5	13,0	5,5	8,4	8,5	10,5	13	0,28	50
	M 10	<b>163R1045</b>	8	20,5	17,0	5,5	10,5	8,5	12,5	15	1,34	50
25	M 12	<b>163R1245</b>	8	20,5	18,0	5,5	13,0	8,5	13,0	18	1,35	50
	M 6	<b>164R645</b>	10	20,5	14,0	7,0	6,4	10,0	8,0	11	1,49	25
	M 8	<b>164R845</b>	10	20,5	16,0	7,0	8,4	10,0	10,5	13	1,60	25
	M 10	<b>164R1045</b>	10	20,5	17,0	7,0	10,5	10,0	12,5	15	1,64	25
35	M 12	<b>164R1245</b>	10	20,5	19,0	7,0	13,0	10,0	13,5	18	1,73	25
	M 8	<b>165R845</b>	12	20,5	17,0	8,2	8,4	12,5	10,5	13	2,72	25
	M 10	<b>165R1045</b>	12	20,5	19,0	8,2	10,5	12,5	12,5	15	2,92	25
	M 12	<b>165R1245</b>	12	20,5	21,0	8,2	13,0	12,5	13,5	18	2,98	25
50	M 8	<b>166R845</b>	14	29,0	20,0	10,0	8,4	14,5	10,5	13	4,63	25
	M 10	<b>166R1045</b>	14	29,0	22,0	10,0	10,5	14,5	12,5	16	4,84	25
	M 12	<b>166R1245</b>	14	29,0	24,0	10,0	13,0	14,5	13,5	18	4,94	25
	M 14	<b>166R1445</b>	14	29,0	24,0	10,0	15,0	14,5	14,0	20	4,96	25
	M 16	<b>166R1645</b>	14	29,0	28,0	10,0	17,0	14,5	16,5	22	4,92	25

see next page

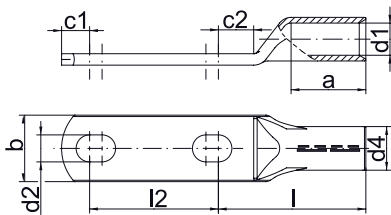


### Angled compression cable lugs, Cu, 45° angled

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
70	M 8	<b>167R845</b>	16	29.0	24.0	11.5	8.4	16.5	10.5	14	6.40	25
	M 10	<b>167R1045</b>	16	29.0	24.0	11.5	10.5	16.5	12.5	16	6.76	25
	M 12	<b>167R1245</b>	16	29.0	24.0	11.5	13.0	16.5	13.5	18	6.90	25
	M 14	<b>167R1445</b>	16	29.0	24.0	11.5	15.0	16.5	14.5	20	6.72	25
95	M 10	<b>168R1045</b>	18	36.0	28.0	13.5	10.5	19.0	12.5	17	9.64	25
	M 12	<b>168R1245</b>	18	36.0	28.0	13.5	13.0	19.0	13.5	18	9.21	25
	M 14	<b>168R1445</b>	18	36.0	28.0	13.5	15.0	19.0	13.5	20	9.51	25
	M 16	<b>168R1645</b>	18	36.0	32.0	13.5	17.0	19.0	16.5	22	9.40	25
120	M 10	<b>169R1045</b>	20	36.0	32.0	15.5	10.5	21.0	12.5	17	11.09	10
	M 12	<b>169R1245</b>	20	36.0	32.0	15.5	13.0	21.0	13.5	18	11.45	10
	M 14	<b>169R1445</b>	20	36.0	32.0	15.5	15.0	21.0	18.0	20	11.55	10
	M 16	<b>169R1645</b>	20	36.0	32.0	15.5	17.0	21.0	16.5	22	11.76	10
	M 20	<b>169R2045</b>	20	36.0	38.0	15.5	21.0	21.0	19.5	24	11.55	10
150	M 10	<b>170R1045</b>	22	36.0	34.0	17.0	10.5	23.5	12.5	17	15.93	10
	M 12	<b>170R1245</b>	22	36.0	34.0	17.0	13.0	23.5	13.5	18	16.08	10
	M 14	<b>170R1445</b>	22	36.0	34.0	17.0	15.0	23.5	17.5	20	16.38	10
	M 16	<b>170R1645</b>	22	36.0	34.0	17.0	17.0	23.5	16.5	22	16.90	10
	M 20	<b>170R2045</b>	22	40.0	40.0	17.0	21.0	23.5	19.5	24	16.49	10
185	M 10	<b>171R1045</b>	25	41.0	37.0	19.0	10.5	25.5	12.5	22	20.16	10
	M 12	<b>171R1245</b>	25	41.0	37.0	19.0	13.0	25.5	13.5	22	19.60	10
	M 14	<b>171R1445</b>	25	41.0	37.0	19.0	15.0	25.5	17.5	22	20.05	10
	M 16	<b>171R1645</b>	25	41.0	37.0	19.0	17.0	25.5	16.5	22	19.68	10
	M 20	<b>171R2045</b>	25	41.0	40.0	19.0	21.0	25.5	19.5	24	19.95	10
240	M 12	<b>172R1245</b>	28	47.0	42.0	21.5	13.0	29.0	13.5	22	26.46	10
	M 14	<b>172R1445</b>	28	46.0	42.0	21.5	15.0	29.0	17.5	22	26.99	10
	M 16	<b>172R1645</b>	28	46.0	42.0	21.5	17.0	29.0	16.5	22	26.92	10



## Compression cable lugs to DIN special type, Cu with 2 holes



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- Easy to process due to crimp markings
- Flat contact surface by special pressing technique
- Internal chamfer for simple cable insertion

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Part Number appendix for bright version „BK“

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs	
				a	b	d1	d2	d4	c1	c2	l			l2
70	2 x M 12	<b>147D212</b>	16	29.0	24	11.5	13	16.5	13.5	13.5	56	50 - 62	10.82	5
95		<b>148D212</b>	18	36.0	28	13.5	13	19.0	13.5	13.5	66	50 - 62	15.24	5
120		<b>149D212</b>	20	36.0	32	15.5	13	21.0	13.5	17.0	70	50 - 62	18.62	5
150		<b>150D212</b>	22	42.0	34	17.0	13	23.5	13.5	17.0	78	50 - 62	26.10	5
185		<b>151D212</b>	25	41.0	37	19.0	13	25.5	13.5	17.5	82	50 - 62	30.48	5
240		<b>152D212</b>	28	47.0	42	21.5	13	29.0	13.5	18.0	92	50 - 62	41.52	5

## Compression cable lugs, special type, Cu with 1 hole, double crimping



- ▶ Special design for mounting of 2 multi-stranded cables, e.g. to EN 60228 Cl. 2
- ▶ With crimp markings for correct crimp positioning

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

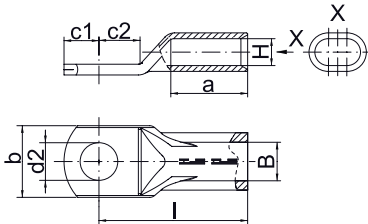
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.60
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm						H	B	Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d2	c1	c2	l				
2 x 50	M 12	<b>136DP12</b>	22 DP	42	34	13	13.5	17.0	79	10.0	20	16.30	5
2 x 70		<b>137DP12</b>	24 DP	41	37	13	13.5	17.5	83	11.5	23	18.90	5
2 x 95		<b>138DP12</b>	29 DP	47	42	13	13.5	18.0	93	13.5	27	27.12	5
2 x 120		<b>139DP12</b>	32 DP	52	46	13	14.0	22.0	101	15.5	31	33.50	5

## Compression cable lugs, special type, Cu with 2 long holes, double crimping



- ▶ Special design for mounting of 2 multi-stranded cables, e.g. to EN 60228 Cl. 2
- ▶ With crimp markings for correct crimp positioning

### Characteristics

- Simple cable entry due to internal chamfer
- Flat contact surface by special pressing technique

### Material

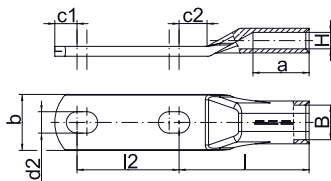
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

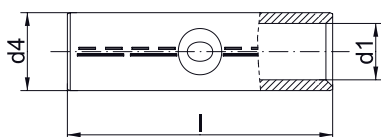
- Tool: see page 1.60
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							H	B	Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d2	c1	c2	l	l2				
2 x 50	M 12	<b>136DP212</b>	22 DP	42	34	13	13.5	17.0	79	50 - 62	10.0	20	23.20	5
2 x 70		<b>137DP212</b>	24 DP	42	34	13	13.5	17.0	79	50 - 62	11.5	23	29.64	5
2 x 95		<b>138DP212</b>	29 DP	47	42	13	13.5	18.0	93	50 - 62	13.5	27	38.50	5
2 x 120		<b>139DP212</b>	32 DP	52	46	13	19.0	22.0	101	50 - 62	15.5	31	45.80	5



## Compression joints to DIN, Cu



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ To DIN 46267, Part 1
- ▶ With code number for clear tool assignment
- ▶ With crimp markings for correct crimp positioning

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

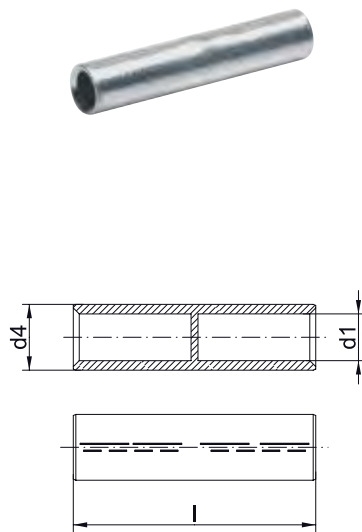
- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 1.58

### Additional information

- Possible as a special bright version on request. Part Number appendix „BK“
- 10 - 800 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
6	121R	5	3.8	5.5	30	0.31	100
10	122R	6	4.5	6.0	30	0.34	100
16	123R	8	5.5	8.5	50	1.45	100
25	124R	10	7.0	10.0	50	1.77	50
35	125R	12	8.2	12.5	50	2.89	50
50	126R	14	10.0	14.5	56	4.26	50
70	127R	16	11.5	16.5	56	5.41	50
95	128R	18	13.5	19.0	70	8.62	25
120	129R	20	15.5	21.0	70	9.66	25
150	130R	22	17.0	23.5	80	14.50	10
185	131R	25	19.0	25.5	85	17.00	10
240	132R	28	21.5	29.0	90	23.41	10
300	133R	32	24.5	32.0	100	29.23	5
400	134R	38	27.5	38.5	150	74.32	5
500	135R	42	31.0	42.0	160	89.09	1
625	136R	44	34.5	44.0	160	79.10	1
800	137R	52	40.0	52.0	200	151.00	1
1000	138R	58	44.0	58.0	200	198.00	1

## Compression joints, Cu



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Barrier design with oil stop
- ▶ Tube dimension to DIN 46267, part 1
- ▶ With code number for clear tool assignment

### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Suitable for

- Non-tension connections

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 1.58

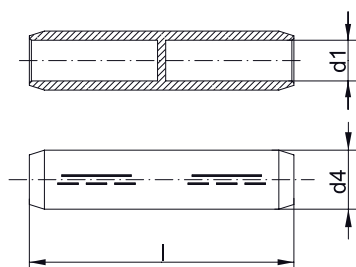
### Additional information

- Part Number appendix for bright version „BK“

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
16	523R	8	5.5	8.5	50	1.54	25
25	524R	10	7.0	10.0	50	1.84	25
35	525R	12	8.2	12.5	50	2.99	25
50	526R	14	10.0	14.5	56	4.46	25
70	527R	16	11.5	16.5	56	5.61	25
95	528R	18	13.5	19.0	70	8.88	25
120	529R	20	15.5	21.0	70	10.06	5
150	530R	22	17.0	23.5	80	14.89	5
185	531R	25	19.0	25.5	85	17.57	5
240	532R	28	21.5	29.0	90	24.23	5
300	533R	32	24.5	32.0	100	30.15	5
400	534R	38	27.5	38.5	150	75.60	5
500	535R	42	31.0	42.0	160	92.00	1



## Compression joint for cable connections 10 - 30 kV, copper



- ▶ For round conductors, e.g. to EN 60228 Cl. 2 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Tube dimension to DIN 46267, part 1
- ▶ For copper medium-voltage cable connections 10 - 30 kV
- ▶ With chamfered edges for reduced electrical stress in the assembly

### Characteristics

- Also available as barrier design with oil stop
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Suitable for

- Non-tension connections

### Material

- Copper (EN13600)

### Surface

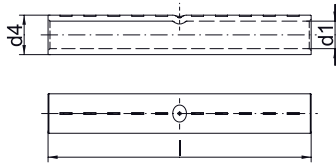
- Bright

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6
- Sleeves for 3-core and 4-core cables see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 1.58

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Number of crimps		Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	d4	l	Cu (5 mm)	Cu (wide)		
<b>Normalversion</b>									
25	<b>504R</b>	12	7.5	12.5	60	2/2	1/1	4.08	10
35	<b>505R</b>	12	8.2	12.5	60	2/2	1/1	3.56	10
50	<b>506R</b>	14	10.0	14.5	65	3/3	1/1	4.90	10
70	<b>507R</b>	16	11.5	16.5	65	3/3	1/1	6.10	10
95	<b>508R</b>	18	13.5	19	90	4/4	2/2	10.98	10
120	<b>509R</b>	20	15.5	21	90	4/4	2/2	12.68	5
150	<b>510R</b>	22	17.0	23.5	105	4/4	2/2	18.09	5
185	<b>511R</b>	25	19.0	25.5	105	4/4	2/2	20.35	5
240	<b>512R</b>	28	21.5	29	125		2/2	31.64	5
300	<b>513R</b>	32	24.5	32	125		2/2	35.40	1
400	<b>514R</b>	38	27.5	38.5	160		3/3	75.42	1
<b>Barrier version</b>									
25	<b>504RLD</b>	12	7.5	12.5	60	2/2	1/1	4.08	25
35	<b>505RLD</b>	12	8.2	12.5	60	2/2	1/1	3.56	10
50	<b>506RLD</b>	14	10.0	14.5	65	3/3	1/1	4.90	10
70	<b>507RLD</b>	16	11.5	16.5	65	3/3	1/1	6.40	10
95	<b>508RLD</b>	18	13.5	19	90	4/4	2/2	10.98	10
120	<b>509RLD</b>	20	15.5	21	90	4/4	2/2	12.68	5
150	<b>510RLD</b>	22	17.0	23.5	105	4/4	2/2	18.84	5
185	<b>511RLD</b>	25	19.0	25.5	105	4/4	2/2	20.35	5
240	<b>512RLD</b>	28	21.5	29	125		2/2	31.64	5
300	<b>513RLD</b>	32	24.5	32	125		2/2	35.40	1
400	<b>514RLD</b>	38	27.5	38.5	160		3/3	75.42	1

## Compression joints to DIN, Cu



- ▶ For connecting copper cables to DIN 48201, Part 1
- ▶ For full tension cable connections
- ▶ To DIN 48085, Part 1
- ▶ With code number for clear tool assignment
- ▶ With crimp markings for correct crimping

### Characteristics

- Easy to process due to crimp markings
- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 1.59
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = not standardised
- 16 - 70 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Code	Dimension mm			Number of crimps		conductor dia. mm	Weight/ 100 pcs. ~ kg	Packing unit/pcs
				d1	d4	l	Cu (5 mm)	Cu (wide)			
6	<b>181R</b>	*	6	3.5	6.5	65	4/4		3.00	1.4	10
10	<b>182R</b>		8	4.5	8.5	80	5/5		4.05	3.0	10
16	<b>183R</b>		8	5.5	8.5	95	5/5		5.10	2.8	10
25	<b>184R</b>		10	7.0	10.0	95	5/5		6.30	3.4	10
35	<b>185R</b>		12	8.2	12.5	95	5/5		7.50	5.6	10
50	<b>186R</b>		14	10.0	14.5	110	5/5		9.00	8.6	10
70	<b>187R</b>		16	11.5	16.5	110	5/5		10.50	10.8	10
95	<b>188R</b>		20	13.5	21.0	145	8/8	4/4	12.50	26.2	10
120	<b>189R</b>		22	15.0	23.5	160	8/8	4/4	14.00	36.8	10
150	<b>190R</b>		25	16.5	25.5	180	8/8	4/4	15.70	47.5	5
185	<b>191R</b>	*	32	18.5	31.5	260	5/5		17.50	118.0	5
240	<b>192R</b>	*	34	21.0	34.5	310	6/6		20.20	163.0	5
300	<b>193R</b>	*	38	23.5	38.5	360	7/7		22.50	235.0	1



## Reduction sleeves, Cu



- ▶ For multi-stranded, round conductors e.g. to EN 60228 Cl. 2
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For connecting different conductor cross-sections
- ▶ For use in DIN compression joints and connectors, standard type

### Characteristics

- Simple cable entry due to internal chamfer

### Suitable for

- For non-tension compression joints

### Material

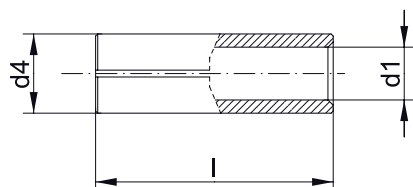
- Copper (EN13600)

### Surface

- Bright

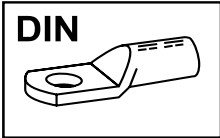
### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-6



Part No.	Nominal cross section mm <sup>2</sup> from	Nominal cross section mm <sup>2</sup> to	Dimension mm			Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
RH2510	25	10	4.6	6.6	25	0.358	25
RH2516	25	16	5.5	6.6	25	0.350	25
RH3510	35	10	4.5	8.0	25	0.707	25
RH3516	35	16	5.5	8.0	25	0.570	25
RH3525	35	25	7.0	8.0	25	0.253	25
RH5016	50	16	5.5	9.5	33	1.326	25
RH5025	50	25	7.0	9.5	33	0.923	25
RH5035	50	35	8.5	9.5	33	0.404	25
RH7025	70	25	7.0	11.0	33	1.580	25
RH7035	70	35	8.5	11.0	33	1.102	25
RH7050	70	50	10.0	11.0	33	0.486	25
RH9535	95	35	8.5	13.0	45	2.940	25
RH9550	95	50	10.0	13.0	45	2.136	25
RH9570	95	70	11.5	13.0	45	1.100	25
RH12050	120	50	10.0	15.0	45	3.802	25
RH12070	120	70	11.5	15.0	45	2.874	25
RH12095	120	95	13.5	15.0	45	1.340	25
RH15070	150	70	11.5	16.5	53	5.008	5
RH15095	150	95	13.5	16.5	53	3.212	5
RH150120	150	120	15.5	16.5	53	1.248	5
RH18595	185	95	13.5	18.5	53	5.824	5
RH185120	185	120	15.5	18.5	53	3.756	5
RH185150	185	150	17.0	18.5	53	1.660	5
RH240120	240	120	15.5	21.0	55	7.412	5
RH240150	240	150	17.0	21.0	55	5.740	5
RH240185	240	185	19.0	21.0	55	3.036	5
RH300150	300	150	17.0	24.0	58	11.200	5
RH300185	300	185	19.0	24.0	58	8.390	5
RH300240	300	240	21.5	24.0	58	4.526	5

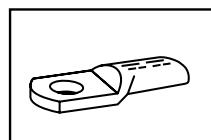




## Tool application chart

### Compression cable lugs and compression joints

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	25 - 150	K09D		2.21		⬡
	6 - 120	K06D		2.20		⬡
	6 - 50	K05D		2.19		⬡
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	6 - 25	EK50ML		6.6	2.82	⬡
		K50		2.23	2.82	⬡
	6 - 120	K354		2.24	2.85	⬡
	6 - 300	K22		2.26	2.88	⬡
Hand hydraulic crimping tools	6 - 300	HK6022		2.56	2.88	⬡
		10 - 300	HK12030		2.60	2.92
		HK12042		2.62	2.92	⬡
		HK120U		2.64	2.92	⬡
Battery powered crimping tools	6 - 120	EK354		2.36	2.85	⬡
		EK354ML		2.32	2.85	⬡
	6 - 300	EK6022		2.40	2.88	⬡
		EK60UNV	+UA22	6.12	2.88	⬡
		EKM6022		2.38	2.88	⬡
		EKM6022IS		4.6	2.88	⬡
	10 - 300	EKM60UNV	+UA22	6.11	2.88	⬡
		EK12032		2.46	2.92	⬡
		EK12042		2.48	2.92	⬡
		EK120U		2.50	2.92	⬡
	10 - 625	EK120UNV	+UA12TKL	6.13	2.92	⬡
		EK135FT	+UA15T	2.52	2.92 + 2.96	⬡
Hydraulic crimping systems	6 - 300	THK22		2.68	2.88	⬡
	10 - 625	HK252	+25A13	2.78	2.92 + 2.96	⬡
	10 - 300	THK120		2.72	2.92	⬡
Hydraulic crimping heads	6 - 300	PK22		2.68	2.88	⬡
		PK60UNV	+UA22	6.10	2.88	⬡
	10 - 300	PK12042		2.72	2.92	⬡
		PK120U		2.74	2.92	⬡
		10 - 625	PK252	+25A13	2.76	2.92 + 2.96



## Tool application chart

### Double compression cable lugs

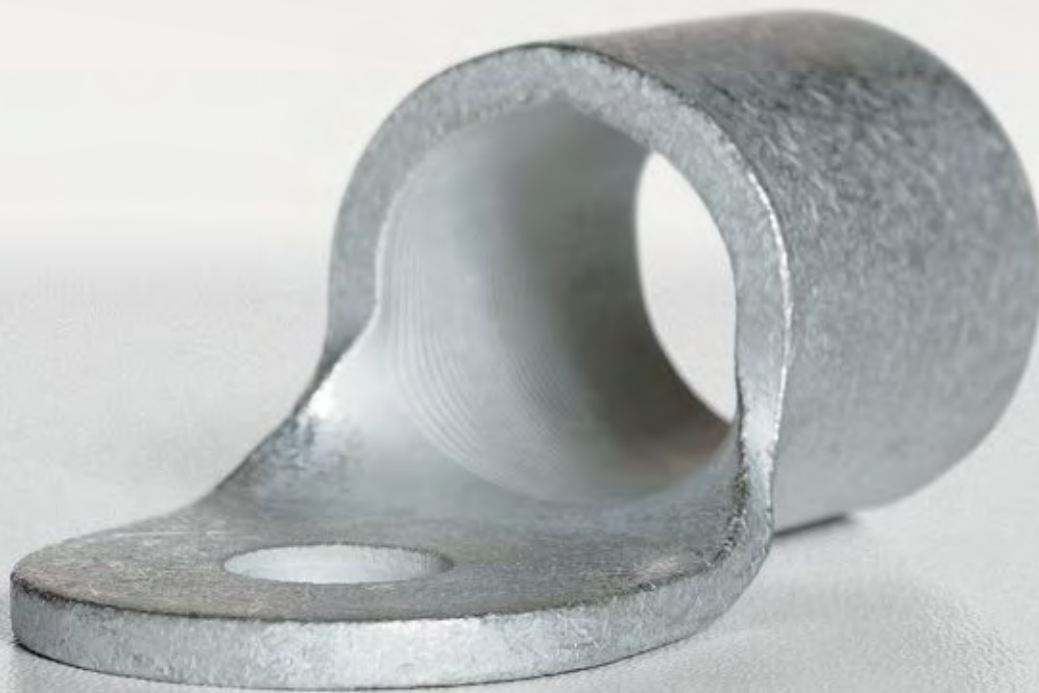
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	2x70	K22		2.26	2.59	○
Hand hydraulic crimping tools	2x50 - 2x120	HK12030		2.60	2.93	○
		HK12042		2.62	2.93	○
		HK120U		2.64	2.93	○
	2x70	HK6022		2.56	2.59	○
Battery powered crimping tools	2x50 - 2x120	EK12032		2.46	2.93	○
		EK12042		2.48	2.93	○
		EK120U		2.50	2.93	○
		EK135FT	+UA15T	2.52	2.93	○
		EK120UNV	+UA12TKL	6.13	2.93	○
	2x70	EKM6022		2.38	2.59	○
		EK6022		2.40	2.59	○
		EKM6022IS		4.6	2.59	○
		EKM60UNV	+UA22	6.11	2.59	○
		EK60UNV	+UA22	6.12	2.59	○
Hydraulic crimping systems	2x50 - 2x120	THK120		2.72	2.93	○
		HK252	+25A13	2.78	2.93	○
	2x70	THK22		2.68	2.59	○
Hydraulic crimping heads	2x50 - 2x120	PK12042		2.72	2.93	○
		PK120U		2.74	2.93	○
		PK252	+25A13	2.76	2.93	○
	2x70	PK22		2.68	2.59	○
		PK60UNV	+UA22	6.10	2.59	○





# PUNCHED - SOLDERLESS TERMINALS MADE FROM COPPER TO DIN 46234

Unlike the tubular cable lugs, Klauke solderless terminals are punched from a sheet, bent and then hard soldered in the crimp area. The grooved profile on the inside ensures higher conductor pull-out values. This product's small dimensions make it the ideal solution for confined areas.



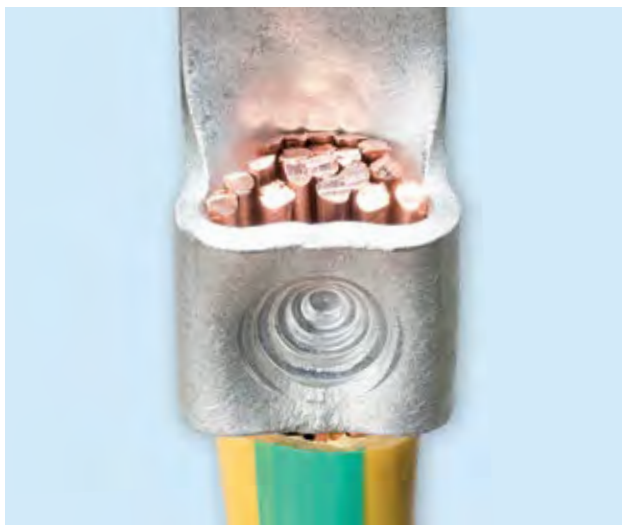
#### **In brief**

- ▶ **Reliable crimping due to high-quality solder seam**
- ▶ **Small dimensions for confined areas**
- ▶ **Suitable for multi-stranded, fine-stranded and superfine-stranded conductors**

**▶ Hard soldered for reliable contact**

The quality of Klauke cable lugs is also evident during the crimping operation: The solderless terminal always remains intact due to the high-quality solder seam. Guaranteed quality.

- Reliable contact due to high-quality solder seam and tinning
- Best possible contacting with ribbed profile
- Optimum solution for confined areas thanks to highly-compact dimensions
- Insulated and non-insulated versions



**▶ Well insulated**

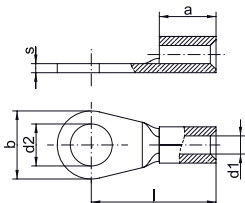
Klauke products make your day-to-day work easier. Thanks to the widened insulation, the conductor can be very conveniently inserted into our insulated solderless terminals. The insulation remains intact even after crimping, eliminating the need for retrospective insulation. Everything accomplished in one operation.

- Easy to use thanks to widened sleeve
- No additional insulation, hence fast processing
- As a fork-type, ideal for connecting meters in confined areas for example
- Easy conductor insertion thanks to widened sleeve





## Solderless terminals to DIN, Cu



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46234
- ▶ High-quality brazing process in the crimp area



### Characteristics

- Improved contact properties due to grooved profile



### Material

- Copper (EN13599)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 1.72
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = Bore not standardised
- 0.5 - 6 mm<sup>2</sup> not UL-tested

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Hint	Dimension mm						Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	l	s		
0.5 - 1	2.5 - 1	162025		5	6	1.6	2.8	11	0.8	0.060	100
	3 - 1	16203		5	6	1.6	3.2	11	0.8	0.060	100
	3.5 - 1	162035		5	6	1.6	3.7	11	0.8	0.055	100
	4 - 1	16204		5	8	1.6	4.3	12	0.8	0.070	100
	5 - 1	16205		5	10	1.6	5.3	13	0.8	0.090	100
	6 - 1	16206	*	5	11	1.6	6.5	15	0.8	0.080	100
	8 - 1	16208	*	5	14	1.6	8.4	17	0.8	0.130	100
	10 - 1	162010	*	5	18	1.6	10.5	19	0.8	0.130	100
1.5 - 2.5	3 - 2.5	16303		5	6	2.3	3.2	11	0.8	0.065	100
	4 - 2.5	16304		5	8	2.3	4.3	12	0.8	0.080	100
	3.5 - 2.5	163035		5	6	2.3	3.7	11	0.8	0.065	100
	5 - 2.5	16305		5	10	2.3	5.3	14	0.8	0.090	100
	6 - 2.5	16306		5	11	2.3	6.5	16	0.8	0.110	100
	8 - 2.5	16308		5	14	2.3	8.4	17	0.8	0.130	100
	10 - 2.5	163010	*	5	18	2.3	10.5	19	0.8	0.160	100
	12 - 2.5	163012	*	5	18	2.3	12.5	19	0.8	0.160	100
4 - 6	4 - 6	16504		6	8	3.6	4.3	14	1.0	0.140	100
	5 - 6	16505		6	10	3.6	5.3	15	1.0	0.160	100
	6 - 6	16506		6	11	3.6	6.5	16	1.0	0.170	100
	8 - 6	16508		6	14	3.6	8.4	19	1.0	0.220	100
	10 - 6	165010		6	18	3.6	10.5	21	1.0	0.290	100
	12 - 6	165012	*	6	18	3.6	13.0	21	1.0	0.280	100
10	5 - 10	16525		8	10	4.5	5.3	16	1.1	0.230	100
	6 - 10	16526		8	11	4.5	6.5	17	1.1	0.24	100
	8 - 10	16528		8	14	4.5	8.4	20	1.1	0.340	100
	10 - 10	165210		8	18	4.5	10.5	21	1.1	0.340	100
	12 - 10	165212		8	22	4.5	13.0	23	1.1	0.420	100
16	5 - 16	16535		10	11	5.8	5.3	20	1.2	0.390	100
	6 - 16	16536		10	11	5.8	6.5	20	1.2	0.380	100
	8 - 16	16538		10	14	5.8	8.4	22	1.2	0.43	100
	10 - 16	165310		10	18	5.8	10.5	24	1.2	0.500	100
	12 - 16	165312		10	22	5.8	13.0	24	1.2	0.500	100

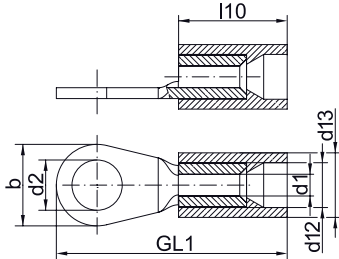
see next page

## Solderless terminals to DIN, Cu

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Hint	Dimension mm						Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	l	s		
25	5 - 25	<b>16545</b>		11	12	7.5	5.3	25	1.5	0.750	100
	6 - 25	<b>16546</b>		11	12	7.5	6.5	25	1.5	0.750	100
	8 - 25	<b>16548</b>		11	16	7.5	8.4	25	1.5	0.750	100
	10 - 25	<b>165410</b>		11	18	7.5	10.5	26	1.5	0.750	100
	12 - 25	<b>165412</b>		11	22	7.5	13.0	31	1.5	0.920	100
	16 - 25	<b>165416</b>		11	28	7.5	17.0	35	1.5	1.320	100
35	6 - 35	<b>16556</b>		12	16	9.0	8.4	26	1.6	0.980	100
	8 - 35	<b>16558</b>		12	16	9.0	8.4	26	1.6	0.980	100
	10 - 35	<b>165510</b>		12	18	9.0	10.5	27	1.6	1.000	100
	12 - 35	<b>165512</b>		12	22	9.0	13.0	31	1.6	1.260	100
	16 - 35	<b>165516</b>		12	28	9.0	17.0	36	1.6	1.550	100
50	6 - 50	<b>16566</b>		16	18	11.0	6.5	34	1.8	1.650	100
	8 - 50	<b>16568</b>		16	18	11.0	8.4	34	1.8	1.650	100
	10 - 50	<b>165610</b>		16	18	11.0	10.5	34	1.8	1.600	100
	12 - 50	<b>165612</b>		16	22	11.0	13.0	36	1.8	1.800	100
	16 - 50	<b>165616</b>		16	28	11.0	17.0	40	1.8	2.100	100
70	6 - 70	<b>16576</b>		18	22	13.0	6.5	38	2.0	2.600	50
	8 - 70	<b>16578</b>		18	22	13.0	8.4	38	2.0	2.500	50
	10 - 70	<b>165710</b>		18	22	13.0	10.5	38	2.0	2.500	50
	12 - 70	<b>165712</b>		18	22	13.0	13.0	38	2.0	2.400	50
	16 - 70	<b>165716</b>		18	28	13.0	17.0	42	2.0	2.700	50
95	8 - 95	<b>16588</b>		20	24	15.0	8.4	42	2.5	4.300	50
	10 - 95	<b>165810</b>		20	24	15.0	10.5	42	2.5	4.1	50
	12 - 95	<b>165812</b>		20	24	15.0	13.0	42	2.5	3.900	50
	16 - 95	<b>165816</b>		20	28	15.0	17.0	44	2.5	4.100	50
120	8 - 120	<b>16598</b>		22	24	17.0	8.4	44	3.0	5.601	50
	10 - 120	<b>165910</b>		22	24	17.0	10.5	44	3.0	5.600	50
	12 - 120	<b>165912</b>		22	24	17.0	13.0	44	3.0	5.400	50
	16 - 120	<b>165916</b>		22	28	17.0	17.0	48	3.0	5.800	50
150	10 - 150	<b>166010</b>		24	30	19.0	10.5	50	3.2	7.600	50
	12 - 150	<b>166012</b>		24	30	19.0	13.0	50	3.2	7.600	50
	16 - 150	<b>166016</b>		24	30	19.0	17.0	50	3.2	7.500	50
185	12 - 185	<b>166112</b>		28	36	21.0	13.0	50	3.5	11.300	50
	16 - 185	<b>166116</b>		28	36	21.0	17.0	50	3.5	11.300	50
240	12 - 240	<b>166212</b>		32	38	23.5	13.0	56	4.0	15.900	25
	16 - 240	<b>166216</b>		32	38	23.5	17.0	56	4.0	15.900	25



## Insulated solderless terminals, Cu with Easy-Entry



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Simple processing due to crimping over the insulation
- ▶ Insulation sleeve halogen-free

### Characteristics

- Insulating, halogen-free with easy-entry cable insertion
- Dimensions in tube according to DIN 46234
- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Copper (EN13599)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions















- Tool: see page 1.73
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm							Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	d2	GL1	l10			
10	6526	Red	11	4.5	6.7	8.6	6.5	34.0	19.0	0.24	0.28	100
	6528	Red	14	4.5	6.7	8.6	8.4	37.5	19.0	0.29	0.33	100
	65210	Red	18	4.5	6.7	8.6	10.5	41.5	19.0	0.34	0.38	100
	65212	Red	22	4.5	6.7	8.6	13.0	45.5	19.0	0.42	0.46	100
16	6535	Blue	11	5.8	7.7	9.6	5.3	39.5	20.5	0.39	0.44	100
	6536	Blue	11	5.8	7.7	9.6	6.5	39.5	20.5	0.38	0.43	100
	6538	Blue	14	5.8	7.7	9.6	8.4	41.5	20.5	0.43	0.48	100
	65310	Blue	18	5.8	7.7	9.6	10.5	43.5	20.5	0.50	0.55	100
	65312	Blue	18	5.8	7.7	9.6	13.0	50.5	20.5	0.58	0.63	100
25	6545	Yellow	12	7.5	11.0	13.0	5.3	40.0	20.0	0.75	0.84	50
	6546	Yellow	12	7.5	11.0	13.0	6.5	42.5	20.0	0.69	0.78	50
	6548	Yellow	16	7.5	11.0	13.0	8.4	43.0	20.0	0.75	0.84	50
	65410	Yellow	18	7.5	11.0	13.0	10.5	45.0	20.0	0.80	0.89	50
	65412	Yellow	22	7.5	11.0	13.0	13.0	51.0	20.0	0.92	1.00	50
35	65416	Yellow	28	7.5	11.0	13.0	17.0	59.0	20.0	1.32	1.40	50
	6556	Red	16	9.0	12.7	15.0	6.5	44.0	22.5	1.01	1.14	50
	6558	Red	16	9.0	12.7	15.0	8.4	44.5	22.5	0.98	1.10	50
	65510	Red	18	9.0	12.7	15.0	10.5	46.5	22.5	1.00	1.12	50
	65512	Red	22	9.0	12.7	15.0	13.0	52.5	22.5	1.26	1.38	50
50	65516	Red	28	9.0	12.7	15.0	17.0	54.5	22.5	1.55	1.67	50
	6566	Blue	18	11.0	15.4	18.0	6.5	54.5	27.5	1.65	1.90	50
	6568	Blue	18	11.0	15.4	18.0	8.4	60.5	27.5	1.65	1.90	50
	65610	Blue	18	11.0	15.4	18.0	10.5	60.5	27.5	1.60	1.85	50
	65612	Blue	22	11.0	15.4	18.0	13.0	60.5	27.5	1.80	2.05	50
	65616	Blue	28	11.0	15.4	18.0	17.0	67.5	27.5	2.10	2.35	50

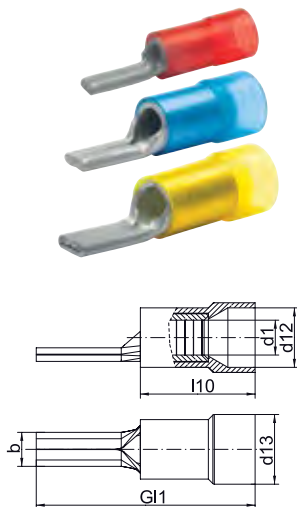
see next page



## Insulated solderless terminals, Cu with Easy-Entry

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm							Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	d2	GI1	l10			
70	6576		22	13.0	17.4	20.0	6.5	61.5	30.5	2.60	2.90	50
	6578		22	13.0	17.4	20.0	8.4	61.5	30.5	2.50	2.80	50
	65710		22	13.0	17.4	20.0	10.5	61.5	30.5	2.50	2.80	50
	65712		22	13.0	17.4	20.0	13.0	66.5	30.5	2.40	2.70	50
	65716		28	13.0	17.4	20.0	17.0	70.5	30.5	2.70	3.00	50
95	65810		24	15.0	20.5	23.5	10.5	70.0	34.0	4.10	4.50	25
	65812		24	15.0	20.5	23.5	13.0	70.0	34.0	3.90	4.40	25
	65816		28	15.0	20.5	23.5	17.0	76.0	34.0	4.10	4.50	25
120	65910		24	17.0	23.5	26.7	10.5	79.0	36.0	5.60	6.10	25
	65912		24	17.0	23.5	26.7	13.0	82.0	36.0	5.40	5.90	25
	65916		28	17.0	23.5	26.7	17.0	90.0	36.0	5.80	6.30	25
150	66010		30	19.0	26.0	29.2	10.5	80.0	39.0	7.60	8.40	25
	66012		30	19.0	26.0	29.2	13.0	83.0	39.0	7.60	8.40	25
	66016		30	19.0	26.0	29.2	17.0	83.0	39.0	7.50	8.30	25

## Insulated pin terminals, Cu with Easy-Entry



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Insulating, halogen-free with easy-entry cable insertion
- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material








- Copper (EN13599)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

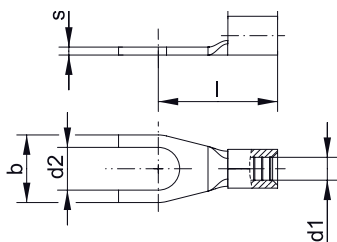
### Technical instructions

- Tool: see page 1.73
- You will find further information on the cable descriptions in the technical appendix, page I-6

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm							Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	GI1	l10				
10	ST1716IS		4.3	4.3	7.4	9.4	33.0	19.0	0.27	0.31	100	
16	ST1717IS		5.5	5.4	8.6	10.6	38.0	20.0	0.39	0.44	100	
25	ST1718IS		6.8	6.7	12.5	14.5	43.5	23.5	0.63	0.73	50	
35	ST1719IS		8.0	8.2	14.0	16.4	51.5	27.5	1.17	1.34	50	
50	ST1720IS		9.5	9.5	15.5	18.0	59.0	33.0	1.79	2.10	50	
70	ST1721IS		11.0	11.2	18.0	20.5	69.0	38.0	2.92	3.20	50	
95	ST1722IS		12.5	13.5	20.7	23.5	71.0	40.0	4.30	4.70	25	



## Solderless terminals, Cu, fork type



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ Dimensions in tube to 6 mm<sup>2</sup> to DIN 46234
- ▶ Simple fork-type mounting
- ▶ High-quality brazing process in the crimp area



### Characteristics

- Improved contact properties due to grooved profile



### Material

- Copper (EN13599)



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.72
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 0.5 - 6 mm<sup>2</sup> not UL-certified

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm						Weight 100 pcs. ~kg	Packing unit/ pcs
			a	b	d1	d2	l	s		
0.5 - 1	3 - 1	<b>1620C3</b>	5.0	6.0	1.6	3.2	11.0	0.8	0.060	100
	3.5 - 1	<b>1620C35</b>	5.0	6.0	1.6	3.7	11.0	0.8	0.060	100
	4 - 1	<b>1620C4</b>	5.0	8.0	1.6	4.3	12.0	0.8	0.070	100
	5 - 1	<b>1620C5</b>	5.0	10.0	1.6	5.3	13.0	0.8	0.090	100
	6 - 1	<b>1620C6</b>	5.0	11.0	1.6	6.5	15.0	0.8	0.080	100
	1.5 - 2.5	3 - 2.5	<b>1630C3</b>	5.0	5.5	2.3	3.2	11.0	0.8	0.065
3.5 - 2.5		<b>1630C35</b>	5.0	6.0	2.3	3.7	11.0	0.8	0.065	100
4 - 2.5		<b>1630C4</b>	5.0	6.8	2.3	4.3	12.0	0.8	0.080	100
5 - 2.5		<b>1630C5</b>	5.0	10.0	2.3	5.3	14.0	0.8	0.090	100
6 - 2.5		<b>1630C6</b>	5.0	11.0	2.3	6.5	16.0	0.8	0.110	100
4 - 6		4 - 6	<b>1650C4</b>	6.0	8.0	3.6	4.3	14.0	1.0	0.140
	5 - 6	<b>1650C5</b>	6.0	10.0	3.6	5.3	15.0	1.0	0.160	100
	6 - 6	<b>1650C6</b>	6.0	11.0	3.6	6.5	16.0	1.0	0.170	100
	8 - 6	<b>1650C8</b>	6.0	14.0	3.6	8.4	19.0	1.0	0.220	100
10	5 - 10	<b>1652C5</b>	10.0	10.0	4.3	5.3	19.0	1.0	0.240	100
	6 - 10	<b>1652C6</b>	10.0	11.0	4.3	6.4	21.0	1.0	0.260	100
16	6 - 16	<b>1653C6</b>	11.5	11.0	5.8	6.4	24.0	1.0	0.350	100

## Pin terminals to DIN, Cu



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ Nominal cross-sections 0.5 - 6 mm<sup>2</sup> to DIN 46230
- ▶ High-quality brazing process in the crimp area

### Characteristics

- Improved contact properties due to grooved profile

### Material

- Copper (EN13599)

### Surface

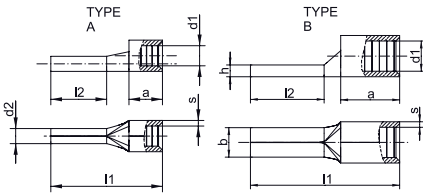
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.72
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

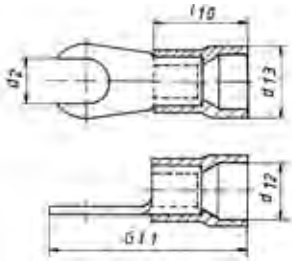
- \* = not standardised
- 0.5 - 6 mm<sup>2</sup> not UL-tested



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Typ	Hint	Dimension mm								Weight 100 pcs. ~kg	Packing unit/pcs
					a	b	d1	d2	l1	l2	s	h		
0.5 - 1	1	<b>ST1705</b>	A		5.0	--	1.6	1.9	17.0	10	0.8	--	0.060	100
1.5 - 2.5	2.5	<b>ST1710</b>	A		5.0	--	2.3	1.9	17.0	10	0.8	--	0.072	100
4 - 6	6	<b>ST1715</b>	A		6.0	--	3.6	2.7	20.0	11	1.0	--	0.160	100
10	--	<b>ST1716</b>	B	*	10.0	4.3	4.3	--	24.5	11	1.0	2.0	0.270	100
16	--	<b>ST1717</b>	B	*	11.5	5.8	5.4	--	29.5	15	1.0	2.0	0.390	100
25	--	<b>ST1718</b>	B	*	13.5	6.8	6.8	--	33.5	15	1.2	2.4	0.630	100
35	--	<b>ST1719</b>	B	*	16.0	8.0	8.2	--	40.5	20	1.5	3.2	1.170	50
50	--	<b>ST1720</b>	B	*	19.0	9.5	9.5	--	45.0	20	1.8	3.6	1.790	50
70	--	<b>ST1721</b>	B	*	24.0	11.0	11.2	--	55.0	23	2.0	4.0	2.920	50
95	--	<b>ST1722</b>	B	*	24.0	12.5	13.5	--	55.0	23	2.5	5.0	4.300	50



## Insulated solderless terminals for meter connections, Cu, fork type



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ Special design for meter connection
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Copper (EN13599)
- Insulation sleeve: PA

### Surface

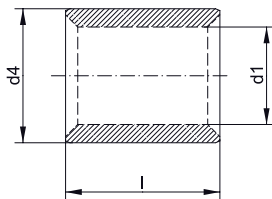
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.73
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/ pcs
			d12	d13	d2	G11	I10			
10	<b>652C5</b>	Red	7.0	9.6	5.3	33.5	19.0	0.24	0.28	100
	<b>652C6</b>	Red	7.0	9.6	6.4	33.5	19.0	0.26	0.30	100
16	<b>653C6</b>	Blue	8.6	10.6	6.4	37.5	20.5	0.35	0.40	100

## Solderless connectors to DIN, Cu, short type



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46341, Part 1, Form A
- ▶ Ideal for connecting differing conductor cross-sections

### Characteristics

- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

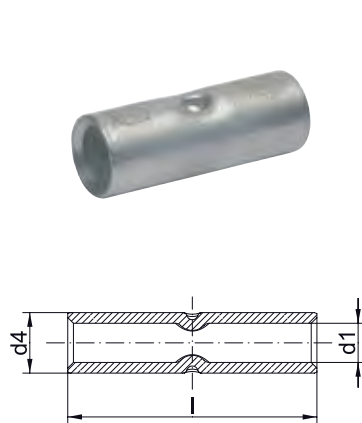
- Tool: see page 1.72
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- The sum of the single conductor cross sections must be within the specified cross section range.

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
			d1	d4	l		
> 0.5 - 1	1	<b>1620K</b>	1.8	3.3	8	0.045	100
> 1 - 2.5	2.5	<b>1630K</b>	2.5	4.1	8	0.055	100
> 2.5 - 6	6	<b>1650K</b>	3.8	5.8	9	0.090	100
> 6 - 10	10	<b>1652K</b>	4.7	6.9	10	0.170	100
> 10 - 16	16	<b>1653K</b>	5.8	8.4	11	0.260	100
> 16 - 25	25	<b>1654K</b>	7.7	10.7	14	0.510	100
> 25 - 35	35	<b>1655K</b>	9.2	12.4	16	0.730	100
> 35 - 50	50	<b>1656K</b>	11.2	14.8	19	1.200	100
> 50 - 70	70	<b>1657K</b>	13.2	17.2	19	1.530	50
> 70 - 95	95	<b>1658K</b>	15.3	20.3	20	2.370	50
> 95 - 120	120	<b>1659K</b>	16.8	22.8	22	3.450	50
> 120 - 150	150	<b>1660K</b>	19.3	25.7	26	5.060	50

## Solderless connectors to DIN, Cu, long type



- ▶ For round conductors, e.g. to EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46341, Part 1, Form B
- ▶ Simple and safe processing due to butt mark



### Characteristics

- Simple cable entry due to internal chamfer



### Material

- Copper (EN13600)



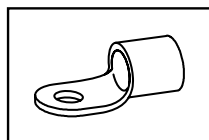
### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.72
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
			d1	d4	l		
> 0.5 - 1	1	<b>1620L</b>	1.8	3.3	15	0.08	100
> 1.5 - 2.5	2.5	<b>1630L</b>	2.5	4.1	15	0.10	100
> 4 - 6	6	<b>1650L</b>	3.8	5.8	15	0.19	100
> 10	10	<b>1652L</b>	4.7	6.9	21	0.36	100
> 16	16	<b>1653L</b>	5.8	8.4	26	0.62	100
> 25	25	<b>1654L</b>	7.7	10.7	29	1.11	100
> 35	35	<b>1655L</b>	9.2	12.4	32	1.50	100
> 50	50	<b>1656L</b>	11.2	14.8	38	2.44	100
> 70	70	<b>1657L</b>	13.2	17.2	42	3.54	50
> 95	95	<b>1658L</b>	15.3	20.3	48	5.87	50
> 120	120	<b>1659L</b>	16.8	22.8	52	8.46	50
> 150	150	<b>1660L</b>	19.3	25.7	56	10.86	50

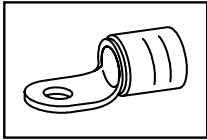


## Tool application chart

**Solderless terminals to DIN 46234, pin terminals to DIN 46230,  
solderless connectors to DIN 46341**






























Part 1 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0,5 - 16	K25		2.17		
	16 - 95	K95		2.17		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	0,5 - 10	EK50ML		6.6	2.82	
		K50		2.23	2.82	
		K507		2.22		
	10 - 35	K354		2.24	2.85	
	10 - 70	K22		2.26	2.89	
Hand hydraulic crimping tools	10 - 70	HK6022		2.56	2.89	
	16 - 150	HK12030		2.60	2.93	
		HK12042		2.62	2.93	
		HK120U		2.64	2.93	
Battery powered crimping tools	6 - 95	EK30IDML		2.30		
	10 - 35	EK354		2.36	2.85	
		EK354ML		2.32	2.85	
		EK6022		2.40	2.89	
	10 - 70	EK60UNV	+UA22	6.12	2.89	
		EKM6022		2.38	2.89	
		EKM6022IS		4.6	2.89	
		EKM60UNV	+UA22	6.11	2.89	
		EK120UNV	+UA12TKL	6.13	2.93	
	10 - 240	EKM60ID		2.44		
		EKM60IDIS		4.8		
	16 - 150	EK12032		2.46	2.93	
		EK12042		2.48	2.93	
		EK120U		2.50	2.93	
		EK135FT	+UA15T	2.52	2.93	
EK120UNV		+UA12TKL	6.13	2.93		
EK120ID			2.45			
Hydraulic crimping systems	10 - 70	THK22		2.68	2.89	
	16 - 150	HK252	+25A13	2.78	2.93	
		THK120		2.72	2.93	
Hydraulic crimping heads	10 - 70	PK22		2.68	2.89	
		PK60UNV	+UA22	6.10	2.89	
	10 - 240	PK60ID		2.71		
	16 - 150	PK12042		2.72	2.93	
		PK120U		2.74	2.93	
		PK252	+25A13	2.76	2.93	



## Tool application chart

### Insulated crimp terminals Insulated pin cable lugs

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile	
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die		
Mechanical crimping tools	10 + 16	K16		2.13			
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	10 - 16	K354		2.24	2.85		
		K50		2.23	2.83		
		EK50ML		6.6	2.83		
	10 - 70	K22		2.26	2.89		
Hand hydraulic crimping tools	10 - 70	HK6022		2.56	2.89		
	10 - 95	HK12030		2.60	2.93		
		HK12042		2.62	2.93		
		HK120U		2.64	2.93		
Battery powered crimping tools	10 - 16	EK354ML		2.32	2.85		
		EK354		2.36	2.85		
	10 - 70	EKM6022		2.38	2.89		
		EK6022		2.40	2.89		
		EKM6022IS		4.6	2.89		
		EKM60UNV	+UA22	6.11	2.89		
			EK60UNV	+UA22	6.12	2.89	
	10 - 95	EK12032		2.46	2.93		
		EK12042		2.48	2.93		
		EK120U		2.50	2.93		
EK135FT		+UA15T	2.52	2.93			
EK120UNV		+UA12TKL	6.13	2.93			
Hydraulic crimping systems	10 - 70	THK22		2.68	2.89		
	10 - 95	THK120		2.72	2.93		
		HK252	+25A13	2.78	2.93		
Hydraulic crimping heads	10 - 70	PK22		2.68	2.89		
		PK60UNV	+UA22	6.10	2.89		
	10 - 95	PK12042		2.72	2.93		
		PK120U		2.74	2.93		
		PK252	+25A13	2.76	2.93		

# COMPENSATING - SLEEVES FOR COPPER SECTOR-SHAPED AND COMPACTED CONDUCTORS

With the right sleeve, copper sector-shaped conductors are easy to crimp all the way round and can then be conveniently inserted into the cable lug. Klauke sleeves for compacted conductors compensate the difference between the compacted conductor and cable lug - ensuring reliable connections.



## In brief

- ▶ For round crimping sector-shaped conductors
- ▶ Brings compacted conductors to the required volume
- ▶ Good conductivity due to high-quality copper
- ▶ Available for tubular cable lugs



**Note:** The sleeves for sector-shaped conductors must be crimped with pre-rounding dies.



**► Filled in two steps**

Making it easy for you: Use the Klauke sleeves to bring compacted conductors to the required volume in just two work steps: Simply attach the sleeve to the stripped conductor and insert it into the appropriate cable lug - done.

No additional tools and no special solutions required.

- Simple filling of compacted conductors
- For nominal cross-sections of up to 400 mm<sup>2</sup>
- High-quality material reduces contact resistance
- No special solutions required: existing tool can be used for reliable crimping

**► Pre-rounded sector-shaped conductors**

Pre-rounds 3 and 4-sector-shaped conductors made of copper.

- For pre-rounding of sector-shaped conductors
- Suitable for 3- and 4-sector-shaped conductors at angles of 120° and 90°
- Nominal cross-section up to 240 mm<sup>2</sup>
- No splicing of conductors
- No special cable lugs required
- Lower storage costs





### Sleeves for compacted conductors, for tubular cable lugs and connector standard type



- ▶ For multi-stranded, compacted conductors e.g. to EN 60228 Cl. 2
- ▶ Allows the use of Klauke tubular cable lugs and connectors, standard type, on compacted conductors

#### Material

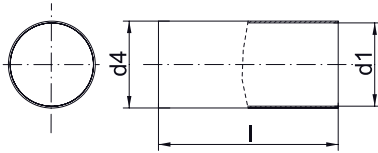
- Copper (HCP)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d1	d4	l		
16	<b>VHR16</b>	5.0	5.3	11	0.024	100
25	<b>VHR25</b>	6.4	6.7	14	0.038	100
35	<b>VHR35</b>	7.7	8.2	15	0.083	100
50	<b>VHR50</b>	9.0	9.5	18	0.118	50
70	<b>VHR70</b>	10.6	11.2	19	0.173	50
95	<b>VHR95</b>	12.4	13.0	21	0.223	50
120	<b>VHR120</b>	13.9	14.5	22	0.261	50
150	<b>VHR150</b>	15.4	16.0	26	0.342	25
185	<b>VHR185</b>	17.6	18.2	26	0.396	25
240	<b>VHR240</b>	19.9	20.5	30	0.508	25
300	<b>VHR300</b>	22.4	23.0	38	0.723	10
400	<b>VHR400</b>	25.4	26.2	38	1.108	10

## Sleeves for sector shaped conductors, 3-core cable, standard type



- ▶ For multi-stranded, sector shaped conductors, e.g. to EN 60228
- ▶ For tubular cable lugs and connectors, standard version
- ▶ To simplify pre-rounding of 3-core cables (120° angle)
- ▶ Prevents sector shaped conductors from de-stranding during pre-rounding

### Material

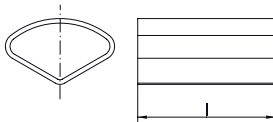
- Copper (HCP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- For round crimping dies, see „Crimping dies“
- Refer to the installation instructions in the technical appendix on page i-8



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
Standard type				
35	<b>VHR353</b>	14	0.08	100
50	<b>VHR503</b>	17	0.17	50
70	<b>VHR703</b>	18	0.29	50
95	<b>VHR953</b>	22	0.45	50
120	<b>VHR1203</b>	23	0.49	50
150	<b>VHR1503</b>	25	0.58	25
185	<b>VHR1853</b>	25	0.80	25



### Sleeves for sector shaped conductors, 3-core cable, DIN version



- ▶ For multi-stranded, sector shaped conductors, e.g. to EN 60228
- ▶ For DIN compression cable lugs and connectors
- ▶ To simplify pre-rounding of 3-core cables (120° angle)
- ▶ Prevents sector shaped conductors from de-stranding during pre-rounding

#### Material

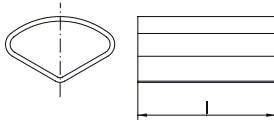
- Copper (HCP)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- For round crimping dies, see „Crimping dies“
- Refer to the installation instructions in the technical appendix on page i-8



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
DIN version				
35	<b>VHD353</b>	17,5	0.11	100
50	<b>VHD503</b>	25,0	0.26	50
70	<b>VHD703</b>	25,0	0.39	50
95	<b>VHD953</b>	32,0	0.66	50
120	<b>VHD1203</b>	32,0	0.68	50
150	<b>VHD1503</b>	32,0	0.74	25
185	<b>VHD1853</b>	35,0	1.13	25

## Sleeves for sector shaped conductors, 4-core cable



- ▶ For multi-stranded, sector shaped conductors, e.g. to EN 60228
- ▶ For tubular cable lugs and connectors, standard version and DIN compression cable lugs and connectors
- ▶ To simplify pre-rounding of 4-core cables (90° angle)
- ▶ Prevents sector shaped conductors from de-stranding during pre-rounding

### Material

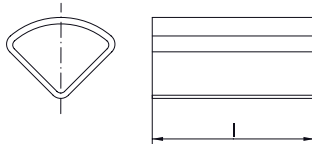
- Copper (HCP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8
- For round crimping dies, see „Crimping dies“



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
<b>Standard type</b>				
35	<b>VHR354</b>	14	0.13	100
50	<b>VHR504</b>	17	0.17	50
70	<b>VHR704</b>	18	0.28	50
95	<b>VHR954</b>	22	0.40	50
120	<b>VHR1204</b>	23	0.51	50
150	<b>VHR1504</b>	25	0.57	25
185	<b>VHR1854</b>	25	0.78	25
240	<b>VHR2404</b>	30	0.85	25
<b>DIN version</b>				
35	<b>VHD354</b>	17.5	0.11	100
50	<b>VHD504</b>	25.0	0.25	50
70	<b>VHD704</b>	25.0	0.38	50
95	<b>VHD954</b>	32.0	0.63	50
120	<b>VHD1204</b>	32.0	0.71	50
150	<b>VHD1504</b>	32.0	0.73	25
185	<b>VHD1854</b>	35.0	1.09	25
240	<b>VHD2404</b>	35.0	1.13	25

# RELIABLE - ALUMINIUM COMPRESSION CABLE LUGS AND CONNECTORS TO DIN

Light and extremely reliable: Klauke aluminium compression cable lugs are both. Contact grease breaks down the oxidation layer, high-quality tinning facilitates the contact with copper in dry environments. For the toughest demands, all cable lugs and most connectors are IEC-tested for safety. We offer a solution for practically every problem.



## In brief

- ▶ Aluminium cable lugs and connectors according to and based on DIN standards
- ▶ Tested to the stringent IEC 61238-1
- ▶ Appropriate solutions to 30 kV
- ▶ Also for power lines and conductor wires
- ▶ Tinned and non-tinned versions available

## ► Deep drawn

Deep-drawn connectors are produced with barrier and precisely to DIN 46329. Thanks to the special production method, there is absolutely no ingress or escaping of liquids through the cable lug flange.

- Barrier design with oil stop
- Filled with contact grease as standard
- In the tinned version, also suitable for connecting to copper in dry environments
- For moist environments, we recommend Klauke connectors made from aluminium/copper

## ► Same excellent quality

Because we at Klauke have our own manufacturing facilities, our products are always the same consistently high quality. No matter which cable lug or connector you need, the Klauke system guarantees you the best results.

- Constant qualities in many forms
- Connections according to or based on DIN standards
- Simple processing with DIN hexagonal crimping or optionally EKM60ID
- Guaranteed safety through IEC 61238-1 tests



## ► Flexibility in power line construction

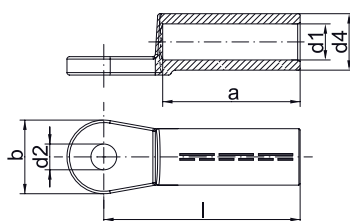
In power line construction too, Klauke products provide the flexible and reliable solution.

For special solutions, contact us directly. We can make them for you.





### Compression cable lugs to DIN, Al (surface bright or tinned)



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ To DIN 46329
- ▶ With code number for clear tool assignment for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Barrier design with oil stop
- Optional tin-plated (20 µm) version to connect copper bus bars in dry indoor areas
- Simple and safe connection due to flat contact surfaces and internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright
- Tinned (20 µm)

#### Technical instructions

- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

#### Additional information

- Part Number appendix for tinned version „V“
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 70 - 240 mm<sup>2</sup> UL-tested (tin-plated version)
- \* = not standardised

Size of bolt dia.	Part No. bright	Part No. tinned	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm					Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs	
			rm/sm	re/se			a	b	d1	d2	d4	l	Al (7 mm)			Al (wide)
M 8	263R8	263R8V	16	25	*	12	30	20	5,8	8,4	12	50	4	2	1,20	4
M 10	263R10	263R10V	16	25	*	12	30	20	5,8	10,5	12	50	4	2	1,20	4
M 8	264R8	264R8V	25	35		12	30	25	6,8	8,4	12	50	4	2	1,30	4
M 10	264R10	264R10V	25	35		12	30	25	6,8	10,5	12	50	4	2	1,24	4
M 12	264R12	264R12V	25	35		12	30	25	6,8	13,0	12	50	4	2	1,22	4
M 8	265R8	265R8V	35	50		14	42	25	8,0	8,4	14	62	5	2	2,50	4
M 10	265R10	265R10V	35	50		14	42	25	8,0	10,5	14	62	5	2	1,98	4
M 12	265R12	265R12V	35	50		14	42	25	8,0	13,0	14	62	5	2	2,50	4
M 8	266R8	266R8V	50	70		16	42	25	9,8	8,4	16	62	5	2	2,75	4
M 10	266R10	266R10V	50	70		16	42	25	9,8	10,5	16	62	5	2	2,70	4
M 12	266R12	266R12V	50	70		16	42	25	9,8	13,0	16	62	5	2	2,65	4
M 8	267R8	267R8V	70	95		18	52	25	11,2	8,4	18,5	72	6	3	3,45	4
M 10	267R10	267R10V	70	95		18	52	25	11,2	10,5	18,5	72	6	3	3,80	4
M 12	267R12	267R12V	70	95		18	52	25	11,2	13,0	18,5	72	6	3	3,35	4
M 10	268R10	268R10V	95	120		22	56	25	13,2	10,5	22	75	6	3	6,90	4
M 12	268R12	268R12V	95	120		22	56	25	13,2	13,0	22	75	6	3	4,92	4
M 16	268R16	268R16V	95	120	*	22	56	25	13,2	17,0	22	75	6	3	6,00	4
M 10	269R10	269R10V	120	150		22	56	30	14,7	10,5	23	80	6	3	5,95	4
M 12	269R12	269R12V	120	150		22	56	30	14,7	13,0	23	80	6	3	5,84	4
M 16	269R16	269R16V	120	150		22	56	30	14,7	17,0	23	80	6	3	6,60	4

See next page

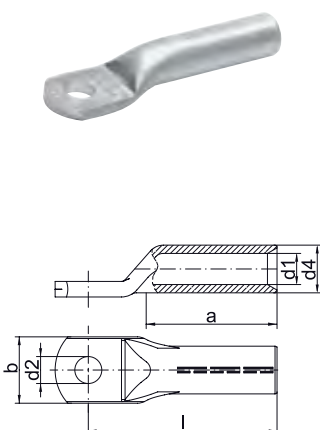


### Compression cable lugs to DIN, Al (surface bright or tinned)

Size of bolt dia.	Part No. bright	Part No. tinned	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm						Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
			rm/sm	re/se			a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)		
M 10	<b>270R10</b>	<b>270R10V</b>	150	185		25	60	30	16,3	10,5	25	90	6	3	8,50	4
M 12	<b>270R12</b>	<b>270R12V</b>	150	185		25	60	30	16,3	13,0	25	90	6	3	7,73	4
M 16	<b>270R16</b>	<b>270R16V</b>	150	185		25	60	30	16,3	17,0	25	90	6	3	7,60	4
M 10	<b>271R10</b>	<b>271R10V</b>	185	240		28	60	30	18,3	10,5	28,5	91	6	3	11,00	4
M 12	<b>271R12</b>	<b>271R12V</b>	185	240		28	60	30	18,3	10,5	28,5	91	6	3	9,88	4
M 16	<b>271R16</b>	<b>271R16V</b>	185	240		28	60	30	18,3	17,0	28,5	91	6	3	10,10	4
M 20	<b>271R20</b>	<b>271R20V</b>	185	240	*	28	60	30	18,3	21,0	28,5	91	6	3	10,00	4
M 10	<b>272R10</b>	<b>272R10V</b>	240	300	*	32	70	38	21,0	10,5	32	103	8	3	15,50	4
M 12	<b>272R12</b>	<b>272R12V</b>	240	300		32	70	38	21,0	13,0	32	103	8	3	13,80	4
M 16	<b>272R16</b>	<b>272R16V</b>	240	300		32	70	38	21,0	17,0	32	103	8	3	13,48	4
M 20	<b>272R20</b>	<b>272R20V</b>	240	300		32	70	38	21,0	21,0	32	103	8	3	15,00	4
M 12	<b>273R12</b>	<b>273R12V</b>	300	--		34	70	38	23,3	13,0	34	103	8	3	17,60	1
M 16	<b>273R16</b>	<b>273R16V</b>	300	--		34	70	38	23,3	17,0	34	103	8	3	17,28	1
M 20	<b>273R20</b>	<b>273R20V</b>	300	--		34	70	38	23,3	21,0	34	103	8	3	17,40	1
M 12	<b>274R12</b>	<b>274R12V</b>	400	--		38	73	38	26,0	13,0	38,5	116	--	4	38,00	1
M 16	<b>274R16</b>	<b>274R16V</b>	400	--		38	73	38	26,0	17,0	38,5	116	--	4	37,40	1
M 20	<b>274R20</b>	<b>274R20V</b>	400	--		38	73	38	26,0	21,0	38,5	116	--	4	40,20	1
M 12	<b>275R12</b>	<b>275R12V</b>	500	--		44	79	44	29,0	13,0	44	122	--	4	43,70	1
M 16	<b>275R16</b>	<b>275R16V</b>	500	--		44	79	44	29,0	17,0	44	122	--	4	43,30	1
M 20	<b>275R20</b>	<b>275R20V</b>	500	--		44	79	44	29,0	21,0	44	122	--	4	43,00	1



### Compression cable lugs, Al



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimensions according to DIN 46329
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Easy to process due to crimp markings
- Simple and safe connection due to flat contact surfaces and internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

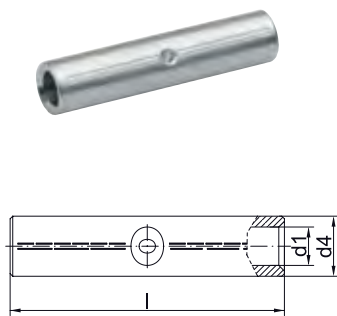
- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 16 - 400 mm<sup>2</sup> IEC-tested

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)		
M 6	<b>202R6</b>	10	16	10	32	16	5.0	6.5	10	52	4	2	0.86	25
M 8	<b>202R8</b>	10	16	10	32	18	5.0	8.5	10	52	4	2	0.88	25
	<b>203R8</b>	16	25	12	32	18	5.8	8.5	12	52	4	2	1.37	10
M 10	<b>203R10</b>	16	25	12	32	18	5.8	10.5	12	52	4	2	1.39	10
M 8	<b>204R8</b>	25	35	12	38	18	6.8	8.5	12	60	4	2	1.41	10
	<b>204R10</b>	25	35	12	38	18	6.8	10.5	12	60	4	2	1.46	10
M 10	<b>205R10</b>	35	50	14	42	21	8.2	10.5	14	67	5	2	2.08	10
M 12	<b>205R12</b>	35	50	14	42	21	8.2	13.0	14	67	5	2	2.05	10
M 10	<b>206R10</b>	50	70	16	45	25	9.8	10.5	16	72	5	2	2.68	10
M 12	<b>206R12</b>	50	70	16	45	25	9.8	13.0	16	72	5	2	2.73	10
M 10	<b>207R10</b>	70	95	18	55	28	11.2	10.5	18.5	86	6	3	4.42	10
M 12	<b>207R12</b>	70	95	18	55	28	11.2	13.0	18.5	86	6	3	4.27	10
M 10	<b>208R10</b>	95	120	22	55	32	13.2	10.5	22	90	6	3	7.40	4
M 12	<b>208R12</b>	95	120	22	55	32	13.2	13.0	22	90	6	3	7.50	4
M 16	<b>208R16</b>	95	120	22	55	34	13.2	17.0	22	90	6	3	7.30	4
M 12	<b>209R12</b>	120	150	22	55	32	14.7	13.0	23	91	6	3	6.68	4
M 16	<b>209R16</b>	120	150	22	55	34	14.7	17.0	23	91	6	3	6.41	4
M 12	<b>210R12</b>	150	185	25	63	35	16.5	13.0	25	103	6	3	9.64	4
M 16	<b>210R16</b>	150	185	25	63	35	16.5	17.0	25	103	6	3	9.24	4
M 12	<b>211R12</b>	185	240	28	65	40	18.5	13.0	28	106	6	3	12.61	1
M 16	<b>211R16</b>	185	240	28	65	40	18.5	17.0	28.5	106	6	3	11.92	1
M 20	<b>211R20</b>	185	240	28	65	40	18.5	21.0	28	106	6	3	13.10	1
M 12	<b>212R12</b>	240	300	32	70	45	21.3	13.0	32	116	8	3	18.30	1
M 16	<b>212R16</b>	240	300	32	70	45	21.3	17.0	32	116	8	3	17.60	1
M 20	<b>212R20</b>	240	300	32	70	45	21.3	21.0	32	116	8	3	17.30	1
M 16	<b>213R16</b>	300	--	34	75	49	23.6	17.0	34	124	8	3	17.50	1
M 20	<b>213R20</b>	300	--	34	75	49	23.6	21.0	34	124	8	3	17.30	1
M 16	<b>214R16</b>	400	--	38	95	58	26.0	17.0	38.5	165	--	4	32.20	1
M 20	<b>214R20</b>	400	--	38	95	58	26.0	21.0	38.5	165	--	4	31.90	1

## Compression joint to DIN, Al



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ To DIN 46267, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics
- ▶ For pre-rounded sector shaped conductors

### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer
- Simple and safe processing due to butt mark

### Material

- E-aluminium

### Surface

- Bright

### Technical instructions

- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

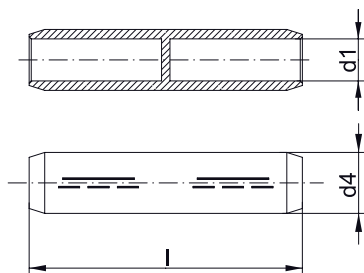
### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 16 - 500 mm<sup>2</sup> IEC-tested
- \* = not standardised

Part No.	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm			Number of crimps		Weight 100 pcs. ~kg	Packing unit/ pcs
	rm/sm	re/se			d1	d4	l	Al (7 mm)	Al (wide)		
222R	10	16	*	10	5.0	10.0	55	3/3	--	0.95	10
223R	16	25	*	12	5.8	12.0	55	3/3	--	1.40	10
224R	25	35		12	6.8	12.0	70	4/4	2/2	1.60	10
225R	35	50		14	8.0	14.0	85	5/5	2/2	2.60	10
226R	50	70		16	10.0	16.0	85	5/5	2/2	3.20	10
227R	70	95		18	11.5	18.5	105	6/6	3/3	5.30	10
228R	95	120		22	13.5	22.0	105	6/6	3/3	7.60	10
229R	120	150		22	15.0	23.0	105	6/6	3/3	7.80	10
230R	150	185		25	16.5	25.0	125	6/6	3/3	10.70	10
231R	185	240		28	18.5	28.5	125	6/6	3/3	14.30	5
232R	240	300		32	21.0	32.0	145	8/8	3/3	20.30	5
233R	300	--		34	23.3	34.0	145	8/8	3/3	22.20	1
234R	400	--		38	26.0	38.5	210	--	5/5	40.80	1
235R	500	--		44	29.0	44.0	210	--	5/5	56.00	1



### Compression joints, Al



- ▶ For non-tension connections of medium-voltage aluminium cable 10-30 kV
- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182 and pre-rounded sector shaped conductors
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46267, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Also available as barrier design with oil stop
- With chamfered edges for reduced wrapping during assembly
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

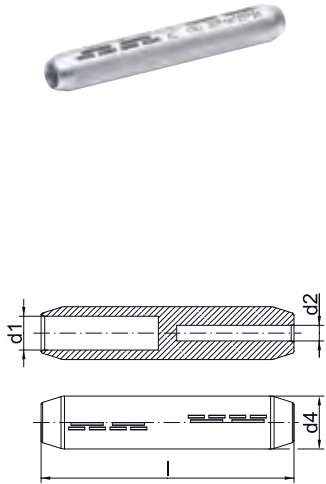
- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm			Number of crimps		Weight 100 pcs. ~kg	Packing unit/ pcs
	rm/sm	re/se		d1	d4	l	Al (7 mm)	Al (wide)		
Standard type										
405R	35	50	14	8.0	14	90	4/4	2/2	2.7	10
406R	50	70	16	9.8	16	90	4/4	2/2	3.4	10
407R	70	95	18	11.2	18.5	95	4/4	2/2	4.6	10
408R	95	120	22	13.2	22	100	4/4	2/2	6.8	10
409R	120	150	22	14.7	23	105	4/4	2/2	7.4	10
410R	150	185	25	16.3	25	105	4/4	2/2	8.7	10
411R	185	240	28	18.3	28.5	125	5/5	2/2	13.4	5
412R	240	300	32	21.0	32	125	5/5	2/2	15.7	5
413R	300	--	34	23.3	34	125	5/5	2/2	16.3	1
414R	400	--	38	27.0	38.5	150	--	3/3	25.8	1
Barrier version										
416R	50	70	16	9.8	16	95	4/4	2/2	5.6	5
417R	70	95	18	11.2	18.5	100	4/4	2/2	6.1	5
418R	95	120	22	13.2	22	105	4/4	2/2	9.2	5
419R	120	150	22	14.7	23	110	4/4	2/2	10.3	5
420R	150	185	25	16.3	25	110	4/4	2/2	12.0	5
421R	185	240	28	18.3	28.5	130	5/5	2/2	15.6	5
422R	240	300	32	21.0	32	130	5/5	2/2	19.1	5
423R	300	--	34	23.3	34	135	5/5	2/2	30.7	1
424R	400	--	38	26.0	38	165	--	3/3	30.0	1

## Reduction compression joints, Al, barrier type



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ In nominal cross-section area tube dimension to DIN 46267, part 2
- ▶ For pre-rounded sector shaped conductors
- ▶ Ideal for connecting differing conductor cross-sections
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- Barrier design with oil stop
- Unique tool assignment due to DIN die coding
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium

### Surface

- Bright

### Technical instructions

- Tools: see chart page 1.90
- You will find further information on the cable descriptions in the technical appendix, page I-6

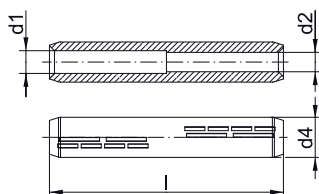
### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>				Code	Dimension mm				Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
	re/se from	rm/sm from	re/se to	rm/sm to		d1	d2	d4	l	Al (7 mm)	Al (wide)		
425R25	50	35	35	25	14	8.0	6.8	14	95	4/4	2/2	2.8	5
426R35	70	50	50	35	16	9.8	8.0	16	95	4/4	2/2	3.45	5
428R50	120	95	70	50	22	13.2	9.8	22	105	4/4	2/2	7.60	5
428R70	120	95	95	70	22	13.2	11.2	22	105	4/4	2/2	7.35	5
429R70	150	120	95	70	22	14.7	11.2	23	110	4/4	2/2	7.10	5
429R95	150	120	120	95	22	14.7	13.2	23	110	4/4	2/2	6.55	5
430R70	185	150	95	70	25	16.3	11.2	25	110	4/4	2/2	9.80	5
430R95	185	150	120	95	25	16.3	13.2	25	110	4/4	2/2	9.50	5
430R120	185	150	150	120	25	16.3	14.7	25	110	4/4	2/2	8.65	5
431R70	240	185	95	70	28	18.3	11.2	28.5	130	--	2/2	15.05	5
431R95	240	185	120	95	28	18.3	13.2	28.5	130	--	2/2	14.40	5
431R120	240	185	150	120	28	18.3	14.7	28.5	130	5/5	2/2	13.70	5
431R150	240	185	185	150	28	18.3	16.3	28.5	130	5/5	2/2	14,17	5
432R120	300	240	150	120	32	21.0	14.7	32	130	--	2/2	18.80	5
432R150	300	240	185	150	32	21.0	16.3	32	130	5/5	2/2	18.125	5
432R185	300	240	240	185	32	21.0	18.3	32	130	5/5	2/2	17.275	5
433R150	-	300	185	150	34	23.3	16.3	34	135	5/5	2/2	21.10	1
433R185	-	300	240	185	34	23.3	18.3	34	135	5/5	2/2	20.12	1
433R240	-	300	300	240	34	23.3	21.0	34	135	5/5	2/2	18.73	1
434R300	-	400	-	300	38	26.0	23.3	34	165	--	3/3	31.20	1



## Reduction-compression joints, Al



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ In nominal cross-section area tube dimension to DIN 46267, part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- For connecting different conductor cross-sections
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium

### Surface

- Bright

### Technical instructions

- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>				Code	Dimension mm				Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
	re/se from	rm/sm from	re/se to	rm/sm to		d1	d2	d4	l	Al (7 mm)	Al (wide)		
284R16	35	25	25	16	12	6.8	5.8	12	70	4/4	2/2	1.53	10
285R25	50	35	35	25	14	8.0	6.8	14	85	5/5	2/2	2.50	10
286R25	70	50	35	25	16	9.8	6.8	16	85	5/5	2/2	3.24	10
286R35	70	50	50	35	16	9.8	8.0	16	85	5/5	2/2	3.09	10
287R25	95	70	35	25	18	11.2	6.8	18.5	105	6/6	3/3	5.50	10
287R35	95	70	50	35	18	11.2	8.0	18.5	105	6/6	3/3	5.35	10
287R50	95	70	70	50	18	11.2	9.8	18.5	105	6/6	3/3	4.96	10
288R25	120	95	35	25	22	13.2	6.8	22	105	6/6	3/3	9.10	10
288R35	120	95	50	35	22	13.2	8.0	22	105	6/6	3/3	8.90	10
288R50	120	95	70	50	22	13.2	9.8	22	105	6/6	3/3	8.51	10
288R70	120	95	95	70	22	13.2	11.2	22	105	6/6	3/3	8.15	10
289R70	150	120	95	70	22	14.7	11.2	23	105	6/6	3/3	7.66	10
289R95	150	120	120	95	22	14.7	13.2	23	105	6/6	3/3	7.14	10
290R70	185	150	95	70	25	16.3	11.2	25	125	6/6	3/3	11.70	10
290R95	185	150	120	95	25	16.3	13.2	25	125	6/6	3/3	11.05	10
290R120	185	150	150	120	25	16.3	14.7	25	125	6/6	3/3	10.49	10
291R120	240	185	150	120	28	18.3	14.7	28.5	125	6/6	3/3	13.80	5
291R150	240	185	185	150	28	18.3	16.3	28.5	125	6/6	3/3	13.19	5
292R95	300	240	120	95	32	21.0	13.2	32	145	--	3/3	22.24	5
292R120	300	240	150	120	32	21.0	14.7	32	145	--	3/3	21.59	5
292R150	300	240	185	150	32	21.0	16.3	32	145	--	3/3	20.87	5

## Compression joint to DIN, Al, full tension



- ▶ For full tension connections of aluminium cables to DIN EN 50182
- ▶ To DIN 48085, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium to 95 mm<sup>2</sup>
- AlMgSi from 120 mm<sup>2</sup>

### Surface

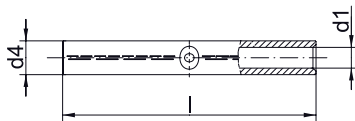
- Bright

### Technical instructions

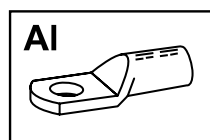
- Tool: see page 1.90
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = not standardised



Nominal cross section mm <sup>2</sup>	Part No.	Hint	Code	Dimension mm			Number of crimps		Conductor mm dia.	Weight 100 pcs. ~kg	Packing unit/pcs
				d1	d4	l	Al (7 mm)	Al (wide)			
16	<b>243R</b>	*	12	5.8	12.0	140	8/8	4/4	5.1	3.4	10
25	<b>244R</b>		12	7.0	12.0	140	8/8	4/4	6.3	2.9	10
35	<b>245R</b>		14	8.2	14.0	140	8/8	4/4	7.5	3.9	10
50	<b>246R</b>		16	10.0	16.0	155	8/8	4/4	9.0	5.2	10
70	<b>247R</b>		18	11.5	18.5	165	8/8	4/4	10.5	7.4	10
95	<b>248R</b>		22	13.5	22.0	165	8/8	4/4	12.5	12.2	10
120	<b>249R</b>		25	15.5	25.5	250	12/12	6/6	14.0	21.8	10
150	<b>250R</b>		28	16.5	28.5	300	--	7/7	15.7	34.4	10
185	<b>251R</b>		28	18.5	28.5	330	--	7/7	17.5	33.0	5
240	<b>252R</b>		34	21.5	34.5	350	--	7/7	20.2	54.0	5
300	<b>253R</b>		38	23.5	38.5	400	--	8/8	22.5	79.0	1



### Tool application chart

#### Compression cable lugs and connectors made from E-AI

#### Compression cable lugs for full-tension connections from AI conductors DIN EN 50182, 16 - 95 mm<sup>2</sup>

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10 rm/sm - 95 re/se	K354		2.24	2.86	
	10 rm/sm - 300 re/se	K22		2.26	2.89	
Hand hydraulic crimping tools	10 rm/sm - 300 re/se	HK12030		2.60	2.94	
		HK12042		2.62	2.94	
		HK120U		2.64	2.94	
		HK6022		2.56	2.89	
Battery powered crimping tools	10 rm/sm - 95 re/se	EK354ML		2.32	2.86	
		EK354		2.36	2.86	
	10 rm/sm - 300 re/se	EK12032		2.46	2.94	
		EK12042		2.48	2.94	
		EK120U		2.50	2.94	
		EK120UNV	+ UA12TKL	6.13	2.94	
		EK135FT	+UA15T	2.52	2.94	
		EK6022		2.40	2.89	
		EK60UNV	+UA22	6.12	2.89	
		EKM6022		2.38	2.89	
	50 - 240	EKM6022IS		4.6	2.89	
		EKM60UNV	+UA22	6.11	2.89	
		EKM60ID*		2.44		
		EKM60IDIS		4.8		
400 - 500	EK135FT	+UA15T	2.52	2.95		
Hydraulic crimping systems	10 rm/sm - 300 re/se	THK120		2.72	2.94	
		THK22		2.68	2.89	
	10 rm/sm - 500	HK252	+25A13	2.78	2.94 + 2.97	
Hydraulic crimping heads	10 - 240	PK60ID*		2.71		
	10 rm/sm - 300 re/se	PK12042		2.72	2.94	
		PK120U		2.74	2.94	
		PK22		2.68	2.89	
		PK60UNV	+UA22	6.10	2.89	
	400 - 500	PK252	+25A13	2.76	2.94 + 2.97	

\* Not suitable for full-tension connections







# CONNECTED - COMPRESSION CABLE LUGS MADE FROM ALUMINIUM AND COPPER

Two components reliably connected. Copper and aluminium have different material properties. That's not always a good thing. Our compression cable lugs and connectors made from aluminium and copper are intricately produced by special processes and join together what belongs together. No matter which material you use: Your contacts are reliable with Klauke.



#### In brief

- ▶ Simple processing based on DIN standards
- ▶ Reliable connection of copper and aluminium, even in contact with water
- ▶ Special manufacturing methods ensure high quality
- ▶ Also suitable for sector shaped conductors and wires

**▶ As good as always**

Cable lugs and connectors made from aluminium and copper can be processed in exactly the same way as DIN standard aluminium cable lugs. No special tools are required, you simply use the right Klauke dies. And so the result is as good as always.

- For round and sector shaped conductors to EN 60228 and aluminium wires to DIN 50182
- No additional costs for new crimping dies
- Reliable connection by preventing contact corrosion

**▶ Numerous versions available**

The great thing about the broad Klauke range is: You can select the suitable cable lug for your project and optimally process your choice using the Klauke tools. Everything fitting together.

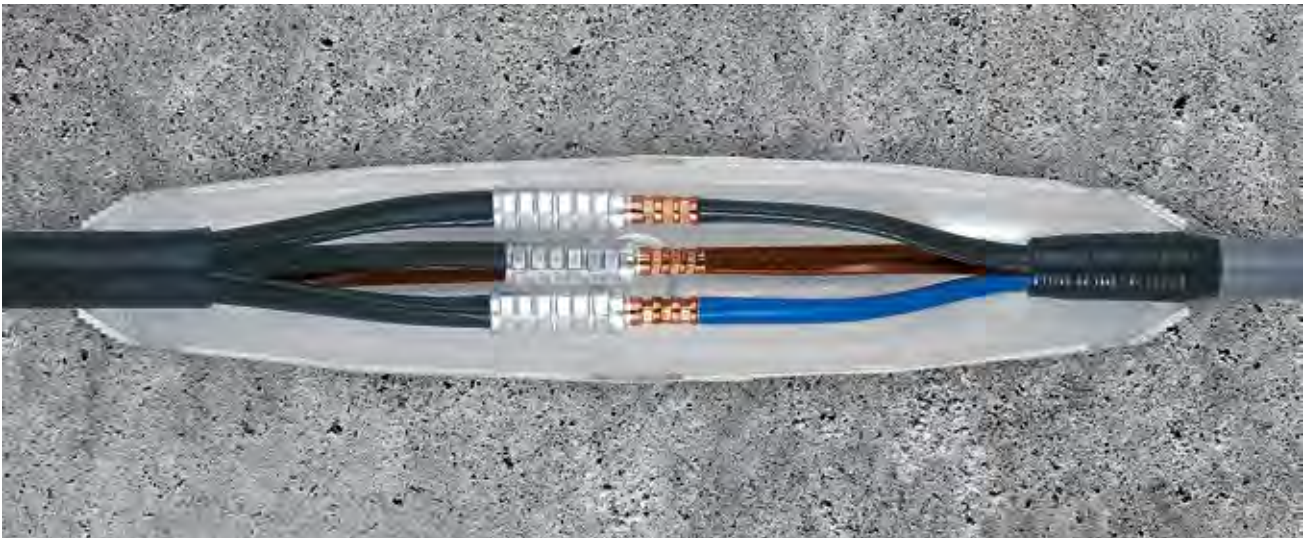
- Processing as usual with standard aluminium cable lugs
- Different versions available, for instance, as a cable lug with a copper eye or Cupal washers or as a rotational friction welded cable lug



**▶ Well connected in every situation**

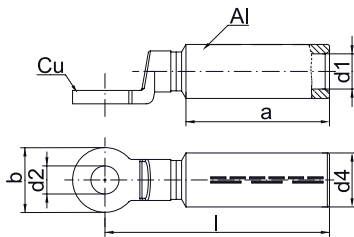
Reduction compression joints enable aluminium conductors to be integrated into copper-containing systems. They connect the two different materials regardless of the physical cable dimensions.

- Suitable for round or sector shaped conductors
- Suitable for multi-stranded and single-stranded sector shaped conductors





### Compression cable lugs, Al/Cu



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ Tube dimension to DIN 46329
- ▶ For pre-tounded sector shaped conductors
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp results
- ▶ Friction welding connection to prevent galvanic corrosion

#### Characteristics

- For connecting non-tensioned aluminium conductors to copper connections in humid environments and outdoors
- Barrier design with oil stop and solid copper palm
- With crimp markings for correct crimp positioning
- Internal chamfer for simple cable insertion

#### Material

- E-aluminium
- Copper (EN13600)

#### Surface

- Bright

#### Technical instructions

- Tool: see page 1.101
- You will find further information on the cable descriptions in the technical appendix, page i-6

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

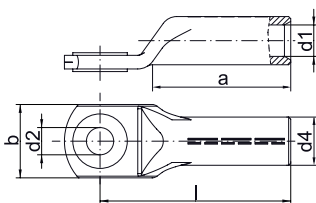
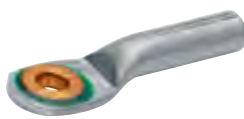
Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 8	363R8	16	25	12	34	24	6.0	8.5	12	68	4	2	4.4	5.9	10
M 10	363R10	16	25	12	34	24	6.0	10.5	12	68	4	2	4.2	5.7	10
M 8	364R8	25	35	12	34	24	6.8	8.5	12	68	4	2	4.4	5.8	10
M 10	364R10	25	35	12	34	24	6.8	10.5	12	68	4	2	4.2	5.6	10
M 12	364R12	25	35	12	34	24	6.8	13.0	12	68	4	2	3.9	5.3	10
M 8	365R8	35	50	14	43	24	8.0	8.5	14	77	5	2	4.4	6.3	10
M 10	365R10	35	50	14	43	24	8.0	10.5	14	77	5	2	4.2	6.1	10
M 12	365R12	35	50	14	43	24	8.0	13.0	14	77	5	2	3.8	5.8	10
M 8	366R8	50	70	16	43	25	9.8	8.5	16	77	5	2	4.4	6.4	10
M 10	366R10	50	70	16	43	25	9.8	10.5	16	77	5	2	4.2	6.2	10
M 12	366R12	50	70	16	43	25	9.8	13.0	16	77	5	2	3.9	5.9	10
M 8	367R8	70	95	18	52	25	11.2	8.5	18.5	84.5	6	3	3.9	6.9	10
M 10	367R10	70	95	18	50	25	11.2	10.5	18.5	85	6	3	4.2	7.4	10
M 12	367R12	70	95	18	50	25	11.2	13.0	18.5	85	6	3	3.9	7.1	10
M 8	368R8	95	120	22	56	30	13.2	8.5	22	90.5	6	3	4.1	8.0	5
M 10	368R10	95	120	22	50.5	30	13.2	10.5	22	90.5	6	3	7.4	11.4	10
M 12	368R12	95	120	22	50.5	30	13.2	13.0	22	90.5	6	3	6.8	10.8	10
M 16	368R16	95	120	22	50.5	30	13.2	17.0	22	90.5	6	3	6.4	10.4	10
M 8	369R8	120	150	22	50.5	30	14.7	8.5	23	95	6	3	3.9	8.3	5
M 10	369R10	120	150	22	50.5	30	14.7	10.5	23	92	6	3	6.1	11.5	5
M 12	369R12	120	150	22	50.5	30	14.7	13.0	23	92.0	6	3	6.8	11.4	5
M 16	369R16	120	150	22	50.5	30	14.7	17.0	23	92.0	6	3	6.4	10.8	5
M 8	370R8	150	185	25	62	30	16.3	8.5	25	104	6	3	7	13.3	5
M 10	370R10	150	185	25	62	30	16.3	10.5	25	104	6	3	6.8	13.6	5
M 12	370R12	150	185	25	62	30	16.3	13.0	25	104.0	6	3	6.8	13.1	5
M 16	370R16	150	185	25	62	30	16.3	17.0	25	104.0	6	3	6.4	12.7	5

see next page

## Compression cable lugs, Al/Cu

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 8	<b>371R8</b>	185	240	28	62	30	18.3	8.5	28.5	105	6	3	11.3	19.4	5
M 10	<b>371R10</b>	185	240	28	62	30	18.3	10.5	28.5	105.5	6	3	10.3	18.6	5
M 12	<b>371R12</b>	185	240	28	62	35	18.3	13.0	28.5	105.5	6	3	10.1	18.4	5
M 16	<b>371R16</b>	185	240	28	62	35	18.3	17.0	28.5	105.5	6	3	9.3	17.6	5
M 20	<b>371R20</b>	185	240	28	62	35	18.3	21.0	28.5	105.5	6	3	10.1	18.4	5
M 10	<b>372R10</b>	240	300	32	72	35	21.0	10.5	32	118.5	8	3	12.1	22.5	5
M 12	<b>372R12</b>	240	300	32	72	35	21.0	13.0	32	118.5	8	3	11.8	22.2	5
M 16	<b>372R16</b>	240	300	32	72	35	21.0	17.0	32	118.5	8	3	11.0	21.4	5
M 20	<b>372R20</b>	240	300	32	72	35	21.0	21.0	32	118.5	8	3	10.1	20.5	5
M 10	<b>373R10</b>	300	--	34	72	36	23.3	10.5	34	124	8	3	14.3	27.2	2
M 12	<b>373R12</b>	300	--	34	72	36	23.3	13.0	34	124	8	3	17.7	33.7	2
M 16	<b>373R16</b>	300	--	34	72	36	23.3	17.0	34	124	8	3	16.9	32.9	2
M 20	<b>373R20</b>	300	--	34	72	40	23.3	21.0	34	124	8	3	16.0	32.0	1
M 12	<b>374R12</b>	400	--	38	100	40	26.0	13.0	38.5	150.5	--	4	25.6	37.4	1
M 16	<b>374R16</b>	400	--	38	100	40	--	17	38.5	150.5	--	4	22.1	37.4	1

## Compression cable lugs, Al/Cu with Cu eye



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ Tube dimension to DIN 46329
- ▶ For pre-rounded sector shaped conductors
- ▶ Unique tool assignment due to coding
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- For connecting non-tension aluminium connections using Cu-washers in humid areas
- With Cu eyelet in screw-on area
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 1.101
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

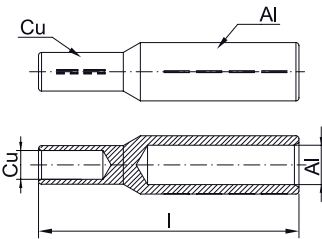
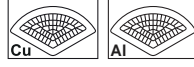
Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 6	<b>302R6</b>	10	16	10	32	18	5.0	6.5	10	52	4	2	0.260	1.20	10
M 8	<b>302R8</b>	10	16	10	32	22	5.0	8.5	10	52	4	2	0.580	1.50	10
	<b>303R8</b>	16	25	12	32	22	5.8	8.5	12	52	4	2	0.600	1.95	10
M 10	<b>303R10</b>	16	25	12	32	25	5.8	10.5	12	52	4	2	0.600	2.00	10
M 8	<b>304R8</b>	25	35	12	38	22	7.0	8.5	12	60	4	2	0.625	2.00	10

see next page

**Compression cable lugs, Al/Cu with Cu eye**

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 10	<b>304R10</b>	25	35	12	38	25	7.0	10.5	12	60	4	2	0.900	2.10	10
	<b>305R10</b>	35	50	14	42	26	8.2	10.5	14	67	5	2	0.800	3.00	10
M 12	<b>305R12</b>	35	50	14	42	30	8.2	13.0	14	67	5	2	1.120	3.10	10
M 10	<b>306R10</b>	50	70	16	45	27	10.0	10.5	16	72	5	2	0.900	3.60	10
M 12	<b>306R12</b>	50	70	16	45	30	10.0	13.0	16	72	5	2	1.120	3.80	10
M 10	<b>307R10</b>	70	95	18	55	29	11.5	10.5	18.5	86	6	3	1.075	5.60	10
M 12	<b>307R12</b>	70	95	18	55	32	11.5	13.0	18.5	86	6	3	1.300	5.70	10
M 10	<b>308R10</b>	95	120	22	55	32	13.5	10.5	22	90	6	3	1.435	10.00	5
M 12	<b>308R12</b>	95	120	22	55	35	13.5	13.0	22	90	6	3	1.735	9.50	5
M 16	<b>308R16</b>	95	120	22	55	38	13.5	17.0	22	90	6	3	2.655	10.00	5
M 12	<b>309R12</b>	120	150	22	55	35	15.0	13.0	23	91	6	3	1.810	8.70	5
M 16	<b>309R16</b>	120	150	22	55	38	15.0	17.0	23	91	6	3	2.230	8.80	5
M 12	<b>310R12</b>	150	185	25	63	35	16.5	13.0	25	103	6	3	2.025	12.20	5
M 16	<b>310R16</b>	150	185	25	63	41	16.5	17.0	25	103	6	3	2.655	12.30	5
M 12	<b>311R12</b>	185	240	28	65	40	18.5	13.0	28.5	106	6	3	2.320	15.00	5
M 16	<b>311R16</b>	185	240	28	65	42	18.5	17.0	28.5	106	6	3	4.975	15.50	5
M 20	<b>311R20</b>	185	240	28	65	46	18.5	21.0	28.5	106	6	3	4.610	15.50	5
M 12	<b>312R12</b>	240	300	32	70	45	21.0	13.0	32	116	8	3	2.750	20.00	5
M 16	<b>312R16</b>	240	300	32	70	45	21.3	17.0	32	116	8	3	3.400	21.00	5
M 20	<b>312R20</b>	240	300	32	70	49	21.3	21.0	32	116	8	3	4.600	22.00	5
M 16	<b>313R16</b>	300	--	34	75	51	23.3	17.0	34	124	8	3	3.980	21.60	1
M 20	<b>313R20</b>	300	--	34	75	51	23.3	21.0	34	124	8	3	5.510	22.20	1
M 16	<b>314R16</b>	400	--	38	95	58	26.25	17.0	38.5	165	--	4	4.200	35.00	1
M 20	<b>314R20</b>	400	--	38	95	58	26.25	21.0	38.5	165	--	4	5.950	35.00	1

## Compression joints, Al/Cu



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ For Cu round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46235 part 1 and 2
- ▶ With code number for clear tool assignment

### Characteristics

- For connecting non-tension aluminium and copper conductors
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 1.58
- Tool: see page 1.101
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- re = round single wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
322R10	10		10	55.0	5.0	4.5	10	6	0.212	1.100	4
322R16	10		16	61.0	5.0	5.4	10	8	0.714	1.550	4
323R10	16		10	55.0	6.0	4.5	12	6	0.212	1.500	4
323R16	16		16	61.0	6.0	5.4	12	8	0.714	1.750	4
324R10	25	35	10	55.0	6.8	4.5	12	6	0.212	1.400	4
324R16	25	35	16	61.0	6.8	5.5	12	8.0	0.714	1.650	4
324R25	25	35	25	63.0	6.8	7.0	12	10	0.892	1.900	4
324R35	25	35	35	63.0	6.8	8.2	12	12.0	1.624	2.000	4
324R50	25	35	50	72.0	6.8	10.0	12	14	2.362	3.500	4
324R416	25/4	35	16	61.0	7.6	5.5	12	8.0	0.714	1.600	4
325R16	35	50	16	71.0	8.0	5.5	14	8.0	0.714	2.500	4
325R25	35	50	25	71.0	8.0	7.0	14	10	0.892	2.650	4
325R35	35	50	35	71.0	8.0	8.2	14	12.0	1.519	3.300	4
325R50	35	50	50	77.0	8.0	10.0	14	14.0	2.362	3.530	4
325R616	35/6	50	16	71.0	9.0	5.5	14	8.0	0.714	2.450	4
325R625	35/6	50	25	71.0	9.0	7.0	14	10	0.892	2.600	4
325R635	35/6	50	35	71.0	9.0	8.2	14	12.0	1.624	3.250	4
326R16	50	70	16	71.5	9.8	5.5	16	8.0	0.714	2.850	4
326R25	50	70	25	71.5	9.8	7.0	16	10	0.892	3.200	4
326R35	50	70	35	71.5	9.8	8.2	16	12.0	1.624	3.800	4
326R50	50	70	50	77.5	9.8	10.0	16	14.0	2.362	4.550	4
327R16	70	95	16	79.0	11.2	5.5	18.5	8.0	0.714	4.100	4

see next page

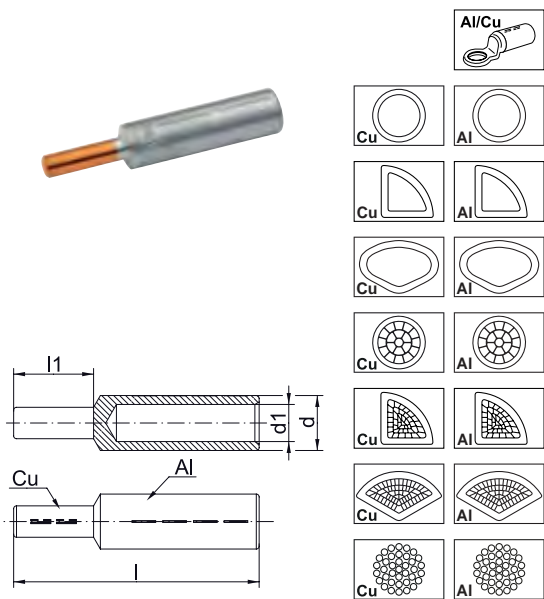


### Compression joints, Al/Cu

Part No.	Nominal cross section mm <sup>2</sup>			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
<b>327R25</b>	70	95	25	79.0	11.2	7.0	18,5	10	0.892	3.950	4
<b>327R35</b>	70	95	35	79.0	11.2	8.2	18	12	1.624	4.900	4
<b>327R50</b>	70	95	50	85.0	11.2	10.0	18	14	2.362	5.700	4
<b>327R70</b>	70	95	70	85.0	11.2	11.5	18	16	2.921	7.250	4
<b>327R95</b>	70	95	95	95.0	11.2	13.5	18	18	4.957	9.360	4
<b>327R120</b>	70	95	120	99.0	11.2	15.5	18	20	5.640	10.540	4
<b>328R16</b>	95	120	16	79.0	13.2	5.5	22	8	0.714	6.150	4
<b>328R25</b>	95	120	25	79.0	13.2	7.0	22	10	0.892	6.300	4
<b>328R35</b>	95	120	35	79.0	13.2	8.2	22	12	1.519	6.800	4
<b>328R50</b>	95	120	50	85.0	13.2	10.0	22	14	2.362	8.050	4
<b>328R70</b>	95	120	70	87.0	13.2	11.5	22	16	3.105	8.200	4
<b>328R95</b>	95	120	95	95.0	13.2	13.5	22	18	4.957	10.350	4
<b>328R120</b>	95	120	120	95.0	13.2	15.5	22	20	5.640	11.550	4
<b>329R35</b>	120	150	35	81.0	14.7	8.2	22	12	1.519	7.600	4
<b>329R50</b>	120	150	50	87.0	14.7	10.0	22	14	2.362	7.900	4
<b>329R70</b>	120	150	70	89.0	14.7	11.5	22	16	3.105	8.500	4
<b>329R95</b>	120	150	95	97.0	14.7	13.5	22	18	4.857	11.000	4
<b>329R120</b>	120	150	120	97.0	14.7	15.5	22	20	5.640	10.280	4
<b>330R16</b>	150	185	16	95.5	16.3	5.4	25	8	0.714	7.800	4
<b>330R25</b>	150	185	25	95.5	16.3	6.8	25	10	0.892	8.000	4
<b>330R35</b>	150	185	35	95.5	16.3	8.2	25	12	1.624	8.400	4
<b>330R50</b>	150	185	50	98.5	16.3	10.0	25	14	2.362	10.200	4
<b>330R70</b>	150	185	70	99.5	16.3	11.5	25	16	3.105	10.350	4
<b>330R95</b>	150	185	95	107.5	16.3	13.5	25	18	4.957	12.650	4
<b>330R120</b>	150	185	120	107.5	16.3	15.5	25	20	5.640	13.900	4
<b>330R150</b>	150	185	150	114.0	16.3	17.0	25	23	8.231	16.700	4
<b>331R50</b>	185	240	50	99.0	18.3	10.0	28	14	2.362	12.100	1
<b>331R70</b>	185	240	70	100.0	18.3	11.5	28	16	3.105	13.000	1
<b>331R95</b>	185	240	95	108.0	18.3	13.5	28	19	4.957	14.450	1
<b>331R120</b>	185	240	120	108.0	18.3	15.5	28	28	5.640	13.720	1
<b>331R150</b>	185	240	150	113.0	18.3	17.0	28	22	8.231	19.550	1
<b>331R185</b>	185	240	185	116.0	18.3	19.0	28	25	9.621	21.000	1
<b>332R50</b>	240	300	50	110.0	21.0	10.0	32	14	2.362	16.500	1
<b>332R70</b>	240	300	70	111.0	21.0	11.5	32	16	3.105	18.000	1
<b>332R95</b>	240	300	95	119.0	21.0	13.5	32	18	4.957	19.000	1
<b>332R120</b>	240	300	120	119.0	21.0	15.5	32	20	5.640	20.500	1
<b>332R150</b>	240	300	150	124.0	21.0	17.0	32	22	8.231	23.300	1
<b>332R185</b>	240	300	185	127.0	21.0	19.0	32	25	9.621	25.500	1
<b>332R240</b>	240	300	240	128.0	21.0	21.5	32	28	12.705	30.100	1
<b>333R120</b>	300	--	120	119.0	23.5	15.5	34	21	5.640	27.800	1
<b>333R150</b>	300	--	150	124.0	23.5	17.0	34	23,5	8.234	31.100	1
<b>333R185</b>	300	--	185	127.0	23.5	19.0	34	25	9.621	32.700	1
<b>333R240</b>	300	--	240	128.0	23.5	21.5	34	28	12.705	37.500	1
<b>333R300</b>	300	--	300	134.0	23.5	24.5	34	32	16.099	41.700	1



## Compression joints with Cu bolts, Al



- ▶ For non-tension connections of aluminium conductors to EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46267, part 2
- ▶ Unique tool assignment due to coding

### Characteristics

- For screwing non-tension aluminium conductors into copper terminals
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 1.101
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm				Bolt mm dia.	Conductor mm dia.	Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	rm/sm	re/se		d Ø	d1	l	l1					
344R	25	35	12	12.0	6.8	60	20	6	6.3	0.462	1.6	10
345R	35	50	14	14.0	8.0	71	22	7	7.5	0.695	2.5	10
346R	50	70	16	16.0	10.0	74	25	8	9.0	1.037	3.3	10
347R	70	95	18	18.5	11.5	87	30	10	10.5	1.958	5.4	10
348R	95	120	22	23.0	13.2	91	33	12	12.5	3.112	8.7	10
349R	120	150	22	23.0	15.0	97	38	12	14.0	3.598	9.0	10
350R	150	185	25	25.5	16.5	108	38	12	15.8	3.598	10.9	10
351R	185	240	28	28.5	18.5	116	44	14	17.5	3.692	15.7	5
352R	240	300	32	32.5	21.5	128	44	16	20.3	7.435	21.8	5
353R	300	--	34	34.5	23.5	131	46	18	22.5	9.410	26.7	1



### Cupal washers

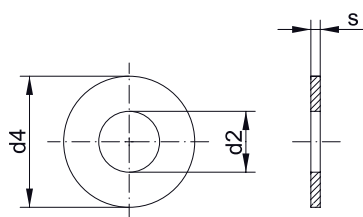


#### Characteristics

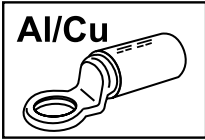
- Washer to prevent galvanic corrosion when connecting aluminium and copper
- For connecting copper conductors to aluminium in dry environments
- For connecting aluminium conductors to copper in dry environments
- Can also be used for connecting tinned aluminium cable lugs in humid environments

#### Material

- E-Al, one side copper plated



Size of bolt dia.	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d2	d4	s		
M 6	<b>CS615</b>	6.5	15	2	0.06	10
M 8	<b>CS818</b>	8.5	18	2	0.09	10
M 10	<b>CS1022</b>	11.0	22	2	0.26	10
M 12	<b>CS1228</b>	13.0	28	2	0.44	10
M 14	<b>CS1428</b>	15.0	28	2	0.40	10
M 16	<b>CS1635</b>	17.0	35	2	0.66	10



## Tool application chart

**Compression cable lugs and connectors made from Al/Cu**  
**The tools of the copper side of our Al/Cu compression joints you will find in the tool application chart of copper compression cable lugs and connectors acc. to DIN**

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10 rm/sm - 95 re/se	K354		2.24	2.86	
	10 rm/sm - 300 re/se	K22		2.26	2.89	
Hand hydraulic crimping tools	10 rm/sm - 300 re/se	HK12030		2.60	2.94	
		HK12042		2.62	2.94	
		HK120U		2.64	2.94	
		HK6022		2.56	2.89	
Battery powered crimping tools	10 rm/sm - 95 re/se	EK354ML		2.32	2.86	
		EK354		2.36	2.86	
	10 rm/sm - 300 re/se	EK12032		2.46	2.94	
		EK12042		2.48	2.94	
		EK120U		2.50	2.94	
		EK120UNV	+ UA12TKL	6.13	2.94	
		EK135FT	+UA15T	2.52	2.94	
		EK6022		2.40	2.89	
		EK60UNV	+UA22	6.12	2.89	
		EKM6022		2.38	2.89	
	50 - 240	EKM6022IS		4.6	2.89	
		EKM60UNV	+UA22	6.11	2.89	
		EKM60ID*		2.44		
		EKM60IDIS		4.8		
400 - 500	EK135FT	+UA15T	2.52	2.95		
Hydraulic crimping systems	10 rm/sm - 300 re/se	THK120		2.72	2.94	
		THK22		2.68	2.89	
	10 rm/sm - 500	HK252	+25A13	2.78	2.94 + 2.97	
Hydraulic crimping heads	10 - 240	PK60ID*		2.71		
	10 rm/sm - 300 re/se	PK12042		2.72	2.94	
		PK120U		2.74	2.94	
		PK22		2.68	2.89	
		PK60UNV	+UA22	6.10	2.89	
	400 - 500	PK252	+25A13	2.76	2.94 + 2.97	



# UNCOMPLICATED - CLAMPS AND SCREW CONNECTORS

Simple connecting of dissimilar materials and cross-sections. Made possible by Klauke clamps and screw connectors: They suit all standard sizes and materials. In compliance with the specified safety measures, compact tab connectors, for instance, can be installed even when live. All very straightforward.



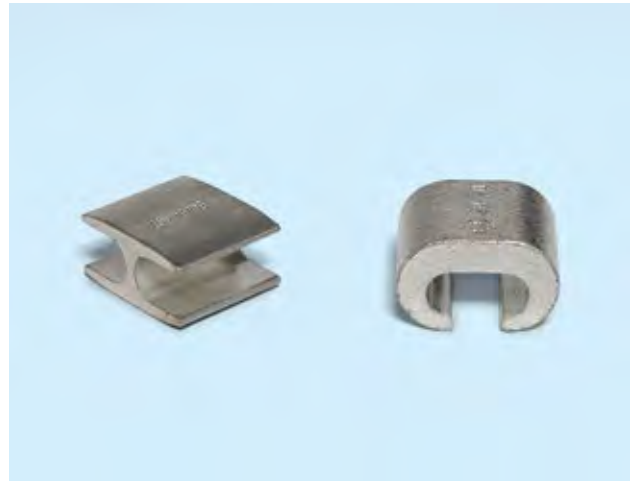
#### In brief

- ▶ Simple branching without having to cut the main conductor with Klauke H and C clamps
- ▶ H clamps to DIN EN 50164-1 short-circuit current tested
- ▶ Also available in a barrier version for Al/Cu connections

## ▶ Continuously connected

Save yourself the trouble, the conductor does not need to be cut. Various nominal cross-sections can be clamped with multi-purpose clamps.

- Flexible due to the large cross-sectional range, C-clamps from 2.5 mm<sup>2</sup> to 185 mm<sup>2</sup> nominal cross-sections, H-clamps from 70 mm<sup>2</sup> nominal cross-section
- Efficient connections, without having to cut the main conductor.
- Straightforward connection of various cross-sections.



## ▶ Screwing instead of crimping

Connect the conductors using screws. Why? Because no special tools are needed. Screws are available for every application. To make sure they last, all our screw connectors are produced from high-quality materials. Simply an efficient solution!

- Connections from 2.5 mm<sup>2</sup> to 185 mm<sup>2</sup> nominal cross-section
- No special tool required
- The right screw solution to suit a host of requirements
- For aluminium and copper conductors
- For round and sector shaped conductors
- For conductors and wires

## ▶ Clamps for continuous supply

We don't abandon your supply. With Klauke clamps, your operation can continue without outage, you carry out the installation even while live. No standstill, the operation continues.

- Especially suitable for the energy supply industry
- Can be installed while live
- Main conductor remains intact
- Different versions available for 3 and 4 core cables



## Punched cable lugs, Cu



► For connecting of round conductors to EN 60228 Cl. 1 and 2, for example in lightning protection areas

### Characteristics

- Also for outdoor assembly
- Available with 2 or 4 screws

### Material

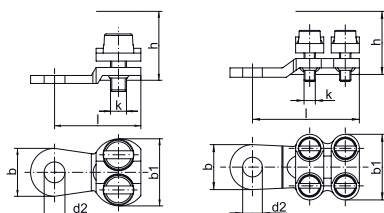
- Copper (ETP)
- Screws: DIN 84 / DIN 933 bronze, F 60

### Surface

- Tin-plated to protect against corrosion

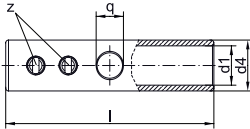
### Technical instructions

- Possible as a special bright version on request. Part Number appendix „BK“



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm						Number of screws	Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
		b	b1	d2	k	h	l				
6 - 10	<b>572R6</b>	15.0	18.0	6.5	M4	10	23.0	2	4	1.30	50
10 - 16	<b>573R6</b>	15.0	20.5	6.5	M5	14	27.0	2	6	1.30	50
	<b>573R8</b>	15.0	20.5	8.5	M5	14	27.0	2	6	1.30	50
16 - 25	<b>574R8</b>	15.0	25.0	8.5	M5	16	30.0	2	6	2.75	50
	<b>584R8</b>	18.5	22.5	8.5	M5	16	36.0	4	6	3.70	25
	<b>584R10</b>	19.5	22.5	10.5	M5	16	37.0	4	6	3.75	25
25 - 35	<b>575R8</b>	18.5	24.0	8.5	M5	16	25.5	2	6	2.50	50
	<b>585R8</b>	18.5	24.0	8.5	M5	16	38.5	4	6	4.30	25
	<b>585R10</b>	21.5	24.0	10.5	M5	16	42.0	4	6	4.65	25
	<b>585R12</b>	21.5	24.0	13.0	M5	16	42.0	4	6	4.50	25
35 - 50	<b>586R10</b>	19.0	28.0	10.5	M6	19	46.0	4	8	6.75	25
	<b>586R12</b>	21.0	28.0	13.0	M6	19	47.0	4	8	6.70	25
50 - 70	<b>587R10</b>	23.5	31.0	10.5	M6	19	51.0	4	8	9.35	10
	<b>587R12</b>	23.5	31.0	13.0	M6	19	51.0	4	8	9.30	10
70 - 95	<b>588R10</b>	24.0	34.0	10.5	M6	25	57.0	4	8	12.00	10
	<b>588R12</b>	24.0	34.0	13.0	M6	25	57.0	4	8	11.85	10
	<b>589R10</b>	30.0	42.0	10.5	M8	32	61.0	4	20	20.15	10
95 - 150	<b>589R12</b>	30.0	42.0	13.0	M8	32	61.0	4	20	20.20	10
	<b>589R16</b>	30.0	42.0	17.0	M8	32	61.5	4	20	20.10	10
150 - 240	<b>590R12</b>	34.0	48.5	13.0	M8	32	68.5	4	20	24.35	5
185 - 300	<b>592R12</b>	32.0	50.0	13.0	M8	37	68.5	4	20	27.95	5

## Tubular soldering sleeves, CuZn



- ▶ For round conductors, e.g. to EN 60228 Cl. 1, 2, 5 and 6
- ▶ Processed without using a crimping tool



### Characteristics

- Simple processing due to fixed screws and solder hole



### Material

- CuZn 40 Pb 2
- Screws: Steel to DIN 551



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- A connection needs to be soldered

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Number of set screws z	Weight/pcs. ~kg	Packing unit/pcs
		d1	d4	l	Diameter q			
6	<b>551R</b>	3.5	7	25	3.3	2	0.60	10
10	<b>552R</b>	4.5	6	30	3.3	2	1.20	10
16	<b>553R</b>	5.5	10	40	4.2	4	1.90	10
25	<b>554R</b>	7.0	12	45	4.2	4	2.85	10
35	<b>555R</b>	8.5	13	45	5.0	4	3.00	10
50	<b>556R</b>	10.0	15	48	5.0	4	4.00	10
70	<b>557R</b>	12.0	18	52	6.8	4	6.30	10
95	<b>558R</b>	13.5	20	55	6.8	4	8.05	10
120	<b>559R</b>	15.0	22	60	6.8	4	9.90	10



### Parallel groove clamps, Cu, 2 screws



- ▶ For screwing conductors acc. to EN 60228 Cl. 1 and 2
- ▶ For non-tension copper cables acc. to DIN 48201 part 1



#### Characteristics

- Also for outdoor assembly
- Version with 2 screws



#### Material

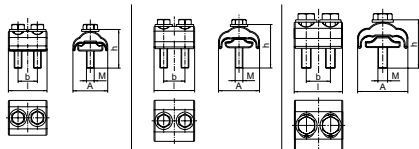
- Copper (ETP)
- Screws: V2A

#### Surface

- Bright

#### Technical instructions

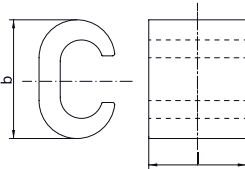
- When connecting cross sections 95, 120 and 150 mm<sup>2</sup> two power branch clamps are to be used due to the current carrying capacity.



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			A	M	Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
		b	h	l					
6 - 70	<b>SAK670</b>	36	40	40	20	M8	23	18,16	5
10 - 95	<b>SAK1095</b>	42,5	45	42	22	M8	20	24,15	5
16 - 150	<b>SAK16150</b>	52	50	50	25	M10	39	39,25	5



## Branch clamps in C-type, Cu



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping identical conductor cross-sections e.g. to VDE 60228 Cl. 1 and 2
- ▶ No need to cut the main conductor

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

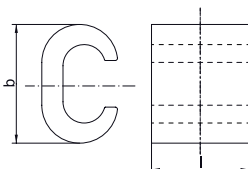
- Optimum conducting characteristics in combination with compound
- Tool: see page 1.117
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Part Number appendix for bright version „BK“
- rm = round multi-stranded; re = round single solid
- \* = Also suitable for 25 mm<sup>2</sup> round solid

Part No.	Hint	Cross section main conductor mm <sup>2</sup> rm/re		Hint	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
		Main conductor	Tab conductor		b	l		
CK16		16/25	16/25		16.0	15	0.94	25
CK25	*	25/35	25/35	*	20.2	16	1.68	25
CK35		35/50	35/50		25.7	22	3.42	25
CK50		50/-	50/-		28.0	23	4.88	25
CK70		70/-	70/-		34.16	28	9.69	10
CK95		95/-	95/-		35.0	25	7.30	10

## Branch clamps in C-type, Cu, multi-purpose clamps



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping non-identical conductor cross-sections e.g. to VDE 60228 Cl. 1 and 2
- ▶ No need to cut the main conductor
- ▶ Optimum conducting characteristics in combination with compound

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.117
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Part Number appendix for bright version „BK“
- rm = round multi-stranded; re = round single solid

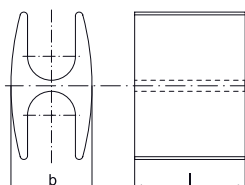
Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor	b	l		
MCK1010	6 - 10/10	4 - 6/4 - 10	11.8	12	0.460	25
MCK1025	16 - 25/25	4 - 10/4 - 10	19.3	17	1.900	25
MCK3535	16 - 25/25 - 35	16 - 25/16 - 35	20.4	17	1.750	25
MCK2550	35/50	4 - 25/4 - 25	24.6	23	4.400	25
MCK5050	35/50	16 - 35/25 - 50	26.5	23	4.200	25
MCK3570	50 - 70/-	4 - 35/4 - 35	33.8	28	10.700	10

See next page

## Branch clamps in C-type, Cu, multi-purpose clamps

Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor	b	l		
<b>MCK3595</b>	95/-	16 - 35	41.0	30	15.000	10
<b>MCK7095</b>	95/-	35 - 70	41.0	30	14.000	10
<b>MCK120120</b>	120/-	35 - 120	45.0	30	16.550	10
<b>MCK150150</b>	150/-	70 - 150	53.0	35	23.000	5
<b>MCK185185</b>	185/-	95 - 185	60.0	40	33.000	5

## Branch clamps in H-type, Cu



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping identical conductor cross-sect. e.g. to EN 60228 Cl. 1 and 2
- ▶ Lightning protection tested to EN 50164-1
- ▶ No need to cut the main conductor

### Characteristics

- H-shape allows simple processing
- Optimum conducting characteristics when used with compound

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.118
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Part Number appendix for bright version „BK“
- \* = To EN 50164-1 lightning current tested

Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Hint	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor		b	l		
<b>AH7070</b>	70	70	*	17.0	28.0	6.5	25
<b>AH9595</b>	95	95		22.0	30.0	10.0	25
<b>AH120120</b>	120	120		24.0	25.0	9.8	25

## Compound for branch clamps



- ▶ Optimum conductivity properties for processing aluminium cable lugs and connectors and branch clamps (C and H-type)

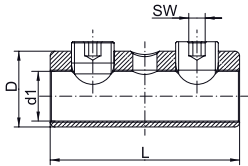
### Characteristics

- Water-resistant, with corundum for destroying the oxidation layer
- Content/tin: 0.125 kg

Part No.

**KF125**

## Screw connectors for shielded copper wires



- ▶ For connecting different conductor types and materials, e.g. to EN 60228 Class 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Suitable cross-section range for example shielded copper wires

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- With inspection hole for monitoring full cable insertion

### Material

- Insulated body: brass (CuZn)
- Screws: stainless steel, tin-plated

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

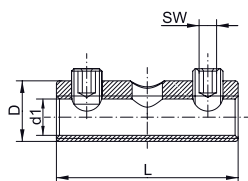
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- rm = round multi-stranded; re = round single solid

Part No.	Nominal cross section mm <sup>2</sup>		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
	re	rm	D	d1	L	AF			
<b>SV100</b>	6 - 35	6 - 25	14	7.2	40	4	10	3.9	4

## Screw connectors for street lighting



- ▶ For connecting different conductor types and materials, e.g. to EN 60228 Class 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Suitable cross-section range for street lighting

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- With inspection hole for monitoring full cable insertion

### Material

- Insulated body: brass (CuZn)
- Screws: stainless steel, tin-plated

### Surface

- Either bright or tin-plated

### Technical instructions

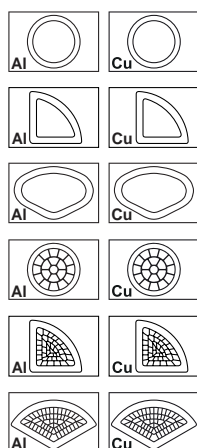
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- rm = round multi-stranded; re = round single solid

Part No.	Nominal cross section mm <sup>2</sup>		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
	re	rm	D	d1	L	AF			
With threaded pin, tin-plated									
<b>SV200</b>	1.5 - 16	1.5 - 16	10	5.5	30	2.5	4	1.35	4
With threaded pin, bright finished									
<b>SV200BK</b>	1.5 - 16	1.5 - 16	10	5.5	30	2.5	4	1.35	4

## Screw connector with 2 screws



- ▶ For connecting various conductor types and materials, e.g. to EN 60228 Cl. 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

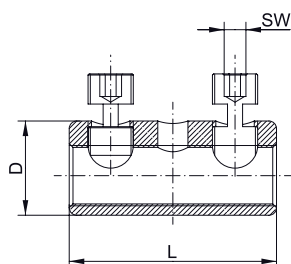
- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

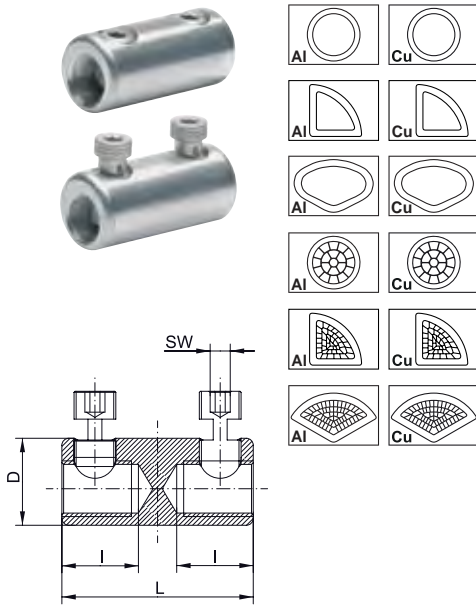
### Additional information

- \* = fixed version, Part Number appendix „NL“
- \*\* = version with fixed countersink shear head, Part Number appendix „VK“
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted



Part No.	Nominal cross section mm <sup>2</sup>				Hint	Dimension mm			Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm		D	L	AF			
<b>With threaded pin, bright finished</b>											
<b>SV303</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35		14	40	4	8	1.5	4
<b>SV300</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV301</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	55	5	20	6.6	4
<b>SV308</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	--		28	70	6	25	11.3	4
<b>SV302</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 150		32	80	6	25	16	4
<b>Without threaded pin, bright finished</b>											
<b>SV303V</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35		14	40	4	8	1.5	4
<b>SV300V</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV307V</b>	50 - 70	10 - 70	50 - 70	35 - 70, 35 - 70		22	57	5	15	4.7	4
<b>SV301V</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	55	5	20	6.6	4
<b>SV302V</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 150		32	80	6	25	16	4
<b>With shear head, bright finished</b>											
<b>SV303AK</b>	6 - 35	6 - 25	--	--	*	14	40	4	8	1.5	4
<b>SV303AKNL</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35	*	14	40	4	8	1.5	4
<b>SV304AKNL</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV307AKNL</b>	10 - 70	10 - 70	50 - 70	35 - 70, 35 - 70		22	57	5	15	4.7	4
<b>SV301AK</b>	16 - 95	16 - 95	50 - 95, 50 - 150 (120°)	35 - 95 (r), 35 - 150		25	55	5	20	6.6	4
<b>SV302AK</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 150		32	80	6	25	16	4
<b>With shear head, tin - plated</b>											
<b>SV304AKNLV</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV301AKV</b>	16 - 95	16 - 95	50 - 95	35 - 70, 35 - 95 (r)	**	25	55	5	20	6.6	4
<b>SV302AKV</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150		32	80	6	25	16	4

## Screw connector with barrier



- ▶ For connecting various conductor types and materials, e.g. to EN 60228 Cl. 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws and barrier

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

- Either bright or tin-plated

### Technical instructions

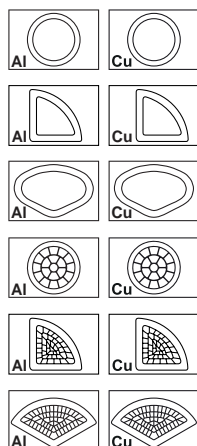
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted

Part No.	Nominal cross section mm <sup>2</sup>				Hint	Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm		D	I	L	AF			
With threaded pin, bright finished												
<b>SV315</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV320</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	35 - 150		28	31	70	6	25	11.3	4
<b>SV310</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32	80	6	25	16	4
With threaded pin, tin-plated												
<b>SV315V</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309V</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV320V</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	--		28	31	70	6	25	11.3	4
<b>SV310V</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32.5	80	6	25	16	4
With shear head, bright finished												
<b>SV312AKNL</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309AK</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV310AK</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32.5	80	6	25	16	4
With shear head, tin-plated												
<b>SV311AKNL</b>	6 - 35	6 - 25	--	--		14	17.5	40	4	8	1.5	4
<b>SV312AKNLV</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV319AKNLV</b>	10 - 70	10 - 70	50 - 70	35 - 70		22	24	57	5	15	7.6	4
<b>SV309AKV</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	*	25	22	55	5	20	6.6	4
<b>SV310AKV</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)	*	32	32.5	80	6	25	16	4

## Screw connector with 4 screws



- ▶ For connecting various conductor types and materials, e.g. to EN 60228 Cl. 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Available with threaded pin or shear head
- Version with 4 screws

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

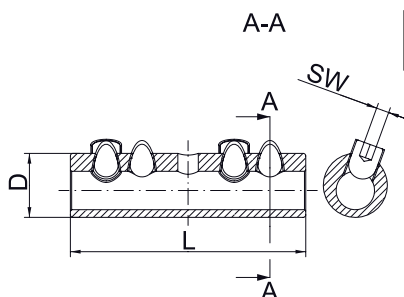
- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

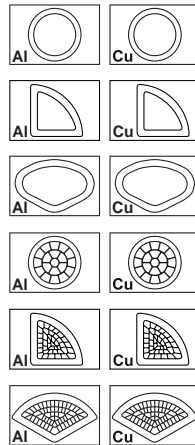
### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded



Part No.	Nominal cross section mm <sup>2</sup>				Dimension mm			Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	re	rm	se	sm	D	L	AF			
<b>With threaded pin, bright finished</b>										
<b>SV305</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
<b>SV306</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 185 (r)	32	108	6	25	25	4
<b>With threaded pin, tin-plated</b>										
<b>SV305V</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
<b>SV306V</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4
<b>With shear head, bright finished</b>										
<b>SV305AK</b>	16 - 95	16 - 95	50 - 95	35 - 70, 35 - 70 (r)	25	92	5	20	12	4
<b>SV306AK</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4
<b>With shear head, tin-plated</b>										
<b>SV305AKV</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
<b>SV306AKV</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4

## Insulated screw connector



- ▶ For connecting various conductor types and materials, e.g. to EN 60228 Cl. 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Insulated body
- Version with 2 screws, without barrier
- Available with threaded pin or shear head

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

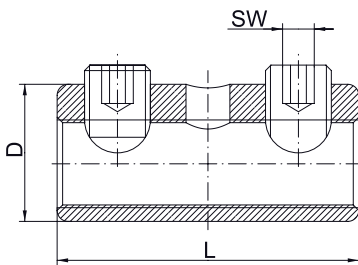
- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

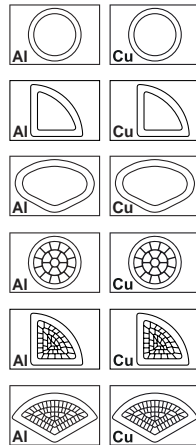
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded



Part No.	Nominal cross section mm <sup>2</sup>				Dimension mm			Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	re	rm	se	sm	D	L	AF			
With threaded pin, bright finished										
<b>SV400</b>	6 - 35	6 - 25	50 - 70 (120°)	35 - 70	14	60	4	8	1.7	4
<b>SV410</b>	16-95	16-95	50-95	35-95 (r), 35-70	28.2	58.2	5	20	6	4
With threaded pin, tin-plated										
<b>SV405V</b>	10 - 70	10 - 70	50 - 70, 50 - 150 (120°)	35 - 70, 35 - 150	25	87	5	15	5	4
<b>SV420V</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)	36	84	6	25	14.5	4
With shear head, bright finished										
<b>SV410AK</b>	16-95	16-95	50-95	35-95 (r), 35-70	28.2	58.2	5	20	6	4



### Screw connector with barrier



- ▶ For connecting various conductor types and materials, e.g. to EN 60228 Cl. 1 and 2 (tinned version)
- ▶ Ideal for connecting identical and different conductor cross-sections

#### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Insulated body
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws and barrier

#### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

#### Surface

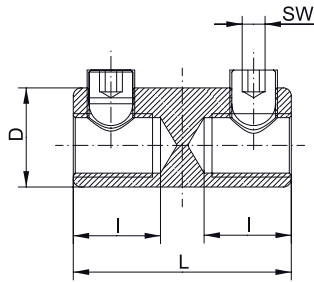
- Either bright or tin-plated

#### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

#### Additional information

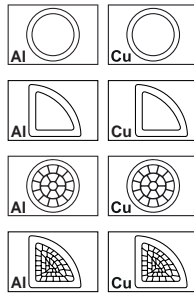
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted



Part No.	Nominal cross section mm <sup>2</sup>				Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm	D	I	L	AF			
<b>With threaded pin, bright</b>											
<b>SV430</b>	16-50	16-95	50 - 70 (120°), 50 - 95 (90°)	35 - 70, 35 - 95 (r)	28.2	23.6	58.2	5	20	6.6	4
<b>With shear head, bright</b>											
<b>SV430AK</b>	16 - 50	16 - 95	50 - 70 (120°), 50 - 95 (90°)	35 - 70, 35 - 95 (r)	28.2	23.6	58.2	5	20	6.6	4
<b>SV440AK</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	36	34.5	84	6	25	16.0	4



## Compact tap connectors with shear heads, four conductor cables



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With shear heads for the main conductor, fixed

### Technical instructions

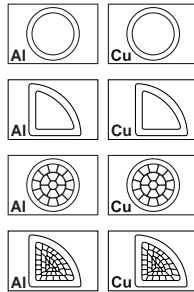
- A mounting instruction is included with every clamp

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined

Part No.	Main conductor		Tap conductor		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	se	sm	se	sm	la	lb	Width	AF			
<b>KSK1504</b>	70 - 150	150	95 (r)	6-70 (r)	107	90	50	20	20	0.63	1
<b>KSK1854</b>	185	70-150	50	6-35	107	90	52	20	20	0.58	1

## Compact tap connectors, four conductor cables, for main conductor 25 - 50 mm<sup>2</sup>



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools

### Technical instructions

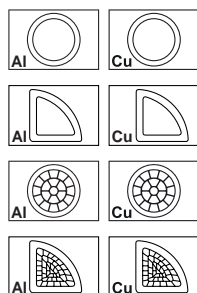
- A mounting instruction is included with every clamp

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined

Part No.	Main conductor			Tap conductor		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	se	sm	rm	se	sm	la	lb	Width	AF			
<b>KSK504</b>	Cu 25 - 50, Al 35 - 50	Cu 25 - 50	Cu 25 - 50	50	6-35	88	75	50	5	15	0.46	1

## Compact tap connectors, four conductor cables, for main conductor 70 - 185 mm<sup>2</sup>



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With threaded pins for the main conductor

### Technical instructions

- A mounting instruction is included with every clamp

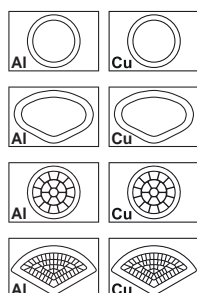
### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined



Part No.	Main conductor			Tap conductor			Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	se	sm	re	se	sm	rm	la	lb	Width	AF			
<b>SKR1204</b>	120	70 - 95		50 (r)	6 - 35 (r)		90	77	50	5	20	0.46	1
<b>SKR150504</b>	150	70 - 150	50	50	6 - 35		93	80	50	5	20	0.46	1
<b>SKR1504</b>	70 - 150	150		95 (r)	6 - 70 (r)		107	90	46	5	20	0.62	1
<b>SKR1501504</b>	95 - 150	150		150	16 - 120	16 - 120	118	118	93	5	20	1.34	1
<b>SKR1854</b>	185	95 - 150		95 (r)	6 - 70		107	96	46	5	20	0.58	1

## Compact tap connectors, three conductor cables



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With threaded pins for the main conductor

### Technical instructions

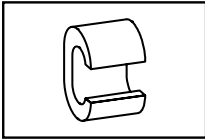
- A mounting instruction is included with every clamp

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded



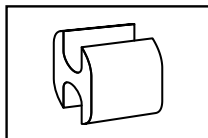
Part No.	Main conductor				Tap conductor		Dimension mm					Thread DIN 13	Weight/ pcs. ~kg	Packing unit/pcs
	se	sm	rm	re	se	sm	la	lb	Width	Bolts Circle dia.	AF			
<b>SKR1503</b>	70 - 150	70 - 150	70 - 150	70 - 150	6 - 70	6 - 95	84	76	45	90	5	M10x1/ M10	0.38	1



## Tool application chart

### C-Clamps

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10 - 35	K354		2.24	2.86	○
	10 - 70	K22		2.26	2.90	○
Hand hydraulic crimping tools	10 - 70	HK12030		2.60	2.94	○
		HK12042		2.62	2.94	○
		HK120U		2.64	2.94	○
		HK6022		2.56	2.90	○
Battery powered crimping tools	10 - 35	EK354ML		2.32	2.86	○
		EK354		2.36	2.86	○
	10 - 70	EK12032		2.46	2.94	○
		EK12042		2.48	2.94	○
		EK120U		2.50	2.94	○
		EK135FT	+UA15T	2.52	2.94	○
		EK120UNV	+UA12TKL	6.13	2.94	○
		EKM6022		2.38	2.90	○
		EK6022		2.40	2.90	○
		EKM6022IS		4.6	2.90	○
		EKM60UNV	+UA22	6.11	2.90	○
		EK60UNV	+UA22	6.12	2.90	○
		Hydraulic crimping systems	10 - 70	THK120		2.72
THK22				2.68	2.90	○
10 - 185	HK252		+25A13	2.78	2.94 + 2.97	○
Hydraulic crimping heads	10 - 70	PK12042		2.72	2.94	○
		PK120U		2.74	2.94	○
		PK22		2.68	2.90	○
		PK60UNV	+UA22	6.10	2.90	○
	10 - 185	PK252	+25A13	2.76	2.94 + 2.97	○



## Tool application chart

### H-Clamps

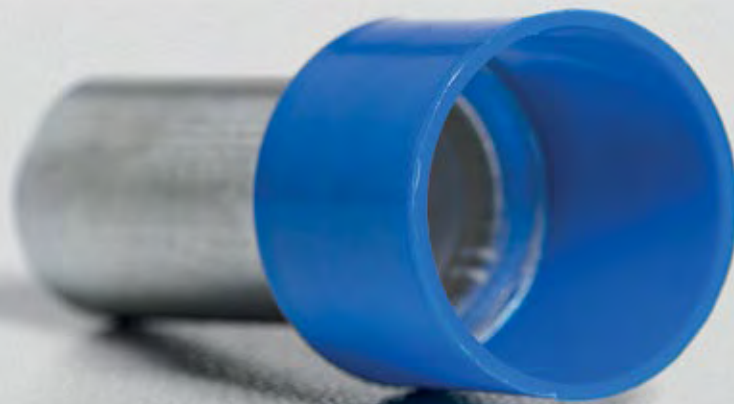
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	70	K22		2.26	2.90	○
Hand hydraulic crimping tools	70	HK6022		2.56	2.90	○
	70 - 120	HK12030		2.60	2.94	○
		HK12042		2.62	2.94	○
		HK120U		2.64	2.94	○
Battery powered crimping tools	70	EKM6022		2.38	2.90	○
		EK6022		2.40	2.90	○
		EKM6022IS		4.6	2.90	○
		EKM60UNV	+UA22	6.11	2.90	○
		EK60UNV	+UA22	6.12	2.90	○
	70 - 120	EK12032		2.46	2.94	○
		EK12042		2.48	2.94	○
		EK120U		2.50	2.94	○
		EK135FT	+UA15T	2.52	2.94	○
		EK120UNV	+ UA12TKL	6.13	2.94	○
Hydraulic crimping systems	70	THK22		2.68	2.90	○
	70 - 120	THK120		2.72	2.94	○
		HK252	+25A13	2.78	2.94	○
Hydraulic crimping heads	70	PK22		2.68	2.90	○
		PK60UNV	+UA22	6.10	2.90	○
	70 - 120	PK12042		2.72	2.94	○
		PK120U		2.74	2.94	○
		PK252	+25A13	2.76	2.94	○





# PROTECTION - CABLE END-SLEEVES, INSULATED AND NON-INSULATED

Klauke joins together what belongs together. Cable end-sleeves prevent the conductors splicing before they are connected in clamps. All wires remain together. Easy-Entry insulation speeds up the insertion of wires into the sleeve. Fine-stranded conductors in particular benefit from a special trapezoidal crimp. No splicing, no time wasted. Your conductors are protected and can be cleanly processed



## In brief

- ▶ Stops conductors splicing
- ▶ Improved contact
- ▶ No risk of short-circuit due to bent strands
- ▶ Produced from high-quality copper
- ▶ Surface treatment with tin or in special versions with silver

## ▶ Simple diversity

We have to admit: Cable end-sleeves are a simple product. Due to the differing crimp shapes in the range and the high-quality materials used in production, the sleeves are just incredibly good.

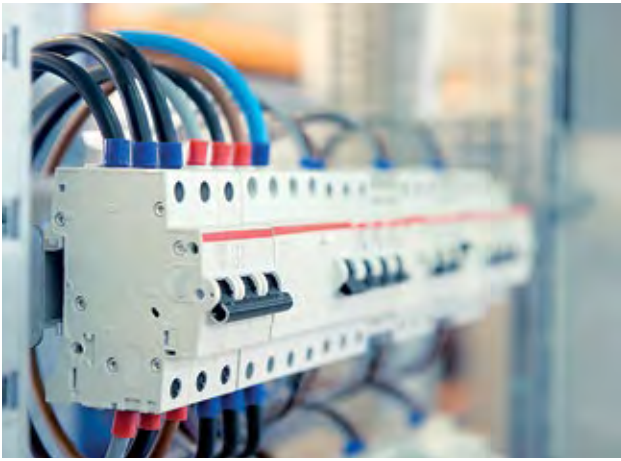
- Broad range: To DIN standards, for short circuit-resistant conductors, in various lengths, with and without insulating collars

- Marked to DIN colour code
- Twin cable end-sleeves for connecting in confined areas
- High-quality material for optimum conducting properties
- CSA-approved

## ▶ Always the right crimp shape

We give every cable end-sleeve its perfect crimp shape. No matter where the conductor is to be laid later, we have a solution for you.

- The correct crimp shape for every connecting terminal
- Crimp shapes matched to the DIN dimensions
- For compacted conductors
- Connect without risk of short-circuit

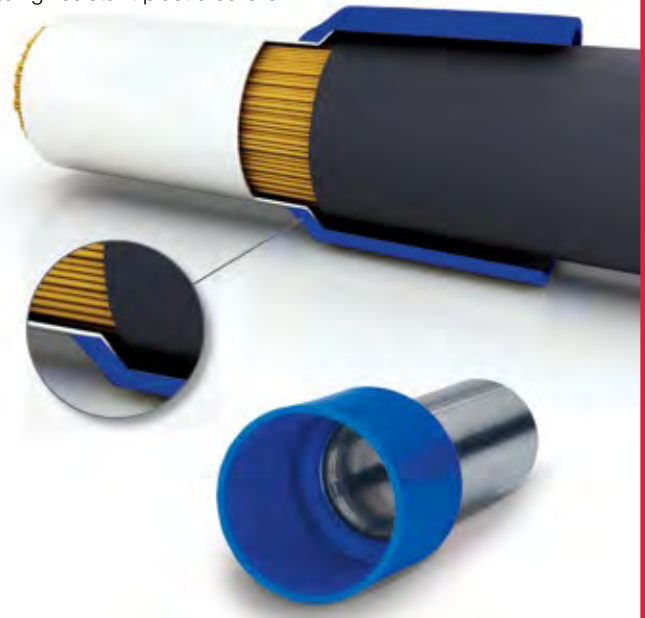


The easy-entry insulation enables fast insertion of conductors with no splicing.

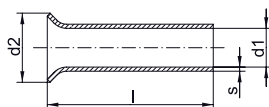
## ▶ Easy-Entry insulation

The special Easy-Entry insulation makes it easier to insert the conductor into the sleeves. In addition, the insulation is highly-resistant, to temperatures of up to 105 °C for example.

- Easy-Entry insulation for convenient insertion of the conductor
- Temperature-resistant to 105 °C
- No toxic vapours in case of fire
- Ageing-resistant plastic collars



## Cable end-sleeves to DIN, Cu



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Optimal cable entry due to widened sleeve



### Characteristics

- To DIN 46228, part 1 and similar



### Material

- Copper

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- Silvered version also available, without Part Number appendix "V", exception: Part Number 705V in silvered version = Part No. 7050
- \* = not standardised

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
0.25	<b>695V</b>	*	0.75	1.7	5	0.15	0.02	1000
	<b>697V</b>	*	0.75	1.7	7	0.15	0.03	1000
0.34	<b>705V</b>	*	0.85	1.8	5	0.15	0.02	1000
	<b>707V</b>	*	0.85	1.8	7	0.15	0.03	1000
0.5	<b>71S6V</b>		1.00	2.1	6	0.15	0.03	1000
	<b>71S8V</b>	*	1.00	2.1	8	0.15	0.04	1000
	<b>71S10V</b>		1.00	2.1	10	0.15	0.05	1000
0.75	<b>716V</b>		1.20	2.3	6	0.15	0.04	1000
	<b>718V</b>	*	1.20	2.3	8	0.15	0.05	1000
	<b>7110V</b>		1.20	2.3	10	0.15	0.06	1000
	<b>7112V</b>	*	1.20	2.3	12	0.15	0.08	1000
	<b>7115V</b>	*	1.20	2.3	15	0.15	0.09	1000
1	<b>72S6V</b>		1.40	2.5	6	0.15	0.04	1000
	<b>72S8V</b>	*	1.40	2.5	8	0.15	0.06	1000
	<b>72S10V</b>		1.40	2.5	10	0.15	0.07	1000
	<b>72S12V</b>	*	1.40	2.5	12	0.15	0.08	1000
	<b>72S15V</b>	*	1.40	2.5	15	0.15	0.10	1000
1.5	<b>726V</b>	*	1.70	2.8	6	0.15	0.05	1000
	<b>727V</b>		1.70	2.8	7	0.15	0.06	1000
	<b>728V</b>	*	1.70	2.8	8	0.15	0.07	1000
	<b>7210V</b>		1.70	2.8	10	0.15	0.09	1000
	<b>7212V</b>		1.70	2.8	12	0.15	0.10	1000
	<b>7215V</b>	*	1.70	2.8	15	0.15	0.13	1000
	<b>7218V</b>		1.70	2.8	18	0.15	0.15	1000
<b>7220V</b>	*	1.70	2.8	20	0.15	0.17	1000	
2.5	<b>737V</b>		2.20	3.4	7	0.15	0.08	1000
	<b>738V</b>	*	2.20	3.4	8	0.15	0.09	1000
	<b>7310V</b>		2.20	3.4	10	0.15	0.11	1000
	<b>7312V</b>		2.20	3.4	12	0.15	0.13	1000
	<b>7315V</b>	*	2.20	3.4	15	0.15	0.17	1000
	<b>7318V</b>		2.20	3.4	18	0.15	0.20	1000
	<b>7320V</b>	*	2.20	3.4	20	0.15	0.22	1000



### Cable end-sleeves to DIN, Cu

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
4	<b>748V</b>	*	2.80	4.0	9	0.20	0.14	1000
	<b>749V</b>		2.80	4.0	9	0.20	0.16	1000
	<b>7410V</b>	*	2.80	4.0	10	0.20	0.17	1000
	<b>7412V</b>		2.80	4.0	12	0.20	0.20	1000
	<b>7415V</b>		2.80	4.0	15	0.20	0.27	1000
	<b>7418V</b>		2.80	4.0	18	0.20	0.32	1000
	<b>7420V</b>	*	2.80	4.0	20	0.20	0.35	1000
6	<b>7510V</b>		3.50	4.7	10	0.20	0.23	100
	<b>7512V</b>		3.50	4.7	12	0.20	0.27	100
	<b>7515V</b>		3.50	4.7	15	0.20	0.34	100
	<b>7518V</b>		3.50	4.7	18	0.20	0.40	100
	<b>7520V</b>	*	3.50	4.7	20	0.20	0.45	100
	<b>7525V</b>	*	3.50	4.7	25	0.20	0.56	100
10	<b>7610V</b>	*	4.5	5.8	10	0.2	0.27	100
	<b>7612V</b>		4.5	5.8	12	0.2	0.33	100
	<b>7615V</b>		4.5	5.8	15	0.2	0.41	100
	<b>7618V</b>		4.5	5.8	18	0.2	0.49	100
	<b>7620V</b>	*	4.5	5.8	20	0.2	0.55	100
	<b>7625V</b>	*	4.5	5.8	25	0.2	0.68	100
16	<b>7712V</b>		5.8	7.5	12	0.2	0.43	100
	<b>7715V</b>		5.8	7.5	15	0.2	0.53	100
	<b>7718V</b>		5.8	7.5	18	0.2	0.60	100
	<b>7720V</b>	*	5.8	7.5	20	0.2	0.70	100
	<b>7725V</b>		5.8	7.5	25	0.2	0.87	100
	<b>7732V</b>		5.8	7.5	32	0.2	1.11	100
25	<b>7812V</b>	*	7.3	9.5	12	0.2	0.80	50
	<b>7815V</b>		7.3	9.5	15	0.2	0.99	50
	<b>7818V</b>		7.3	9.5	18	0.2	1.18	50
	<b>7820V</b>	*	7.3	9.5	20	0.2	1.31	50
	<b>7825V</b>		7.5	9.5	25	0.2	1.63	50
	<b>7828V</b>	*	7.3	9.5	28	0.2	1.82	50
	<b>7832V</b>		7.3	9.5	32	0.2	2.07	50
35	<b>7912V</b>	*	8.3	11.0	12	0.2	0.90	50
	<b>7915V</b>	*	8.3	11.0	15	0.2	1.12	50
	<b>7918V</b>		8.3	11.0	18	0.2	1.34	50
	<b>7920V</b>	*	8.3	11.0	20	0.2	1.48	50
	<b>7922V</b>	*	8.3	11.0	22	0.2	1.63	50
	<b>7925V</b>		8.5	11.0	25	0.2	1.80	50
	<b>7930V</b>	*	8.3	11.0	30	0.2	2.20	50
50	<b>7932V</b>		8.5	11.0	32	0.2	2.35	50
	<b>8018V</b>		10.3	13.0	18	0.3	1.69	50
	<b>8022V</b>	*	10.3	13.0	22	0.3	2.05	50
	<b>8025V</b>		10.3	13.0	25	0.3	2.32	50
	<b>8030V</b>	*	10.3	13.0	30	0.3	2.77	50
	<b>8032V</b>		10.3	13.0	32	0.3	2.95	50

See next page

## Cable end-sleeves to DIN, Cu

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
70	<b>8122V</b>	*	12.7	15.0	22	0.4	3.31	25
	<b>8125V</b>	*	12.7	15.0	25	0.4	3.75	25
	<b>8130V</b>	*	12.7	15.0	30	0.4	4.48	25
	<b>8132V</b>	*	12.7	15.0	32	0.4	4.78	25
95	<b>8225V</b>	*	14.7	17.0	25	0.4	4.32	25
	<b>8230V</b>	*	14.7	17.0	30	0.4	5.17	25
	<b>8232V</b>	*	14.7	17.0	32	0.4	5.17	25
	<b>8234V</b>	*	14.7	17.0	34	0.4	5.84	25
120	<b>8330V</b>	*	16.7	19.0	30	0.5	7.35	25
	<b>8332V</b>	*	16.7	19.0	32	0.5	7.83	25
	<b>8334V</b>	*	16.7	19.0	34	0.5	8.31	25
	<b>8338V</b>	*	16.7	19.0	38	0.5	9.28	25
	<b>8340V</b>	*	16.7	19.0	40	0.5	9.76	25
150	<b>8432V</b>	*	18.7	21.0	32	0.5	8.75	25
	<b>8434V</b>	*	18.7	21.0	34	0.5	9.28	25
	<b>8438V</b>	*	18.7	21.0	38	0.5	10.36	25
	<b>8440V</b>	*	18.7	21.0	40	0.5	10.89	25
185	<b>8532V</b>	*	20.2	23.5	32	0.6	11.38	25
	<b>8540V</b>	*	20.2	23.5	40	0.6	14.17	25
240	<b>8634V</b>	*	23.0	26.0	34	0.5	11.25	25
	<b>8640V</b>	*	23.0	26.0	40	0.5	13.23	25

## Insulated cable end-sleeves to DIN, with Easy-Entry



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105 °C

### Material

- Cu-DHP
- Synthetic material: polypropylene

### Surface

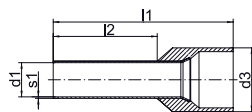
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = not standardised
- \*\*\* = quantities in one bag



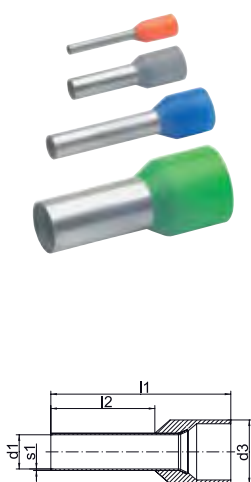
Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.5	4696	□		1.0	3.1	12	6	0.15	0.070	1000
	4698	□		1.0	3.1	14	8	0.15	0.070	1000
	GR4698	□	***	1.0	3.1	14	8	0.15	0.070	500
	46910	□		1.0	3.1	16	10	0.15	0.085	1000
0.75	4706	■		1.2	3.3	12	6	0.15	0.080	1000
	4708	■		1.2	3.3	14	8	0.15	0.080	1000
	GR4708	■	***	1.2	3.3	14	8	0.15	0.080	500
	47010	■		1.2	3.3	16	10	0.15	0.100	1000
1	47012	■		1.2	3.3	18	12	0.15	0.105	1000
	4716	■		1.4	3.5	12	6	0.15	0.090	1000
	4718	■		1.4	3.5	14	8	0.15	0.100	1000
	GR4718	■	***	1.4	3.5	14	8	0.15	0.100	500
1.5	47110	■		1.4	3.5	16	10	0.15	0.120	1000
	47112	■		1.4	3.5	18	12	0.15	0.125	1000
	4726	■	*	1.7	4.0	12	6	0.15	0.105	1000
	4728	■		1.7	4.0	14	8	0.15	0.110	1000
2.5	GR4728	■	***	1.7	4.0	14	8	0.15	0.110	500
	47210	■		1.7	4.0	16	10	0.15	0.130	1000
	47212	■		1.7	4.0	18	12	0.15	0.150	1000
	47218	■		1.7	4.0	24	18	0.15	0.190	1000
4	4738	■		2.2	4.7	14	8	0.15	0.150	1000
	GR4738	■	***	2.2	4.7	14	8	0.15	0.150	500
	47312	■		2.2	4.7	18	12	0.15	0.200	1000
6	47318	■		2.2	4.7	24	18	0.15	0.250	1000
	47410	■		2.8	5.4	17	10	0.20	0.210	100
	47412	■		2.8	5.4	20	12	0.20	0.250	100
10	47418	■		2.8	5.4	26	18	0.20	0.320	100
	47512	■		3.5	6.9	20	12	0.20	0.350	100
10	47518	■		3.5	6.9	26	18	0.20	0.460	100
	47612	■		4.5	8.4	22	12	0.20	0.450	100
10	47618	■		4.5	8.4	28	18	0.20	0.650	100

See next page

## Insulated cable end-sleeves to DIN, with Easy-Entry

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
16	47712	■		5.8	9.6	24	12	0.20	0.650	100
	47718	■		5.8	9.6	28	18	0.20	0.800	100
25	47816	■		7.3	12.0	30	16	0.20	1.600	50
	47818	■		7.3	12.0	30	18	0.20	1.700	50
	47822	■		7.3	12.0	36	22	0.20	2.000	50
35	47916	■		8.3	13.5	30	16	0.20	1.900	50
	47918	■		8.3	13.5	30	18	0.20	2.100	50
	47925	■		8.3	13.5	39	25	0.20	2.500	50
50	48020	■		10.3	16.0	36	20	0.30	3.300	50
	48025	■		10.3	16.0	40	25	0.30	3.600	50
70	48121	■	*	13.5	17.2	37	21	0.40	4.620	25
95	48225	■	*	14.5	19.2	44	25	0.40	6.000	25
120	48327	■	*	16.7	21.4	48	27	0.45	7.850	25
150	48432	■	*	19.5	25.0	58	32	0.50	12.330	25

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 1



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- To DIN 46228, part 4, (0,5 - 50 mm<sup>2</sup>)
- Heat resistant to 105 °C

### Material

- Cu-DHP
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6



































### Additional information

- \* = not standardised
- \*\* = quantities in one bag

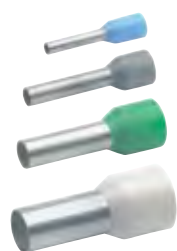
Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.14	166GR	■	*	0.7	2.5	10.0	6	0.15	0.035	1000
	166GRL	■	*	0.7	2.5	12.0	8	0.15	0.040	1000
0.25	167H	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	167HL	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.34	168T	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	168TL	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.5	1690K	■		1.0	3.1	12.0	6	0.15	0.070	1000

See next page

### Insulated cable end-sleeves to DIN with Easy-Entry, colour code 1

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.75	170WK			1.2	3.3	12.0	6	0.15	0.080	1000
	170W			1.2	3.3	14.0	8	0.15	0.080	1000
	GR170W		**	1.2	3.3	14.0	8	0.15	0.080	500
	170WH			1.2	3.3	16.0	10	0.15	0.100	1000
	170WL			1.2	3.3	18.0	12	0.15	0.105	1000
1	171GK			1.4	3.5	12.0	6	0.15	0.090	1000
	171G			1.4	3.5	14.0	8	0.15	0.100	1000
	GR171G		**	1.4	3.5	14.0	8	0.15	0.100	500
	171GH			1.4	3.5	16.0	10	0.15	0.120	1000
	171GL			1.4	3.5	18.0	12	0.15	0.125	1000
1.5	172RK			1.7	4.0	12.0	6	0.15	0.105	1000
	172RO			1.7	4.0	14.0	8	0.15	0.110	1000
	GR172RO		**	1.7	4.0	14.0	8	0.15	0.110	500
	172RH			1.7	4.0	16.0	10	0.15	0.130	1000
	172RM			1.7	4.0	18.0	12	0.15	0.140	1000
2.5	172RL			1.7	4.0	24.0	18	0.15	0.190	1000
	173B			2.2	4.7	14.0	8	0.15	0.150	1000
	GR173B		**	2.2	4.7	14.0	8	0.15	0.150	500
	173BH			2.2	4.7	18.0	12	0.15	0.200	1000
	173BL			2.2	4.7	24.0	18	0.15	0.250	1000
4	174GR			2.8	5.4	17.0	10	0.20	0.210	100
	174GRH			2.8	5.4	20.0	12	0.20	0.250	100
	174GRL			2.8	5.4	26.0	18	0.20	0.320	100
6	175S			3.5	6.9	20.0	12	0.20	0.350	100
	175SL			3.5	6.9	26.0	18	0.20	0.460	100
10	176E			4.5	8.4	22.0	12	0.20	0.450	100
	176EL			4.5	8.4	28.0	18	0.20	0.650	100
16	177GR			5.8	9.6	24.0	12	0.20	0.650	100
	177GRL			5.8	9.6	28.0	18	0.20	0.800	100
25	178BR			7.3	12.0	30.0	16	0.20	1.600	50
	178BRL			7.3	12.0	36.0	22	0.20	2.000	50
35	179B			8.3	13.5	30.0	16	0.20	1.900	50
	179BL			8.3	13.5	39.0	25	0.20	2.500	50
50	1800			10.3	16.0	36.0	20	0.30	3.300	50

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 2



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- To DIN 46228, part 4, (0.5 - 25 mm<sup>2</sup>)
- Heat resistant to 105 °C

### Material

- Cu-DHP
- Synthetic material: polypropylene

### Surface

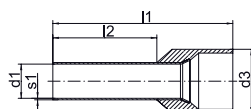
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information








- \* = not standardised
- \*\* = quantities in one bag



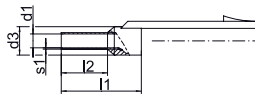
Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.14	1666	■	*	0.7	2.5	10.0	6	0.15	0.035	1000
	1668	■	*	0.7	2.5	12.0	8	0.15	0.040	1000
0.25	1676	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	1678	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.34	1686	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	1688	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.5	1696	□		1.0	3.1	12.0	6	0.15	0.070	1000
	1698	□		1.0	3.1	14.0	8	0.15	0.080	1000
	GR1698	□	**	1.0	3.1	14.0	8	0.15	0.080	500
0.75	1706	■		1.2	3.3	12.0	6	0.15	0.080	1000
	1708	■		1.2	3.3	14.0	8	0.15	0.095	1000
	GR1708	■	**	1.2	3.3	14.0	8	0.15	0.095	500
1	1716	■		1.4	3.5	12.0	6	0.15	0.085	1000
	1718	■		1.4	3.5	14.0	8	0.15	0.100	1000
	GR1718	■	**	1.4	3.5	14.0	8	0.15	0.100	500
1.5	1726	■		1.7	4.0	12.0	6	0.15	0.100	1000
	1728	■		1.7	4.0	14.0	8	0.15	0.120	1000
	GR1728	■	**	1.7	4.0	14.0	8	0.15	0.120	500
	17210	■		1.7	4.0	16.0	10	0.15	0.130	1000
	17212	■		1.7	4.0	18.0	12	0.15	0.140	1000
2.5	17218	■		1.7	4.0	24.0	18	0.15	0.220	1000
	1738	■		2.2	4.7	14.0	8	0.15	0.140	1000
	GR1738	■	**	2.2	4.7	14.0	8	0.15	0.140	500
	17312	■		2.2	4.7	18.0	12	0.15	0.200	1000
	17318	■		2.2	4.7	24.0	18	0.15	0.280	1000
4	17410	■		2.8	5.4	17.0	10	0.20	0.260	100
	17412	■		2.8	5.4	20.0	12	0.20	0.300	100
	17418	■		2.8	5.4	26.0	18	0.20	0.390	100
6	17512	■		3.5	6.9	20.0	12	0.20	0.410	100
	17518	■		3.5	6.9	26.0	18	0.20	0.530	100

See next page

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 2

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
10	17612			4.5	8.4	22.0	12	0.20	0.550	100
	17618			4.5	8.4	28.0	18	0.20	0.710	100
16	17712			5.8	9.6	24.0	12	0.20	0.660	100
	17718			5.8	9.6	28.0	18	0.20	0.850	100
25	17816			7.3	12.0	30.0	16	0.20	1.500	50
	17818			7.3	12.0	30.0	18	0.20	1.550	50
	17822			7.3	12.0	36.0	22	0.20	2.000	50

## Insulated cable end-sleeves with lug



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ With identification system for max. 6 identification rings
- ▶ Halogen-free



### Characteristics

- Dimensions to DIN 46228, part 4
- Heat resistant to 105 °C



### Material






- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

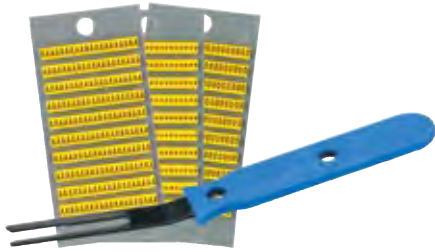
### Technical instructions

- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
			d1	d3	l1	l2	s1		
0.5	3698		1.0	3.1	13.0	8	0.15	0.16	1000
0.75	3708		1.2	3.2	13.5	8	0.15	0.16	1000
1	3718		1.4	3.4	13.5	8	0.15	0.18	1000
1.5	3728		1.7	3.9	13.5	8	0.15	0.20	1000
2.5	3738		2.2	4.7	14.5	8	0.15	0.22	1000



### Designation ring and insert fork



► For identifying the insulated cable end-sleeves with lugs

#### Characteristics

- Differing numbers / letters in the designation rings
- Packaging unit in booklet format, 200 of each symbol
- Insert fork A300 for inserting in the designation ring on the insulated cable end-sleeves with tabs

#### Additional information

- \* = without letters "I", "O" and "Y"

Part No.	Colour	Hint	Packing unit/pcs
<b>Designation rings</b>			
380/-	■		1 booklet
380/+	■		1 booklet
380/0 to 9	■		1 booklet
380/A to Z	■	*	1 booklet
<b>Insert fork</b>			
A300			1

### Insulated cable end-sleeves for short circuit resistant conductors



- For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- For short circuit resistant conductors (e.g. NSGAFÖU)
- Halogen-free

#### Characteristics

- Heat resistant to 105 °C
- Easy-Entry insulation for simple cable insertion
- Colour-coded cross-section assignment

#### Material

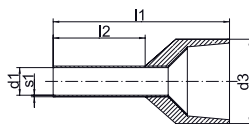
- Copper (EN13600)
- Synthetic material: polypropylene

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

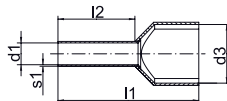
- Tool: see page 1.134
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			d1	d3	l1	l2	s1		
1.5	4328	■	1.7	8.1	17.5	8	0.15	0.22	100
	43210	■	1.7	8.1	19.5	10	0.15	0.27	100
2.5	4338	■	2.2	8.6	17.5	8	0.15	0.24	100
	43312	■	2.2	8.6	21.5	12	0.15	0.36	100
4	43410	■	2.9	10.5	19.5	10	0.20	0.36	100
6	43512	■	3.5	11.0	23.0	12	0.20	0.49	100
10	43612	■	4.5	12.5	24.0	12	0.20	0.65	100
16	43712	■	5.8	14.5	25.5	12	0.20	0.93	100



## Insulated twin cable end-sleeves



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ For looping of clamps
- ▶ Colour-coding following DIN 46228 part 4 (0.5 - 16 mm<sup>2</sup>)
- ▶ Halogen-free

### Characteristics

- Heat resistant to 105 °C

### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

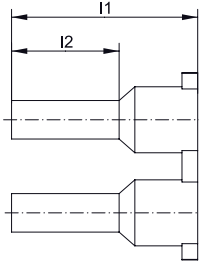
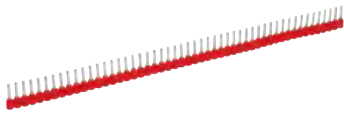
### Technical instructions

- Tool: see page 1.135
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nennquerschnitt mm <sup>2</sup>	Art.-Nr.	Farbe	Abmessung mm					Gewicht/ 1000 St. ~ kg	VE/St.
			d1	d3	l1	l2	s1		
2 x 0.25	<b>8678</b>		1.20	2.3/3.9	15.0	8	0.15	0.110	1000
2 x 0.34	<b>8688</b>		1.20	2.3/3.9	15.0	8	0.15	0.110	1000
2 x 0.5	<b>8698</b>		1.40	3.0/5.2	15.0	8	0.15	0.110	1000
2 x 0.75	<b>8708</b>		1.70	3.3/5.5	15.0	8	0.15	0.130	1000
	<b>87010</b>		1.70	3.3/5.5	17.0	10	0.15	0.150	1000
2 x 1	<b>8718</b>		2.00	4.0/6.0	15.0	8	0.15	0.170	1000
	<b>87110</b>		2.00	4.0/6.0	17.0	10	0.15	0.170	1000
2 x 1.5	<b>8728</b>		2.20	4.2/7.2	16.0	8	0.15	0.183	1000
	<b>87212</b>		2.20	4.2/7.2	20.0	12	0.15	0.237	1000
2 x 2.5	<b>87310</b>		2.80	4.8/8.4	18.5	10	0.20	0.312	100
	<b>87313</b>		2.80	4.8/8.4	21.5	13	0.20	0.340	100
2 x 4	<b>87412</b>		3.70	5.7/9.6	23.0	12	0.20	0.467	100
2 x 6	<b>87514</b>		4.80	7.7/10.8	26.0	14	0.20	0.730	100
2 x 10	<b>87614</b>		6.40	8.0/13.8	26.0	14	0.20	0.884	100
2 x 16	<b>87714</b>		8.20	10.4/19.2	30.0	14	0.20	1.273	100



### Insulated cable end-sleeves, strip form



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Crimped cable end-sleeves for simple mounting to cable clamps
- ▶ Halogen-free

#### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105 °C
- 50 pcs. cable end-sleeves per strip

#### Material

- Copper (EN13600)
- Synthetic material: polypropylene

#### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	ST9698		14	8	0.100	500
0.75	ST9708		14	8	0.100	500
1	ST9718		14	8	0.100	500
1.5	ST9728		14	8	0.100	500
2.5	ST9738		14	8	0.100	500

### Insulated cable end-sleeves, small coil



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for optimal cable insertion
- ▶ Automatic processing due to coil shape
- ▶ Halogen-free

#### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105 °C

#### Material

- Copper (EN13600)
- Synthetic material: polypropylene

#### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	BAK9698		14	8	0.136	1100
0.75	BAK9708		14	8	0.154	1100
1	BAK9718		14	8	0.187	800
1.5	BAK9728		14	8	0.200	800
2.5	BAK9738		14	8	0.300	500

## Insulated cable end-sleeves, large coil



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Automatic processing due to coil shape
- ▶ Halogen-free

### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105 °C

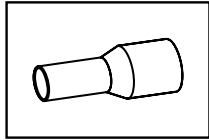
### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	<b>BAG9698</b>	□	14	8	0.120	10000
0.75	<b>BAG9708</b>	■	14	8	0.130	10000
1	<b>BAG9718</b>	■	14	8	0.160	7500
1.5	<b>BAG9728</b>	■	14	8	0.173	7500
2.5	<b>BAG9738</b>	■	14	8	0.230	5000

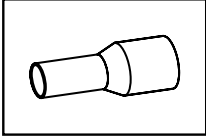


### Tool application chart

#### Cable end-sleeves to DIN 46228, part 1 and DIN 46228, part 4 Insulated cable end-sleeves for short circuit resistant conductors

##### Part 1 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0,08 - 10	K303		2.9		◇
	0,08 - 16	K306K		2.10		◇
		K304K		2.9		◇
		K3014K		2.10		◇
	0,14 - 10	K3016K		2.11		◇
		K32		2.8		□
		K48		2.7		□
	0,14 - 2,5	K4		2.6		∩
	0,5 - 2,5	K4		2.6		∩
	0,5 - 6	K36		2.8		□
	0,5 - 16	K3		2.6		∩
	10 - 35	K35		2.7		∩
	25 - 50	K05WF50		2.18	2.18	◇
50 - 95	K05WF95		2.18	2.18	◇	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0,5 - 6	K507		2.22		◇
	0,5 - 50	K507WF		2.22		◇
		K50		2.23	2.82	◇
		EKWF50ML		6.5	2.82	◇
		EK50ML		6.6	2.82	◇
	10 - 50	K354		2.24	2.86	∩
	25 - 240	K22		2.26	2.90	◇
Hand hydraulic crimping tools	25 - 240	HK6022		2.56	2.90	◇
		HK12030		2.60	2.94	◇
		HK12042		2.62	2.94	◇
		HK120U		2.64	2.94	◇
Battery powered crimping tools	6 - 120	EKWF120ML		2.31		◇
	10 - 50	EK354ML		2.32	2.86	∩
		EK354		2.36	2.86	∩
	25 - 240	EKM6022		2.38	2.90	◇
		EK6022		2.40	2.90	◇
		EK12032		2.46	2.94	◇
		EK12042		2.48	2.94	◇
		EK120U		2.50	2.94	◇
		EK135FT	+UA15T	2.52	2.94	◇
		EKM6022IS		4.6	2.90	◇
		EKM60UNV	+UA22	6.11	2.90	◇
		EK60UNV	+UA22	6.12	2.90	◇
		EK120UNV	+UA12TKL	6.13	2.94	◇

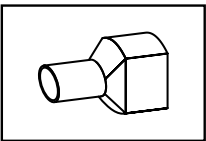


### Tool application chart

**Cable end-sleeves to DIN 46228, part 1 and DIN 46228, part 4  
Insulated cable end-sleeves for short circuit resistant conductors**

Part 2 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Hydraulic crimping systems	25 - 240	THK22		2.68	2.90	◇
		THK120		2.72	2.94	◇
		HK252	+25A13	2.78	2.94	◇
Hydraulic crimping heads	25 - 240	PK22		2.68	2.90	◇
		PK12042		2.72	2.94	◇
		PK120U		2.74	2.94	◇
		PK252	+25A13	2.76	2.94	◇
		PK60UNV	+UA22	6.10	2.90	◇



### Tool application chart

**Insulated twin cable end-sleeves**

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	2 x 0,25 - 2 x 4	K36		2.8		□
		K32		2.8		□
		K303		2.9		◇
		K3014K		2.10		◇
		K3016K		2.11		◇
	2 x 0,5 - 2 x 6	K304K		2.9		◇
	2 x 0,5 - 2 x 10	K306K		2.10		◇
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	2 x 16	K05WF50		2.18		◇
	2 x 6 - 2 x 16	K50		2.23	2.83	◇
		EKWF50ML		6.5	2.83	◇
		EK50ML		6.6	2.83	◇
Battery powered crimping tools	6 - 120	K507WF		2.22		◇
		EKWF120ML		2.31		◇



# PRECISION - CABLE CONNECTIONS, INSULATED AND NON-INSULATED

Electrical power is the product of voltage and current strength. An optimum connection guarantees to transfer this power without thermal losses. This requires materials, design and tool to be correctly processed and matched to one another. If you want optimum power at all times, you can rely on Klauke's best work.



#### In brief

- ▶ High requirements in detail
- ▶ Solutions available for small cross-sections
- ▶ Broad range of versions
- ▶ Optimum connection without thermal loss
- ▶ Grooved profile for improved conductor hold

## ► Easy insulation

All insulation is produced in the Easy-Entry version, for simple cable insertion without splicing. For small ranges with big effect.

- Cable connections with nominal cross-sections from 0.1 mm<sup>2</sup> to 6 mm<sup>2</sup>
- Resistant to temperatures of up to 105 °C

- Flame retardant polyamide insulation: No toxic vapours in case of fire
- Halogen-free
- Insensitive to corrosion due to tinning under the insulation
- Simple processing thanks to Easy-Entry
- Grooved profile on the inside for improved contacting

## ► More hold with grooved profile

The detail is key. Not only are there numerous models of Klauke tabs and receptacles, they are also equipped with special features. No matter whether as a standardised connector or with grooved profile for improved contacting - Klauke will always provide the right feature for your requirements.

- Broad range of models
- All-purpose
- Also as standardised connectors with various tab widths
- Available with strain relief
- Fully-insulated receptacles
- Grooved profile and additional copper ring in the insulation area for higher stresses



## ► Quality in detail

In a machine, everything has to pull together. For the machine to run, every component has to function. Even when it comes to small parts, better to go for high quality products with a high capacity, for our receptacles with snap-in point for example. The snap-in point guarantees a reliable connection even after repeated insertions.

- High conductivity and reliable insulation thanks to high-quality materials
- Improved spring properties by the use of bronze



## Insulated solderless terminals



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ To DIN 46237
- ▶ High-quality brazing process in the crimp area
- ▶ Insulation sleeve halogen-free

### Characteristics

- Heat resistant to 105 °C
- Easy-Entry insulation for simple cable insertion
- Cross-section-dependent colour-coding

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

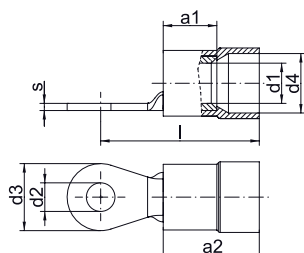
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

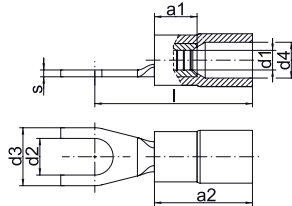
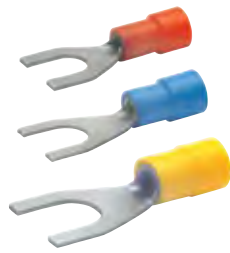
- \* = not standardised
- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm								Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d1	d2	d3	d4	l	s		
0.1 - 0.4	--	<b>6192</b>	Yellow	*	--	--	1.0	2.3	5.0	2.2	14.0	0.5	0.020	100
	--	<b>61925</b>	Yellow	*	--	--	1.0	2.6	5.0	2.2	14.0	0.5	0.020	100
	--	<b>6193</b>	Yellow	*	--	--	1.0	3.3	5.0	2.2	14.0	0.5	0.020	100
	--	<b>61935</b>	Yellow	*	--	--	1.0	3.8	6.5	2.2	16.0	0.5	0.025	100
	--	<b>6194</b>	Yellow	*	--	--	1.0	4.4	7.0	2.2	16.0	0.5	0.025	100
	--	<b>6195</b>	Yellow	*	--	--	1.0	5.4	8.0	2.2	15.0	0.5	0.025	100
0.5 - 1	2.5 - 1	<b>62025</b>	Red		5	10.5	1.6	2.8	6.0	4.5	16.5	0.8	0.060	100
	3.0 - 1	<b>6203</b>	Red		5	10.5	1.6	3.2	6.0	4.5	16.5	0.8	0.060	100
	3.5 - 1	<b>62035</b>	Red		5	10.5	1.6	3.7	6.0	4.5	16.5	0.8	0.550	100
	4.0 - 1	<b>6204</b>	Red		5	10.5	1.6	4.3	8.0	4.5	17.5	0.8	0.070	100
	5.0 - 1	<b>6205</b>	Red		5	10.5	1.6	5.3	10.0	4.5	18.5	0.8	0.090	100
	--	<b>6206</b>	Red	*	5	10.5	1.6	6.5	11.0	4.5	20.5	0.8	0.080	100
	--	<b>6208</b>	Red	*	5	10.5	1.6	8.4	14.0	4.5	22.5	0.8	0.130	100
	--	<b>62010</b>	Red	*	5	10.5	1.6	10.5	18.0	4.5	24.5	0.8	0.130	100
1.5 - 2.5	3.0 - 2.5	<b>6303</b>	Blue		5	11.5	2.3	3.2	6.0	5.0	17.5	0.8	0.065	100
	3.5 - 2.5	<b>63035</b>	Blue		5	11.0	2.3	3.7	6.0	5.1	17.5	0.8	0.065	100
	4.0 - 2.5	<b>6304</b>	Blue		5	11.5	2.3	4.3	8.0	5.1	18.5	0.8	0.080	100
	5.0 - 2.5	<b>6305</b>	Blue		5	11.5	2.3	5.3	10.0	5.1	20.5	0.8	0.090	100
	6.0 - 2.5	<b>6306</b>	Blue		5	11.5	2.3	6.5	11.0	5.1	22.5	0.8	0.110	100
	8.0 - 2.5	<b>6308</b>	Blue		5	11.5	2.3	8.4	14.0	5.1	23.5	0.8	0.130	100
	--	<b>63010</b>	Blue	*	5	11.5	2.3	10.5	18.0	5.1	25.5	0.8	0.160	100
4 - 6	4.0 - 6	<b>6504</b>	Yellow		6	12.5	3.6	4.3	8.0	6.5	20.5	1.0	0.140	100
	5.0 - 6	<b>6505</b>	Yellow		6	12.5	3.6	5.3	10.0	6.5	21.5	1.0	0.160	100
	6.0 - 6	<b>6506</b>	Yellow		6	12.5	3.6	6.5	11.0	6.5	22.5	1.0	0.170	100
	8.0 - 6	<b>6508</b>	Yellow		6	12.5	3.6	8.4	14.0	6.5	25.5	1.0	0.220	100
	10.0 - 6	<b>65010</b>	Yellow		6	12.5	3.6	10.5	18.0	6.5	27.5	1.0	0.290	100
	--	<b>65012</b>	Yellow	*	6	12.5	3.6	13.0	18.0	6.5	27.5	1.0	0.320	100



## Insulated solderless terminals, fork type



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Dimensions in the crimp area to DIN 46237
- ▶ High-quality brazing process in the crimp area
- ▶ Simple fork-type mounting
- ▶ Insulation sleeve halogen-free

### Characteristics

- Heat resistant to 105 °C
- Easy-Entry insulation for simple cable insertion
- Cross-section-dependent colour-coding

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested
- \* = not standardised

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm								Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d1	d2	d3	d4	l	s		
0.1 - 0.4	--	<b>619C3</b>	□	*	--	--	--	3.2	5.0	--	14.0	0.5	0.020	100
	3.0 - 1	<b>620C3</b>	■		5	10.5	1.6	3.2	6.0	4.5	16.5	0.8	0.060	100
	3.5 - 1	<b>620C35</b>	■		5	10.5	1.6	3.7	6.8	4.5	17.5	0.8	0.060	100
0.5 - 1	4.0 - 1	<b>620C4</b>	■		5	10.5	1.6	4.3	6.8	4.5	17.5	0.8	0.070	100
	5.0 - 1	<b>620C5</b>	■		5	10.5	1.6	5.3	10.0	4.5	18.5	0.8	0.090	100
	--	<b>620C6</b>	■	*	5	10.5	1.6	6.5	11.0	4.5	20.5	0.8	0.080	100
1.5 - 2.5	3.0 - 2.5	<b>630C3</b>	■		5	11.5	2.3	3.2	6.0	5.1	17.5	0.8	0.060	100
	3.5 - 2.5	<b>630C35</b>	■		5	11.5	2.3	3.7	6.8	5.1	18.5	0.8	0.065	100
	4.0 - 2.5	<b>630C4</b>	■		5	11.5	2.3	4.3	6.8	5.1	18.5	0.8	0.080	100
4 - 6	5.0 - 2.5	<b>630C5</b>	■		5	11.5	2.3	5.3	10.0	5.1	20.5	0.8	0.090	100
	6.0 - 2.5	<b>630C6</b>	■		5	11.5	2.3	6.5	11.0	5.1	22.5	0.8	0.110	100
	4.0 - 6	<b>650C4</b>	□		6	12.5	3.6	4.3	8.0	6.5	20.5	1.0	0.140	100
4 - 6	5.0 - 6	<b>650C5</b>	□		6	12.5	3.6	5.3	10.0	6.5	21.5	1.0	0.160	100
	6.0 - 6	<b>650C6</b>	□		6	12.5	3.6	6.5	11.0	6.5	22.5	1.0	0.170	100
	8.0 - 6	<b>650C8</b>	□		6	12.5	3.6	8.4	14.0	6.5	25.5	1.0	0.220	100
	10.0 - 6	<b>650C10</b>	□		6	12.5	3.6	10.5	18.0	6.5	27.5	1.0	0.280	100



## Insulated pin terminals



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ To DIN 46231
- ▶ High-quality brazing process in the crimp area
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C
- Easy-Entry insulation for simple cable insertion

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

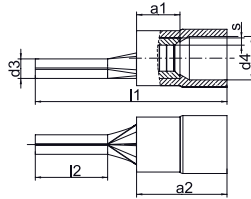
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested
- \* = not standardised



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d3	d4	l1	l2		
0.1 - 0.4	--	<b>704</b>		*	--	--	1.4	--	18.0	9.0	0.020	100
0.5 - 1	1	<b>705</b>			5	10.5	1.9	4.5	22.0	10.0	0.065	100
		<b>705K</b>		*	5	10.5	1.9	4.5	18.0	6.0	0.060	100
1.5 - 2.5	2.5	<b>710</b>			5	11.5	1.9	5.1	23.0	10.0	0.065	100
		<b>710K</b>		*	5	11.5	1.9	5.1	19.5	6.5	0.060	100
		<b>710L</b>		*	5	11.5	1.9	5.1	27.5	16.0	0.100	100
4 - 6	6	<b>715</b>			6	12.5	2.7	6.5	26.0	11.0	0.160	100

## Insulated pin receptacles



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength



### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70 °C



### Material

- Bronze (CuSnZn)
- Insulation sleeve: PVC



### Surface

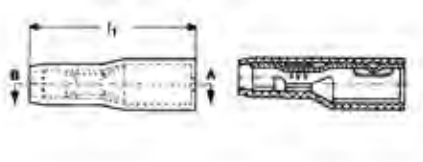
- Tin-plated to protect against corrosion




### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1		
0.5 - 1	920		4	22	0.060	100
1.5 - 2.5	930		5	22	0.120	100
4 - 6	950		5	22	0.125	100

## Insulated pin receptacles



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70 °C



### Material

- Brass (CuZn)
- Insulation sleeve: PVC



### Surface

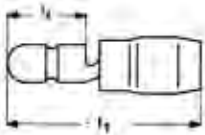
- Tin-plated to protect against corrosion




### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	l2		
0.5 - 1	1020		4	22	9	0.060	100
1.5 - 2.5	1030		5	22	9	0.075	100
4 - 6	1050		5	22	9	0.110	100



## Insulated pin receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 4 - 6 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	s		
0.5 - 1	<b>920V</b>	■	4	24	0.38	0.065	100
4 - 6	<b>950V</b>	■	5	27	0.40	0.150	100

## Insulated pin receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	l2		
0.5 - 1	<b>1020V</b>	■	4	25	11	0.065	100
1.5 - 2.5	<b>1030V</b>	■	5	25	11	0.080	100
4 - 6	<b>1050V</b>	■	5	27	13	0.120	100

## Insulated receptacles, tinned brass



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46245, part 1 – 3 and similar versions
- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70 °C, PA to 105 °C



### Material

- Brass (CuZn)
- Insulation sleeve: PVC/PA

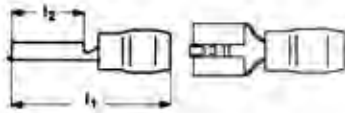


### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs	
						l1	l2				
0.5 - 1		8201	■	0.5	2.8	17.5	8.0	PVC	0.035	100	
		8201A	■	0.8	2.8	17.5	8.0	PVC	0.045	100	
	4.8 - 1	8202	■	0.5	4.8	18.0	6.0	PVC	0.065	100	
		8203	■	0.8	4.8	18.0	6.0	PVC	0.065	100	
	1.5 - 2.5	6.3 - 1	720	■	0.8	6.3	22.0	7.5	PVC	0.090	100
			7208	■	0.8	7.7	25.0	9.5	PVC	0.110	100
		8301	■	0.5	2.8	18.0	8.0	PA	0.050	100	
		8301A	■	0.8	2.8	18.0	8.0	PA	0.060	100	
4.8 - 2.5		8302	■	0.5	4.8	18.0	6.0	PVC	0.070	100	
		8303	■	0.8	4.8	18.0	6.0	PVC	0.070	100	
4 - 6	6.3 - 2.5	730	■	0.8	6.3	21.0	7.4	PVC	0.090	100	
		7308	■	0.8	7.7	25.0	9.5	PVC	0.115	100	
	6.3 - 6	8503	■	0.8	4.8	23.0	7.5	PA	0.138	100	
		750	■	0.8	6.3	21.0	7.5	PVC	0.100	100	
		7509	■	1.2	9.5	26.5	12.0	PVC	0.150	100	



## Insulated receptacles, tinned bronze



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength

### Characteristics

- To DIN 46245, part 3
- Cross-section-dependent colour-coding
- Heat resistant to 70 °C

### Material

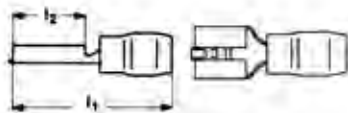
- Bronze (CuSnZn)
- Insulation sleeve: PVC

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/ pcs
						l1	l2			
0.5 - 1	6.3 - 1	<b>720BZ</b>	■	0.8	6.3	22	7.5	PVC	0.09	100
1.5 - 2.5	6.3 - 2.5	<b>730BZ</b>	■	0.8	6.3	21	7.4	PVC	0.09	100
4 - 6	6.3 - 6	<b>750BZ</b>	■	0.8	6.3	21	7.5	PVC	0.10	100

## Insulated receptacles, multiple type



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70 °C

### Material

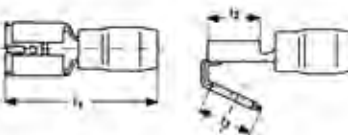
- Brass (CuZn)
- Insulation sleeve: PVC

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm			Insulation material	Weight/pcs. ~kg	Packing unit/ pcs
					l1	l2	l3			
0.5 - 1	<b>720AZ</b>	■	0.8	6.3	22	7.5	8	PVC	0.11	100
1.5 - 2.5	<b>730AZ</b>	■	0.8	6.3	22	7.5	8	PVC	0.11	100
4 - 6	<b>750AZ</b>	■	0.8	6.3	25	8.0	8	PVC	0.18	100

## Insulated receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Fast processing as no additional insulation of the crimped connection is required



### Characteristics

- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70 °C, PA to 105 °C



### Material

- Brass (CuZn)
- Insulation sleeve: PVC/PA

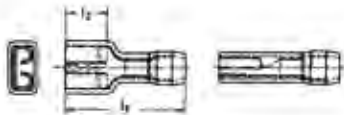


### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs
					l1	l2			
0.5 - 1	8201V	■	0.5	2.8	19.0	5.5	PA	0.07	100
	8201AV	■	0.8	2.8	19.0	5.5	PA	0.07	100
	8202V	■	0.5	4.8	20.0	7.0	PVC	0.10	100
	8203V	■	0.8	4.8	20.0	7.0	PVC	0.10	100
	720V	■	0.8	6.3	21.0	7.5	PVC	0.08	100
1.5 - 2.5	8301V	■	0.5	2.8	20.0	8.0	PVC	0.14	100
	8301AV	■	0.8	2.8	20.0	8.0	PVC	0.14	100
	8302V	■	0.5	4.8	20.5	7.0	PVC	0.11	100
	8303V	■	0.8	4.8	20.5	7.0	PVC	0.11	100
	730V	■	0.8	6.3	21.0	7.5	PVC	0.15	100
4 - 6	8502V	■	0.5	4.8	20.5	9.5	PVC	0.15	100
	8503V	■	0.8	4.8	20.5	9.5	PVC	0.15	100
	750V	■	0.8	6.3	25.5	11.5	PVC	0.16	100



## Insulated tabs



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70 °C, PA to 105 °C



### Material

- Brass (CuZn)
- Insulation sleeve: PVC/PA

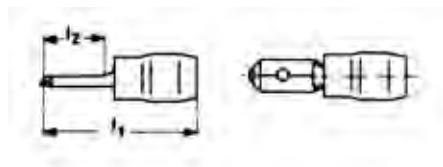


### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs
					l1	l2			
0.5 - 1	8201C	■	0.5	2.8	22.0	11.5	PA	0.040	100
	8201B	■	0.8	2.8	14.6	5.5	PVC	0.060	100
	8202B	■	0.5	4.8	22.0	11.5	PA	0.070	100
	8203B	■	0.8	4.8	22.0	11.5	PA	0.070	100
	820	■	0.8	6.3	22.0	8.0	PVC	0.060	100
1.5 - 2.5	8302B	■	0.5	4.8	22.0	11.5	PA	0.070	100
	8303B	■	0.8	4.8	22.0	11.5	PA	0.070	100
	830	■	0.8	6.3	22.0	8.0	PVC	0.065	100
4 - 6	8502B	■	0.5	4.8	24.5	10.5	PA	0.120	100
	8503B	■	0.8	4.8	24.5	10.5	PA	0.120	100
	850	■	0.8	6.3	22.0	8.0	PVC	0.110	100

## Insulated end-splices



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6  
 ► Safe sealing of open conductors  
 ► Insulation sleeve halogen-free



### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C



### Material

- Copper (ETP)
- Insulation sleeve: PA

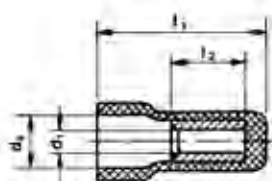


### Surface

- Tin-plated to protect against corrosion

### Technical instructions

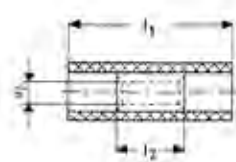
- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm				Weight/pcs. ~kg	Packing unit/pcs
			d1	d2	l1	l2		
1.5 - 2.5	1130	■	2.3	5.2	16	7	0.05	100
4 - 6	1150	■	3.6	7.0	18	7	0.14	100



## Insulated butt connectors



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Simple and safe connecting owed to butt mark
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

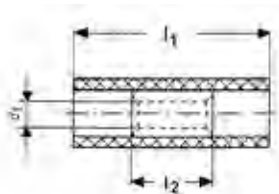
- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.1 - 0.4	669	Yellow	1.2	20	12	0.030	100
0.5 - 1	670	Red	1.6	25	15	0.090	100
1.5 - 2.5	680	Blue	2.3	25	15	0.115	100
4 - 6	700	Yellow	3.6	27	15	0.250	100

## Insulated butt connectors with heat shrink insulation



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Simple and safe processing due to butt mark
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Special crimping tool required
- Heat resistant to 105 °C

### Material

- Copper (ETP)
- Insulation sleeve: PE

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.5 - 1	670WS	Red	1.6	36	15	0.12	100
1.5 - 2.5	680WS	Blue	2.3	36	15	0.15	100
4 - 6	700WS	Yellow	3.4	41	15	0.25	100



## Insulated parallel connectors



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105 °C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

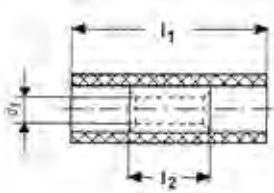
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.157
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.1 - 0.4	<b>769</b>	Yellow	1.2	13	5	0.020	100
0.5 - 1	<b>770</b>	Red	1.6	17	7	0.030	100
1.5 - 2.5	<b>780</b>	Blue	2.3	17	7	0.035	100
4 - 6	<b>790</b>	Yellow	3.6	21	7	0.105	100

## Non-insulated receptacles



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46247, part 1 – 3 and similar versions
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

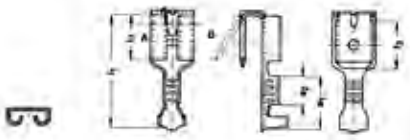
- Tool: see page 1.158
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = nickel-plated steel version also available, Part Number appendix "ST"

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	s		
0.5 - 1	--	<b>18251</b>	0.5	2.8	5.0	2.8	12.5	5.0	3.3	0.30	0.025	100
	--	<b>18251A</b>	0.8	2.8	5.5	2.5	12.5	5.0	3.3	0.30	0.025	100
	B 2.8 - 1	<b>18201A</b>	0.8	2.8	5.5	2.5	14.0	6.3	3.3	0,35	0.025	100
	--	<b>18202</b>	0.5	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.050	100
	4.8 - 1	<b>18203</b>	0.8	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.050	100
1.5 - 2.5	6.3 - 1	<b>1720</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.085	100
	4.8 - 2.5	<b>18303</b>	0.8	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.055	100
	6.3 - 2.5	<b>*1730</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.082	100
4 - 6	6.3 - 6	<b>*1750</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.100	100

## Non-insulated receptacles, multiple type



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46247, part 1 – 3 and similar versions
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.158
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = corresponds to DIN 46345

Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Hint	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	s		
0.5 - 1	<b>18203AZ</b>	0.8	4.8		6.0	3.4	15.6	7	6.0	0.38	0.09	100
1.5 - 2.5	<b>18303AZ</b>	0.8	4.8		6.0	3.4	15.6	7	6.0	0.38	0.09	100
	<b>1730AZ</b>	0.8	6.3	*	8.5	4.5	19.2	8	7.5	0.38	0.13	100



## Non-insulated receptacles with locking latch



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46340, sheet 3
- With latch to engage in housing
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

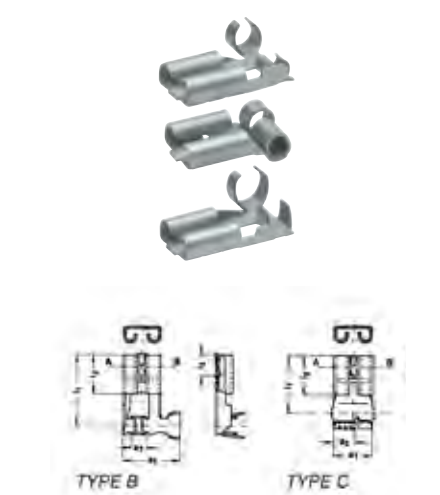
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 1.158
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
				a1	a2	l1	l2	l3	s		
0.5 - 1	<b>2720</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.070	100
1.5 - 2.5	<b>2730</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.075	100
4 - 6	<b>2750</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.090	100

## Non-insulated receptacles with lateral conductor connector



► For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6  
► Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 1.158
- You will find further information on the cable descriptions in the technical appendix, page i-6

Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	l4		
0.5 - 1	<b>3720</b>	0.8	6.3	B	11.0	3.0	12.5	7.4	4.0	7.2	0.080	100
0.5 - 1.5	<b>3725</b>	0.8	6.3	C	7.5	4.0	11.00	7.4	4.0	7.2	0.085	100
1.5 - 2.5	<b>3735</b>	0.8	6.3	B	11.0	3.0	13.5	7.0	4.0	7.2	0.085	100

## Non-insulated tabs



- ▶ For fine and superfine stranded conductors, e.g. to EN 60228 Cl. 5 and 6
- ▶ Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion

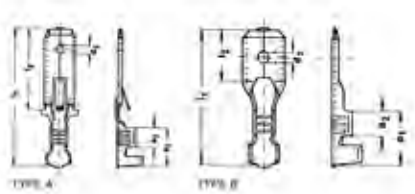


### Technical instructions

- Tool: see page 1.158
- You will find further information on the cable descriptions in the technical appendix, page i-6

### Additional information

- \* = dimensions in the plug sector to DIN 46244



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Hint	Dimension mm					Weight/pcs. ~kg	Packing unit/pcs
							a1	a2	d2	l1	l2		
0.5 - 1		<b>2235</b>	0.8	2.8	A	*	6.0	3.2	1.30	22.5	12.7	0.045	100
	46343 B6.3 - 1	<b>2220</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.085	100
1.5 - 2.5	46248 A6.3 - 2.5	<b>1830</b>	0.8	6.3	B		9.0	4.5	1.65	20.0	8.0	0.065	100
	46343 B6.3 - 2.5	<b>2230</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.090	100
4 - 6	46343 B6.3 - 6	<b>2250</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.100	100

## Insulation sleeves



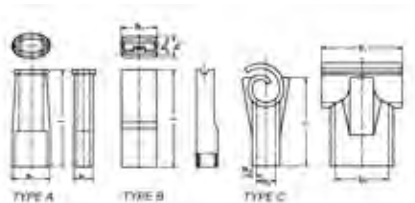
- ▶ For non-insulated tabs
- ▶ Perfectly-matched to the different versions

### Characteristics

- For post-insulation of crimped non-insulated receptacles

### Material

- PA / PE / PVC



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Typ	Dimension mm			Insulation material	for item	Weight/pcs. ~kg	Packing unit/pcs
					b1	l	h1				
0.5 - 1	2.8	<b>2755</b>	□	A	5.0	20.0	3.5	PE	18251,18251A, 18201A	0.015	100
0.5 - 1.5	4.8	<b>2760</b>	□	A	7.0	20.0	4.0	PE	18202,18203	0.015	100

see next page



## Insulation sleeves

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Typ	Dimension mm			Insulation material	for item	Weight/pcs. ~kg	Packing unit/pcs
					b1	l	h1				
0.5 - 2.5	6.3	2770		A	12.5	23.0	8.5	PE	1720,1730	0.035	100
		2775		A	9.5	25.0	5.0	PE	1820,1830	0.030	100
0.5 - 4	6.3	2780		A	9.5	25.0	6.0	PE	1720,1730, 1820,1830	0.030	100
0.5 - 6		2785		B	9.2	24.5	5.6	PA	1720,1730,1750, 2720,2730,2750	0.055	100
		2790		C	13.5	15.0	3.1	PVC	3720,3725, 3735	0.060	100

## Non-insulated tabs, angled version



### Characteristics

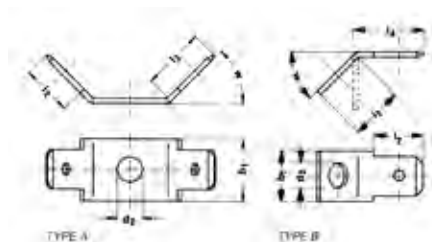
- To DIN 46342, part 1 and similar versions
- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

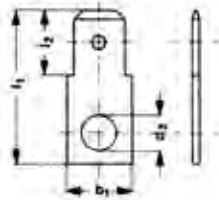
### Surface

- Tin-plated to protect against corrosion



Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
					b1	d2	l2	l3	l4	w		
--	2040	0.8	2.8	A	2.8	3.2	5.5	2.2	--	60°	0.040	100
	2045	0.8	6.3	A	6.3	4.3	8.0	4.0	--	45°	0.160	100
	2060	0.8	6.3	B	6.3	4.3	8.0	4.0	10.7	30°	0.085	100
	2070	0.8	6.3	B	6.3	3.2	8.0	4.0	10.7	45°	0.085	100
	2075	0.8	6.3	B	6.3	4.3	8.0	4.0	10.7	45°	0.085	100
B 6.3 - 0.8	2080	0.8	6.3	B	6.3	4.3	8.0	4.0	10.7	45°	0.085	100
	2083	0.8	6.3	B	6.3	5.3	8.0	4.0	10.7	45°	0.080	100
--	2090	0.8	6.3	B	6.3	5.3	8.0	4.0	10.7	45°	0.080	100
	2105	0.8	6.3	B	6.3	3.2	8.0	4.0	11.5	90°	0.085	100
C 6.3 - 0.8	2115	0.8	6.3	B	6.3	4.3	8.0	4.0	11.5	90°	0.090	100

## Non-insulated tabs, straight version



TYPE A

### Characteristics

- To DIN 46342, part 1 and similar versions
- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

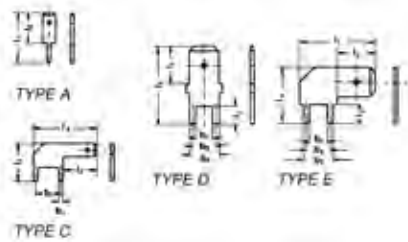
### Surface

- Tin-plated to protect against corrosion

Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm					Weight/pcs. ~kg	Packing unit/pcs
					b1	d2	l1	l2	s		
--	<b>2123</b>	0.8	2.8	A	4.5	3.1	13.0	5.5	0.8	0.028	100
A 6.3 - 0.8	<b>2140</b>	0.8	6.3	A	8.0	4.3	19.0	8.0	0.8	0.086	100
--	<b>2145</b>	0.8	6.3	A	8.0	5.3	19.0	8.0	0.8	0.080	100

## Non-insulated tabs for soldering

► Material used offers very good soldering characteristics



### Characteristics

- Dimensions in the plug sector to DIN 46244
- For soldering in printed circuits

### Material

- Brass (CuZn)

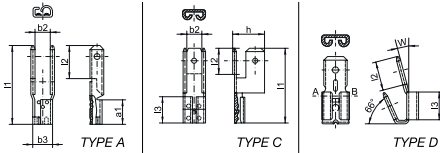
### Surface

- Tin-plated to protect against corrosion

Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm								Weight/pcs. ~kg	Packing unit/pcs
				b1	b2	b3	l1	l2	l3	l4	s		
<b>2010</b>	0.8	2.8	A	--	--	--	10.5	6.5	--	--	0.8	0.015	100
<b>2020</b>	0.5	2.8	C	1.0	5	--	--	7.1	8	13.4	0.5	0.025	100
<b>2025</b>	0.8	2.8	C	1.0	5	--	--	7.1	8	13.4	0.8	0.040	100
<b>2030</b>	0.8	6.3	D	3.5	5	6.4	16.0	8.0	4	12.0	0.8	0.065	100
<b>2035</b>	0.8	6.3	E	3.8	5	6.2	16.0	8.0	3	12.0	0.8	0.085	100



## Non-insulated multiple tabs



### Characteristics

- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

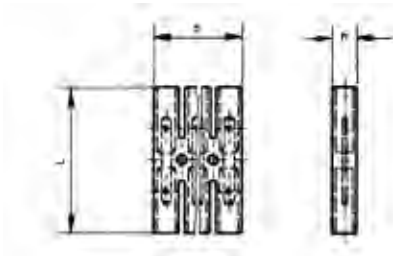
### Surface

- Tin-plated to protect against corrosion

Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm									Weight/pcs. ~kg	Packing unit/pcs
				a1	b2	b3	l1	l2	l3	h	w			
735	0.8	2.8	A	5	3.2	3.1	16.0	6.7	--	--	--	0.060	100	
755	0.8	4.8	C	--	4.4	--	20.0	7.0	7.0	8.0	--	0.155	100	
775	0.8	6.3	C	--	--	--	20.5	12	7.5	9.6	--	0.200	100	
725	0.8	6.3	D	--	--	--	--	8	7.5	--	15°	0.115	100	

## Flexible connector, tab width 2.8 mm, 4.8 mm and 6.3 mm

▶ No additional insulation required



### Characteristics

- With tabs 2.8, 4.8 or 6.3 x 0.8 mm
- 1, 2 and 12-poles
- Further poles on request

Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
Tab Width 2.8 mm												
8101	0.8	2.8	1	7.5	35	5.5	0.8	PVC	--	--	0.2	100
8102	0.8	2.8	2	15.0	35	5.5	0.8	PVC	--	2.7	0.3	50
81012	0.8	2.8	12	88.0	35	5.5	0.8	PVC	75	2.7	1.6	10
Tab Width 4.8 mm												
8051	0.8	4.8	1	12.5	28	6.6	0.8	PVC	--	--	0.25	100
8052	0.8	4.8	2	25.0	28	6.6	0.8	PVC	--	3.2	0.50	50
80512	0.8	4.8	12	142.0	28	6.6	0.8	PVC	120	3.2	2.80	10
Tab Width 6.3 mm												
8001	0.8	6.3	1	12.5	28	6.6	0.8	PVC	--	--	0.30	100
8002	0.8	6.3	2	25.0	28	6.6	0.8	PVC	--	3.7	0.55	50
80012	0.8	6.3	12	142.0	28	6.6	0.8	PVC	120	3.7	3.20	10



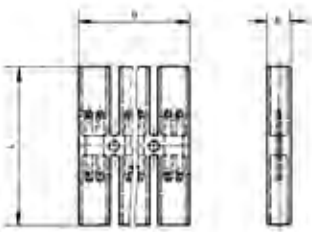
## Polyamide connector, tab width 2.8 and 6.3 mm

► No additional insulation required



### Characteristics

- With tabs 2.8 x 0.8 mm and 6.3 x 0.8 mm
- 1, 2 and 12-poles
- Further poles on request



Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/ pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
8011	0.8	6.3 and 2 x 2.8	1	10.0	50	7.5	0.8	PA	--	--	0.25	100
8012	0.8	6.3 and 2 x 2.8	2	22.5	50	7.5	0.8	PA	--	3.1	0.50	50
80112	0.8	6.3 and 2 x 2.8	12	147.5	50	7.5	0.8	PA	125	3.1	3.10	10

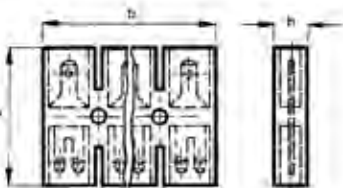
## Flexible circuit distributor, tab width 2.8 mm

► No additional insulation required



### Characteristics

- With tabs 2.8 x 0.8 mm
- 1 and 12-poles
- Further poles on request



Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/ pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
8151	0.8	2.8	1	12.5	28	7	0.8	PVC	--	--	0.25	100
81512	0.8	2.8	12	147.0	28	7	0.8	PVC	123	3.2	2.80	10



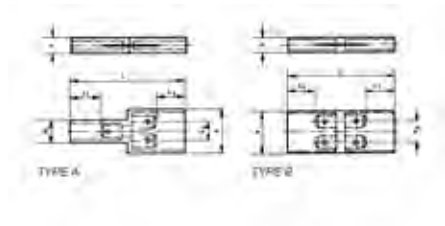
## Flexible circuit distributor, tab width 6.3 mm



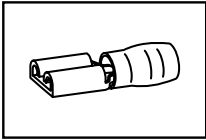
▶ No additional insulation required

### Characteristics

- With tabs 6.3 x 0.8 mm



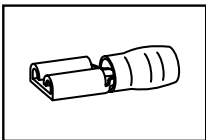
Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm								Insulation material	Weight/ pcs. ~kg	Packing unit/pcs
				b	b1	b2	l	l1	h	s				
<b>816</b>	0.8	6.3	A	21	11.3	9	53	15	7.5	0.8	PVC	0.60	10	
<b>817</b>	0.8	6.3	B	20	11.3	9	51	13	7.0	0.8	PVC	0.65	10	



### Tool application chart

#### Insulated cable connections

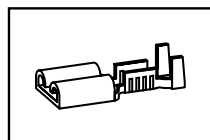
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0,1 - 1	K80		2.11		○
	0,5 - 6	K82A		2.12		○
		K82T		2.13		○
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0,1 - 16	K50		2.23	2.83	○
		EK50ML		6.6	2.83	○
	0,5 - 6	K507		2.22		○



### Tool application chart

#### Butt connectors with heat shrink insulation

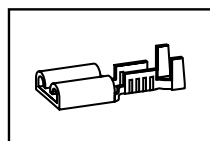
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0,1 - 16	K50		2.23	2.83	○
		EK50ML		6.6	2.83	○
	0,5 - 6	K82T		2.13		○



## Tool application chart

### Non-insulated receptacles, straight type

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0,5 - 2,5	K582		2.14		
	0,5 - 6	K592		2.14		
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0,25 - 6	K50		2.23	2.83	
		EK50ML		6.6	2.83	



## Tool application chart

### Non-insulated receptacles, with lateral conductor connector

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	3720, 3735	K50		2.23	2.83	
		EK50ML		6.6	2.83	
	3725	K50		2.23	2.83	
		EK50ML		6.6	2.83	





# PRACTICAL - POCKET BOXES AND ASSORTMENT BOXES

A good professional is always well sorted. The most important thing is the availability of tool and connector material. In Klauke assortment boxes from robust metal, the tools are supplied with matching cable lugs and connectors. Everything matches. Materials and tools have their own space - clearly arranged and immediately to hand. The boxes equip you for every application. On request, we can also stock them to suit your individual needs.



## In brief

- ▶ Brings order to the workplace due to clearly arranged design
- ▶ Everything to hand in one box
- ▶ Stocked to suit your needs and numerous versions available

## ► Practical and always to hand

With the practical pocket boxes, everything has its place and is always to hand, on the go and in the workshop. Chute openings for stackable pocket boxes simplify the removal of cable end-sleeves.

- Cable-end sleeves with and without insulation always to hand
- Practical chute opening for easy removal
- Stackable box
- Tough and impact-proof plastic



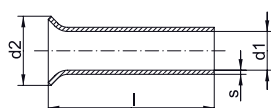
## ► Our range, your order

We have already compiled an assortment for you. We offer pre-filled boxes for various applications. You can also fill the robust box yourself if you want.

- High-quality boxes made from plastic or metal
- Contains tool and connectors matched to one other
- Even if exposed to severe vibrations or dropped, everything remains in the right compartment
- Boxes also available empty or custom-filled



## ST 23 B Pocket box with cable end-sleeves 0.25 - 1 mm<sup>2</sup>



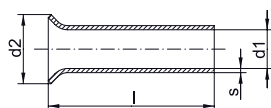
► Pocket box made from impact-resistant plastic

### Characteristics

- Stackable and resealable

Item	Part No.		
Pocket box with cable end-sleeves 0.25 - 1 mm <sup>2</sup> to DIN 46228 part 1	<b>ST23B</b>		
Scope of supply	Description	l mm	Quantity
ST23L	Pocket box		1
695V	Cable end-sleeve, 0.25 mm <sup>2</sup> , 5 mm	5	1000
705V	Cable end-sleeve, 0.34 mm <sup>2</sup> , 5 mm, Cu tinned	5	1000
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	6	1000
71S6V	Cable end-sleeve, 0.5 mm <sup>2</sup> , 6 mm, Cu tinned	6	500
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	6	500

## ST 21 B Pocket box with cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>



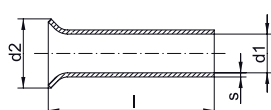
► Pocket box made from impact-resistant plastic

### Characteristics

- Stackable and resealable

Item	Part No.		
Pocket box with cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> to DIN 46228 part 1	<b>ST21B</b>		
Scope of supply	Description	l mm	Quantity
ST21L	Pocket box		1
71S6V	Cable end-sleeve, 0.5 mm <sup>2</sup> , 6 mm, Cu tinned	6	1000
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	6	500
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	6	500
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	7	500
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	7	500

## ST 22 B Pocket box with cable end-sleeves 4 - 16 mm<sup>2</sup>



► Pocket box made from impact-resistant plastic

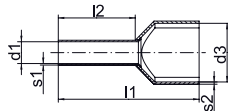
### Characteristics

- Stackable and resealable

Item	Part No.		
Pocket box with cable end-sleeves 4 - 16 mm <sup>2</sup> to DIN 46228 part 1	<b>ST22B</b>		
Scope of supply	Description	l mm	Quantity
ST22L	Pocket box		1
749V	Cable end-sleeve, 4 mm <sup>2</sup> , 9 mm	9	200
7512V	Cable end-sleeve, 6 mm <sup>2</sup> , 12 mm, Cu tinned	12	100
7612V	Cable end-sleeve, 10 mm <sup>2</sup> , 12 mm, Cu tinned	12	70
7712V	Cable end-sleeve, 16 mm <sup>2</sup> , 12 mm, Cu tinned	12	70



**ST 15 B Pocket box with insulated twin cable end-sleeves 2 x 0.75 - 2 x 2.5 mm<sup>2</sup>**



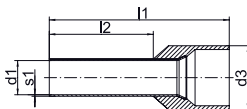
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with twin cable end-sleeves 2 x 0.75 - 2 x 2.5 mm <sup>2</sup>		<b>ST15B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST15L		Pocket box		1
8708		Insl. twin cable end-sleeve, 2 x 0.75 mm <sup>2</sup>	8	50
8718		Insl. twin cable end-sleeve, 2 x 1 mm <sup>2</sup>	8	50
8728		Insl. twin cable end-sleeve, 2 x 1.5 mm <sup>2</sup>	8	50
87310		Insl. twin cable end-sleeve, 2 x 2.5 mm <sup>2</sup>	10	50

**ST 1 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4**



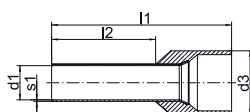
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1		<b>ST1B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST1L		Pocket box		1
1690		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	50
170W		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14.6 mm	8	100
171G		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14.6 mm	8	100
172R0		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14.6 mm	8	100
173B		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 15.2 mm	8	50

**ST 11 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4**



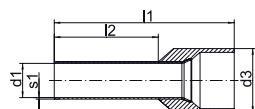
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4		<b>ST11B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST11L		Pocket box		1
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	50
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	100
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	100
4728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	100
4738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	8	50

**ST 31 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4, colour code 2**



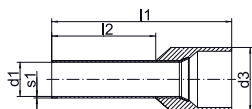
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4, colour code 2		<b>ST31B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST31L		Pocket box		1
1698		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 13 mm	8	50
1708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 13.5 mm	6	100
1718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 13.5 mm	8	100
1728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 13.5 mm	8	100
1738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14.5 mm	8	50

**ST 12 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4**



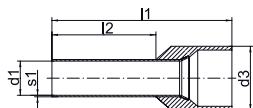
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4		<b>ST12B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST12L		Pocket box		1
47410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	10	50
47512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	20
47612		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	12	20
47712		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 24 mm	12	10

**ST 2 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4, colour code 1**



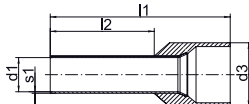
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item		Part No.		
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1		<b>ST2B</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
ST2L		Pocket box		1
174GR		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 16.5 mm	10	50
175S		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	20
176E		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 21.5 mm	12	20
177GR		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 22.2 mm	12	10

**ST 32 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4, colour code 2**



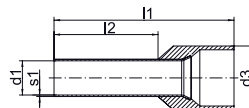
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item	Part No.			
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4, colour code 2	<b>ST32B</b>			
Scope of supply	Colour	Description	l2 mm	Quantity
ST32L		Pocket box		1
17410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 16.5 mm	10	50
17512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	20
17612		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 21.5 mm	12	20
17712		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 23.5 mm	12	10

**ST 3 B pocket box with insl. cable end-sleeves 0.25 - 1 mm<sup>2</sup>, DIN 46228 Part 4, colour code 1**



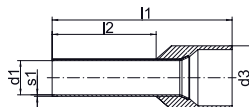
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item	Part No.			
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1	<b>ST3B</b>			
Scope of supply	Colour	Description	l2 mm	Quantity
ST3L		Pocket box		1
167H		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 10.4 mm	6	30
168T		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 10.4 mm	6	30
1690		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	30
170W		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14.6 mm	8	30
171G		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14.6 mm	8	30

**ST 13 B pocket box with insl. cable end-sleeves 0.25 - 1 mm<sup>2</sup>, DIN 46228 Part 4 & similar, colour code 1**



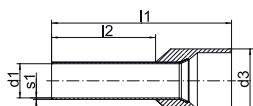
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item	Part No.			
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4 & similar, colour code 1	<b>ST13B</b>			
Scope of supply	Colour	Description	l2 mm	Quantity
ST13L		Pocket box		1
167H		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 10.4 mm	6	30
168T		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 10.4 mm	6	30
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	30
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	30
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	30

**ST 33 B pocket box with insl. cable end-sleeves 0.25-1 mm<sup>2</sup>,  
DIN 46228 Part 4 & similar, colour code 2**



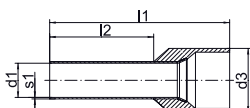
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4 & similar, colour code 2				<b>ST33B</b>
Scope of supply	Colour	Description	l2 mm	Quantity
ST33L		Pocket box		1
1676		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 11 mm	6	30
1686		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 11 mm	6	30
1698		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 13 mm	6	30
1708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 13.5 mm	8	30
1718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 13.5 mm	8	30

**GR 4698 DO Pocket box with insulated cable end-sleeves 0.5 mm<sup>2</sup>**



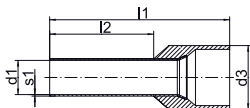
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insulated cable end-sleeves 0.5 mm <sup>2</sup> to DIN 46228 part 4				<b>GR4698DO</b>
Scope of supply	Colour	Description	l2 mm	Quantity
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	1000

**GR 4708 DO Pocket box with insulated cable end-sleeves 0.75 mm<sup>2</sup>**



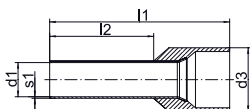
► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insulated cable end-sleeves 0.75 mm <sup>2</sup> DIN 46228 part 4				<b>GR4708DO</b>
Scope of supply	Colour	Description	l2 mm	Quantity
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	1000

**GR 4718 DO Pocket box with insulated cable end-sleeves 1 mm<sup>2</sup>**



► Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insulated cable end-sleeves 1 mm <sup>2</sup> DIN 46228 part 4				<b>GR4718DO</b>
Scope of supply	Colour	Description	l2 mm	Quantity
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	1000

### GR 4728 DO Pocket box with insulated cable end-sleeves 1.5 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.
Pocket box with insulated cable end-sleeves 1.5 mm <sup>2</sup> DIN 46228 part 4				<b>GR4728DO</b>
Scope of supply	Colour	Description	l2 mm	Quantity
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	1000

### GR 4738 DO Pocket box with insulated cable end-sleeves 2.5 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.
Pocket box with insulated cable end-sleeves 2.5 mm <sup>2</sup> DIN 46228 part 4				<b>GR4738DO</b>
Scope of supply	Colour	Description	l2 mm	Quantity
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	8	1000

### ST 5 L assortment of empty pocket boxes



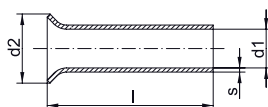
▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item	Part No.
Assortment of pocket boxes	<b>ST5L</b>

### SK 30 B Steel assortment box with cable end-sleeves and crimping tool

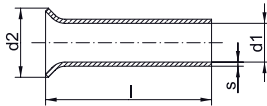


▶ Hammer-tone finished assortment box  
▶ Ideal for workshop equipment

Item	Dimension mm	Part No.	
Steel assortment box with cable end-sleeves and crimping tool	200 x 140 x 40	<b>SK30B</b>	
Scope of supply	Description	l mm	Quantity
SK30L	Steel carrying case		1
K48	Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	6	1
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	6	1000
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	6	1000
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	7	1000
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	7	1000



## SK 32 B Steel assortment box with cable end-sleeves and crimping tool



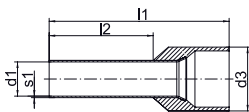
- ▶ Broad cable end-sleeve assortment appropriate crimping tool
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with cable end-sleeves and crimping tool	285 x 155 x 45	<b>SK32B</b>

Scope of supply	Description	l mm	Quantity
SK32L	Steel carrying case		1
K3	Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>		1
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	6	1000
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	6	1000
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	7	1000
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	7	500
749V	Cable end-sleeve, 4 mm <sup>2</sup> , 9 mm	9	500
7510V	Cable end-sleeve, 6 mm <sup>2</sup> , 10 mm	10	500
7618V	Cable end-sleeve, 10 mm <sup>2</sup> , 18 mm	18	250
7718V	Cable end-sleeve, 16 mm <sup>2</sup> , 18 mm	18	150

## SK 45 B Steel assortment box with insl. cable end-sleeves and crimping tool



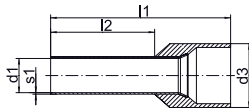
- ▶ Four of the most important insulated cable end-sleeve types in a steel carrying case including an appropriate crimping tool
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with insl. cable end-sleeves and crimping tool	200 x 140 x 40	<b>SK45B</b>

Scope of supply	Colour	Description	l2 mm	Quantity
SK30L		Steel carrying case		1
K48		Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	8	1
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	300
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	300
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	300
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm		200









## SK 47 B Steel assortment box with insl. cable end-sleeves and crimping tool



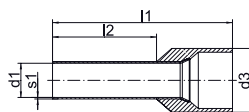
- ▶ Flexible use due to large cross-sectional range
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with insl. cable end-sleeves and crimping tool	285 x 155 x 45	<b>SK47B</b>

Scope of supply	Colour	Description	l2 mm	Quantity
SK32L		Steel carrying case		1
K3		Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>		1
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	200
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	200
4728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	200
4738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	8	200
47410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	10	100
47512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	100
47618		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 28 mm	18	100
47718		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 28 mm	18	50









## SK 30/3 P Assortment box from plastic with insl. cable end-sleeves and tools



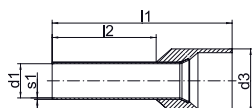
- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.
Plastic assortment box with insl. cable end-sleeves and tools	395 x 295 x 106	<b>SK303P</b>

Scope of supply	Colour	Description	l2 mm	Quantity
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>		1
K303		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	8	1
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	400
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	400
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	400
4728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	400
4738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	10	200
47410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	12	200
47512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	100
47612		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm		100

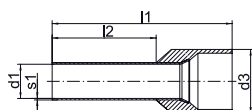
### SK 30/3 S Assortment box from plastic with insl. cable end-sleeves and crimping tool



- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.		
Plastic assortment box with insl. cable end-sleeves and crimping tool	275 x 230 x 83	<b>SK303S</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
K303		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>		1
4698	<input type="checkbox"/>	Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	100
4708	<input type="checkbox"/>	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	100
4718	<input type="checkbox"/>	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	100
4728	<input type="checkbox"/>	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	100
4738	<input type="checkbox"/>	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	10	50
47410	<input type="checkbox"/>	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	12	50
47512	<input type="checkbox"/>	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	18	30
47612	<input type="checkbox"/>	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	18	30

### SK 43 NB Assortment box from plastic with insl. cable end-sleeves and tools



- ▶ With everything needed for conductor preparation
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.		
Steel assortment box with insl. cable end-sleeves and tools	370 x 210 x 40	<b>SK43NB</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
SK43L		Steel carrying case		1
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>		1
K32		TWIST-it Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>		1
4698	<input type="checkbox"/>	Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	8	500
4708	<input type="checkbox"/>	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	8	500
4718	<input type="checkbox"/>	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	8	400
4728	<input type="checkbox"/>	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	400
4738	<input type="checkbox"/>	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	10	300
47410	<input type="checkbox"/>	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	12	100
47512	<input type="checkbox"/>	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	18	100
47612	<input type="checkbox"/>	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	18	100



## SK 65 B Assortment box from steel with tubular cable lugs and crimping tool



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

### Characteristics

- Sturdy steel carrying case with lock and handle

Item	Dimension mm	Part No.
Steel assortment box with tubular cable lugs "standard type" and crimping tool K05	400 x 250 x 50	<b>SK65B</b>

Scope of supply	Description	Quantity
SK65L	Steel carrying case	1
K05	Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	1
1R6	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M6, Cu tinned	25
1R8	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M8, Cu tinned	25
2R6	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M6, Cu tinned	25
2R8	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M8, Cu tinned	25
3R8	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M8, Cu tinned	25
3R10	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M10, Cu tinned	25
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	25
4R10	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M10, Cu tinned	25
5R8	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M8, Cu tinned	20
5R10	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M10, Cu tinned	20
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	20
6R12	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M12, Cu tinned	20

## EVERYTHING UNDER CONTROL!

A selection of the most commonly used tubular cable lugs, including crimping tool arranged in an assortment box. There are also other packages in an L-BOXX.

The perfectly coordinated L-BOXXes stand for intelligent mobility and are used for storage and for transport from the workshop to the construction site.





## SK 50 B Steel assortment box with DIN compressed cable lugs and crimping tool



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

### Characteristics

- Sturdy steel carrying case with lock and handle

Item	Dimension mm	Part No.
Steel assortment box with DIN compression cable lugs and crimping tool	400 x 250 x 50	<b>SK50B</b>
Scope of supply	Description	Quantity
SK65L	Steel carrying case	1
K05D	Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	1
101R5	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M5, Cu tinned	50
101R6	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M6, Cu tinned	50
102R5	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M5, Cu tinned	50
102R6	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M6, Cu tinned	50
103R8	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M8, Cu tinned	25
103R10	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M10, Cu tinned	25
104R8	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M8, Cu tinned	25
104R10	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M10, Cu tinned	25
105R8	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M8, Cu tinned	20
105R10	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M10, Cu tinned	20
106R10	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M10, Cu tinned	15
106R12	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M12, Cu tinned	15

**MK 230 B 507 Steel assortment box with incl. cable connections and crimping tool**



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with incl. cable connections and crimping tool	366 x 230 x 51	<b>MK230B507</b>

Scope of supply	Colour	Description	Quantity
MK230L		Steel carrying case	1
K507		Crimping tool with replaceable dies	1
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	50
6206	■	Insl. solderless terminal M6, 0.5 - 1 mm <sup>2</sup>	50
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50
6306	■	Insl. solderless terminal M6, 1.5 - 2.5 mm <sup>2</sup>	50
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50
705	■	Insl. pin terminal, 0.5 - 1 mm <sup>2</sup> , 22 mm	50
710	■	Insl. pin terminal, 1.5 - 2.5 mm <sup>2</sup> , 23 mm	50
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50
830	■	Insl. tab 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50
620C4	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50
630C4	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50
715	■	Insl. pin terminal, 4 - 6 mm <sup>2</sup> , 26 mm	25
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	25
6505	■	Insl. solderless terminal M5, 4 - 6 mm <sup>2</sup>	25
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	25
650C6	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	25

## SK 82 P Assortment box from plastic with insl. cable connections and tools



- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.	
Plastic assortment box with insl. cable connections and tools	395 x 295 x 106	<b>SK82P</b>	
Scope of supply	Colour	Description	Quantity
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1
K82A		Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	1
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	50
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50
6505	■	Insl. solderless terminal M5, 4 - 6 mm <sup>2</sup>	20
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	20
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	20
715	■	Insl. pin terminal, 0.1 - 0.4 mm <sup>2</sup> , 26 mm	20
620C4	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	20
630C4	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	20
705	■	Insl. pin terminal, 0.5 - 1 mm <sup>2</sup> , 22 mm	20
710	■	Insl. pin terminal, 1.5 - 2.5 mm <sup>2</sup> , 23 mm	20

## SK 82 S Assortment box from plastic with insl. cable connections and crimping tool



- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Part No.		
Plastic assortment box with insl. cable connections and crimping tool	<b>SK82S</b>		
Scope of supply	Colour	Description	Quantity
K82A		Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	1
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	20
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	20
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	20
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	20
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	20
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	20
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	20
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	20

### SK 30 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 4 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K4 and K48

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	200 x 140 x 40	1.2	<b>SK30L</b>

### SK 32 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 8 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K3 and K35

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	285 x 155 x 45	1.3	<b>SK32L</b>

### SK 4 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 6 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K02, K2, K16 and K25

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 160 x 40	1.4	<b>SK4L</b>

### SK 43 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 8 small and 2 large additional compartments with lock

**Suitable for**

- For storage of crimping tool K 32 and wire stripper K 41

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 210 x 40	1.9	<b>SK43L</b>

## MK 55 Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 8 small and 1 large additional compartments with lock

### Suitable for

- For storage of 8 pairs of dies and crimping tool K50

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	245 x 130 x 37	0.7	<b>MK55</b>

## MK 210 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 4 small and 1 large additional compartments with lock

### Suitable for

- For storage of crimping tool K82A

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	250 x 155 x 40	1.0	<b>MK210L</b>

## MK 220 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 8 small and 1 large additional compartments with lock

### Suitable for

- For storage of crimping tool K82A

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 160 x 40	1.4	<b>MK220L</b>

## MK 230 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 19 small and 1 large additional compartments with lock and handle

### Suitable for

- For storage of crimping tool K82A

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	366 x 230 x 51	2.4	<b>MK230L</b>

## SK 65 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

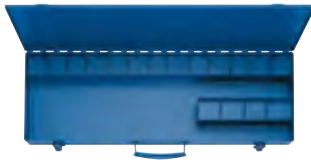
- 12 small and 1 large additional compartments with lock and handle

### Suitable for

- For storage of crimping tools type K 05, K 05 BC, K 35/4

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	400 x 250 x 50	2.3	<b>SK65L</b>

## MK 22 Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 17 small and 1 large additional compartments with lock and handle

### Suitable for

- For storage of 17 pairs of dies and crimping tool K 22

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	600 x 220 x 65	3.5	<b>MK22</b>

## KKPE Plastic case



### Characteristics

- With lock and handle

### Suitable for

- For storing complete crimping die sets

Item	Part No.
Plastic case	<b>KKPE</b>
Plastic case	<b>KKPEH25</b>
Plastic case for crimping dies of series 13	<b>KKPE13</b>

## MKU Steel carrying case with wheels



▶ Hammer-tone finished assortment box

### Characteristics

- With additional compartment for dies with lock and handle

### Suitable for

- For storage of hydraulic crimping tool HK25/2

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	810 x 310 x 210	10.0	<b>MKU</b>

## TT2 Carrying case



### Suitable for

- For storing all crimping and cutting heads (excluding SDK 105 and SDK 120)

Item	Weight kg	Part No.
Carrying bag	0.48	<b>TT2</b>

## TT4 Carrying case



### Suitable for

- For storage of cutting heads SDK 105 and SDK 120

Item	Weight kg	Part No.
Carrying bag	0.73	<b>TT4</b>







# SYSTEMATIC ORDER - L-BOXX FROM BS SYSTEMS

We must have order, especially when on the go. L-Boxx from BS Systems is a well thought out arrangement system for safely transporting your Klauke tool and connectors no matter what. Klauke products are safely stowed in the L-Boxx - matched to your individual equipment. Keep the overview!



## In brief

- ▶ Available in various sizes
- ▶ Maximum protection due to shock and impact resistant materials
- ▶ Easy to transport with practical handle on the cover and the sides
- ▶ Simple stacking of several boxes thanks to click system

## ► Large or small?

The L-Boxx provides the right tool every time. Select what you need from the broad range of sizes. The boxes are always shock and impact resistant and can be stacked without risk of slipping due to a click system.

- Available in various sizes
- Shock and impact resistant
- Easy to transport with practical handles on the cover and on the sides
- Safe transportation and storage due to click system



## ► Sorted on the go

Do you need your toolboxes on the go? With the TÜV-tested Sortimo vehicle equipment, all Klauke tools and ranges can be systematically and safely transported in L-Boxxes.

- Quickly located thanks to the Sortimo system overview
- Avoid injury by securing the boxes against accidents and braking actions
- Short searching time for efficient operations

## ► Everything practically packed

The L-Box doesn't just stow your tools - they also assign them exactly the right storage location. Trust in our Klauke system of pre-stocked boxes for various applications.

- Pre-stocked boxes equipped to your needs
- Choice for differing areas of applications
- Everything to hand in one box



## L-BOXX 65B from plastic with standard equipment for electrical installations



► Comprehensive equipment for conductor preparation, comprising cable cutter, cable knife, crimping tool and connectors

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX65B</b>
Scope of supply	Description	Quantity
K05	Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	1
K100	Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	1
KL740416	Cable knife, without blade 4 - 16 mm dia.	1
1R6	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M6, Cu tinned	25
1R8	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M8, Cu tinned	25
2R6	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M6, Cu tinned	25
2R8	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M8, Cu tinned	25
3R10	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M10, Cu tinned	25
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	20
4R10	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M10, Cu tinned	20
5R8	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M8, Cu tinned	20
5R10	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M10, Cu tinned	20
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	15
LBOXX102LFG	L-BOXX with front handle	1

## L-BOXX with electromechanical crimping tool EK 50 ML 0.14 to 50 mm<sup>2</sup> and extensive additional equipment



Item	Dimension mm	Part No.
L-BOXX with electromechanical crimping tool EK 50 ML 0.14 - 50 mm <sup>2</sup> and extensive additional equipment	442 x 357 x 151	<b>LBOXXEK50ML</b>
Scope of supply	Description	Quantity
RAML1225	Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	1
LGML1	Charger for 10.8 V Li-Ion batteries, 230 V	1
K118	Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1
AE5072	Crimping dies AE 507 for cable end-sleeves, 10 - 25 mm <sup>2</sup>	1
47612	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	50
47712	Insl. cable end-sleeve, 16 mm <sup>2</sup> , 24 mm	50
47818	Insl. cable end-sleeve DIN 46228 part 4, 25 mm <sup>2</sup>	25
R505	Crimping dies R 50, 16 - 25 mm <sup>2</sup>	1
3R8	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M8, Cu tinned	25
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	25
AE5073	Crimping dies AE 507 for cable end-sleeves, 35 - 50 mm <sup>2</sup>	1
47918	Insl. cable end-sleeve DIN 46228 part 4, 35 mm <sup>2</sup>	25
48025	Insl. cable end-sleeve DIN 46228 part 4, 50 mm <sup>2</sup> , 40 mm long	20
IS5072	Crimping dies IS 50, single crimping, 10 - 16 mm <sup>2</sup>	1
652C6	Insl. solderless terminal M6, 10 mm <sup>2</sup> , fork-type	50
LBOXX136LFG	L-BOXX with front handle (W/D/H: 442 x 357 x 151 mm)	1

## L-BOXXes from plastic with tubular cable lugs



LBOXX3R8SET

► Comprehensive equipment for conductor preparation for construction site and workshop

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.
L-BOXX from plastic with tubular cable lugs 16 - 95 mm <sup>2</sup>	442 x 357 x 117	<b>LBOXX3R8SET</b>
L-BOXX from plastic with tubular cable lugs 50 - 185 mm <sup>2</sup>	442 x 357 x 117	<b>LBOXX6R10SET</b>

Scope of supply		Quantity
LBOXX3R8SET	Description	
3R8	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M8, Cu tinned	50
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	50
5R8	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M8, Cu tinned	50
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	30
7R10	Tubular cable lug without inspection hole, 70 mm <sup>2</sup> , M10, Cu tinned	20
8R10	Tubular cable lug without inspection hole, 95 mm <sup>2</sup> , M10, Cu tinned	20

Scope of supply		Quantity
LBOXX6R10SET	Description	
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	30
7R10	Tubular cable lug without inspection hole, 70 mm <sup>2</sup> , M10, Cu tinned	20
8R10	Tubular cable lug without inspection hole, 95 mm <sup>2</sup> , M10, Cu tinned	20
9R12	Tubular cable lug without inspection hole, 120 mm <sup>2</sup> , M12, Cu tinned	12
10R12	Tubular cable lug without inspection hole, 150 mm <sup>2</sup> , M12, Cu tinned	12
11R12	Tubular cable lug without inspection hole, 185 mm <sup>2</sup> , M12, Cu tinned	12

## L-BOXX 50B from plastic with standard equipment for electrical installations



► Comprehensive equipment for conductor preparation, comprising cable cutter, cable knife, crimping tool and connectors

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX65B</b>

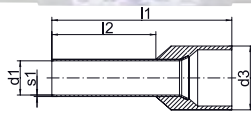
Scope of supply		Quantity
	Description	
K05D	Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	1
K100	Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	1
KL740416	Cable knife, without blade 4 - 16 mm dia.	1
101R6	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M6, Cu tinned	25
101R8	Compression cable lug, 6 mm <sup>2</sup> , M8, Cu tinned	25
102R6	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M6, Cu tinned	25
102R8	Compression cable lug, 10 mm <sup>2</sup> , M8, Cu tinned	25
103R10	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M10, Cu tinned	25
104R8	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M8, Cu tinned	20
104R10	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M10, Cu tinned	20
105R8	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M8, Cu tinned	15
106R8	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M8, Cu tinned	10
106R10	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M10, Cu tinned	10
LBOXX102LFG	L-BOXX with front handle	1

## L-BOXX 230 B from plastic with standard equipment for electrical installations



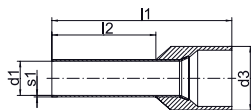
Item	Dimension mm	Part No.	
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX230B</b>	
Scope of supply	Colour	Description	Quantity
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1
K507		Crimping tool with replaceable dies	1
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50
820	■	Insl. tab 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50
830	■	Insl. tab 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	50
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	25
1652C5		Solderless terminals fork type 10 mm <sup>2</sup> , M5	50
1652C6		Solderless terminals fork type 10 mm <sup>2</sup> , M6	50
16505		Solderless terminals DIN 46234, 4 - 6 mm <sup>2</sup> , M5, Cu tinned	50
16506		Solderless terminals DIN 46234, 4 - 6 mm <sup>2</sup> , M6, Cu tinned	50
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	400
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	400
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	400
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	200
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	100
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	100
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	100
LBOXX102LFG		L-BOXX with front handle	1

**L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>**



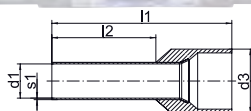
Item		Part No.		
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>		<b>LBOXXMINIK306K</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
K306K		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup>		1
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.		1
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	100
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	12	100
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	12	50
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	50
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	12	30
LBOXXMINIL		L-BOXX "Mini"		1

**L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>**



Item		Part No.		
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>		<b>LBOXXMINIK304K</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
K304K		K 30/4 K crimping tool for cable end-sleeves 0.08 to 16 mm <sup>2</sup> and twin cable end-sleeves 2 x 0,5 - 2 x 6 mm <sup>2</sup>		1
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.		1
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	100
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	12	100
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	12	50
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	50
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	12	30
LBOXXMINIL		L-BOXX "Mini"		1

**L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>**



Item		Part No.		
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>		<b>LBOXXMINIK3014K</b>		
Scope of supply	Colour	Description	l2 mm	Quantity
K3014K		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>		1
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.		1
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	8	100
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	12	100
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	12	50
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	12	50
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	12	30
LBOXXMINIL		L-BOXX "Mini"		1

**L-BOXXes with the new battery powered tools of the NEXT GENERATION**

**NEXT  
GENERATION**



This is just a small extract of our range. If you need a different combination, contact us.

**Bosch battery**

Tool	Crimping	Cutting	Punching	Part No.
EK 35/4	6 - 150 mm <sup>2</sup>			<b>LBOXXEK354CFB</b>
EKM 60/22	6 - 300 mm <sup>2</sup>			<b>LBOXXEKM6022CFB</b>
EKM 60 ID	10 - 240 mm <sup>2</sup>			<b>LBOXXEKM60IDCFB</b>
ES 20		max. 20 mm dia.		<b>LBOXXES20CFB</b>
ES 32 F		max. 32 mm dia.		<b>LBOXXES32FCFB</b>
ES 32		max. 32 mm dia.		<b>LBOXXES32CFB</b>
EKM 60 UNV	6 - 300 mm <sup>2</sup>	max. 25 mm dia.	round/shape	<b>LBOXXEKM60UNVCFB</b>
LS 50 FLEX			round/shape	<b>LBOXXLS50FLEXCFB</b>

**Makita battery**

Tool	Crimping	Cutting	Punching	Part No.
EK 35/4	6 - 150 mm <sup>2</sup>			<b>LBOXXEK354CFM</b>
EKM 60/22	6 - 300 mm <sup>2</sup>			<b>LBOXXEKM6022CFM</b>
EKM 60 ID	10 - 240 mm <sup>2</sup>			<b>LBOXXEKM60IDCFM</b>
ES 32 F		max. 32 mm dia.		<b>LBOXXES32CFM</b>
ES 32		max. 32 mm dia.		<b>LBOXXES32CFM</b>
LS 50 FLEX			round/shape	<b>LBOXXLS50FLEXCFM</b>

**Crimping & cutting**

(shown is the scope of supply with Bosch battery)



Part No.	Scope of supply	LBOXX-						
		EK354	EKM6022	EKM60ID	ES20	ES32	ES32F	EKM60UNV
RALB1EU	Bosch battery 18 V / 2.0 Ah, Li-Ion	•	•	•	•	•	•	•
LGLB1EU	Bosch charger for 18 V Li-Ion batteries	•	•	•	•	•	•	•
UA22	Adapter for crimping dies							•
LBOXX136LFG	L-BOXX (W/D/H: 442 x 357 x 151 mm)	•	•	•	•	•	•	•

**Punching**

(shown is the scope of supply with Bosch battery)



LBOXXLS50FLEX								
Part No.	RALB2EU	LGLB1EU	52085691	50032488	52049371	51300430	50339672	LBOXX136GL
Scope of supply	Bosch battery 18 V / 5.0 Ah, Li-Ion	Bosch charger for 18 V Li-Ion batteries	Draw stud for hydraulic operation 19 x 105 x 122 mm	Spacer, short	Kwik Stepper™ step bit with ROTASTOP® shaft 6-21 mm	Draw stud for punch with hydraulic operation 9.5 x 71 mm	Adapter 19 x 48 mm with internal thread 9.5 mm	L-BOXX (W/D/H: 442 x 357 x 151 mm)





# PERFECT CRIMPED CONNECTIONS FOR SURE.

Klauke crimping tools give you peace of mind for optimum processing. The right crimping tool achieves connections that satisfy even the toughest requirements.





# Crimping

<b>Mechanical crimping tools</b>	<b>2.4</b>
Mechanical crimping tools	2.6
Mechanical crimping tools with interchangeable dies	2.22
<hr/>	
<b>Battery powered crimping tool</b>	<b>2.29</b>
10.8 V - base	2.30
18 V - base	2.34
<hr/>	
<b>Hand-operated hydraulic crimping tools</b>	<b>2.55</b>
<hr/>	
<b>Hydraulic crimping heads and crimping systems</b>	<b>2.67</b>
Hydraulic crimping heads	2.68
Hydraulic crimping systems	2.78
<hr/>	
<b>Crimping dies</b>	<b>2.80</b>
Series 50	2.82
Series 4	2.84
Series 22	2.87
Series 13	2.91
Series 15	2.95
Series 25	2.96



# FULL FORCE TRANSMISSION - MECHANICAL CRIMPING TOOLS

Less force is more. Klauke crimping tools were developed specifically to make your work faster, more precise and simpler. Ergonomic handles ensure the right grip, improved lever effects provide a manual actuation that transmits your force exactly where it's needed: With 33 % less effort.



### In brief

- ▶ Effortless operation due to a third less force
- ▶ Exact crimping with precise actuation
- ▶ Reliable assignment through clear marking of the crimping profiles
- ▶ Durable material
- ▶ Individually selectable crimping profiles from 0.08 mm<sup>2</sup> to 400 mm<sup>2</sup>

**► Developed for a broad range of applications**

To ensure efficient crimps, a good tool needs optimum force transmission and high-quality materials. So we developed our mechanical series to make your work easier. These function make the difference especially with frequent use.

- Crimping profiles with nominal cross-sections from 0.08 mm<sup>2</sup> to 400 mm<sup>2</sup>
- High-quality steel for long service life
- Best possible force transmission: Up to 33 % less effort
- Optimum crimp results with integrated ratchet
- Ergonomic design for fast and effortless operations





# Crimping

Mechanical crimping tools

## K 4 Crimping tool for cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>



▶ Indent crimping for round clamp opening

### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

### Technical data

Crimping range 0.5 - 2.5 mm<sup>2</sup>

Length 150 mm

Weight 0.16 kg

Item	Part No.
Crimping tool for cable end-sleeves 0.5 - 2.5 mm <sup>2</sup>	<b>K4</b>
Accessories	Part No.
Steel carrying case	SK30L

## K 3 Crimping tool for cable end-sleeves 0.5 - 16 mm<sup>2</sup>



▶ Indent crimping for round clamp opening

▶ With wire cutter

### Characteristics

- Optimum handling due to ergonomically-shaped handle
- Optimised crimp range (up to 3-times wider than before)
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Integrated cable stripper

### Technical data

Crimping range 0.5 - 16 mm<sup>2</sup>

Length 230 mm

Weight 0.35 kg

Item	Part No.
Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>	<b>K3</b>
Accessories	Part No.
Steel carrying case	SK32L
Variants	Part No.
Steel assortment box with cable end-sleeves and crimping tool	SK32B
Steel assortment box with inst. cable end-sleeves and crimping tool	SK47B
L-BOXX from plastic with crimping tool and cable end-sleeves 0.5 - 16 mm <sup>2</sup>	LBOXXMINIK3

## K 35 Crimping tool for cable end-sleeves 10 - 35 mm<sup>2</sup>



- ▶ Indent crimping for round clamp opening
- ▶ For large cross-sections to 35 mm<sup>2</sup>

### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

Technical data	
Crimping range	10 - 35 mm <sup>2</sup>
Length	230 mm
Weight	0.24 kg
Item	Part No.
Crimping tool for cable end-sleeves 10 - 35 mm <sup>2</sup>	<b>K35</b>
Accessories	Part No.
Steel carrying case	SK32L

## K 48 Crimping tool for cable end-sleeves 0.14 - 2.5 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals

### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

Technical data	
Crimping range	0.14 - 2.5 mm <sup>2</sup>
Length	150 mm
Weight	0.16 kg
Item	Part No.
Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	<b>K48</b>
Accessories	Part No.
Steel carrying case	SK30L
Variants	Part No.
Steel assortment box with cable end-sleeves and crimping tool	SK30B
Steel assortment box with incl. cable end-sleeves and crimping tool	SK45B



# Crimping

Mechanical crimping tools

## K 36 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.5 - 6 mm<sup>2</sup>



- ▶ Two crimping profiles with the cross-section areas 0.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup>
- ▶ Quick repetition of work steps due to spring-actuated tool opening

### Characteristics

- Front sleeve insertion (front crimping)
- Ergonomically-designed handle with slip guard

### Technical data

Crimping range cable end-sleeves	0.5 - 2.5 and 4 - 6 mm <sup>2</sup>
----------------------------------	-------------------------------------

Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 1.5 and 2 x 2.5 - 2x4 mm <sup>2</sup>
---------------------------------------	--

Length	200 mm
--------	--------

Weight	0.22 kg
--------	---------

Item	Part No.
Crimping tool for cable end-sleeves 0.5 - 6 mm <sup>2</sup> and twin cable end-sleeves 2 x 0.25 - 2 x 1.5 and 2 x 2.5 - 2 x 4 mm <sup>2</sup>	<b>K36</b>
Accessories	Part No.
Steel carrying case	SK32L



## K 32 TWIST-it Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm<sup>2</sup>



- ▶ Unique long service life
- ▶ One crimping profile for all cross-sections due to automatic cross-section adjustment
- ▶ TWIST-it Crimping die for more flexibility and safety
- ▶ Lockable crimping die for error prevention
- ▶ Extremely small, light and ergonomic

### Characteristics

- Quick change between front sleeve insertion and lateral insertion
- Serrated crimping die for optimal pull-out values of the crimp connection
- With ratchet for consistently controlled crimp results
- With safety eye for attaching a security strap
- Ergonomic design with a small hand opening angle and balanced weight

### Suitable for

- Push-in, spring clamp and screw technology

### Technical data

Crimping range cable end-sleeves	0.14 - 10 mm <sup>2</sup>
----------------------------------	---------------------------

Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
---------------------------------------	----------------------------------

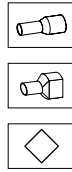
Length	177 mm
--------	--------

Weight	0.298 kg
--------	----------

Item	Part No.
Crimping tool for cable end-sleeves 0,14 - 10 mm <sup>2</sup> and twin cable end-sleeves 2 x 0,25 - 2 x 4 mm <sup>2</sup>	<b>K32</b>
Accessories	Part No.
Steel carrying case	SK43L
Steel carrying case	SK30L
Steel carrying case	SK32L



**K 30/3 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm<sup>2</sup>**



► Square crimping suitable for box terminals and spring clamp technology

**Characteristics**

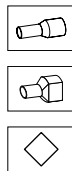
- One crimping profile for cross-sections from 0.08-10 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel

**Technical data**

Crimping range cable end-sleeves	0.08 - 10 mm <sup>2</sup>
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
Length	190 mm
Weight	0.3 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	<b>K303</b>
Accessories	Part No.
Steel carrying case	SK30L
Variants	Part No.
Plastic assortment box with incl. cable end-sleeves and tools	SK303P
Plastic assortment box with incl. cable end-sleeves and crimping tool	SK303S
Steel assortment box with incl. cable end-sleeves and tools	SK43NB

**K 30/4 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm<sup>2</sup>**



► Square crimping K 30/4 K

**Characteristics**

- One crimping profile for cross-sections from 0.08-16 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Positioner for small cable end-sleeves
- Handle with slip guard and inscription panel

**Technical data**

Crimping range cable end-sleeves	0.08 - 16 mm <sup>2</sup>
Crimping range twin cable end-sleeves	2 x 0.5 - 2 x 6 mm <sup>2</sup>
Length	215 mm
Weight	0.5 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup> , square crimping	<b>K304K</b>
Accessories	Part No.
Steel carrying case	SK30L
Variants	Part No.
L-BOXX from plastic with crimping tool and incl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK304K



## Crimping

Mechanical crimping tools

### K 30/6 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm<sup>2</sup>



#### ▶ Hexagonal crimping K 30/6 K

#### Characteristics

- One crimping profile for cross-sections from 0.08-16 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Positioner for small cable end-sleeves
- Handle with slip guard and inscription panel

#### Technical data

Crimping range cable end-sleeves	0.08 - 16 mm <sup>2</sup>
----------------------------------	---------------------------

Crimping range twin cable end-sleeves	2 x 0.5 - 2 x 10 mm <sup>2</sup>
---------------------------------------	----------------------------------

Length	215 mm
--------	--------

Weight	0.5 kg
--------	--------

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup> , hexagonal crimping	<b>K306K</b>

Accessories	Part No.
Steel carrying case	SK30L

Variants	Part No.
L-BOXX from plastic with crimping tool and incl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK306K

### K 301/4 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm<sup>2</sup>



#### ▶ Square crimping

#### ▶ Very light and ergonomic

#### Characteristics

- One crimping profile for all cross-sections due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel
- Safety pad in handle for slip-free working

#### Technical data

Crimping range cable end-sleeves	0.14 - 10 mm <sup>2</sup>
----------------------------------	---------------------------

Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
---------------------------------------	----------------------------------

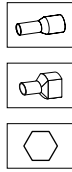
Length	175 mm
--------	--------

Weight	0.35 kg
--------	---------

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>	<b>K3014K</b>

Variants	Part No.
L-BOXX from plastic with crimping tool and incl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK3014K

**K 301/6 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm<sup>2</sup>**



- ▶ Hexagonal crimping
- ▶ Very light and ergonomic

**Characteristics**

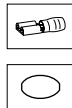
- One crimping profile for all cross-sections due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel
- Safety pad in handle for slip-free working

**Technical data**

Crimping range cable end-sleeves	0.14 - 10 mm <sup>2</sup>
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
Length	175 mm
Weight	0.35 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>	<b>K3016K</b>

**K 80 Crimping tool for insulated cable connections 0.1 - 1 mm<sup>2</sup>**



- ▶ Crimping of conductor and insulation in one step
- ▶ Adjusting disc to compensate for the natural tool wear

**Characteristics**

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Colour-coded cross-section assignment
- Handle with slip guard and inscription panel

**Technical data**

Crimping range red insulation sleeve	0.5 - 1.0 mm <sup>2</sup>
Crimping range yellow insulation sleeve	0.1 - 0.4 mm <sup>2</sup>
Length	195 mm
Weight	0.38 kg

Item	Part No.
Crimping tool for insulated cable connections 0.1 - 1 mm <sup>2</sup>	<b>K80</b>

Accessories	Part No.
Steel carrying case	SK43L



# Crimping

Mechanical crimping tools

## K 82 A Crimping tool for insulated cable connections 0.5 - 6 mm<sup>2</sup>



- ▶ With additional locator to ensure a precise crimp connection
- ▶ 33 % less effort
- ▶ 3-Component handle grip
- ▶ Optimised material quality for a long service life
- ▶ Precise pre-tension setting maintains constant crimp performance

### Characteristics

- Less effort required due to new mechanical lever system
- 3C handle: YELLOW: hard core for force transmission, BLUE: soft ergonomic grip area, GREY: soft slip protection
- Easy handling thanks to reduced tool opening width, optimum ergonomics due to the position of the palms and fingers, which is gentle on the joints
- Crimping of conductor and insulation in one step

### Technical data

Crimping range red insulation sleeve	0.5 - 1.0 mm <sup>2</sup>
Crimping range blue insulation sleeve	1.5 - 2.5 mm <sup>2</sup>
Crimping range yellow insulation sleeve	4.0 - 6.0 mm <sup>2</sup>
Length	225 mm
Weight	0.53 kg

Item	Part No.
Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	<b>K82A</b>
Accessories	Part No.
Steel carrying case	MK230L
Variants	Part No.
Plastic assortment box with insl. cable connections and crimping tool	SK82S
Plastic assortment box with insl. cable connections and tools	SK82P

**K 82 T Crimping tool for insulated cable connections 0.5 - 6 mm<sup>2</sup>**



- ▶ With additional locator to ensure a precise crimp connection
- ▶ Also suitable for the processing of insulated connectors with vibration protection
- ▶ 33 % less effort
- ▶ 3-Component handle grip
- ▶ Optimised material quality for a long service life
- ▶ Precise pre-tension setting maintains constant crimp performance

**Characteristics**

- Less effort required due to new mechanical lever system
- 3C handle: YELLOW: hard core for force transmission, BLUE: soft ergonomic grip area, GREY: soft slip protection
- Easy handling thanks to reduced tool opening width, optimum ergonomics due to the position of the palms and fingers, which is gentle on the joints
- Crimping of conductor and insulation in one step
- Extremely high voltage protection due to special crimping of the cable insulation (diamond crimp)

**Technical data**

Crimping range red insulation sleeve	0.5 - 1.0 mm <sup>2</sup>
Crimping range blue insulation sleeve	1.5 - 2.5 mm <sup>2</sup>
Crimping range yellow insulation sleeve	4.0 - 6.0 mm <sup>2</sup>
Length	225 mm
Weight	0.53 kg

Item	Part No.
Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	<b>K82T</b>
Accessories	Part No.
Steel carrying case	MK230L
Variants	Part No.
Plastic assortment box with insl. cable connections and crimping tool	SK82S
Plastic assortment box with insl. cable connections and tools	SK82P

**K 16 Crimping tool for insulated solderless terminals 10 + 16 mm<sup>2</sup>**



- ▶ Oval crimping
- ▶ Crimping tool also for meter connections

**Characteristics**

- With ratchet for consistently-controlled crimp results
- Colour-coded cross-section assignment

**Technical data**

Crimping range red insulation sleeve	10 mm <sup>2</sup>
Crimping range blue insulation sleeve	16 mm <sup>2</sup>
Length	305 mm
Weight	0.61 kg

Item	Part No.
Crimping tool for insulated solderless terminals 10 + 16 mm <sup>2</sup>	<b>K16</b>
Accessories	Part No.
Steel carrying case	SK4L



## Crimping

Mechanical crimping tools

### K 58/2 Crimping tool for non-insulated tabs and receptacles 4.8 mm; 0.5 - 2.5 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- Simple and quick due to spring-actuated tool opening
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Adjusting disc for compensating for the natural tool wear

#### Suitable for

- Tabs with 4.8 mm tab width

#### Technical data

Crimping range	0.5 - 2.5 mm <sup>2</sup>
Length	220 mm
Weight	0.55 kg

Item	Part No.
Crimping tool for non-insulated tabs and receptacles 4.8 mm; 0.5 - 2.5 mm <sup>2</sup>	<b>K582</b>

### K 59/2 Crimping tool for non-insulated tabs and receptacles 6.3 mm; 0.5 - 6 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Simple and quick due to spring-actuated tool opening
- Adjusting disc for compensating for the natural tool wear

#### Suitable for

- Tabs with 6.3 mm tab width

#### Technical data

Crimping range	0.5 - 6 mm <sup>2</sup>
Length	220 mm
Weight	0.51 kg

Item	Part No.
Crimping tool for non-insulated tabs and receptacles 6.3 mm; 0.5 - 6 mm <sup>2</sup>	<b>K592</b>

## K 93 Crimping tool for connectors for solid conductors 1.5 - 4 mm<sup>2</sup>



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel
- Adjusting disc for compensating for the natural tool wear

### Technical data

Crimping range 1.5 - 4 mm<sup>2</sup>

Length 220 mm

Weight 0.56 kg

Item	Part No.
Crimping tool for connectors for solid conductors 1.5 - 4 mm <sup>2</sup>	<b>K93</b>

## K 94 Crimping tool for tubular cable lugs and connectors for solid conductors 6 - 10 mm<sup>2</sup>



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel
- Adjusting disc for compensating for the natural tool wear

### Technical data

Crimping range 6 - 10 mm<sup>2</sup>

Length 220 mm

Weight 0.56 kg

Item	Part No.
Crimping tool for tubular cable lugs and connectors for solid conductors 6 - 10 mm <sup>2</sup>	<b>K94</b>



## Crimping

Mechanical crimping tools

### K 2 Crimping tool for tubular cable lugs and connectors, standard type 0.75 - 16 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Ideal crimping tool with spring-actuated tool opening

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

#### Technical data

Crimping range 0.75 - 16 mm<sup>2</sup>

Length 325 mm

Weight 0.6 kg

Item	Part No.
Crimping tool for tubular cable lugs and connectors, standard type 0.75 - 16 mm <sup>2</sup>	<b>K2</b>

Accessories	Part No.
Steel carrying case	SK4L

### K 02 Crimping tool for tubular cable lugs and connectors for solid conductors 0.75 - 16 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Ideal crimping tool with spring-actuated tool opening
- ▶ For tubular cable lugs and connectors for solid conductors

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

#### Technical data

Crimping range 0.75 - 16 mm<sup>2</sup>

Length 325 mm

Weight 0.6 kg

Item	Part No.
Crimping tool for tubular cable lugs and connectors for solid conductors 0.75 - 16 mm <sup>2</sup>	<b>K02</b>

Accessories	Part No.
Steel carrying case	SK4L



## K 25 Crimping tool 0.5 - 16 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Ideal crimping tool with spring-actuated tool opening
- ▶ For solderless terminals to DIN 46234, pin terminals to DIN 46230
- ▶ For nickel and stainless steel tubular cable lugs and connectors EN 60228 Cl. 2 to 6 mm<sup>2</sup>

### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

Technical data	
Crimping range	0.5 - 16 mm <sup>2</sup>
Length	325 mm
Weight	0.6 kg
Item	Part No.
Crimping tool 0.5 - 16 mm <sup>2</sup>	<b>K25</b>
Accessories	Part No.
Steel carrying case	SK4L

## K 95 Crimping tool 16 - 95 mm<sup>2</sup>



- ▶ Indent crimping

### Characteristics

- For smaller copper conductors
- Optimised force transmission

### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors
- Solderless terminals DIN 46234, pin terminals DIN 46230

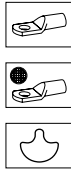
Technical data	
Crimping range	16 - 95 mm <sup>2</sup>
Length	630 mm
Weight	3.6 kg
Item	Part No.
Crimping tool 16 - 95 mm <sup>2</sup>	<b>K95</b>



# Crimping

Mechanical crimping tools

## K 5 Crimping tools 6 - 50 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Low-maintenance mechanical drive

### Characteristics

- For smaller copper conductors
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies

### Suitable for

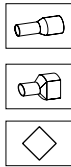
- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

### Technical data

Crimping range	6 - 50 mm <sup>2</sup>
Length	600 mm
Weight	2.4 kg

Item	Part No.
Crimping tool 6 - 50 mm <sup>2</sup>	<b>K5</b>

## K 05 WF Crimping tools for cable end-sleeves and twin cable end-sleeves 25 - 95 and 2 x 16 mm<sup>2</sup>



- ▶ Easy operation thanks to pre-tensioning using additional lever
- ▶ Optimal use for connection in plug-in and screw-type terminal blocks
- ▶ High compression thanks to square crimp
- ▶ Reduction of crimps due to an increased crimp width

### Eigenschaften

- Square crimping
- Modern, rigid and lightweight elliptical handle tubes
- Ergonomic 2-component handle with two-sided slip guard
- Energy-saving and effortless tool mechanics
- High durability

### Technical data

Part No.	K05WF50	K05WF95
Crimping range cable end-sleeve	25 - 50 mm <sup>2</sup>	50 - 95 mm <sup>2</sup>
Crimping range twin cable end-sleeve	2 x 16 mm <sup>2</sup>	-
Length	433 mm	433 mm
Weight	1.6 kg	1.6 kg

Item	Part No.
Crimping tools for cable end-sleeves and twin cable end-sleeves 25 - 50 and 2 x 16 mm <sup>2</sup>	<b>K05WF50</b>
Crimping tool for cable end-sleeves 50 - 95 mm <sup>2</sup>	<b>K05WF95</b>
Accessories	Part No.
Crimping die AE for cable end-sleeves and twin cable end-sleeves 25 - 50 and 2 x 16 mm <sup>2</sup>	<b>AE512550</b>
Crimping die AE for cable end-sleeves 50 - 95 mm <sup>2</sup>	<b>AE515095</b>

**K 05 / K 05 D Syncro Crimping tools**  
**for tubular cable lugs and connectors, standard type 6 - 50 mm<sup>2</sup>**  
**for DIN compression cable lugs and connectors 6 - 50 mm<sup>2</sup>**



- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel

**Characteristics**

- Hexagonal crimping
- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes
- Ergonomic 2-component handle with two-sided slip guard
- Smooth-running, durable and effortless tool mechanism

**Technical data**

Crimping range	6 - 50 mm <sup>2</sup>
Length	390 mm
Weight	1.1 kg

Item	Part No.
Syncro Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	<b>K05</b>
Syncro Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	<b>K05D</b>
Variants	Part No.
Steel assortment box with tubular cable lugs 6 - 50 mm <sup>2</sup> and crimping tool K05	SK65B
L-BOXX from plastic with standard equipment for electrical installations	LBOXX65B
Steel assortment box with DIN compression cable lugs and crimping tool	SK50B
L-BOXX from plastic with standard equipment for electrical installations	LBOXX50B

**K 06 Syncro Crimping tools**  
**for tubular cable lugs and connectors, standard type 6 - 120 mm<sup>2</sup>**



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

**Characteristics**

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

**Technical data**

Crimping range	6 - 120 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.6 kg

Item	Part No.
Syncro Crimping tools for tubular cable lugs and connectors, standard type 10 - 120 mm <sup>2</sup>	<b>K06</b>



# Crimping

Mechanical crimping tools

## K 06 D Syncro Crimping tools for DIN compr. cable lugs and connectors 6 - 120 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

Technical data	
Crimping range	6 - 120 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.6 kg
Item	Part No.
Syncro Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 120 mm <sup>2</sup>	<b>K06D</b>

## K 09 Syncro Crimping tools for tubular cable lugs and connectors, standard type 25 - 150 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

Technical data	
Crimping range	25 - 150 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.9 kg
Item	Part No.
Syncro Crimping tools for tubular cable lugs and connectors, standard type 25 - 150 mm <sup>2</sup>	<b>K09</b>

## K 09 D Syncro Crimping tools for DIN compression cable lugs and connectors, 25 - 150 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

### Technical data

Crimping range	25 - 150 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.9 kg

Item	Part No.
Syncro Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 25 - 150 mm <sup>2</sup>	<b>K09D</b>

## DN-K 74/2 Crimping tool for BNC connectors and coax cable



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

### Characteristics

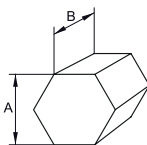
- With ratchet for consistently-controlled crimp results
- Adjusting disc for compensating for the natural tool wear

### Suitable for

- Coax cable RG 58, RG 59, RG 62 and RG 71

### Technical data

Length	220 mm
Weight	0.560 kg
Crimping dimension 1	A: 6.48 mm, B: 10 mm
Crimping dimension 2	A: 5.4 mm, B: 10 mm
Crimping dimension 3	A: 1.72 mm, B: 2.3 mm



Item	Part No.
Mechanical crimping tool for BNC connector, coax cable RG 58, RG 59, RG 62 and RG 71	<b>DNK742</b>



### K 507 Crimping tool with interchangeable dies



- ▶ Fast change of crimping die, no tools required, without readjustment by special fixing system
- ▶ Additional crimping dies integrated in the handle

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Adjusting disc for compensating for the natural tool wear

Technical data	
Length	220 mm
Weight	0.635 kg
Item	Part No.
Crimping tool with interchangeable dies	<b>K507</b>
Scope of supply	Part No.
Crimping die for insulated connectors, 0.5 - 6 mm <sup>2</sup>	IS5071
Crimping dies for cable end-sleeves, 0.5 -6 mm <sup>2</sup>	AE5071
Crimping die for insulated connectors 0.5 - 10 mm <sup>2</sup>	Q5071
Variants	Art.-Nr.
Steel assortment box with insl. cable connections and crimping tool	MK230B507
L-BOXX from plastic with standard equipment for electrical installations	LBOXX230B

### K 507 Crimping tool with interchangeable dies



- ▶ Large cross section 0,5 - 50 mm<sup>2</sup>
- ▶ One crimping profile for all common conductors
- ▶ Fast, easy replacement of crimping dies
- ▶ Fewer pressures due to optimal crimping die width

#### Characteristics

- With ratchet for consistently controlled crimp results
- Adjusting disc to compensate for the natural tool wear

#### Additional information

- Optionally available crimping die for twin cable-end sleeves

Technical data	
Length	220 mm
Weight	0.657 kg
Item	Part No.
Crimping tool with interchangeable dies	<b>K507WF</b>
Scope of supply	Part No.
Crimping dies for cable-end sleeves, 0,5 - 6 mm <sup>2</sup>	AE5071
Crimping dies for cable end-sleeves, 10 - 25 mm <sup>2</sup>	AE5072
Crimping dies for cable end-sleeves, 35 - 50 mm <sup>2</sup>	AE5073
Accessories	Part No.
Crimping dies for twin cable end-sleeves, 2x6 - 2x16 mm <sup>2</sup>	ZAE5072

## K 50 Crimping tool for interchangeable dies



**K50**  
SERIE


























- ▶ Parallel guided crimping jaws
- ▶ Fast change of crimping die without readjustment by special fixing system
- ▶ Exact positioning of the crimping dies due to die locating pins

### Characteristics

- Optimised force transmission
- With ratchet for consistently-controlled crimp results
- Handle with slip guard and inscription panel

Technical data	
Length	220 mm
Weight	0.6 kg
Item	Part No.
Crimping tool for interchangeable dies 0.1 - 50 mm <sup>2</sup>	<b>K50</b>
Accessories	Part No.
Steel carrying case	MK55

## Available dies for Series 50 for K 50

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type		0,75 - 10		2.82
Tubular cable lugs, Cu, standard type		6 - 25		2.82
Tubular cable lugs and connectors for solid conductors, Cu		1,5 - 10		2.82
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 25		2.82
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		0,5 - 10		2.82
Insulated solderless terminals and connectors		10 - 16		2.83
<b>Cable end-sleeves</b>				
Cable end-sleeves		0,5 - 50		2.82
Twin cable end-sleeves		2 x 6 - 2 x 16		2.83
<b>Cable connections, insulated and non-insulated</b>				
Insulated cable connections, single crimping		0,5 - 16		2.83
Insulated cable connections, double crimping		0,1 - 6		2.83
Non insulated receptacles		0,25 - 6		2.83
for pin and shielded receptacles, BNC connectors for coax cables RG 58, 59, 60 and 71				2.83
Turned pin connectors, pin receptacles		0,1 - 4		2.83



## Crimping

Mechanical crimping tools

### K 35/4 Crimping tool for interchangeable dies 6 - 150 mm<sup>2</sup>



**K4**  
SERIE

- ▶ Very comfortable: Tool-less crimping die change
- ▶ Optimised for cable glands and control cabinet construction
- ▶ Energy-efficient and low-maintenance mechanical drive

#### Characteristics

- Narrow crimping
- Less effort due to extendible telescopic handle
- Flexible use: Head rotates 360°
- Fast, change of crimping die without readjustment by special fixing system

#### Technical data

Length Stepless 420-590 mm































Weight 1.9 kg

Item	Part No.
Crimping tool for interchangeable dies 6 - 150 mm <sup>2</sup>	<b>K354</b>

Accessories	Part No.
Steel carrying case	SK65L



## Available dies for Series 4 for K 35/4

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		2.84
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 70		2.84
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		2.84
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Stainless steel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
Nickel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Nickel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 120		2.85
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 35		2.85
Insulated solderless terminals and connectors		10 - 16		2.85
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		16 sm - 150 se / 120 sm		2.86
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 rm/sm, 95 re/se		2.86
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA4, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD4		10 rm/sm, 95 re/se		2.86
<b>Clamps</b>				
Clamps, C-type		10 - 35		2.86
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 50		2.86



## Crimping

Mechanical crimping tools

### K 22 Crimping tool for interchangeable dies 6 - 300 mm<sup>2</sup>



- ▶ Change of crimping dies without tools
- ▶ Optimised for cable glands and control cabinet construction
- ▶ Energy-efficient and low-maintenance mechanical drive

#### Characteristics

- Narrow crimping
- Large cross section by half shell dies
- Less effort due to extendible telescopic handle
- Flip top style head rotates 360°
- Fast, change of crimping die without readjustment by special fixing system

#### Technical data

Length Stepless 560-860 mm

Weight 2.5 kg

Item	Part No.
------	----------

































Crimping tool for interchangeable dies 6 - 300 mm <sup>2</sup>	<b>K22</b>
--	------------

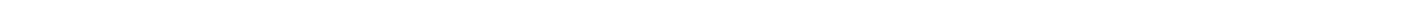
Accessories	Part No.
-------------	----------

Steel carrying case	MK22
---------------------	------

## Available dies for Series 22 for K 22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.87
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		2.87
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.88
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.88
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.88
Nickel tubular cable lugs and connectors		10 - 50		2.88
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.88
Double compression cable lugs		2 x 70		2.88
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.89
Insulated solderless terminals and connectors		10 - 70		2.89
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.89
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 sm - 300 se / 300 sm		2.89
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 sm - 300 se / 300 sm		2.89
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.90
Clamps, H-type		70		2.90
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.90



# THE LITTLE CRIMPING EXPERT - BATTERY-POWERED HYDRAULIC CRIMPING TOOL (10.8 V)

We have made performance easy: The Klauke mini is light-weight yet powerful. The Klauke mini's practical dimensions make it the ideal solution for confined areas, in panel building for instance. A convenient expert for crimp to 150 mm<sup>2</sup> nominal cross-section.

## **Klauke** *mini*

### ▶ Pure performance without frills

The Klauke mini concentrates on its core task: reliable crimping. Even without pressure sensor and display, the little expert does its job well - no fuss or quibble.

### ▶ Usage time at a glance

Read the charge level at any time from the powerful 10.8 V battery.

### ▶ All-round crimping

How can confined areas be easily reached? With crimping heads rotating through 360°.





# Crimping

Battery powered hydraulic crimping tools 10.8 V

## EK 30 ID ML Battery powered hydraulic crimping tool 6 - 120 mm<sup>2</sup>



- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator
- ▶ Indent crimping - no change of crimping dies required

### Characteristics

- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft lining
- Effortless working thanks to low weight
- Automatic retraction when operation is complete
- Maintenance display via LED

### Suitable for

- Very well suited for compacted conductors
- Especially for fine strand conductors to EN 60228

Technical data	
Crimping force	30 kN
Stroke / opening width	22 mm
Crimping range	6 - 120 mm <sup>2</sup>
Crimping cycle	2,5 s up to 5 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	1.95 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic crimping tool 6 - 120 mm <sup>2</sup>	<b>EK30IDML</b>

Scope of supply	
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230V	LGML1
Plastic case	KKML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 120	
Tubular cable lugs and connectors for fine stranded conductors		6 - 120	
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>			
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		6 - 95	

## EK WF 120 ML Battery powered hydraulic crimping tool 6 - 120 mm<sup>2</sup>



- ▶ Innovative square crimping - no change of crimping dies required
- ▶ Only one crimp necessary (up to a cable end-sleeve length of 32 mm)
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

### Characteristics





- Closed crimping head
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft lining
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Manual retraction stop (MRS) for positioning control for multiple crimps
- Maintenance display via LED

### Suitable for

- Cable end-sleeves acc. to DIN, insulated cable end-sleeves and insulated twin cable end-sleeves

Technical data	
Crimping force	10 / 40 kN
Stroke / opening width	19 mm
Crimping range	6 - 120 mm <sup>2</sup>
Crimping cycle	1 s up to 5 s (depending on cross-section)
Battery voltage	10.8 V
Battery capacity	2.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	1.96 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic crimping tool 6 - 120 mm <sup>2</sup>	<b>EKWF120ML</b>
Scope of supply	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230V	LGML1
Plastic case	KKML

suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Cable end-sleeves			
Cable end-sleeves		6 - 120	
Twin cable end-sleeves		6 - 120	



## Crimping

Battery powered hydraulic crimping tools

### EK 35/4 ML Battery powered hydraulic crimping tool 6 - 150 mm<sup>2</sup>



- ▶ Large cross section range up to 150 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

#### Characteristics

- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

#### Suitable for































- 4-series interchangeable dies, narrow crimping



Technical data	
Crimping force	35 kN
Stroke / opening width	9 mm
Crimping range	6 - 150 mm <sup>2</sup>
Crimping cycle	3 s to 4 s (depending on crimp cross-section)
Number of crimps	approx. 200 at 120 mm <sup>2</sup> Cu
Battery voltage	10.8 V
Battery capacity	21.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	1.6 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
Battery powered hydraulic crimping tool 6 - 150 mm <sup>2</sup>	<b>EK354ML</b>
Scope of supply	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1
Plastic case	KKML
Variants	Part No.
EK 35/4 ML with crimping die set HR 4 from 6 - 150 mm <sup>2</sup>	EK354MLSETHR
EK 35/4 ML with crimping die set HD 4 from 6 - 120 mm <sup>2</sup>	EK354MLSETHD



## Available dies for Series 4 for K 35/4 ML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		2.84
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 70		2.84
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		2.84
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Stainless steel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
Nickel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Nickel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 120		2.85
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 35		2.85
Insulated solderless terminals and connectors		10 - 16		2.85
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		16 sm - 150 se / 120 sm		2.86
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 rm/sm, 95 re/se		2.86
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA4, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD4		10 rm/sm, 95 re/se		2.86
<b>Clamps</b>				
Clamps, C-type		10 - 35		2.86
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 50		2.86



# THE NEW STANDARD - KLAUKE NEXT GENERATION CRIMPING TOOLS

To guarantee the quality, you can check the tool data from the display or via Klauke Link® App at any time. You can easily make this information available to your customers as project documentation at the touch of a button. The balanced design ensures effortless and continuously high-quality operations up to the end of each working day.

**NEXT  
GENERATION**

### In brief

- ▶ Selectable battery platform: with Bosch® or Makita
- ▶ Proof of quality can be created via Bluetooth
- ▶ Ensure tool availability: Read the tool properties from the display or via the app
- ▶ Effortless operations thanks to modern, ergonomic design



## ► Making work easier

Klauke tools guarantee effortless operations: The “mini” impresses through its low weight and the pistol shape thanks to the balanced centre of gravity

- Our compact “mini” is just perfect for confined areas
- The 2-stage hydraulic system ensures fast operations with fast feed and power stroke (pistol shape)
- Especially impressive and reliable: The one-button control concept for all tools with automatic retraction

- The ARS function (Automatic Retraction Stop) stops the automatic retraction when a crimp is complete through a fully-automated process

## ► Guarantees quality

- All relevant tool data immediately in view on the integrated display
- In case of a fault, you are warned by a visual and audible signal from the tool

- Provide written proof of the quality of your work with Link® App - now simply and conveniently connect the tool to the computer via Bluetooth.



## ► Klauke Link® App

Connectivity is the generic term for the digital application that Klauke is making available to its customers in addition to its tools – the new Klauke Link® App. This application offers you new possibilities with all Klauke Next Generation tools.

## ► Klauke Link® App

Show your customers how well you work. Klauke Next Generation records your operations, and these can then be transmitted by Bluetooth. The free Klauke Link® software uses these data to create for you, if you want, a project report - the proof of quality for your correct operations. You have control over your quality.

**The Klauke Link® App can be found at:**  
<https://www.klauke.com/de/en/klauke-link-connectivity>





# Crimping

Battery powered hydraulic crimping tools

## EK 35/4 Battery powered hydraulic crimping tool 6 - 150 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large cross section range up to 150 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Simple and safe: Automatic retraction when operation is complete
- Effortless working thanks to low weight
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 4-series interchangeable dies, narrow crimping

































**K4  
SERIE**

Technical data	
Crimping force	35 kN
Stroke / opening width	9 mm
Crimping range	6 - 150 mm <sup>2</sup>
Crimping cycle	3 s to 4 s (depending on crimp cross-section)
Charging time	15 min.
Weight incl. battery	2.4 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 6 - 150 mm <sup>2</sup>	<b>EK354CFB</b>	<b>EK354CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50NG	KK50NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with battery powered crimping tool EK354CFB, 6 - 150 mm <sup>2</sup>	LBOXXEK354CFB	
L-BOXX with battery powered crimping tool EK354CFM, 6 - 150 mm <sup>2</sup>		LBOXXEK354CFM

## Available dies for Series 4 for K 35/4

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		2.84
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 70		2.84
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		2.84
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Stainless steel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
Nickel tubular cable lugs and connectors, indent crimp		1.5 - 2.5		2.85
Nickel tubular cable lugs and connectors, double indent crimp		4 - 16		2.85
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 120		2.85
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 35		2.85
Insulated solderless terminals and connectors		10 - 16		2.85
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		16 sm - 150 se / 120 sm		2.86
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 rm/sm, 95 re/se		2.86
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA4, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD4		10 rm/sm, 95 re/se		2.86
<b>Clamps</b>				
Clamps, C-type		10 - 35		2.86
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 50		2.86



# Crimping

Battery powered hydraulic crimping tools

## EKM 60/22 Battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 22-series interchangeable dies, narrow crimping



































Technical data	
Crimping force	60 kN
Hub	17.5 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	2 s (bei ARS) und 5 s (depending on crimp cross-section)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EKM6022CFB</b>	<b>EKM6022CFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Plastic case	KK50NG	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case		KK50L
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
<b>Variants</b>		
L-BOXX with battery powered crimping tool EKM6022CFB, 6 - 300 mm <sup>2</sup>	LBOXXEKM6022CFB	
L-BOXX with battery powered crimping tool EKM6022CFM, 6 - 300 mm <sup>2</sup>		LBOXXEKM6022CFM

## Available dies for Series 22 for EKM 60/22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.87
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		2.87
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.88
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.88
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.88
Nickel tubular cable lugs and connectors		10 - 50		2.88
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.88
Double compression cable lugs		2 x 70		2.88
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.89
Insulated solderless terminals and connectors		10 - 70		2.89
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.89
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 sm - 300 se / 300 sm		2.89
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 sm - 300 se / 300 sm		2.89
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.90
Clamps, H-type		70		2.90
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.90



## Crimping

Battery powered hydraulic crimping tools

### EK 60/22 Battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 22-series interchangeable dies, narrow crimping



**K22  
SERIE**

































Technical data	
Crimping force	60 kN
Hub	17 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	4.4 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EK6022CFB</b>	<b>EK6022CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Item	Part No.	
EK 60/22 with crimping die set D 22 from 16 - 240 mm <sup>2</sup>	EK6022CFMSETD	
EK 60/22 with crimping die set R 22 from 16 - 240 mm <sup>2</sup>	EK6022CFMSETR	



## Available dies for Series 22 for EK 60/22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.87
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		2.87
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.88
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.88
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.88
Nickel tubular cable lugs and connectors		10 - 50		2.88
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.88
Double compression cable lugs		2 x 70		2.88
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.89
Insulated solderless terminals and connectors		10 - 70		2.89
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.89
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 sm - 300 se / 300 sm		2.89
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 sm - 300 se / 300 sm		2.89
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.90
Clamps, H-type		70		2.90
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.90



# Crimping

Battery powered hydraulic crimping tools

## EK 60 VP Battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Crimps optimised at all times due to the patented centring system
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Quad-point indent crimping feature with patented centring system, no dies required
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display



Technical data		
Crimping force	55 kN	
Crimping range	10 - 240 mm <sup>2</sup>	
Crimping cycle	3 s to 6 s (depending on crimp cross-section)	
Charging time	45 min.	
Weight incl. battery	5.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EK60VPCFB</b>	<b>EK60VPCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
Accessories		
Gauge and 10 Test cylinder	TS10B	TS10B

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10-240	
Connectors, standard type		10-120	
Tubular cable lugs for fine stranded conductors		10-240	
Connectors for fine stranded conductors		10-95	

## EK 60 VP/FT Battery powered hydraulic crimping tool 16 - 300 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors „standard type“ and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Quad-point indent crimping feature with patented centring system, no dies required
- Closed head with bolt interlock, rotatable, flip top style
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display



Technical data	
Crimping force	55 kN
Crimping range	16 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 6 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	5.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic crimping tool 16 - 300 mm <sup>2</sup>	<b>EK60VPFTCFB</b>	<b>EK60VPFTCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Tubular cable lugs and connectors - Cu			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16-300	
Tubular cable lugs and connectors for fine stranded conductors		16-300	



# Crimping

Battery powered hydraulic crimping tools

## EKM 60 ID Battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinder
- ▶ Indent crimping - no changing of dies required
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- With innovative 2-stage telescopic cylinder
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Very well suited for compacted conductors
- Especially for fine strand conductors to EN 60228
- Certified from 16 mm<sup>2</sup> onwards



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	

Technical data	
Crimping force	30 - 60 kN
Stroke / opening width	40.5 mm
Crimping range Cu	10 - 240 mm <sup>2</sup>
Crimping range Al	50 - 240 mm <sup>2</sup>
Crimping cycle	2 s (for ARS) to 7 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	2.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EKM60IDCFB</b>	<b>EKM60IDCFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50NG	KK50NG
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
<b>Variants</b>		
L-BOXX with battery powered crimping tool EKM60IDCFB, 10 - 240 mm <sup>2</sup>	LBOXXEKM60IDCFB	
L-BOXX with battery powered crimping tool EKM60IDCFM, 10 - 240 mm <sup>2</sup>		LBOXXEKM60IDCFM

## EK 120 ID Battery powered hydraulic crimping tool 35 - 500 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ For superfine-stranded conductors to 500 mm<sup>2</sup>
- ▶ Indent crimping, no dies required
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Technical data

Crimping force	108 kN
Stroke / opening width	52 mm
Crimping range	35 - 500 mm <sup>2</sup>
Crimping cycle	10 s to 11 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	7.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 35 - 500 mm <sup>2</sup>	<b>EK120IDCFB</b>	<b>EK120IDCFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		70 - 185	
Tubular cable lugs and connectors for fine stranded conductors		70 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		95 - 500	



## Crimping

Battery powered hydraulic crimping tools

### EK 120/32 Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Very large crimping range up to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for



































- 13-series interchangeable dies, wide crimping



**K13  
SERIE**

Technical data		
Crimping force	120 kN	
Stroke / opening width	32 mm	
Crimping range	16 - 400 mm <sup>2</sup>	
Crimping cycle	7 s to 8 s (depending on crimp cross-section)	
Charging time	45 min.	
Weight incl. battery	6.8 kg	
Ambient temperature	-10° C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK12032CFB</b>	<b>EK12032CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	
Makita quick-charger for 18 V Li-Ion battery	LGL1	
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	

## Available dies for Series 13 for EK 120/32

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



# Crimping

Battery powered hydraulic crimping tools

## EK 120/42 Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ C-head with very wide crimping range to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ Easy handling by optimum weight distribution
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 13-series interchangeable dies, wide crimping





































**K13  
SERIE**

Technical data	
Crimping force	120 kN
Stroke / opening width	42 mm
Crimping range	16 - 400 mm <sup>2</sup>
Crimping cycle	8 s to 9 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	7.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK12042CFB</b>	<b>EK12042CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40



## Available dies for Series 13 for EK 120/42

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94

### EK 120 U Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for



































- 13-series interchangeable dies, wide crimping

**K13  
SERIE**

**IEC**

Technical data		
Crimping force	120 kN	
Stroke / opening width	20 mm	
Crimping range	16 - 400 mm <sup>2</sup>	
Crimping cycle	7 s to 8 s (depending on crimp cross-section)	
Charging time	45 min.	
Weight incl. battery	6.2 kg	
Ambient temperature	-10° C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK120UCFB</b>	<b>EK120UCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

## Available dies for Series 13 for EK 120 U

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



## Crimping

Battery powered hydraulic crimping tools

### EK 135 FT Battery powered hydraulic crimping tool 10 - 630 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Very large crimping range to 630 mm<sup>2</sup>
- ▶ Very powerful with a crimping force of 13.5 t
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for



































- 13-series interchangeable dies, wide crimping
- 15-series interchangeable dies, wide crimping



Technical data	
Crimping force	135 kN
Stroke / opening width	50.8 mm
Crimping range	10 - 630 mm <sup>2</sup>
Crimping cycle	ca. 10 s to 11 s (depending on cross-section)
Charging time	45 min.
Weight incl. battery	10.2 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic crimping tool 10 - 630 mm <sup>2</sup>	<b>EK135FTCFB</b>	<b>EK135FTCFM</b>
Scope of supply		
Adapter for crimping dies series 13	UA15T	UA15T
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK135FTNG	KK135FTNG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

## Available dies for Series 13 for EK 135 FT







Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



## Crimping

Battery powered hydraulic crimping tools

### Available dies for Series 15 for EK 135 FT

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
Compression cable lugs and connectors acc. to DIN - Cu				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		400 - 625		2.95
Aluminum compression cable lugs and connectors acc. to DIN				
Aluminum compression cable lugs and connectors acc. to DIN		400 - 500		2.95
Aluminum/copper compression cable lugs and connectors				
Aluminum/copper compression cable lugs and connectors		400 - 500		2.95

## USE ADAPTERS!

Please note the use of the adapter UA15T !  
The adapter extends the cross-section range, as crimping dies of series 13 can also be used !  
**Please inform yourself !**



# EASY TO HANDLE - HAND-OPERATED HYDRAULIC CRIMPING TOOLS

2

Klauke tools work for you. The 2-stage hydraulic system ensures automatic retraction after crimping. Rotating heads come into their own even in confined areas and support you up to a cross-sectional range of 400 mm<sup>2</sup>. Aluminium makes the tool lighter and the work easier. The bolt interlock makes the device safe when not in use. You save energy and time. All you need to do yourself is crimp.



### ► Convenient to use

Several crimps in succession are tiring. And so for our hand-operated hydraulic tools, we produced the housing and pump lever from aluminium to achieve a low weight. The pump lever is in exactly the correct position, and so the pump movement requires only a small space. Work better with the convenience of Klauke.

- Large crimping range up to 400 mm<sup>2</sup>
- Ergonomic design for effortless operations
- 2-stage hydraulic system with fast feed and power stroke
- Simple and reliable due to automatic retraction after every crimping operation
- Low weight thanks to the aluminium pump lever and housing

### ► Adapts

All hand-operated hydraulic crimping tools have crimping heads that rotate through 360°. You can work even in confined areas with flexible settings.

- 360° rotating crimping heads for safe operations in confined spaces
- Well suited for installing cable joints underground or in panel building

### ► Save yourself the return stroke

Your effort goes only into the crimping process. When the crimping process is complete, the crimping jaws retract into the home position via the automatic retraction function.



# Crimping

Hand-operated hydraulic crimping tools

## HK 60/22 Hand-operated hydraulic crimping tool 6 - 300 mm<sup>2</sup>



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical

### Characteristics

- Closed head, flip top style, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

































### Suitable for

- 22-series interchangeable dies, narrow crimping

Technical data	
Crimping force	60 kN
Stroke	17 mm
Crimping range	6 - 300 mm <sup>2</sup>
Length	460 mm
Weight	3.3 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>HK6022</b>
Scope of supply	Part No.
Steel carrying case	MK6022
Variants	Part No.
HK 60/22 with crimping die set D 22 from 16 - 240 mm <sup>2</sup>	HK6022SETD



## Available dies for Series 22 for HK 60/22

Refer to the limitations when crimping connectors in the technical appendix.				
Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.87
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		2.87
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.88
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.88
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.88
Nickel tubular cable lugs and connectors		10 - 50		2.88
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.88
Double compression cable lugs		2 x 70		2.88
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.89
Insulated solderless terminals and connectors		10 - 70		2.89
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.89
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 sm - 300 se / 300 sm		2.89
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 sm - 300 se / 300 sm		2.89
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.90
Clamps, H-type		70		2.90
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.90



# Crimping

Hand-operated hydraulic crimping tools

## HK 60 VP Hand-operated hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors up to 240 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time

### Characteristics

- Quad-point indent crimping feature with patented centring system, no dies required
- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

### Technical data

Crimping force	55 kN
Crimping range	10 - 240 mm <sup>2</sup>
Length	525 mm
Weight	4.1 kg
Ambient temperature	-20 °C up to +40 °C

Item	Part No.
Hand-operated hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>HK60VP</b>
Scope of supply	Part No.
Steel carrying case	MK60VP
Gauge and 10 test cylinder	TS10B
Accessories	Part No.
Gauge and 10 test cylinder	TS10B



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10 - 240	
Connectors, standard type		10 - 120	
Tubular cable lugs for fine stranded conductors		10 - 240	
Connectors for fine stranded conductors		10 - 95	

## HK 60 VP/FT Hand-operated hydraulic crimping head 16 - 300 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors "standard type" and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ Closed crimping head - ideal for utility lines construction

### Characteristics

- Quad-point indent crimping feature with patented centring system, no dies required
- Closed head with bolt interlock, rotatable, flip top style
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

### Technical data

Crimping force	55 kN
Crimping range	16 - 300 mm <sup>2</sup>
Length	535 mm
Weight	4.1 kg
Ambient temperature	-20 °C up to +40 °C

Item	Part-No.
Hand-operated hydraulic crimping tool 16 - 300 mm <sup>2</sup>	<b>HK60VPFT</b>
Scope of supply	Part-No.
Steel carrying case	MK60VP
Gauge and 10 test cylinder	TS10B
Accessories	Part.-No.
Gauge and 10 test cylinder	TS10B



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 300	
Tubular cable lugs and compression joints for fine stranded conductors		16 - 300	



# Crimping

Hand-operated hydraulic crimping tools

## HK 120/30 Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ Very large crimping range to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools

### Characteristics

- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete



































### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke	30 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	510 mm
Weight	5.4 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 10 - 400 mm <sup>2</sup>	<b>HK12030</b>
Scope of supply	Part No.
Steel carrying case	MK12042



## Available dies for Series 13 for HK 120/30

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/see		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



# Crimping

Hand-operated hydraulic crimping tools

## HK 120/42 Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ Very large crimping range up to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ C-head with larger 42 mm jaw opening

### Characteristics

- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete



































### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke	42 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	560 mm
Weight	5.9 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>HK12042</b>
Scope of supply	Part No.
Steel carrying case	MK12042



## Available dies for Series 13 for HK 120/42

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



# Crimping

Hand-operated hydraulic crimping tools

## HK 120 U Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools

### Characteristics

- Closed head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

### Suitable for



































- 13-series interchangeable dies, wide crimping

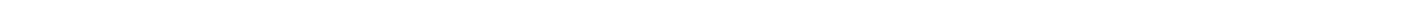
Technical data	
Crimping force	120 kN
Stroke	20 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	540 mm
Weight	5.2 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>HK120U</b>
Scope of supply	Part No.
Steel carrying case	MK120U





## Available dies for Series 13 for HK 120 U

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94





# FLEXIBLE HEADS - HYDRAULIC CRIMPING HEADS AND CRIMPING TOOL SYSTEMS

2

No matter whether continuous operation in the workshop or portable use in the field - Klauke crimping heads and systems provide the right solution each and every time.



### ► The Klauke system

Full flexibility with the Klauke system - all hydraulic heads and pumps are mutually compatible and your 13 and 22 series crimping dies can also be used in the hydraulic crimping heads.

- Crimping heads for the 13 and 22 series, also for workbench mounting
- Crimping heads with a crimping force of 55 kN to 1000 kN
- Workbench tools BG-tested

### ► High crimping force for greater width

The crimping heads achieve a crimping force of 55 kN to 1000 kN. Allowing you to process cable lugs of up to 1600 mm<sup>2</sup>.

- Compact design
- Easy handling
- Versatile
- Broadest range of applications



## Crimping

Hydraulic crimping heads and crimping systems

### PK 22 Hydraulic crimping heads 6 - 300 mm<sup>2</sup>



**K22**  
SERIE

- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical

#### Characteristics

- Closed head, flip top style, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

- 22-series interchangeable dies, narrow crimping

#### Additional information

- Part Number appendix for W crimping dies (UL-tested) "W"

Technical data	
Crimping force	60 kN
Stroke / opening width	17 mm
Crimping range	6 - 300 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	305 mm
Weight	3.0 kg
Item	Part No.
Hydraulic crimping head 6 - 300 mm <sup>2</sup>	<b>PK22</b>
Scope of supply	Part No.
Carrying bag	TT2

### THK 22 Hydraulic crimping tool for workbench mounting 6 - 300 mm<sup>2</sup>



**K22**  
SERIE

- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

#### Characteristics

- Quick coupling
- For workbench mounting
- BG-conformity version

































#### Suitable for

- 22-series interchangeable dies, narrow crimping

Technical data	
Crimping force	60 kN
Crimping range	6 - 300 mm <sup>2</sup>
Operating pressure	max. 700 bar
Weight	8.8 kg
Dimensions	H x W x D: 220 x 160 x 120 mm
Item	Part No.
Hydraulic crimping tool for workbench mounting 6 - 300 mm <sup>2</sup>	<b>THK22</b>

## Available dies for Series 22 for PK 22 and THK 22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.87
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		2.87
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.88
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.88
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.88
Nickel tubular cable lugs and connectors		10 - 50		2.88
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.88
Double compression cable lugs		2 x 70		2.88
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.89
Insulated solderless terminals and connectors		10 - 70		2.89
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.89
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 sm - 300 se / 300 sm		2.89
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 sm - 300 se / 300 sm		2.89
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.90
Clamps, H-type		70		2.90
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.90



# Crimping

Hydraulic crimping heads and crimping systems

## PK 60 VP Hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors up to 240 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ No additional dies required

### Characteristics

- Quad-point indent crimping and wide crimping
- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Crimping force	55 kN
Crimping range	10 - 240 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	305 mm
Weight	2.8 kg
Item	Part No.
Hydraulic crimping head 10 - 240 mm <sup>2</sup>	<b>PK60VP</b>
Scope of supply	Part No.
Carrying bag	TT2

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10 - 240	
Connectors, standard type		10 - 120	
Tubular cable lugs for fine stranded conductors		10 - 240	
Connectors for fine stranded conductors		10 - 95	

## PK 60 VP/FT Hydraulic crimping head 16 - 300 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ Closed crimping head - ideal for utility lines construction, for example

### Characteristics

- Quad-point indent crimping and wide crimping
- Closed head, flip top style, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Crimping force	55 kN
Crimping range	16 - 300 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	315 mm
Weight	2.8 kg
Item	Part No.
Hydraulic crimping head 16 - 300 mm <sup>2</sup>	<b>PK60VPFT</b>
Scope of supply	Part No.
Carrying bag	TT2

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 300	
Tubular cable lugs and connectors for fine stranded conductors		16 - 300	

## PK 60 ID Hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinders
- ▶ Indent crimping - no changing of dies required

### Characteristics

- Closed head, flip top style, rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

### Technical data

Crimping force 30 - 60 kN

Stroke / opening width 40.5 mm

Crimping range copper 10 - 240 mm<sup>2</sup>











Crimping range aluminum 50 - 240 mm<sup>2</sup>

Operating pressure max. 700 bar

Length 249.5 mm

Weight approx. 2.5 kg

Item	Part No.
Hydraulic crimping head 10 - 240 mm <sup>2</sup>	<b>PK60ID</b>
Scope of supply	Part No.
Carrying bag	TT2

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	



## Crimping

Hydraulic crimping heads and crimping systems

### PK 120/42 Hydraulic crimping head 10 - 400 mm<sup>2</sup>



**K13**  
SERIE



- ▶ Large crimping range up to 400 mm<sup>2</sup>
- ▶ C-head with larger 42 mm jaw opening
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke / opening width	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	335 mm
Weight	4.5 kg
Item	Part No.
Hydraulic crimping head 10 - 400 mm <sup>2</sup>	<b>PK12042</b>
Scope of supply	Part No.
Carrying bag	TT2

### THK 120 Hydraulic crimping tool for workbench mounting 10 - 400 mm<sup>2</sup>

**K13**  
SERIE



- ▶ Large crimping range up to 400 mm<sup>2</sup>
- ▶ For workbench mounting
- ▶ BG-compliant version
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping

#### Characteristics

- Quick coupling
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results



































#### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Crimping range	10 - 400 mm <sup>2</sup>
Operating pressure	max. 700 bar
Weight	12 kg
Dimensions	H x W x D: 285 x 160 x 110 mm
Item	Part No.
Hydraulic crimping tool for workbench mounting 10 - 400 mm <sup>2</sup>	<b>THK120</b>



## Available dies for Series 13 for PK 120/42 and THK 120

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



# Crimping

Hydraulic crimping heads and crimping systems

## PK 120 U Hydraulic crimping head 10 - 400 mm<sup>2</sup>

- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping



### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results



































### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke / opening width	20 mm
Crimping range	10 - 400 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	320 mm
Weight	3.7 kg
Item	Part No.
Hydraulic crimping head 10 - 400 mm <sup>2</sup>	<b>PK120U</b>
Scope of supply	Part No.
Carrying bag	TT2



## Available dies for Series 13 for PK 120 U

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94



# Crimping

Hydraulic crimping heads and crimping systems

## PK 25/2 Hydraulic crimping head 16 - 625 mm<sup>2</sup>



- ▶ For dies acc. to DIN 48083, sheet 3
- ▶ Very large crimping range up to 625 mm<sup>2</sup>
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

### Characteristics

- Head with quick coupling, 360° rotation when not pressurised

### Suitable for

- 25-series interchangeable dies, wide crimping
- When using adapter item no. 25A13 also for interchangeable dies of the 13 series

Technical data	
Crimping force	250 kN
Stroke / opening width	20 mm
Crimping range	16 - 625 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	335 mm
Weight	5.3 kg
Item	Part No.
Hydraulic crimping head 16 - 625 mm <sup>2</sup>	<b>PK252</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	Art-Nr.
Adapter for crimping dies of the Klauke 13-series	25A13



**K25**  
SERIE



































**K13**  
SERIE

## Available dies for Series 25 for PK 25/2

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		300 - 400		2.96
Tubular cable lugs and connectors for fine stranded conductors		240		2.96
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		300 - 625		2.96
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors, 3 and 4 core sector shaped conductors		400 - 500		2.96
<b>Compression cable lugs and connectors acc. to DIN - Al</b>				
Compression cable lugs and connectors acc. to DIN - Al		400 - 500		2.97
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminium/copper compression cable lugs and connectors: crimping dies HA25, copper side of aluminium/copper compression cable lugs and connectors: crimping dies HD25		400 - 500		2.97
<b>Clamps and screw connectors</b>				
C-clamps		35 - 185		2.97

## Available dies for Series 13 for PK 25/2

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		2.91
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		2.92
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		2.92
<b>Tubular cable lugs and connectors - stainless steel, Ni</b>				
Tubular cable lugs and connectors – VA		16 - 50		2.92
Tubular cable lugs and connectors – VA		70 - 95		2.92
Tubular cable lugs and connectors - Ni		16 - 50		2.92
Tubular cable lugs and connectors - Ni		70 - 95		2.92
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		2.92
Double compression cable lugs		2 x 50 - 2 x 120		2.93
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 150		2.93
Insulated terminals and pin terminals		10 - 95		2.93
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 sm - 300 re/see		2.94
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 sm - 300 re/se		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70 - 120		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		2.94

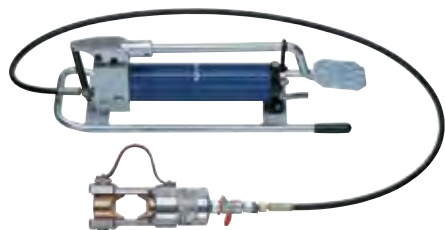


# Crimping

Hydraulic crimping heads and crimping systems

## HK 25/2 Hydraulic crimping tool with foot pump 16 - 625 mm<sup>2</sup>

- ▶ Extremely wide cross section range up to 625 mm<sup>2</sup>
- ▶ Hydraulic system with 250 kN crimping force
- ▶ Foot pump with two-stage hydraulics



### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- Manual retract as required

### Suitable for

- 25-series interchangeable dies, wide crimping

### Additional information

- The wide choice of available crimping dies can be found in chapter “Crimping dies“ under Series 25.
- When using adapter item no. 25A13 also for interchangeable dies of the 13 series



Technical data	
Crimping force	250 kN
Crimping range	16 - 625 mm <sup>2</sup>
Operating pressure	max. 700 bar
Weight	17.6 kg
Item	Part No.
Hydraulic crimping tool with foot pump 16 - 625 mm <sup>2</sup>	<b>HK252</b>
Scope of supply	Part No.
Hydraulic hose, 2 m	HS22
Steel carrying case	MKU
Accessories	Part No.
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210
Adapter for crimping dies of the Klauke 13-series	25A13





# SIX SERIES IN USE - CRIMPING DIES

The Klauke range of crimping dies is unbeatable. We have developed a total of 6 series to suit your requirements. All are set apart by their high durability and highest precision. For optimum crimping results, the crimping surface of the dies are polished. You can count on that: Tools, crimping dies and connection materials from Klauke deliver the perfect electrical connection every time.



## In brief

- ▶ Broad range with 6 different crimping dies series
- ▶ Solutions for every material
- ▶ Polished crimping surfaces for optimum crimping results

## Adapter

The use of adapters for crimping tools increases the area of application and enables the processing of smaller cross-sectional areas. **Inform yourself!**

**K15 Series:** Part no. UA15T for crimping dies of series 13

**K25 Series:** Part no. 25A13 for crimping dies of series 13



	<b>K50 SERIE</b> 	<b>K4 SERIE</b> 	<b>K22 SERIE</b> 	<b>K13 SERIE</b> 	<b>K15 SERIE</b> 	<b>K25 SERIE</b> 
Connection material						
	0,75-25 mm <sup>2</sup>	6-150 mm <sup>2</sup>	6-300 mm <sup>2</sup>	16-400 mm <sup>2</sup>	16-400 mm <sup>2</sup>	16-400 mm <sup>2</sup>
	–	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-150 mm <sup>2</sup>
	–	10-35 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-240 mm <sup>2</sup>
	1,5-10 mm <sup>2</sup>	–	1,5-16 mm <sup>2</sup>	–	–	–
<b>VA</b> 	–	1,5-16 mm <sup>2</sup>	10-50 mm <sup>2</sup>	16-95 mm <sup>2</sup>	16-95 mm <sup>2</sup>	16-95 mm <sup>2</sup>
<b>Ni</b> 	–	1,5-16 mm <sup>2</sup>	10-50 mm <sup>2</sup>	16-95 mm <sup>2</sup>	16-95 mm <sup>2</sup>	16-95 mm <sup>2</sup>
<b>DIN</b> 	6-25 mm <sup>2</sup>	6-120 mm <sup>2</sup>	6-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-625 mm <sup>2</sup>	10-625 mm <sup>2</sup>
	–	–	2x70 mm <sup>2</sup>	2x50-2x120 mm <sup>2</sup>	2x50-2x120 mm <sup>2</sup>	2x50-2x120 mm <sup>2</sup>
	0,5-10 mm <sup>2</sup>	10-35 mm <sup>2</sup>	10-70 mm <sup>2</sup>	16-150 mm <sup>2</sup>	16-150 mm <sup>2</sup>	16-150 mm <sup>2</sup>
	0,5-16 mm <sup>2</sup>	10-16 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-95 mm <sup>2</sup>	10-95 mm <sup>2</sup>	16-95 mm <sup>2</sup>
	–	16-150 mm <sup>2</sup> *	10-300 mm <sup>2</sup> *	10-300 mm <sup>2</sup> *	10-300 mm <sup>2</sup> *	10-500 mm <sup>2</sup> *
<b>Al</b> 	–	10-95 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-500 mm <sup>2</sup>	10-500 mm <sup>2</sup>
<b>Al/Cu</b> 	–	10-95 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-500 mm <sup>2</sup>	10-500 mm <sup>2</sup>
	–	10-35 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-185 mm <sup>2</sup>
	–	–	70 mm <sup>2</sup>	70-120 mm <sup>2</sup>	70-120 mm <sup>2</sup>	70-120 mm <sup>2</sup>
	0,5-50 mm <sup>2</sup>	10-50 mm <sup>2</sup>	25-240 mm <sup>2</sup>	25-240 mm <sup>2</sup>	25-240 mm <sup>2</sup>	25-240 mm <sup>2</sup>
	2x6-2x16 mm <sup>2</sup>	–	–	–	–	–
	0,1-16 mm <sup>2</sup>	–	–	–	–	–
	0,25-6 mm <sup>2</sup>	–	–	–	–	–
<b>BNC plug</b>	RG 58, RG 59, RG 62, RG 71	–	–	–	–	–
<b>Turned pin receptacle and pin connectors</b>	0,1-4 mm <sup>2</sup>	–	–	–	–	–

\* Cross-section depending on conductor structure

# K50 SERIE



## Crimping dies R 50, indent crimping



### Suitable for

- Tubular cable lugs and connectors - Cu, standard type

Cross section mm <sup>2</sup>	For item	Part No.
0.75 - 2.5	91R, 92R, 93R	<b>R501</b>
4 - 10	94R, 95R, 2R	<b>R502</b>

## Crimping dies D 50



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.
6 - 16	<b>D504</b>
16 - 25	<b>D505</b>

## Crimping dies R 50, hexagonal crimping



### Suitable for

- Tubular cable lugs and connectors - Cu, standard type

Cross section mm <sup>2</sup>	Part No.
6 - 16	<b>R504</b>
16 - 25	<b>R505</b>

## Crimping dies Q 50



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
0.5 - 10	<b>Q501</b>

## Crimping dies M 50



### Suitable for

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.
1.5 - 4	<b>M50154</b>
6 - 10	<b>M50610</b>

## Crimping dies AE 507

**NEW**



### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.
0,5 - 6	<b>AE5071</b>
10 - 25	<b>AE5072</b>
35 - 50	<b>AE5073</b>

### Crimping dies IS 50, single crimping

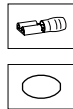


**Suitable for**

- Insulated cable connections, single crimping
- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.	for item
0,5 - 2,5	<b>IS504</b>	670 WS, 680 WS
4 - 6	<b>IS505</b>	700 WS
10 - 16	<b>IS5072</b>	ST1716IS, ST1717IS, 652C5, 652C6, 653C6

### Crimping dies IS 50, double crimping



**Suitable for**

- Insulated cable connections, double crimping

Cross section mm <sup>2</sup>	Part No.	for item
0,1 - 1	<b>IS503</b>	8201-8201B
0,5 - 6	<b>IS5071</b>	

### Crimping dies CR 50



**Suitable for**

- Non-insulated receptacles

Cross section mm <sup>2</sup>	Part No.	for item	Tab Width
0.25 - 6	<b>CR501</b>		2.8 / 6.3
0.5 - 2.5	<b>CR502</b>		4.8
0.5 - 2.5	<b>CR504</b>	3720, 3735	6.3
0.5 - 1.5	<b>CR505</b>	3725	6.3

### Crimping dies BNC 50



**Suitable for**

- Stud and shielded sleeves
- BNC plugs for coax cable RG 58, 59, 62 and 71

Part No.
<b>BNC501</b>

### Crimping dies SB 50

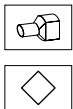


**Suitable for**

- Turned pin receptacles
- Pin connectors

Cross section mm <sup>2</sup>	Part No.
0.1 - 1; 1.5 - 2.5; 4	<b>SB501</b>

### Crimping dies ZAE 507



**Suitable for**

- Twin cable end-sleeves

Cross section mm <sup>2</sup>	Part No.
2x6 - 2x16	<b>ZAE5072</b>



K 35/4

EK 35/4 ML

EK 35/4

### Crimping dies HR 4



#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6	<b>HR46</b>	5
10	<b>HR410</b>	5
16	<b>HR416</b>	5
25	<b>HR425</b>	5
35	<b>HR435</b>	5
50	<b>HR450</b>	5
70	<b>HR470</b>	5
95	<b>HR495</b>	5
120	<b>HR4120</b>	5
150	<b>HR4150</b>	5

### Crimping dies HIS 4



#### Suitable for

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HIS410</b>	5
16	<b>HIS416</b>	5
25	<b>HIS425</b>	5
35	<b>HIS435</b>	5
50	<b>HIS450</b>	5
70	<b>HIS470</b>	5

### Crimping die set, 6 - 150 mm<sup>2</sup> HR 4 in plastic case, 11-pce.



#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Part No.
<b>HR4SET</b>

### Crimping dies HF 4



#### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>HF410</b>
16	<b>HF416</b>
25	<b>HF425</b>
35	<b>HF435</b>

## Crimping dies HN 4, Double indent crimping



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
4 - 6	<b>HN446</b>
10	<b>HN410</b>
16	<b>HN416</b>

## Crimping dies HN 4, Indent crimping



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
1.5 - 2.5	<b>HN41525</b>

## Crimping die set, 6 - 120 mm<sup>2</sup> HD 4 in plastic case, 10-pce.



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Part No.
<b>HD4SET</b>

## Crimping dies HD 4



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6	<b>HD46</b>	5	5
10	<b>HD410</b>	6	5
16	<b>HD416</b>	8	5
25	<b>HD425</b>	10	5
35	<b>HD435</b>	12	5
50	<b>HD450</b>	14	5
70	<b>HD470</b>	16	5
95	<b>HD495</b>	18	5
120	<b>HD4120</b>	20	5

## Crimping dies HQ 4



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>HQ410</b>
16	<b>HQ416</b>
25	<b>HQ425</b>
35	<b>HQ435</b>

## Crimping dies HISQ 4

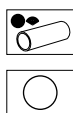


### Suitable for

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>HISQ410</b>
16	<b>HISQ416</b>

## Crimping dies HRU 4

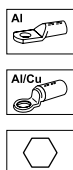


### Suitable for

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Dia. mm after pre-rounding	Pre-rounding width mm
	16	<b>HRU416</b>	5.1	9
35	25	<b>HRU43525</b>	6.3	9
50	35	<b>HRU45035</b>	7.5	9
70	50	<b>HRU47050</b>	9.0	9
95	70	<b>HRU49570</b>	10.5	9
120	95	<b>HRU412095</b>	12.5	9
150	120	<b>HRU4150120</b>	14.0	9

## Crimping dies HA 4



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Conductor dia. mm	Pre-rounding width mm
16	10	<b>HA410</b>	10	7
25 -35	16 -25	<b>HA41625</b>	12	7
50	35	<b>HA435</b>	14	7
70	50	<b>HA450</b>	16	7
95	70	<b>HA470</b>	18	7

## Crimping dies HC 4 / HMC 4



### Suitable for

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC416</b>	5
25	<b>HC425</b>	5
10 - 10	<b>HMC410</b>	5
10 - 16 10 - 25 35 - 35	<b>HMC435</b>	5

## Crimping dies HAES 4



### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HAES410S</b>	10
16	<b>HAES416S</b>	10
25	<b>HAES425S</b>	10
35	<b>HAES435S</b>	10
50	<b>HAES450S</b>	10

**K22  
SERIE**



K 22

HK 60/22

EK 60/22

EKM 60/22

EKM 60/22 IS

EKM 60 UNV + UA22

EK 60 UNV + UA22

THK 22

PK 22

PK 60 UNV + UA22

**Crimping dies R 22**

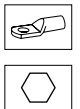


**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6	<b>R226</b>	5
10	<b>R2210</b>	5
16	<b>R2216</b>	5
25	<b>R2225</b>	5
35	<b>R2235</b>	5
50	<b>R2250</b>	5
70	<b>R2270</b>	5
95	<b>R2295</b>	5
120	<b>R22120</b>	5
150	<b>R22150</b>	5
185	<b>R22185</b>	5
240	<b>R22240</b>	5
300	<b>R22300</b>	5

**Crimping die set, 6 - 300 mm<sup>2</sup> R 22 in plastic case, 14-pce.**

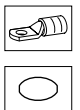


**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Part No.
<b>R22SET</b>

**Crimping dies IS 22**



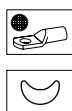
**Suitable for**

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>IS2210</b>	5
16	<b>IS2216</b>	5
25	<b>IS2225</b>	5
35	<b>IS2235</b>	5
50	<b>IS2250</b>	5
70	<b>IS2270</b>	5
95	<b>IS2295</b>	5
120	<b>IS22120</b>	5
150	<b>IS22150</b>	5



## Crimping dies F 22

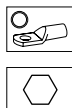


### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>F2210</b>
16	<b>F2216</b>
25	<b>F2225</b>
35	<b>F2235</b>
50	<b>F2250</b>
70	<b>F2270</b>

## Crimping dies M 22

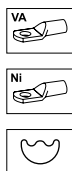


### Suitable for

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
1.5 - 4	<b>M22154</b>	5
6 - 10	<b>M22610</b>	5
16	<b>M2216</b>	5

## Crimping dies N 22



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
10	<b>N2210</b>
16	<b>N2216</b>
25	<b>N2225</b>
35	<b>N2235</b>
50	<b>N2250</b>

## Crimping dies D 22



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6	<b>D226</b>	5	5
10	<b>D2210</b>	6	5
16	<b>D2216</b>	8	5
25	<b>D2225</b>	10	5
35	<b>D2235</b>	12	5
50	<b>D2250</b>	14	5
70	<b>D2270</b>	16	5
95	<b>D2295</b>	18	5
120	<b>D22120</b>	20	5
150	<b>D22150</b>	22	5
185	<b>D22185</b>	25	5
240	<b>D22240</b>	28	5
300	<b>D22300</b>	32	5

## Crimping die set, 6-300 mm<sup>2</sup> D 22 in plastic case, 14-pce.



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Part No.
<b>D22SET</b>

## Crimping dies DP 22



### Suitable for

- Double compression cable lugs

Cross section mm <sup>2</sup>	Part No.	Code
2 x 70	<b>DP2270</b>	24 DP



## Crimping dies Q 22



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>Q2210</b>
16	<b>Q2216</b>
25	<b>Q2225</b>
35	<b>Q2235</b>
50	<b>Q2250</b>
70	<b>Q2270</b>

## Crimping dies ISQ 22

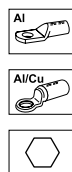


### Suitable for

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>ISQ2210</b>
16	<b>ISQ2216</b>
25	<b>ISQ2225</b>
35	<b>ISQ2235</b>
50	<b>ISQ2250</b>
70	<b>ISQ2270</b>

## Crimping die set, 10-300 mm<sup>2</sup> A 22 in plastic case, 11-pce.

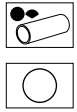


### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Part No.
<b>A22SET</b>

## Crimping dies RU 22

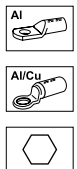
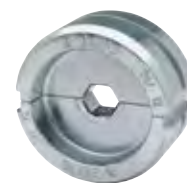


### Suitable for

- Pre-rounding of sector-shaped Al- and Cu-conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Dia. mm after pre-rounding	Pre-rounding width mm
	10	<b>RU2210</b>	4,1	19,5
	16	<b>RU2216</b>	5,1	19,5
35	25	<b>RU223525</b>	6,3	19,5
50	35	<b>RU225035</b>	7,5	19,5
70	50	<b>RU227050</b>	9,0	19,5
95	70	<b>RU229570</b>	10,5	19,5
120	95	<b>RU2212095</b>	12,5	19,5
150	120	<b>RU22150120</b>	14,0	19,5
185	150	<b>RU22185150</b>	15,8	19,5
240	185	<b>RU22240185</b>	17,5	19,5
300	240	<b>RU22300240</b>	20,3	19,5
	300	<b>RU22300SM</b>	22,5	19,5

## Crimping dies A 22



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Code	Crimp width mm
16	10	<b>A2210</b>	10	7
25-35	16-25	<b>A221625</b>	12	7
50	35	<b>A2235</b>	14	7
70	50	<b>A2250</b>	16	7
95	70	<b>A2270</b>	18	7
120-150	95-120	<b>A2295120</b>	22	7
185	150	<b>A22150</b>	25	7
240	185	<b>A22185</b>	28	7
300	240	<b>A22240</b>	32	5
	300	<b>A22300</b>	34	5



## Crimping dies H 22



**Suitable for**

- H-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
70	<b>H2270</b>	5

## Crimping dies C 22 / MC 22



**Suitable for**

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>C2216</b>	5
25	<b>C2225</b>	5
35	<b>C2235</b>	5
50	<b>C2250</b>	5
70	<b>C2270</b>	5
10 - 10	<b>MC2210</b>	5
10 - 1 10 - 25 35 - 35	<b>MC2235</b>	5
50	<b>MC2250</b>	5

## Crimping dies AE 2213



▶ The crimping dies can be used with tools from crimping dies series 22 und 13



**Suitable for**

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>AE221325</b>	21.5
35	<b>AE221335</b>	21.5
50	<b>AE221350</b>	21.5
70	<b>AE221370</b>	21.5
95	<b>AE221395</b>	21.5
120	<b>AE2213120</b>	21.5
150	<b>AE2213150</b>	21.5
185	<b>AE2213185</b>	21.5
240	<b>AE2213240</b>	21.5

**K13  
SERIE**



**Crimping die set 16 - 400 mm<sup>2</sup> HR13 in plastic case, 13 - pce.**

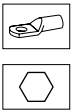


**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Part No. <b>HR13SET</b>
----------------------------

**Crimping dies HR 13**



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

**Additional information**

- \* = Narrow crimping (crimp 5 x)

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HR1316</b>	10
25	<b>HR1325</b>	10
35	<b>HR1335</b>	10
50	<b>HR1350</b>	13
70	<b>HR1370</b>	13
95	<b>HR1395</b>	14
120	<b>HR13120</b>	14
150	<b>HR13150</b>	14
185	<b>HR13185</b>	11
240	<b>HR13240</b>	11
300	<b>HR13300</b>	11
400 *	<b>HR13400</b>	5



## Crimping dies HF 13



### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>HF1310</b>
16	<b>HF1316</b>
25	<b>HF1325</b>
35	<b>HF1335</b>
50	<b>HF1350</b>
70	<b>HF1370</b>
95	<b>HF1395</b>
120	<b>HF13120</b>
150	<b>HF13150</b>

## Crimping dies HN 13, Double indent crimping



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
16	<b>HN1316</b>
25	<b>HN1325</b>
35	<b>HN1335</b>
50	<b>HN1350</b>

## Crimping dies HN 13, Indent crimping



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
70	<b>HN1370</b>
95	<b>HN1395</b>

## Crimping dies HIS 13



### Suitable for

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HIS1310</b>	5
16	<b>HIS1316</b>	5
25	<b>HIS1325</b>	5
35	<b>HIS1335</b>	5
50	<b>HIS1350</b>	5
70	<b>HIS1370</b>	5
95	<b>HIS1395</b>	5
120	<b>HIS13120</b>	5
150	<b>HIS13150</b>	5

## Crimping dies HD 13



### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

### Additional information

- \* = Narrow crimping (crimp 5 x)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HD1310</b>	6	10
16	<b>HD1316</b>	8	10
25	<b>HD1325</b>	10	10
35	<b>HD1335</b>	12	10
50	<b>HD1350</b>	14	13
70	<b>HD1370</b>	16	13
95	<b>HD1395</b>	18	14
120	<b>HD13120</b>	20	14
150	<b>HD13150</b>	22	10
185	<b>HD13185</b>	25	10
240	<b>HD13240</b>	28	10
300 *	<b>HD13300</b>	32	7

### Crimping dies HDP 13



**Suitable for**

- Double compression cable lugs

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
2 x 50	<b>HDP1350</b>	22 DP	12
2 x 70	<b>HDP1370</b>	24 DP	12
2 x 95	<b>HDP1395</b>	29 DP	12
2 x 120	<b>HDP13120</b>	32 DP	12

### Crimping dies HQ 13



**Suitable for**

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
16	<b>HQ1316</b>
25	<b>HQ1325</b>
35	<b>HQ1335</b>
50	<b>HQ1350</b>
70	<b>HQ1370</b>
95	<b>HQ1395</b>
120	<b>HQ13120</b>
150	<b>HQ13150</b>

### Crimping die set 10 - 300 mm<sup>2</sup> HD13 in plastic case, 13 - pce.

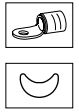


**Suitable for**

- Compression cable lugs DIN 46235 - Cu
- Compression joints DIN 46267, part 1 - Cu

Part No.
<b>HD13SET</b>

### Crimping dies HISQ 13

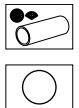


**Suitable for**

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>HISQ1310</b>
16	<b>HISQ1316</b>
25	<b>HISQ1325</b>
35	<b>HISQ1335</b>
50	<b>HISQ1350</b>
70	<b>HISQ1370</b>
95	<b>HISQ1395</b>

### Crimping dies HRU 13



**Suitable for**

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Dia. mm after pre-rounding	Pre-rounding width mm
	10	<b>HRU1310</b>	4.1	35
	16	<b>HRU1316</b>	5.1	35
35	25	<b>HRU133525</b>	6.3	35
50	35	<b>HRU135035</b>	7.5	35
70	50	<b>HRU137050</b>	9.0	35
95	70	<b>HRU139570</b>	10.5	35
120	95	<b>HRU1312095</b>	12.5	35
150	120	<b>HRU13150120</b>	14.0	35
185	150	<b>HRU13185150</b>	15.8	35
240	185	<b>HRU13240185</b>	17.5	35
300	240	<b>HRU13300240</b>	20.3	35
	300	<b>HRU13300SM</b>	22.5	35

## Crimping dies HA 13



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Code	Crimp width mm
16	10	<b>HA1310</b>	10	12
25-35	16-25	<b>HA131625</b>	12	12
50	35	<b>HA1335</b>	14	12
70	50	<b>HA1350</b>	16	12
95	70	<b>HA1370</b>	18	12
120-150	95-120	<b>HA1395120</b>	22	14
185	150	<b>HA13150</b>	25	14
270	185	<b>HA13185</b>	28	14
300	240	<b>HA13240</b>	32	17
-	300	<b>HA13300</b>	34	17

## Crimping die set 10 - 300 mm<sup>2</sup> HA13 in plastic case, 11-pce.



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Part No.
<b>HA13SET</b>

## Crimping dies HAH 13



### Suitable for

- H-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
70	<b>HAH1370</b>	30
95	<b>HAH1395</b>	30
120	<b>HAH13120</b>	20

## Crimping dies HC 13 / HMC 13



### Suitable for

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC1316</b>	16
25	<b>HC1325</b>	17
35	<b>HC1335</b>	20
50	<b>HC1350</b>	20
70	<b>HC1370</b>	20
10 - 10	<b>HMC1310</b>	13
10 - 16	<b>HMC1335</b>	18
10 - 25		
35 - 35		
25 - 50	<b>HMC1350</b>	20
50 - 50		
35 - 70	<b>HMC1370</b>	20

## Crimping dies AE 2213



- ▶ The crimping dies can be used with tools from crimping dies series 22 und 13



### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>AE221325</b>	21.5
35	<b>AE221335</b>	21.5
50	<b>AE221350</b>	21.5
70	<b>AE221370</b>	21.5
95	<b>AE221395</b>	21.5
120	<b>AE2213120</b>	21.5
150	<b>AE2213150</b>	21.5
185	<b>AE2213185</b>	21.5
240	<b>AE2213240</b>	21.5

**K15  
SERIE**



**Adapter for crimping dies Series 13**



**Suitable for**

- All crimping dies of series 13

Item	Part No.
Adapter for crimping dies Series 13	<b>UA15T</b>

**Crimping dies HA 15**



**Suitable for**

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
400	<b>HA15400</b>	38	15
500	<b>HA15500</b>	44	15

**Crimping dies HD 15**



**Suitable for**

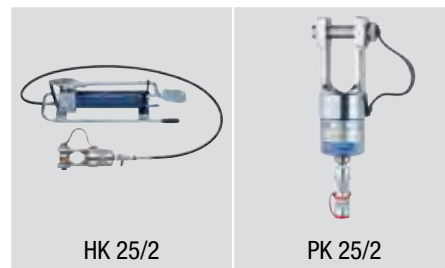
- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

**Additional information**

- \* = Narrow crimping (crimp 7 x)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
400 *	<b>HD15400</b>	38	7
500 *	<b>HD15500</b>	42	7
625 *	<b>HD15625</b>	44	7

# K25 SERIE



HK 25/2

PK 25/2

## Adapter for crimping dies Series 13



### Suitable for

- All crimping dies of series 13

Item	Part No.
Adapter for crimping dies Series 13	<b>25A13</b>

## Crimping dies HR 25



### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
300	<b>HR25300</b>	20
400	<b>HR25400</b>	20

## Crimping dies HF 25



### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
240	<b>HF25240</b>

## Crimping dies HD 25



### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
300	<b>HD25300</b>	32	17
400	<b>HD25400</b>	38	17
500	<b>HD25500</b>	42	17
625	<b>HD25625</b>	44	15

## Crimping dies HRU 25



### Suitable for

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Dia. mm after pre-rounding	Pre-rounding width mm
	400	<b>HRU25400SM</b>	26	40
	500	<b>HRU25500SM</b>	29	40



### Crimping dies HA 25

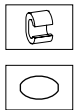


**Suitable for**

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Nominal cross section mm <sup>2</sup> re/se	Nominal cross section mm <sup>2</sup> rm/sm	Part No.	Code	Crimp width mm
-	400	<b>HA25400</b>	38	17
-	500	<b>HA25500</b>	44	15

### Crimping dies HC 25 / HMC 25



**Suitable for**

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
95	<b>HC2595</b>	20
35 - 95; 70 - 95	<b>HMC2595</b>	20
120 - 120	<b>HMC25120</b>	20
150 - 150	<b>HMC25150</b>	20
185 - 185	<b>HMC25185</b>	20

# CUTS ABSOLUTELY EVERYTHING.

Klauke cutting tools offer an impressively broad range of applications. No matter which material or cross sections you want to cut, Klauke tools ensure you work simply, quickly and safely.





# Cutting

<b>Mechanical cutting tools</b>	<b>3.4</b>
<hr/>	
<b>Battery powered cutting tools</b>	<b>3.10</b>
Platform based on 10.8 V	3.11
Platform based on 18 V	3.14
<hr/>	
<b>Hand-operated hydraulic cutting tools</b>	<b>3.39</b>
<hr/>	
<b>Hydraulic cutting heads and cutting systems</b>	<b>3.41</b>
Hydraulic cutting heads	3.42
Hydraulic cutting systems	3.47
<hr/>	
<b>Special cutting tools</b>	<b>3.48</b>
DIN rail cutting tools	3.49
Wiring duct cutter	3.50



# PERFECT CUTTING - MECHANICAL CUTTING TOOLS

In use, every cut must sit straight away. Our mechanical cutting tools are prepared for your work. The ergonomic handle is there to assist you, because the first moment, the typical Klauke lever technology optimally transfers your force. Your cuts are precise, the tools are easy to use and durable thanks to high material quality. Good first impression.



### In brief

- ▶ Cutting tools for aluminium and copper cables up to 100 mm diameter
- ▶ Simple working due to optimised force transmission
- ▶ Precise cuts with high-quality cutting blades
- ▶ Effortless operations thanks to ergonomic shape

## ► For everyday use

Klauke cutting tools are made from high-quality materials: “Made in Germany”. Highly durable and are therefore best suited for daily use in workshops or on the construction site.

- Cutting tools for aluminium and copper cables up to 100 mm diameter



- Also available as fully-insulated tool to 1000 V to DIN EN 60900
- Re-adjustable cutters
- Effortless operations due to low weight
- Processing of high-quality materials

## ► Powerful in every situation

- Compact and convenient size
- Practical single-handed operation with low effort
- Effective cutting performance up to Cu 12 mm dia.
- Reduced effort required due to different cutting profiles for large and small diameters

## ► Flexible in use

- Stepless telescopic handles permit optimum lever adjustment
- Cutting head can be replaced
- Well suited for fine-stranded conductors





## Cutting

Mechanical cutting tools

### K 118 Hand-operated cutting tool for Al and Cu cables to 12 mm dia.



- ▶ Perfect in confined areas
- ▶ Handy shape with high cutting performance
- ▶ Exceptional cutting tool for solid, multi, fine and superfine stranded cables e.g. to DIN EN 60228, Class 1, 2, 5 and 6
- ▶ Increased user convenience thanks to two cutting profiles for small and large cable dimensions

#### Characteristics

- One-hand operation

#### Suitable for

- For solid conductors, class 1, to 10 mm<sup>2</sup> (max. 4 mm dia.)
- Copper stranded conductors, class 2, to 16 mm<sup>2</sup> (max. 5 mm dia.)
- Aluminium stranded conductors, class 2, to 25 mm<sup>2</sup> (max. 10 mm dia.)
- Copper fine and superfine stranded conductors, class 5 and 6, to 50 mm<sup>2</sup> (max. 12 mm dia.)

Technical data	
Cutting range	max. 12 mm dia., e.g. 1 x 50 mm <sup>2</sup> H07VK
Length	165 mm
Weight	0.17 kg
Item	Part No.
Hand-operated cutting tool for to 12 mm dia.	<b>K118</b>

### K 100 Hand-operated cutting tool for Al and Cu cables to 14 mm dia.



- ▶ Optimised cutting tool for fine and multi-stranded cables

#### Characteristics

- Compact design permits cutting in confined areas
- Two-hand operation

Technical data	
Cutting range	max. 14 mm dia., e.g. 1 x 50 mm <sup>2</sup> H07VK
Length	280 mm
Weight	0.55 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	<b>K100</b>

### K 102 Hand-operated cutting tool for to 20 mm dia.



- ▶ Optimised cutting tool for fine and superfine stranded Cu cables to DIN EN 60228, Cl. 5+6
- ▶ Adjustable pivot point

#### Characteristics

- Handle with slip guard and inscription panel
- Two-handed locking

Technical data	
Cutting range	max. 20 mm dia., e.g. 1 x 95 mm <sup>2</sup> H07V-K
Length	210 mm
Weight	0.38 kg
Item	Part No.
Hand-operated cutting tool for to 20 mm dia.	<b>K102</b>

### K 106/1 Hand-operated cutting tool for Al and Cu cables, class 2 to Ø 34 mm



- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance

#### Characteristics

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

#### Technical data

Cutting range	max. 34 mm dia., e.g. 4 x 35 mm <sup>2</sup> NYN
Length	260 mm
Weight	0.6 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 34 mm dia.	<b>K1061</b>

### K 106/2 Hand-operated cutting tool for Al and Cu cables, class 2 to Ø 62 mm



- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance
- ▶ Cutting range to 62 mm

#### Characteristics

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

#### Technical data

Cutting range	e.g. 4 x 120 mm <sup>2</sup> NYN, max. 62 mm dia.
Length	260 mm
Weight	0.6 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 62 mm dia.	<b>K1062</b>

### K 103/1 Hand-operated cutting tool for Al and Cu cables to 60 mm dia.



- ▶ Energy-efficient 2-stage ratchet system
- ▶ For earth, plastic and rubber cables

#### Characteristics

- Not suitable for cutting steel or steel wire

#### Technical data

Cutting range	e.g. 4 x 240 mm <sup>2</sup> NAYN, max. 60 mm dia.
Length	720 mm
Weight	4.5 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 60 mm dia.	<b>K1031</b>



## Cutting

Mechanical cutting tools

### K 130 Hand-operated cutting tool for Al and Cu cables to 30 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Large cutting range

#### Characteristics

- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

#### Technical data

Cutting range e.g. 4 x 35 mm<sup>2</sup> NYY, max. 30 mm dia.

Length 570 mm

Weight 1.7 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 30 mm dia.	<b>K130</b>

### K 150 Hand-operated cutting tool for Al and Cu cables to 50 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Secure grip due to roughened handle

#### Characteristics

- Large cutting range
- Not suitable for cutting steel or steel wire

#### Technical data

Cutting range max. 50 mm dia., e.g. 4 x 120 mm<sup>2</sup> NYY

Length 710 mm

Weight 3 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 50 mm dia.	<b>K150</b>

### K 105/1 Hand-operated cutting tool for Al and Cu cables to 26 mm with telescopic handles dia.



- ▶ Compact dimensions with extending telescopic handles for easier carrying
- ▶ High cutting performance
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5

#### Characteristics

- Two-hand operation
- Maintenance on-site due to replacement of cutting heads
- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

#### Technical data

Cutting range e.g. 4 x 25 mm<sup>2</sup> NYY, max. 26 mm dia.

Length Stepless 350 - 520 mm

Weight 1.4 kg

Item	Part No.
Hand-operated cutting tool for Al and Cu cables to 26 mm dia., length 350 - 520 mm continuous	<b>K1051</b>

Accessories	Part No.
Replacement cutting head	K1011E



## K 101/1 Hand-operated cutting tool for Al and Cu cables to 26 mm dia.



- ▶ Can be maintained on-site thanks to replaceable cutting heads
- ▶ Exceptional cutting performance even with fine-stranded conductors

### Characteristics

- Two-hand operation
- Excellent leverage
- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

### Technical data

Cutting range e.g. 4 x 25 mm<sup>2</sup> NY, max. 26 mm dia.

Length 570 mm

Weight 1.8 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 26 mm dia.	<b>K1011</b>

Accessories	Part No.
Replacement cutting head	K1011E

## K 101/2 Hand-operated cutting tool for Al and Cu cables to 38 mm dia.



- ▶ Large cutting range
- ▶ Telescopic handles
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5
- ▶ Can be maintained on-site thanks to replaceable cutting heads

### Characteristics

- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

### Technical data

Cutting range max. 38 mm dia.

Length 930 mm

Weight 4.2 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 38 mm dia.	<b>K1012</b>

Accessories	Part No.
Replacement cutting head	K1012E

## K 104/1 Hand-operated cutting tool for Al and Cu cables to 100 mm dia.



- ▶ Energy-efficient 2-stage ratchet system
- ▶ For earth, plastic and rubber cables
- ▶ Very wide cutting range up to 100 mm diameter

### Characteristics

- Not suitable for cutting steel or steel wire

### Technical data

Cutting range e.g. 4 x 400 mm<sup>2</sup> NAY, max. 100 mm dia.

Length 870 mm

Weight 5.7 kg

Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 100 mm dia.	<b>K1041</b>



# THE LITTLE CUTTING EXPERT - BATTERY-POWERED HYDRAULIC CUTTING TOOL (10.8 V)

The Klauke mini is lightweight yet powerful. The high-quality shears cut with an opening width of 32 mm, the bolt cutters with a 12 mm opening width. Its practical dimensions make it especially suitable for confined areas.

## ***Klauke*** mini

### ▶ Pure performance without frills

The Klauke mini concentrates on its core task: reliable cutting. Even without pressure sensor and display, the little expert does its job well - no fuss or quibble.

### ▶ Usage time at a glance

Read the charge level at any time directly from the powerful 10.8 V battery.

### ▶ All-round cutting

Cutting in confined areas? No problem with these cutting heads, which rotate through 360°.



## EBS 8 ML / EBS 12 ML Battery powered hydraulic bolt cutter 8 mm dia. / 12 mm dia.



- ▶ For cutting cable channels, bolts and steel wire, medium-hard (e.g. ST 37)
- ▶ Slim cutting head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery with charge status display

### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data	
Cutting range	EBS8ML: max. 8 mm dia., EBS12ML: max. 12 mm dia.
Cutting force	EBS8ML: 15 kN, EBS12ML: 45 kN
Cutting time	EBS8ML: 2 s, EBS12ML: 4 s (depending on material thickness)
Number of cuts	ES8ML: 100 at silver steel 6 mm, EBS12ML: 150 at mild steel 10 mm
Battery voltage	10.8 V
Battery capacity	2.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	EBS8ML: 1.2 kg, EBS12ML: 1.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic bolt cutting tool 8 mm dia.	<b>EBS8ML</b>
Battery powered hydraulic bolt cutting tool 12 mm dia.	<b>EBS12ML</b>
Scope of supply	Part No.
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Plastic case	KKML



## Cutting

Battery-powered hydraulic cutting tools 10.8 V

### ES 20 ML Battery powered hydraulic cutting tool 20 mm dia.



- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

#### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

#### Technical data

Cutting range	Multi-stranded max. 20 mm dia. (depending on cable type)
Cutting force	23 kN
Cutting time	4 s to 6 s (depending on material thickness)
Number of cuts	approx.200 for steel cable 8 mm
Battery voltage	10.8 V
Battery capacity	21.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	1.6 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20ML</b>

Scope of supply	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1

Plastic case	KKML
--------------	------

Accessories	Part No.
Replacement blade	<b>ES20E</b>

## ES 32 ML / ES 32 F ML Battery powered hydraulic cutting tools 32 mm dia.



- ▶ Cuts multi-stranded copper and aluminium cables (ES 32 ML)
- ▶ Cuts fine and superfine stranded copper cables (ES 32 F ML)
- ▶ Slim cutting head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

### Characteristics

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

### Technical data

Cutting range	max. 32 mm dia.
Cutting force	15 kN
Cutting time	8 s to 10 s (depending on material thickness)
Number of cuts	ES32ML: approx. 100 at 150 mm <sup>2</sup> NY, ES32FML: approx. 150 at H07V-K 185 mm <sup>2</sup>
Battery voltage	10.8 V
Battery capacity	2.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	1.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32ML</b>
Battery powered hydraulic cutting tool 32 mm dia., superfine-stranded	<b>ES32FML</b>
Scope of supply	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1
Plastic case	KKML
Accessories	Part No.
Replacement blade set	ES32E
Replacement blade set for fine and superfine stranded copper cables	ES32FE

# THE NEW STANDARD - KLAUKE NEXT GENERATION CUTTING TOOLS

Aspire to the new standard: Battery-powered hydraulic cutting tools from Klauke offer impressive power and durability. The tools effortlessly cut cross-sections up to 105mm, with open cutting head for better accessibility or closed cutting head for improved force transmission. Improved ergonomics with optimised centre of gravity makes work more convenient and faster. Also through the time-saving opening mechanism.



## In brief

- ▶ Freely-selectable battery platform: with Bosch or Makita
- ▶ Proof of quality can be created via Bluetooth
- ▶ Ensure tool availability: Read the tool properties from the display or via the app
- ▶ Effortless operations thanks to modern, ergonomic design

Interested in Klauke Next Generation tools? Then take a look at our Multi universal tool on [Page x.xx >>](#)

► **Making work easier**

Klauke cutting tools guarantee effortless operations: The “mini” impresses through its low weight and the pistol shape ensures a balanced centre of gravity

- Our compact “mini” is just perfect for confined areas
- The 2-stage hydraulic system allows you to work quickly thanks to fast feed and power stroke
- Save time with the innovative opening mechanism of the cutters. They open immediately after every cut.
- Extremely impressive and reliable: The one-button control concept for all tools



► **Latest developments for your everyday work**

Mini design - Pure cutting force: The ESGM45 and the ESM50 impress all along the line and for every application

- Cutting made simple thanks to a new, improved cutter geometry
- Burr-free cutting of wire mesh cable trays without any rework whatsoever thanks to the new wire mesh cable tray cutter

► **Klauke Link® App**

Connectivity is the generic term for the digital application that Klauke is making available to its customers in addition to its tools – the new Klauke Link® App. This application offers you new possibilities with all Klauke Next Generation tools.

**The Klauke Link® App can be found at:**  
<https://www.klauke.com/de/en/klauke-link-connectivity>



**GET THE APP. UNLOCK BENEFITS.**

**LINK-ENABLED**



## Cutting

Battery-powered hydraulic cutting tools 18 V

### EBS 6 L GKS Battery powered hydraulic cable tray cutter 6 mm dia.



- ▶ No follow-up work required thanks to burr-free cutting
- ▶ Fast and efficient operations: The cut is made in less than 1 second
- ▶ Maintenance required only after 20.000 cuts (renew hydraulic shock absorber system)
- ▶ Always cut ready due to autonomous replaceable blades

#### Characteristics

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Powerful 18 V Li-Ion battery - high capacity, short charging time
- High-performance motor for maximum operating speed
- Energy saving function with motor cut-out after successful operation
- Quick motor stop for high user safety
- Simple and safe: Automatic retraction when operation is complete
- Manual retract as required
- Multifunction LED for maintenance display and charge status display of the battery
- Environmentally-friendly hydraulic oil, quickly biodegradable

#### Technical data

Cutting range	max. 6 mm (VA)
Cutting force	24 kN
Cutting time	< 1 s
Number of cuts	approx. 300 at 6 mm VA, 360 at grid channel 5 mm
Battery voltage	18 V
Battery capacity	1.5 Ah
Charging time	15 min.
Weight incl. battery	1.9 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic cable tray cutter 6 mm dia.	<b>EBS6LGKS</b>
Scope of supply	Part No.
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50L
Accessories	Part No.
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40
18 V mains adapter for 230 V Voltage	NG2230



## EBS 8 Battery powered hydraulic bolt cutter 8 mm dia.



- ▶ For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Narrow crimping head - Ideal in confined areas
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Cable trays, bolts, medium-hard steel wire

Technical data		
Cutting range	max. 8 mm dia.	
Cutting force	15 kN	
Cutting time	1 s (depending on material thickness)	
Charging time	15 min.	
Weight incl. battery	1.65 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part-No. <b>Bosch</b>	Part-No. <b>Makita</b>
Battery powered hydraulic bolt cutting tool 8 mm dia.	<b>EBS8CFB</b>	<b>EBS8CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2



## Cutting

Battery-powered hydraulic cutting tools 18 V

### EBS 12 Battery powered hydraulic bolt cutter 12 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cable trays, bolts, medium-hard steel wire

Technical data		
Cutting range	max. 12 mm dia.	
Cutting force	45 kN	
Cutting time	2 s (depending on cable size)	
Charging time	15 min.	
Weight incl. battery	2.1 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic bolt cutting tool 12 mm dia.	<b>EBS12CFB</b>	<b>EBS12CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2

## ES 20 Battery powered hydraulic cutting tool 20 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Al/St wire (ACSR)

Technical data		
Cutting range	max. 18 mm dia. (depending on cable type)	
Cutting force	23 kN	
Cutting time	2 s to 4 s (depending on cable type)	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20CFB</b>	<b>ES20CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Replacement blade	ES20E	ES20E
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with battery powered cutting tool ES20CFB	LBOXXES20CFB	



# Cutting

Battery-powered hydraulic cutting tools 18 V

## Battery powered hydraulic cutting tool with remote control 20 mm and 32 mm dia.

**NEXT  
GENERATION**



ES 20 RMC

ES 32 RMC



- ▶ Tool with remote control, e.g. for telescopic rods
- ▶ **ES20RMC:** For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ **ES32RMC:** Cuts multi-stranded Al/Cu cables Class 2
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App
- ▶ Powerful 18 V Li-Ion battery - high capacity, short charging time
- ▶ Can also be used as a normal cable cutter when the Hotstick holder is not attached

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless operations due to balanced centre of gravity, even when used with a telescopic rod
- LED for work area illumination
- Quick motor stop for high user safety
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Energy saving: Motor stops when the operation is complete
- Always ready-to-use thanks to battery charge and service display
- Simple one-hand operation via remote control

### ES 20 RMC suitable for

- Al/St wire (ACSR)
- Solid Al/Cu cables to DIN EN 60228 Class 1
- Laminated Cu bus-bars

### ES 32 RMC suitable for

- Multi-stranded Al/Cu cable Class 2

### Additional information

- Part number suffix for tools without battery and charger „0000“



Scope of supply for ES 20 RMC

Technical data	
Head type	Cutter open
Cutting range	max. Ø 20 mm / max. Ø 32 mm
Cutting time	2 s to 8 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	2.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20RMCCFB</b>	
Battery powered hydraulic cutting tool 20 mm dia.		<b>ES20RMCCFM</b>
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32RMCCFB</b>	
Battery powered hydraulic cutting tool 32 mm dia.		<b>ES32RMCCFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita quick-charger for 18 V Li-Ion battery		LGL1
Bluetooth remote control	BTC3	BTC3
Accessories		
Bosch battery 18 V / 4.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Replacement blade set for ES 20 RMC	ES20E	ES20E
Replacement blade set for ES 32 RMC	ES32E	ES32E

## Battery powered hydraulic cutting tool with remote control 65 and 105 mm dia.

**NEXT  
GENERATION**



ESG105RMCCFM



- ▶ Remote control tool for safe distance when cutting
- ▶ Real end position detection that is unique worldwide
- ▶ For cutting copper and aluminum cables according to DIN EN 60228 class 1 and 2, also with light steel armouring
- ▶ Cutting forces: ESG65RMC: 60 kN, ESG105RMC: 120 kN for extra large cutting areas
- ▶ All tool data in view thanks to display and Klauke Link® App
- ▶ Of course, manual operation is also possible without using the remote control.

### Characteristics

- Acoustic and visual notification on the remote control that the cut has been completed
- Very long range up to 70 m
- Convenient one-hand control via the remote control
- Closed head, rotatable
- Quick motor stop for high user safety
- Retraction stop for efficient operations
- Energy saving: the motor stops after the cut has been completed
- Always in view: charge status and service display
- All data can be easily read via Bluetooth

### Suitable for

- Cu and Al cables even armoured cable

Technical data	ESG65RMCCFM	ESG105RMCCFM
Head type	Guillotine closed	Guillotine closed
Cutting range	max. 65 mm dia., e.g. NYCWY 4 x 240 SM/120	max. 105 mm dia., e.g. NYCWY 4 x 240 SM/120
Cutting time	2 s bis 13 s (depending on cable type)	2 s bis 13 s (depending on cable type)
Charging time	36 min.	36 min.
Weight incl. battery	6.0 kg	10.5 kg
Ambient temperature	-10 °C up to +40 °C	-10 °C up to +40 °C
Item	Part No.	Part No.
Battery powered hydraulic cutting tool 65 mm dia.	<b>ESG65RMCCFM</b>	
Battery powered hydraulic cutting tool 105 mm dia.	<b>ESG105RMCCFM</b>	
Scope of supply		
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	RAL40
Makita quick charger for 18 V Li-Ion battery	LGL1	LGL1
Bluetooth remote control	BTC3	BTC3
Accessories		
Makita battery 18 V / 4,0 Ah, Li-Ion	RAL40	RAL40
Bluetooth remote control	BTC3	BTC3



## Cutting

Battery-powered hydraulic cutting tools 18 V

### ESG 105 RMCP Battery powered hydraulic cutting tool with remote control dia. 105 mm (Bosch-battery)

**NEXT  
GENERATION**



- ▶ Remote control tool for safe distance when cutting
- ▶ Real end position detection that is unique worldwide
- ▶ For cutting copper and aluminum cables according to EN 60228 class 1 and 2, also with light steel armouring
- ▶ Display in German language
- ▶ All tool data in view thanks to display and Klauke Link® app

#### Characteristics

- Acoustic and visual notification on the remote control that the cut has been completed
- Very long range up to 70 m
- Convenient one-hand control via the remote control
- Closed head, rotatable
- Quick motor stop for high user safety
- Retraction stop for efficient operations
- Energy saving: the motor stops after the cut has been completed
- Always in view: charge status and service display
- All data can be easily read via Bluetooth

#### Suitable for

- Cu and Al cables even armoured cable

Technical data	
Head type	Guillotine closed
Cutting range	max. 105 mm dia, e.g. NYCWY 4 x 240 SM/120
Cutting time	2 s up to 13 s (depending on cable type)
Cutting force	120 kN
Charging time	36 min.
Weight incl. battery	10.5 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
Battery powered hydraulic cutting tool with remote control dia. 105 mm	<b>ESG105RMCPCFB</b>
Scope of supply	Part No.
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU
Bosch quick charger for 18 V Li-Ion-batteries	LGLB1EU
Bluetooth remote control	BTC3
Accessories	Part No.
Bosch battery 18 V / 5,0 Ah, Li-Ion	RALB2EU
Bluetooth remote control	BTC3

## ESG 105 RMCP Battery powered hydraulic cutting tool with remote control dia. 105 mm (Makita-battery)

**NEXT  
GENERATION**



- ▶ Remote control tool for safe distance when cutting
- ▶ Real end position detection that is unique worldwide
- ▶ For cutting copper and aluminum cables according to EN 60228 class 1 and 2, also with light steel armouring
- ▶ Display in German language
- ▶ All tool data in view thanks to display and Klauke Link® app

### Characteristics

- Acoustic and visual notification on the remote control that the cut has been completed
- Very long range up to 70 m
- Convenient one-hand control via the remote control
- Closed head, rotatable
- Quick motor stop for high user safety
- Retraction stop for efficient operations
- Energy saving: the motor stops after the cut has been completed
- Always in view: charge status and service display

### Suitable for

- Cu and Al cables even armoured cable

### Additional information

- Part number suffix for tools without battery and charger „0000“

Technical data	
Head type	Guillotine closed
Cutting range	max. 105 mm dia, e.g. NYCWY 4 x 240 SM/120
Cutting time	2 s up to 13 s (depending on cable type)
Cutting force	120 kN
Charging time	36 min.
Weight incl. battery	10.5 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
Battery powered hydraulic cutting tool with remote control dia. 105 mm	<b>ESG105RMCPCFM</b>
Battery powered hydraulic cutting tool with remote control without charger and battery	<b>ESG105RMCPCFM0000</b>
Scope of supply	Part No.
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40
Makita quick charger for 18 V Li-Ion-batteries	LGL1
Bluetooth remote control	BTC3
Accessories	Part No.
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40
Bluetooth remote control	BTC3



# Cutting

Battery-powered hydraulic cutting tools 18 V

## ESG 25 Battery powered hydraulic cutting tool 25 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and stay wire
- ▶ High-performance cutting characteristics for highly-flexible conductors and wire cables
- ▶ Extremely robust design and lightweight
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Al/St wire (ACSR), Cu, Al, St and armoured cables, construction steel, stay wire

Technical data		
Head type	Guillotine closed	
Cutting range	max. 25 mm dia.	
Cutting force	60 kN	
Cutting time	Depending on material	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 25 mm dia.	<b>ESG25CFB</b>	<b>ESG25CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Inner moving blade	ESG252ES	
Outer fixed blade	ESG252EF	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2	
Replacement blade set	ESG252ESET	ESG252ESET



## ESM 25 Battery powered hydraulic cutting tool 25 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al) as well as armoured cables and stay wire
- ▶ Protected cutting mechanism through plastic housing
- ▶ All tool data in view thanks to display and Klauke Link® App
- ▶ Quick-change cutting blades

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### suitable for

- Open wires (ACSR, Aldrey), stay wires and high-tensile stay wires

Technical data		
Head type	Cutter open	
Cutting range	Open wire (ACSR, Aldrey) up to Ø 25 mm, stay wires up to Ø 12 mm	
Cutting force	67 kN	
Cutting time	8 s up to 10 s (depending on material thickness)	
Charging time	15 min.	
Weight incl. battery	3.0 kg	
Ambient temperature	-10 °C up to +40	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 25 mm dia.	<b>ESM25CFB</b>	<b>ESM25CFM</b>
Scope of supply		
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Plastic case	KK50NG	KK50NG
Accessory		
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Replacement blade set	ESM25ESET	ESM25ESET



## Cutting

Battery-powered hydraulic cutting tools 18 V

### ES 32 Battery powered hydraulic cutting tool 32 mm dia.

**NEXT  
GENERATION**



- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Stranded Cu and Al cables

Technical data		
Head type	Cutter open	
Cutting range	max. 32 mm dia.	
Cutting force	15 kN	
Cutting time	8 s to 10 s (depending on cable type)	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32CFB</b>	<b>ES32CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Replacement blade set	ES32E	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with battery powered cutting tool ES32CFB	LBOXXES32CFB	
L-BOXX with battery powered cutting tool ES32CFM		LBOXXES32CFM

## ES 32 F Battery powered hydraulic cutting tool 32 mm dia. for fine and superfine stranded copper cable

**NEXT  
GENERATION**



- ▶ Cuts fine and superfine stranded copper cables
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Fine and superfine stranded copper cables

Technical data		
Head type	Cutter open	
Cutting range	max. 32 mm dia.	
Cutting force	15 kN	
Cutting time	8 s to 10 s (depending on material thickness)	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 32 mm dia., superfine-stranded	<b>ES32FCFB</b>	<b>ES32FCFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG
Accessories		
Replacement blade set for fine and superfine stranded copper cables		ES32FE
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with battery powered cutting tool ES32FCFB	LBOXXES32FCFB	
L-BOXX with battery powered cutting tool ES32FCFM		LBOXXES32FCFM



## Cutting

Battery-powered hydraulic cutting tools 18 V

### ESM 35 Battery powered hydraulic cutting tool 35 mm dia. for copper and aluminium cable

**NEXT  
GENERATION**



- ▶ Protected cutting mechanism through plastic housing
- ▶ For cutting copper and aluminum cables of all classes of conductor
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### suitable for

- For cutting copper and aluminum cables of all classes of conductor



Technical data		
Head type	Cutter open	
Cutting range	dia. max. 35 mm	
Cutting force	25 kN	
Cutting time	4 s up to 6 s (depending on material thickness)	
Charging time	15 min.	
Weight incl. battery	2.9 kg	
Ambient temperature	-10 °C up to +40	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 25 mm dia.	<b>ESM35CFB</b>	<b>ESM35CFM</b>
Scope of supply		
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Plastic case	KK50NG	KK50NG
Accessory		
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	

## ESGM 45 Battery powered hydraulic cutting tool 45 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and fine-stranded copper cables
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations

### Suitable for

- Cu and Al cables, Al/St wires (ACSR)

Technical data		
Head type	Guillotine closed	
Cutting range	max. 45 mm dia.	
Cutting force	70 kN	
Cutting time	8 s to 10 s (depending on material thickness)	
Charging time	15 min.	
Weight incl. battery	4.6 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESGM45CFB</b>	<b>ESGM45CFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KKESGM45NG	KKESGM45NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2

## SPECIALIST FOR ARMOURED CABLE + CONSTRUCTION STEEL

Thanks to its closed and rotating head, the ESGM45 is the specialist for cutting ACSR ropes, round materials (Cu, Al, St), and also armoured cable and solid construction steel, for instance. Even fine-stranded and highly-flexible conductors and wire ropes up to 45 mm can be precisely cut. As a special highlight, the tool has the innovative opening mechanism, which facilitates safe and fast operations. If an unwelcome object happens to be located between the cutters, all you need to do is release the control button. The two cutting blades then move apart straight away. This mechanism also makes sure that the tool is quickly ready to use again after a completed cut.



# Cutting

Battery-powered hydraulic cutting tools 18 V

## ESGM 452 Battery powered hydraulic cutting tool 45 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables and solid structural steel
- ▶ All tool data in view thanks to display and Klauke Link® App
- ▶ Cutting blades are interchangeable with a snap lock without special tools
- ▶ Optimized cutting head

### Characteristics

- Battery system: Makita
- All data can be easily read via Bluetooth
- Closed head with folding lock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations

### Suitable for

- Cu and Al cables, Al/St wires (ACSR)



Technical data	
Head type	Guillotine closed
Cutting range	max. 45 mm dia.
Cutting force	70 kN
Cutting time	8 s to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	4.6 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESGM452CFM</b>
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESGM452CFM0000</b>
Scope of supply	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KKESGM45NG
Accessories	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2
Blade set	ESGM452ESET

## ESG 45 Battery powered hydraulic cutting tool 45 mm dia.

**NEXT  
GENERATION**



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Extremely robust design and lightweight
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Armoured Cu and Al cables, Al/St wires

Technical data		
Head type	Guillotine closed	
Cutting range	max. 45 mm dia.	
Cutting force	70 kN	
Cutting time	8 s to 18 s (depending on material)	
Charging time	45 min.	
Weight incl. battery	5.9 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESG45CFB</b>	<b>ESG45CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG
Accessories		
Inner moving blade		ESG45ES1
Outer fixed blade		ESG45EF
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40



### ESM 50 Battery powered hydraulic cutting tool 50 mm dia. for copper and aluminium cable



- ▶ For cutting copper and aluminium cables (fine-stranded also)
- ▶ Very high cutting capacity thanks to innovative cutting geometry
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cables (multi and fine stranded)

#### Technical data

Head type	Cutter open
Cutting range	max. 50 mm dia.
Cutting force	38 kN
Cutting time	8 s up to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 50 mm dia.	<b>ESM50CFB</b>	<b>ESM50CFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KKESGM45NG	KKESGM45NG
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2

## A GENUINE ALL-ROUNDER!

One tool for (almost) all situations! Both multi-stranded and fine-stranded (including armoured) cables are reliably cut. So you need only require one tool for a range of applications. Thanks to new cutting geometry, the annoying jamming of strands in the cutting blades is also a thing of the past.



## ESG 55 Battery powered hydraulic cutting tool 55 mm dia.

**NEXT  
GENERATION**



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Armoured Cu and Al cables, Al/St wires

Technical data		
Head type	Guillotine closed	
Cutting range	max. 55 mm dia.	
Cutting force	120 kN	
Cutting time	10 s to 19 s (depending on material thickness)	
Charging time	45 min.	
Weight incl. battery	8.2 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 55 mm dia.	<b>ESG55CFB</b>	<b>ESG55CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG
Accessories		
Inner moving blade	ESG55ES	
Outer fixed blade	ESG55EF	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

### ES 65 Battery powered hydraulic cutting tool 65 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armoring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- All data can be easily read via Bluetooth
- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu/Al cable



Technical data	
Head type	Cutter open
Cutting range	max. 65 mm dia.
Cutting force	40 kN
Cutting time	Depending on material thickness
Charging time	45 min.
Weight incl. battery	6.3 kg
Ambient temperature	-12 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 65 mm dia.	<b>ES65CFB</b>	<b>ES65CFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG
<b>Accessories</b>		
Replacement blade		ES65E
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

## ESG 85 Battery powered hydraulic cutting tool 85 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armoring (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Larger cutting area, optimum force transmission due to closed head shape
- Simple and safe: One-button operating concept for controlling all tool functions
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- lightly armoured Cu and Al cables

Technical data		
Head type	Guillotine closed	
Cutting range	max. 85 mm dia.	
Cutting force	60 kN	
Cutting time	Depending on material thickness	
Charging time	45 min.	
Weight incl. battery	6.8 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 85 mm dia.	<b>ESG85CFB</b>	<b>ESG85CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG
Accessories		
Inner moving blade	ESG85ES1	
Outer fixed blade	ESG85EF1	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

### ES 85 Battery powered hydraulic cutting tool 85 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cable



Technical data	
Head type	Cutter open
Cutting range	max. 85 mm dia.
Cutting force	30 kN
Cutting time	Depending on material thickness
Charging time	45 min.
Weight incl. battery	7.2 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 85 mm dia.	<b>ES85CFB</b>	<b>ES85CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG
Accessories		
Replacement blade		ES85E
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

## ESG 105 Battery powered hydraulic cutting tool 105 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with armoring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.
- ▶ Remarkably lightweight for tools in this performance class
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- lightly armoured Cu and Al cables

Technical data		
Head type	Guillotine closed	
Cutting range	max. 105 mm dia.	
Cutting force	120 kN	
Cutting time	Depending on cable type	
Charging time	45 min.	
Weight incl. battery	10.7 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 105 mm dia.	<b>ESG105CFB</b>	<b>ESG105CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita quick-charger for 18 V Li-Ion battery	RAL40	
Plastic case 450 x 370 x 105 mm	LGL1	
Makita battery 18 V / 4.0 Ah, Li-Ion	MK105NG	MK105NG
Accessories		
Inner moving blade	ESG105ES	
Outer fixed blade	ESG105EF	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	



## Cutting

Battery-powered hydraulic cutting tools 18 V

### ES 105 Battery powered hydraulic cutting tool 105 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring and fine-stranded conductors (depending on cable type)
- ▶ Extremely large cutting area to 105 mm dia.
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and Klauke Link® App

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cable



Technical data		
Head type	Cutter open	
Cutting range	max. 105 mm dia.	
Cutting force	74 kN	
Cutting time	Depending on cable type	
Charging time	45 min.	
Weight incl. battery	9.6 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 105 mm dia.	<b>ES105CFB</b>	<b>ES105CFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	
Makita quick-charger for 18 V Li-Ion battery	LGL1	
Plastic case 450 x 370 x 105 mm	MK105NG	MK105NG
Accessories		
Replacement blade	ES105E	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	

# ALWAYS IN POSITION - 2 STAGES FOR MORE POWER

We promise you: Our cutting tools are powerful. The 2-stage hydraulic system uses its power to the full, the automatic retraction returns the cutter to the original position once the cut is made. Made from aluminium, it feels light in the hand.

As we said: a powerful tool!



## ► Comfortable all day long

Numerous cuts in succession are tiring. With the hand-operated hydraulic cutting tools, the housing and pump lever are therefore made from aluminium. The pump lever is in exactly the correct position, and so the pump movement requires only a small space - compared to a mechanical tool. Work better with the convenience of Klauke.

- Effortless operations due to the ergonomic design and low weight
- Work faster with the innovative 2-stage hydraulic system for fast feed and power stroke with counter pressure

## ► Adapts

All hand-operated hydraulic cutting tools have press heads that rotate through 360°. So you can work even in confined areas with flexible settings.

- Rotating heads for work in confined areas
- Extremely robust cutting heads

## ► Save yourself the return stroke

Your force acts in just one direction: Forwards. When the cutting process is complete, the cutting blades retract into the home position via the automatic retraction function. You save on the return path.

- Automatic retraction returns the cutting blades to the home position after the cut is made
- More reliability and shorter intervals between cutting processes
- Can be used up to a diameter of 85 mm
- Cutting force up to 120 kN
- Bolt locking of cutting blade



## Cutting

Hand-operated hydraulic cutting tools

### HSG 45 Hand-operated hydraulic cutting tool 45 mm dia.



- ▶ Cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Extremely sturdy design

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data	
Cutting range	max. 45 mm dia.
Cutting force	60 kN
Length	560 mm
Weight	4.9 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic cutting tool 45 mm dia.	<b>HSG45</b>
Scope of supply	Part No.
Steel carrying case for HSG 45 or HSG 50	MK50
Accessories	
Outer fixed blade	ESG45EF
Inner moving blade	ESG45ES1

### HSG 85/2 Hand-operated hydraulic cutting tool 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Large cutting range
- ▶ High user safety owed to cutting head with bolt interlock

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data	
Cutting range	max. 85 mm dia.
Cutting force	60 kN
Length	approx. 677 mm
Weight	5.9 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic cutting tool 85 mm dia.	<b>HSG852</b>
Scope of supply	Part No.
Steel carrying case for HSG 85	MK852
Accessories	
Outer fixed blade	ESG85EF1
Inner moving blade	ESG85ES1





# EXPAND YOUR APPLICATIONS

The correct cutting head creates a host of potentials. Get your pump ready for every application. Klauke cutting heads can be flexibly combined with Klauke system pumps (see page 484) to offer you an individual solution for every challenge.



► Improved cutting using the right cutting heads.

Tool	Image	Design		Opening width	Cutting force kN	Application				Feature
		Open head	Closed head			Cu / Al*	Al / St (ACSR)	Cu / Al, solid	Steel, solid	
SDG 45				45	60					Especially for Al/St wires to 45 mm dia. and St, solid.
SDG 55				55	120					With 120 kN cutting force, for all cables and Al/St ropes up to 55 mm diameter.
SDK 65				65	42					Ideal for cutting earth cables up to 65 mm diameter.
SDG 85/2				85	60					For cutting copper and aluminium cables up to 85 mm diameter.
SDK 85				85	30					For cutting telecommunication and earth cables up to 85 mm diameter.
SDG 105				105	120					Very wide cutting range up to 105 mm - also for armoured cables diameter.
SDK 105				105	74					Also for fine stranded cables up to 105 mm diameter.
SDK 120				120	55					Extremely broad cutting range up to 120 mm diameter.

\* This column also includes Cu / Al multi-stranded and Cu / Al with sheet metal and wire armouring.

\*\* The exact cutting performance depends on the type of cable or wire.



## Cutting

Hydraulic cutting heads and cutting systems

### SDG 45 Hydraulic cutting head 45 mm dia.



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel

#### Characteristics

- Closed head with bolt interlock, flip open jaws
- Head with quick coupling, 360° rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Cutting range	max. 45 mm dia.
Cutting force	60 kN
Operating pressure	max. 700 bar
Length	340 mm
Weight	3.8 kg
Item	Part No.
Hydraulic cutting head 45 mm dia.	<b>SDG45</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Inner fixed blade	ESG45ES1
Outer moving blade	ESG45EF

## SDG 55 Hydraulic cutting head 55 mm dia.



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output

### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Ergonomic handling through grip

Technical data	
Cutting range	max. 55 mm dia.
Cutting force	120 kN
Operating pressure	max. 700 bar
Length	380 mm
Weight	5.6 kg
Item	Part No.
Hydraulic cutting head 55 mm dia.	<b>SDG55</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Inner moving blade	ESG55ES
Outer fixed blade	ESG55EF

## SDK 65 Hydraulic cutting head 65 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armoring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- ▶ Improved cutting characteristics due to new cutting geometry

### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Cutting range	max. 65 mm dia.
Cutting force	42 kN
Operating pressure	max. 700 bar
Length	425 mm
Weight	4.7 kg
Item	Part No.
Hydraulic cutting head 65 mm dia.	<b>SDK65</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Replacement blade	ES65E



## Cutting

Hydraulic cutting heads and cutting systems

### SDG 85/2 Hydraulic cutting head 85 mm dia.



- ▶ High user safety owed to cutting head with bolt interlock
- ▶ Exceptionally light and compact design
- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Simple handling

Technical data	
Cutting range	max. 85 mm dia.
Cutting force	60 kN
Operating pressure	max. 700 bar
Length	445 mm
Weight	4.3 kg
Item	Part No.
Hydraulic cutting head 85 mm dia.	<b>SDG852</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Inner moving blade	ESG85ES1
Outer fixed blade	ESG85EF1

### SDK 85 Hydraulic cutting head 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- ▶ Improved cutting characteristics due to new cutting geometry

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Uniform cut by knife guide

Technical data	
Cutting range	max. 85 mm dia.
Cutting force	30 kN
Operating pressure	max. 700 bar
Length	450 mm
Weight	5.2 kg
Item	Part No.
Hydraulic cutting head 85 mm dia.	<b>SDK85</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Replacement blade	ES85E

## SDG 105 Hydraulic cutting head 105 mm dia.



- ▶ Cuts copper and aluminium cables with armouring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.

### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Compact design permits cutting in confined areas
- Simple handling
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Cutting range	max. 105 mm dia.
Cutting force	120 kN
Operating pressure	max. 700 bar
Length	432 mm
Weight	7.7 kg
Item	Part No.
Hydraulic cutting head 105 mm dia.	<b>SDG105</b>
Scope of supply	Part No.
Carrying bag	TT2
Accessories	
Inner moving blade	ESG105ES
Outer fixed blade	ESG105EF

## SDK 105 Hydraulic cutting head 105 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Extremely wide cutting range up to 105 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles

### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- High stability due to double grip

Technical data	
Cutting range	max. 105 mm dia.
Cutting force	74 kN
Operating pressure	max. 700 bar
Length	510 mm
Weight	7.7 kg
Item	Part No.
Hydraulic cutting head 105 mm dia.	<b>SDK105</b>
Scope of supply	Part No.
Carrying bag	TT4
Accessories	
Replacement blade	ES105E



## Cutting

Hydraulic cutting heads and cutting systems

### SDK 120 Hydraulic cutting head 120 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Extremely wide cutting range up to 120 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Exceptionally light and compact design
- ▶ Safe operations due to high ground stability by double handles

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- High stability due to double grip
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Technical data

Cutting range	max. 120 mm dia.
Cutting force	55 kN
Operating pressure	max. 700 bar
Length	538 mm
Weight	8.7 kg

Item	Part No.
Hydraulic cutting head 120 mm dia.	<b>SDK120</b>
Scope of supply	Part No.
Carrying bag	TT4
Accessories	
Replacement blade	ES120E

## AS 105 FHP / AS 120 FHP Hydraulic cutting tools for foot pump 105 and 120 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable
- ▶ Safe operations due to high ground stability by double handles
- ▶ Wide cutting range also for fine-stranded cables

### Characteristics

- Foot pump with two-stage hydraulics
- Open head with quick coupling, 360° rotation when not pressurised
- Manual retract as required
- Hydraulic hose, 2 m

### Technical data

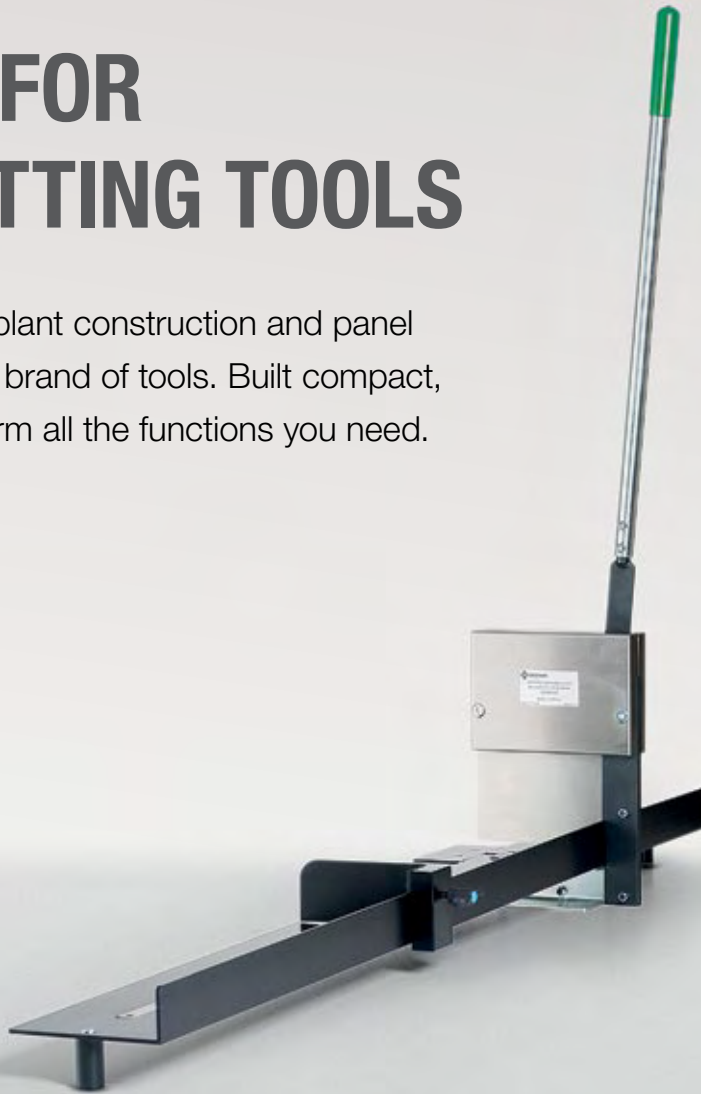
Cutting range	AS 105 FHP: max. 105 mm dia., AS120FHP: max. 120 mm dia.
Cutting force	AS105FHP: 74 kN, AS120FHP: 55 kN
Operating pressure	max. 700 bar
Weight	AS105FHP: 19.7 kg, AS120FHP: 20.7 kg

Item	Part No.
Hydraulic cutting tool with foot pump 105 mm dia.	<b>AS105FHP</b>
Hydraulic cutting tool with foot pump 120 mm dia.	<b>AS120FHP</b>
Scope of supply	Part No.
Hydraulic hose, 2 m	HS22
Steel carrying case	MKU
Accessories	Part No.
Replacement blade	ES105E
Replacement blade	ES120E
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210



# 5 PROFILES FOR SPECIAL CUTTING TOOLS

For challenging operations in plant construction and panel building, we use the Greenlee brand of tools. Built compact, the high-quality devices perform all the functions you need.



## ▶ DIN profile rails

So you retain the profile as you cut:  
DIN profile rail cutter from Greenlee.

- Burr-free cutting to length and punching of all common DIN profiles
- Hand lever with optimum force transmission
- High-quality cutting blades with hardly any wear
- Integrated locating holes simplifies mounting on the workbench
- Easily replaceable cutting plate cassette

## ▶ Cutting values

Work precisely with our wiring conduit cutter.

- For halogen-free cable conduit up to 125 mm wide
- Maintenance-free mechanism
- Measuring rule enables precise cutting to length
- High level of operator safety while working due to fully-covered cutting blades

## ▶ Always on the right track: Wiring conduit cutter

Everything fits well, from the very first setting. The measuring cutter simplifies precision cutting to length. The cutting blades are covered for safety. They cut halogen-free cable conduit up to 125 mm wide as accurately as you want. High-quality

materials and optimised processing ensure safety and reliability: The cutting blades are practically wear-free, the cutting mechanism is entirely maintenance-free. No worries about these tools. You concentrate fully on the task.



## DIN profile conductor cutting and punching tool

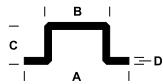


- ▶ For burr-free cutting and punching
- ▶ Less effort needed
- ▶ Includes die plate holder with 5 profiles

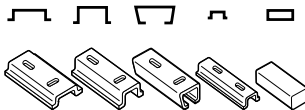
### Suitable for

- Punches vertical and horizontal mounting holes 6.4 x 12.0 mm
- With holes for workbench assembly

Item	Part No.
DIN profile conductor cutting and punching tool	<b>50115413</b>



A - 35.0 mm	A - 35.0 mm	A - 34.0 mm	A - 15.0 mm	A - 10.0 mm
B - 27.0 mm	B - 27.0 mm	B - 10.5 mm	C - 5.5 mm	C - 3.0 mm
C - 7.5 mm	C - 15.0 mm	C - 15.0 mm	D - 1.0 mm	
D - 1.0 mm	D - 1.5 mm			



## Profile conductor cutter Compact



- ▶ For burr-free cutting to length
- ▶ Less effort needed
- ▶ Includes die plank holder with 2 profiles

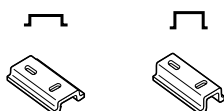
### Suitable for

- With holes for workbench assembly
- Manual operation

Item	Length of rail guide mm	Length of hand lever mm	Part No.
Profile conductor cutter Compact	1000	850	<b>52055684</b>



A - 35.0 mm	A - 35.0 mm
B - 27.0 mm	B - 27.0 mm
C - 7.5 mm	C - 15.0 mm
D - 1.0 mm	D - 1.5 mm



## Wiring conduit cutter



- ▶ Burr-free cutting even with halogen-free cable ducts
- ▶ 90° angle cutting
- ▶ Protects from injury when not in use

### Characteristics

- Simple workbench mounting
- Maintenance free
- Cutting mechanism completely protected

### Suitable for

- Standard and halogen-free plastic profile with 2.5 mm wall thickness and up to 125 mm width

Technical data	
Cutting width	125 mm
Dimension	1460 x 250 x 990 mm
Weight	10.5 kg
Length of rail guide	1000 mm
Length of hand lever	600 mm
Wiring duct (wall thickness)	2.5 mm
Item	Part No.
Wiring conduit cutter	<b>50125701</b>
Scope of supply	Part No.
Hand lever	
Fixing device	50115537
Measurement scale	

## Cutting die



### suitable for

- knot chains
- For stranded conductors up to bis 25 mm<sup>2</sup> e.g. EN 60228 Class 2
- Copper rails up to 3 mm x 10 mm
- Steel cables and similar materials up to 3 mm

Item	Part No.
Cutting die	<b>S502</b>



# THE TOOL RANGE FOR MAXIMUM SAFETY

Integrated Voltage Protection up to 1,000 V





# Hydraulic safety tools

4

<b>VDE-battery powered crimping and cutting tools</b>	<b>4.4</b>
VDE-battery powered crimping tools	4.6
VDE-battery powered cutting tools	4.9
<hr/>	
<b>Safety cutters</b>	<b>4.14</b>





# KLAUKE ORANGE - SAFETY IS A CHOICE WE MAKE ! THINK SAFE. ACT SAFE.

## Globally unique

For even more safety, Klauke has now developed the world's first battery hydraulic crimping and cutting tools with Tri-Insulation Barrier technology that provides users with 1,000V protection against electrical shocks.

Whether you work as a panel builder or in utilities:

Think safe. Act safe.

Choose Klauke ORANGE for more safety.



VDE tested and certified to 1,000 V in accordance to the electrical requirements of IEC 60900 and fully certified to IEC 62841-1

### In brief

- ▶ Applied voltage at the tool head does not disrupt to tool body
- ▶ Integrated slip-off protection prevents unintentional contact with live parts
- ▶ Housing in signal orange for simple differentiation from standard tools

**Klauke ORANGE - Safety is a choice we make.**  
<https://www.youtube.com/watch?v=Uq6vV79KyhM>



## ► Much safer operations

Working with utility lines presents a series of challenges: Proximity to potentially live parts, limited space and time pressure.

This is why safety and using the right protection equipment are essential when doing this type of work. With Klauke ORANGE, you can rely on an additional layer of protection, whenever it is not possible to disconnect the circuits or when you may not be aware that you are working on a live circuit.



Accidental touching of live parts is prevented by standard-conforming slip-off protection

## ► Safe and convenient

Electrical system cannot be de-energized or disconnected in many cases, so working on live cables cannot be avoided. Our Oranges Line of battery powered crimping and cutting tools increase operating comfort and safety significantly in these cases. They are suitable for all applications in the low-voltage area up to 1,000 V: from the installation of cable joints and working on overhead transmission lines to mounting and repairing street lighting or meter systems.

The tried and proven functions of our Next Generation remain in place. Hence you can see all information at a glance, thanks to the integrated display. Orange Line tools also have a continuously rotating tool head.

## ► Safety cutting tools

The ASSG safety cutting system from Klauke, approved by the trade associates, is able to safely cut live Cu/Al cables with a rated voltage of up to 60 kV, even if a fault occurs. The cutting process is carried out using two powerful and durable 5 Ah Lithium-Ion rechargeable batteries. The remote control ensures increased comfort and optimised control during the cutting operation. The quick coupling located on the ASSG pump allows various cutting heads to be quickly and simply connected to the pre-mounted hydraulic hose.



## EKM 60/22 IS VDE-battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- Choose your battery system: Bosch or Makita
- Closed head with bolt interlock, rotatable, flip top style
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

### Suitable for

- 22-series interchangeable crimping dies, narrow crimping


































Technical data	
Crimping force	60 kN
Hub	17.5 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	2 s (for ARS) to 5 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	3.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
VDE-battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EKM6022ISB</b>	<b>EKM6022ISM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50IS	KK50IS
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40



## Available dies for Series 22 for EKM 60/22 IS

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		2.91
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		2.91
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		2.92
Tubular cable lugs and connectors for solid conductors		1.5 - 16		2.92
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		2.92
Nickel tubular cable lugs and connectors		10 - 50		2.92
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		2.92
Double compression cable lugs		2 x 70		2.92
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		2.93
Insulated solderless terminals		10 - 70		2.93
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		2.93
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		2.93
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		2.94
<b>Clamps</b>				
Clamps, C-type		10 - 70		2.94
Clamps, H-type		70		2.94
<b>Cable end-sleeves</b>				
Cable end-sleeves, trapezoidal		10 - 240		2.94



# Hydraulic safety tools

VDE-battery powered crimping tools

## EKM 60 ID IS VDE-battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinders
- ▶ Indent crimping - no crimping dies required
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- Choose your battery system: Bosch or Makita
- With innovative 2-stage telescopic cylinder
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

### Suitable for

- Very well suited for compacted conductors
- Especially for fine strand conductors to EN 60228

### Additional information

- Certified from 16 mm<sup>2</sup> onwards



1000V

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	

Technical data	
Crimping force	30 - 60 kN
Stroke / opening width	35.5 mm
Crimping range Cu	10 - 240 mm <sup>2</sup>
Crimping range Al	50 - 240 mm <sup>2</sup>
Crimping cycle	2 s (MRS+) to 7 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	2.6 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
VDE-battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EKM60IDISB</b>	<b>EKM60IDISM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50IS	KK50IS
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

**ESM 50 IS VDE-battery powered hydraulic cutting tool**  
50 mm dia. for copper and aluminium cable



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ High cutting force cuts copper and aluminium cables (also fine stranded)
- ▶ Saves time thanks to innovative opening mechanism
- ▶ All tool data in view thanks to the built-in display

**Characteristics**

- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

**Suitable for**

- Cu and Al cables (multi and fine stranded) even armoured cable



Technical data	
Head type	cutter open
Cutting range	max. 50 mm dia.
Cutting force	38 kN
Cutting cycle	8 s to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
VDE Battery powered hydraulic cutting tool 50 mm dia.	<b>ESM50ISB</b>	<b>ESM50ISM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KKESM50IS	KKESM50IS
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL2



## Hydraulic safety tools

VDE-battery powered cutting tools

### ESM 35 IS VDE-battery powered hydraulic cutting tool 35 mm dia. for copper and aluminium cable



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ High cutting force cuts copper and aluminium cables (also fine stranded)
- ▶ All tool data in view thanks to the built-in display

#### Characteristics

- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

#### Suitable for

- Cu and Al cables (multi and fine stranded) even armoured cable



1000 V

Technical data	
Head type	cutter open
Cutting range	max. 35 mm dia.
Cutting force	25 kN
Cutting cycle	4 s up to 6 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	2.9 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
VDE Battery powered hydraulic cutting tool 35 mm dia.	<b>ESM35ISB</b>	<b>ESM35ISM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KKESM50IS	KKESM50IS
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL2

## ESM 25 IS VDE-battery powered hydraulic cutting tool 25 mm dia.



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, steel rods and stay wire
- ▶ Extremely robust design and lightweight
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

### Suitable for

- Open wires (ACSR, Aldrey), stay wire and high-tensile stay wire

Technical data		
Head type	cutter open	
Cutting range	Open wire (ACSR, Aldrey) up to dia. 25 mm, stay wire up to dia. 16 mm, hightensile stay wire up to dia. 12 mm	
Cutting force	67 kN	
Cutting cycle	depending on material thickness	
Charging time	15 min.	
Weight incl. battery	2.9 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
VDE Battery powered hydraulic cutting tool 25 mm dia.	<b>ESM25ISB</b>	<b>ESM25ISM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KKESM50IS	KKESM50IS
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL2
Replacement blade set	ESM25ESET	ESM25ESET



## Hydraulic safety tools

VDE-battery powered cutting tools

### ES 20 IS VDE battery powered hydraulic cutting tool 20 mm dia.



- ▶ Housing in Signal Orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified to 1000 V for increased safety when working on potentially voltage-carrying parts
- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to the built-in display

#### Characteristics

- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

#### Suitable for

- Al/St wire (ACSR)



1000 V

Technical data		
Head type	cutter open	
Cutting range	max. 18 mm dia. (depending on cable/wire type)	
Cutting force	23 kN	
Cutting cycle	2 s to 4 s (depending on cable size)	
Charging time	15 min.	
Weight incl. battery	2.1 kg	
Ambient temperature	-10° to +40 °C	
Item	Part No. Bosch	Part No. Makita
VDE battery powered hydraulic cutting tool 20mm dia.	<b>ES20ISB</b>	<b>ES20ISM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50IS	KK50IS
Accessories		
Bosch Akku 18 V / 5,0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Replacement blade	ES20E	ES20E

## ES 32 IS VDE battery powered hydraulic cutting tool 32 mm dia.



- ▶ Housing in Signal Orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified to 1000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display
- All data can be easily read out via Bluetooth

### Suitable for

- Multistranded Cu- and Al-cable



Technical data		
Head type	cutter open	
Cutting range	max. 32 mm dia. (depending on cable/wire type)	
Cutting force	15 kN	
Cutting cycle	8 s to 10 s (depending on cable size)	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C to 40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
VDE battery powered hydraulic cutting tool 32mm dia.	<b>ES32ISB</b>	<b>ES32ISM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case	KK50NG	KK50NG
Accessories		
Bosch Akku 18 V / 5,0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Replacement blade	ES32E	ES32E



### SSG Hydraulic safety cutter with foot pump to max. 105 mm dia.



- ▶ Safety cutter for safe cutting of live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core live cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz

#### Characteristics

- Two-stage hydraulics
- Manual retract as required
- The cutting head is generally delivered including safety hydraulic hose (10 m)

Technical data	SSG85	SSG105	SSGG105
Head type	closed (SSKG85)	open (SSK105)	closed (SSGG105)
Cutting range	max. 85 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)
Operating pressure	625 bar	625 bar	625 bar
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11
Weight	16 kg	19 kg	19 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C
Item	Part No.		
Hydraulic safety cutting unit with foot pump max. 85 mm dia.	<b>SSG85</b>		
Hydraulic safety cutting unit with foot pump max. 105 mm dia.	<b>SSG105</b>		
Hydraulic safety cutting unit with foot pump max. 105 mm dia.	<b>SSGG105</b>		
Scope of supply	Part No.		
Earthing kit	EG1		
Steel carrying case	MKSSG		
Accessories	Part No.		
Heat protection cover 1.8 m x 1.8 m	<b>HSD1</b>		
Heat protection cover 1.2 m x 0.9 m	<b>HSD2</b>		
Replacement blade for	SSG85	SSG105	SSGG105
ES105E		•	
ESG85EF1	•		
ESG85ES1	•		
ESG105EF			•
ESG105ES			•
Replacement cutting head	SSG85	SSG105	SSGG105
SSKG85	•		
SSK105		•	
SSKG105			•



## ESSG Battery powered hydraulic safety cutter to max. 105 mm dia.



- ▶ Safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core live cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Powerful 5.0 Ah Li-Ion battery

### Characteristics

- 2-stage hydraulic system with fast feed and power stroke
- Electronic control
- Multifunction LED for maintenance display and charge status display of the battery
- LED display for service interval after 250 cuts
- The cutting head is generally delivered including safety hydraulic hose (10 m)

Technical data	ESSGG85L	ESSG105L
Head type	closed (SSKG85)	open (SSK105)
Cutting range	max. 85 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)
Cutting force	60 kN	80 kN
Cutting time	approx. 21 - 40 s	approx. 21 - 40 s
Operating pressure	625 bar	625 bar
Battery voltage	18 V	18 V
Battery capacity	5.0 Ah, Li-Ion	5.0 Ah, Li-Ion
Charging time	60 min.	60 min.
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11
Weight	9.98 kg	13.13 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C
Item	Part No.	
Battery powered hydraulic safety cutter, max. 85 mm dia.	<b>ESSGG85L</b>	
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ESSG105L</b>	
Scope of supply	Part No.	
Klauke battery 18 V / 5.0 Ah, Li-Ion	RALK1850	
Klauke charger for 18 V Li-Ion batteries	LGLK18EU	
Plastic case for ESSG65L and ESSG105L	KKESSGL	
Plastic case for ESSGG85L	KKESSGG85L	
Earthing kit	EG1	
Accessories	Part No.	
Heat protection cover 1.8 m x 1.8 m	<b>HSD1</b>	
Heat protection cover 1.2 m x 0.9 m	<b>HSD2</b>	
Replacement blade for	ESSGG85L	ESSG105L
ES105E		•
ESG85EF1	•	
ESG85ES1	•	
Replacement cutting head	SSGG85	SSG105
SSKG85	•	
SSK105		•

## ASSG Battery powered hydraulic safety cutter to max. 120 mm dia.



- ▶ DGVV-approved safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core live cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Very wide opening width to 120 mm
- ▶ Safe and fast operations by using remote control and 10 m long safety hydraulic hose

### Characteristics

- 2-stage hydraulic system with fast feed and power stroke
- Quick motor stop for high user safety
- Electronic control
- DGVV-tested
- 360° rotating connection as with the cutting head
- Battery-powered pump filled with non-conductive oil
- Remote control for increased comfort and safety
- Two powerful 5 Ah, 18 V Lithium-Ion batteries (one battery is always there as a replacement)
- Sturdy housing from impact-resistant, fibreglass reinforced polyamide
- The cutting head is generally delivered including safety hydraulic hose (10 m)
- Multi-function display for pressure testing, power consumption and service interval

### Additional information

- Complete system, different variants available depending on cutting head

Technical data	ASSG85L	ASSG105L	ASSGG105L	ASSG120SL
Head type	closed	open	closed	open
Cutting range	max. 85 mm dia.	max. 105 mm dia.	max. 105 mm dia.	max. 120 mm dia.
Operating pressure	max. 630 bar	max. 630 bar	max. 630 bar	max. 630 bar
Battery voltage	18 V	18 V	18 V	18 V
Battery capacity	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion
Charging time	45 min.	45 min.	45 min.	45 min.
Max. oil volume	approx. 750 ml	approx. 750 ml	approx. 750 ml	approx. 750 ml
Hydraulic oil	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15
Weight incl. battery	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C
Dimension	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm

Item	Part No.	
Battery powered hydraulic safety cutter, max. 85 mm dia.	<b>ASSG85L</b>	
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ASSG105L</b>	
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ASSGG105L</b>	
Battery powered hydraulic safety cutter, max. 120 mm dia.	<b>ASSG120SL</b>	
Scope of supply	Part No.	Quantity
Makita battery 18 V / 5.0 Ah, Li-Ion (90 Wh)	RAL4	2
Makita quick-charger for 18 V Li-Ion battery	LGL1	1
Earthing kit	EG1	1
Carrying strap with shoulder padding	TG3	1
Remote control with 1.5 m cable	HTA4	1
Plastic case	KKASSGL	1
Plastic case for ASSG105L and ASSG120SL	KKSSK120S	1



# QUICK AND CLEAN.

Greenlee tools for punching - exactly the right solution for accurate operations. Extreme reliability quickly achieves a burr-free result.





# Punching

<b>Round and special shape punches</b>	<b>5.4</b>
Standard punch systems	5.6
Slug Buster® punch systems	5.8
Slug-Splitter® punch system for stainless steel	5.9
Speed-Punch™ punch system	5.10
Special shape punches	5.13

---

<b>Punching tools and sets</b>	<b>5.22</b>
KWSET Keyway punch	5.24
Mechanical and hydraulic punching tools	5.24
Battery powered punching tool LS 50 FLEX	5.27
Battery powered punching tool LS100 FLEX	5.28
Slug Buster® punch sets	5.30
Speed-Punch™ punch sets	5.32
Slug-Splitter® punch sets	5.34
Slug Buster® punching tools and sets	5.35

---

<b>Hole saws</b>	<b>5.40</b>
HSS bi-metal hole saws	5.42

---

<b>Bits and step bits</b>	<b>5.48</b>
---------------------------	-------------



# PATENTED CLEAN SOLUTION - ROUND AND SPECIAL SHAPE PUNCH

Speed and innovation set our Greenlee products apart. With Speed Punch and Slug Splitter, you can work quickly and precisely in any application. Our commitment to your work.



## In brief

- ▶ Long service life
- ▶ For aluminium and steel to 3.5 mm thick
- ▶ Threadless profile for quick replacement
- ▶ No jamming of the slug
- ▶ Threads require no maintenance

**▶ Quick punching with Speed Punch**

We make you faster. Time-saving operations are really easy with the Speed Punch profile. The threadless stamp profile is quickly changed via clamp technology - no more screwing the counter nut off and on! Which also means: Threads are care and maintenance-free. Punching is up to three-times quicker than before.

- Quick punching system: Punching up to 3 x quicker
- For aluminium and steel up to 3.5 mm thick
- Innovative clamp technology
- No more screwing the counter nut off and on
- Threads are now care and maintenance-free

**▶ Slug Splitter: Automatic clean punching**

We make it easy for you. The Slug Splitter separates punched slug remnants. You can fully concentrate on punching stainless steel, without delays due to time-consuming removal of punched slug remnants.

- Splits the punches into two parts for direct removal of punch slug remnants
- Longest service life due to high-quality stainless steel
- Slug-Splitter: Suitable for use with all Greenlee punching hydraulics



**▶ Square punch: Special-shaped punches**

Displays and panels require appropriate square-shaped punching. The special punching stamp from Greenlee punches stainless steel and mild steel without leaving burrs. High-quality tool steel meets your requirements - in proven Greenlee quality.

- For mild steel (St37), plastic and aluminium to 3.0 mm thick and V2A stainless steel up to 1.5 mm
- Burr-free punching of display panels
- High-quality tool steel





## Standard punch systems

► **Ball bearing draw stud reduces operating force**



**Suitable for**

- Mild steel (St37), plastic and aluminium up to 3.5 mm

**Operation**

- Manual / hydraulic

**Predrilling**

- Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183  
Draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

**Scope of supply**

- Complete system including punch, die and draw stud for manual operation

**Additional information**

- \* 50042181 Draw stud without ball-bearing  
\*\* 52085634 only for 22.5 mm / Pg 16, 2.5 mm mild steel and 2 mm V2A

Punch size			Max. Material thickness	Individual parts for manual operation					Draw studs + Accessories for hydraulic units				Complete unit
True dimension	Standard size			mm (St37)	Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Draw studs		Accessories	
	mm	Pg	ISO							Hand hydraulic 7804E, 7904E	Battery powered punch LS 50	Hydr. pump 52084920, 52084941 LS100F LEX	Adapter sleeves 9,5/ 19,0 for 51300430
12.7	Pg 7		1.5	50069969	50042351	50042181							<b>50024086</b>
14.3			1.5	50042300	50042297	50042181							<b>50024337</b>
15.2	Pg 9		2.0	50213164	50320025	50000420							<b>50211153</b>
15.9			1.5	50042238	50042246	50042181						50339672	<b>50024094</b>
16.2		ISO 16	2.0		50351621	50000420			51300430	51300430	52042827	50339672	<b>50351923</b>
18.6			2.0	50177001	50320033	50000420			51300430	51300430	52042827	50339672	<b>50188860</b>
19.1			2.0			50000420			51300430	51300430	52042827	50339672	<b>50206672</b>
20.4	Pg 13	ISO 20	2.0	50176978	50320041	50000420			51300430	51300430	52042827	50339672	<b>50188879</b>
20.6			2.0	50042262	50042254	50000420			51300430	51300430	52042827	50339672	<b>50206680</b>
22.5	Pg16		2.5	52085632	52085629	52085686			52085690	52085690	52085689		<b>52085634</b>
22.5	Pg 16		3.5	51040060	51147220	50000420			51300430	51300430	52042827	50339672	<b>50225634</b>
23.8			2.0	50042386	50042378	50000420			51300430	51300430	52042827	50339672	<b>50253417</b>
25.4		ISO 25	2.0	50039865	50351648	50000420			51300430	51300430	52042827	50339672	<b>50206702</b>
27.0			2.0	50042408	50042424	50000420			51300430	51300430	52042827	50339672	<b>50253425</b>
28.3	Pg 21		3.5	51040080	51069720	50040405			52085691	52085691	52085692	50339672	<b>50225642</b>
28.3	Pg 21		2.0	50368826	50320068	50000420			51300430	51300430	51300430	50339672	<b>50369105</b>
28.6			2.0	50039903	50039911	50000420			51300430	51300430	51300430	50339672	<b>50206710</b>
30.5			1.5	50362828	50362798	50000420			51300430	51300430	51300430	50339672	<b>50365061</b>
31.8			1.5			50000420			51300430	51300430	51300430	50339672	<b>50206737</b>
32.5	Pg 32		3.5	50244590	50351680	50040405			52085691	52085691	52085692		<b>50244760</b>
33.4			1.5		50065866	50000420			52085691	52085691	52085692		<b>50253441</b>



Punch size			Max. Material thickness	Individual parts for manual operation					Draw studs + Accessories for hydraulic units				Complete unit	
True dimension	Standard size			mm (St37)	Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Draw studs		Accessories		
	mm	Pg	ISO							Hand hydraulic 7804E, 7904E	Battery powered punch LS 50	Hydr. pump 50159062 50250973 LS100F LEX	Adapter sleeves 19,0 / 28,6	Part No.
34.6			3.5	52085649	50040111	50040405				52085691	52085691	52085692		<b>50225650</b>
34.9			3.5	50047345	50047353	50040405				52085691	52085691	52085692		<b>50254278</b>
37.0	Pg 29		3.5	50183311	50320084	50040405				52085691	52085691	52085692		<b>50188909</b>
38.1			3.5	50047361	50070444	50040405				52085691	52085691	52085692		<b>50254286</b>
40.5		ISO 40	3.5	50244620	50351591	50040405				52085691	52085691	52085692		<b>50244779</b>
41.3			3.5	50042513	50042505	50040405				52085691	52085691	52085692		<b>50253492</b>
43.2			3.5	51069740	50040138	50040405				52085691	52085691	52085692		
44.5			3.5	50042572	50042564	50040405				52085691	52085691	52085692		<b>50253506</b>
47.0			3.5	50176870	51320090	52085688				52085691	52085691	52085692		<b>50188917</b>
47.6			3.5	50042483	50042491	52085688				52085691	52085691	52085692		<b>50253514</b>
49.6			3.5		50040618	52085688				52085691	52085691	52085692		<b>50225677</b>
50.8		ISO 50	3.5	50042327	50351613	52085688				52085691	52085691	52085692		<b>50206761</b>
54.0	Pg 42		3.5	50042459	50361732	52085688				52085691	52085691	52085692		<b>50206788</b>
57.2			3.5	50040588	50040596	52085688				52085691	52085691	52085692		<b>50253603</b>
60.0	Pg 48		3.5	50176900	50320114	52085688				52085691	52085691	52085692		<b>50188925</b>
61.5			3.5	52085670	52085666	52085688				52085691	52085691	52085692		<b>52085672</b>
63.5		ISO 63	3.5	50042343	50042335	50041886				52085691	52085691	52085692		<b>50206796</b>
66.7			3.5	50042521	50069977	50041886	50041878				52085692	52085692		<b>50212141</b>
69.9			3.5	50042475	50042467	50041886	50041878				52085692	52085692		<b>50253611</b>
70.6			3.5	50024450	50024434	50041886	50041878				52085692	52085692		<b>50253832</b>
74.0			3.5	52085674	52085673	52085694	50046853				52093902	52085693		<b>52085675</b>
76.2			3.5	50042599	50042580	50041886	50041878				52093902	52085693		<b>50253727</b>
79.4			3.5	50063634	50063626	50041886	50041878				52093902	52085693		<b>50254030</b>
82.0			3.5	50189050	50189069	50041886	50041878				52093902	52085693		<b>50186353</b>
89.8			3.5	52085677	52085676	52085694	50046853				52093902	52085693		<b>52085678</b>
95.3			3.5	50052659	50052667	50041886	50041878	50046861			52085692	52085692	50031708	<b>50212168</b>
102.7			3.5	52085680	52085679	52085694	50046853	50046861			52093902	52085693	50031708	<b>52085681</b>
115.4			3.5	52085683	52085682	52085694	50046853	50046861			52093902	52085693	50031708	<b>52085684</b>
120.0			3.5	50214896	50214918	52085694	50046853	50046861			52093902	52085693	50031708	<b>50215191</b>
143.7			3.5	50054473	50054481	52085694	50046853	50046861			52093902	52085693	50031708	<b>50199803</b>



### Slug Buster® punch system



- ▶ For quick, clean, effortless and burr-free holes
- ▶ Split slugs fall free and can be removed easily

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual / hydraulic

#### Predrilling






- Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183  
Draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

#### Scope of supply

- Complete system including punch, die and draw stud for manual operation

#### Additional information

- \* 50042181 Draw stud without ball-bearing
- \*\* 52085633 only for 22.5mm / Pg16, 2.5mm mild steel and 2mm V2A
- \*\*\* 50339672 Adapter 9.5mm /19mm for draw stud 51300430

Punch size			Max. Material thickness	Individual parts for manual operation			Draw studs + Accessories for hydraulic units		Complete unit
True dimension	Standard size								
mm	Pg	ISO	mm (St37)	Punch	Die	Draw stud with ball bearing	Hand hydraulic Quick Draw Battery hydraulics LS50FLEX	Hand hydraulic 52084941, 52084920 Battery hydraulics LS100Flex	Part No.
12.5	Pg 7	ISO 12	1.5	50067281	50067290	50042181			<b>50067273</b>
15.2	Pg 9		2.0	50319698	50320025	50000420	51300430	52042827	<b>50319892</b>
16.2		ISO 16	2.0	50351630	50351621	50000420	51300430	52042827	<b>50351770</b>
18.6	Pg 11		2.0	50319701	50320033	50000420	51300430	52042827	<b>50319906</b>
20.4	Pg 13	ISO 20	2.0	50319710	50320041	50000420	51300430	52042827	<b>50319914</b>
22.5	Pg 16		2.0	50317563	51147220	50000420	51300430	52042827	<b>50319620</b>
22.5	Pg 16		2.5	52085631	52085629	52085686	52085690	52085689	<b>52085633</b>
25.4		ISO 25	2.0	50351656	50351648	50000420	51300430	52042827	<b>50351788</b>
28.3	Pg 21		3.0	50317571	51069720	50040405	52085691	52085692	<b>50319639</b>
28.3	Pg 21		2.0	50319736	50320068	50000420	52085691	52042827	<b>50319930</b>
30.5			2.0	50362844	50362798	50000420	51300430	52042827	<b>50365088</b>
30.5			3.5		50362780	50040405	52085691	52085692	<b>50602462</b>
32.5		ISO 32	3.5	50351699	50351680	50040405	52085691	52085692	<b>50351796</b>
34.6			3.5		50040111	50040405	52085691	52085692	<b>50319647</b>
37.0	Pg 29		3.5	50319752	50320084	50040405	52085691	52085692	<b>50319957</b>
40.5		ISO 40	3.5	50351583	50351591	50040405	52085691	52085692	<b>50351800</b>
43.2			3.5		50040138	50040405	52085691	52085692	<b>50319655</b>
47.0	Pg 36		3.5	51319760	51320090	52085688	52085691	52085692	<b>50319965</b>
49.6			3.5		50040618	52085688	52085691	52085692	<b>50319663</b>
50.8		ISO 50	3.5	50351605	50351613	52085688	52085691	52085692	<b>50351818</b>
54.0	Pg 42		3.5	50361724	50361732	52085688	52085691	52085692	<b>50361716</b>
60.0	Pg 48		3.5	50319787	50320114	52085688	52085691	52085692	<b>50319981</b>
61.5			3.5	52085668	52085666	52085688	52085691	52085692	<b>52085671</b>
64.0		ISO 63	3.5		50351664	52085688	52085691	52085692	<b>50351826</b>

## SLUG SPLITTER® punch system (stainless steel)



- ▶ Special alloy for maximum service life
- ▶ Split slugs fall free and can be disposed of easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 11.1 mm dia., pilot drill 12.7 mm diameter 50344102  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

### Scope of supply

- Complete system including punch and die

### Additional information

- \* = Slug Splitter SC® - self-centring

Punch size			Max. Material thickness	Individual parts for manual operation		Draw studs	Complete unit
True dimension	Standard size			Punch	Die	Pump, hand and battery powered	Part No.
	mm	Pg	ISO				
15.2	Pg 9		2.5	50311174	50311263	50294512	<b>50069519</b>
16.2		ISO 16	2.5	50045997	50045989	50294512	<b>50069527</b>
18.6	Pg 11		2.5	50311190	50311280	50294512	<b>50069535</b>
20.4	Pg 13	ISO 20	2.5	50311204	50311298	50294512	<b>50069543</b>
22.5	Pg 16		3.5	50281542	50281550	50294512	<b>50069551</b>
25.4		ISO 25	3.5	50046020	50046012	50294512	<b>50069560</b>
28.3	Pg 21		3.5	50281569	50281577	50294520	<b>50069578</b>
30.5			3.5	50364901	50364898	50294520	<b>50069586</b>
32.5		ISO 32	3.5	50046055	50046039	50294520	<b>50069594</b>
34.6			3.5	50281585	50281593	50294520	
37.0	Pg 29		3.5	50311220	50311352	50294520	<b>50069608</b>
40.5		ISO 40	3.5	50046080	50046071	50294520	<b>50069616</b>
43.2			3.5	50281607	50281615	50294520	
47.0	Pg 36		3.5	50311239	50311310	50294520	<b>50069624</b>
49.6			3.5	50281623	50281631	50294520	
50.8		ISO 50	3.5	50046110	50046098	50294520	<b>50069632</b>
54.0	Pg 42		3.5	50311247	50311328	50294520	<b>50069640</b>
60.0	Pg 48		3.5	50311255	50311336	50294520	<b>50069659</b>
61.5			3.5	50281658	50281666	50294520	
64.0		ISO 63	3.5	50046144	50046136	50294520	<b>50069667</b>



### Speed Punch™ punch system



- ▶ Innovative threadless punch profile
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Hydraulic

#### Predrilling






- Draw stud 9.5 mm dia.; pilot drill 9.7 mm dia.  
draw stud 19.0 mm dia.; pilot drill 20.5 mm dia.

#### Scope of supply

- Complete system including punch and die

#### Additional information

- Counter nuts and draw studs must be ordered separately, they are not included in scope of supply
- Draw stud for LS100Flex, manual hydraulics 1725 and 767  
Speed Punch™ draw stud 19 mm to 9.5 mm for ISO 16/20/25 and PG16 Part-No. 52066000  
Speed Punch™ pull stud 19mm for ISO 16/20/25 and PG16 Part-No. 52058897

Punch size			Max. Material thickness	Individual parts		Draw studs	Speed lock	Complete unit
True dimension	Standard size							
mm	PG	ISO	mm (St37)	Punch	Die	for LS50Flex and Quick Draw (not included)	(not included)	Part No.
16.2		ISO 16	3.5	52066021	52066022	52066001	52066002	<b>52055431</b>
20.4	PG 13	ISO 20	3.5	52066023	52066024	52066001	52066002	<b>52055432</b>
22.5	PG 16		3.5	52065998	52065999	52066001	52066002	<b>52055433</b>
25.4		ISO 25	3.5	52066025	52066026	52066001	52066002	<b>52055434</b>
32.5		ISO 32	3.5	52066027	52066028	52047818	52047817	<b>52055435</b>
40.5		ISO 40	3.5	52066029	52066030	52047818	52047817	<b>52055436</b>
50.8		ISO 50	3.5	52066031	52066032	52047818	52047817	<b>52055437</b>
64.0		ISO 63	3.5	52066033	52066034	52047818	52047817	<b>52055438</b>
Accessories								Part No.
Speed Punch™ Speed lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16								52055439
Speed Punch™ Speed lock and draw stud 19.0 mm for ISO 32/40/50/63								52055440

## Draw studs with manual drivers

► High wear resistance

**Order info**

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Size	Part No.
9.5 x 40 mm	<b>50000420</b>



Size	Part No.
6.5 x 35 mm	<b>50042181</b>



Size	Part No.
11.1 mm x 76 mm	<b>52085686</b>



Size	Part No.
28.6 x 190 mm	<b>52085694</b>



Size	Part No.
19 x 140 mm	<b>50041886</b>



Size	Part No.
19 x 87 mm	<b>52085688</b>



Size	Part No.
19 x 55 mm	<b>50040405</b>



# Punching

Round and special shape punches

## Draw studs for hydraulic drivers

### Order info

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations
- Draw stud long, for use with LS100Flex, 767 and 1725 hydraulics (746A punching head)
- Draw stud short, for use with LS50Flex, 767 and Quick Draw hydraulics



Size	Part No.
19 x 28,6 x 143 mm (long)	<b>52085693</b>
19 x 28,6 x 124mm (short)	<b>52093902</b>



Size	Part No.
9.5 x 71 mm	<b>51300430</b>



Size	Part No.
11.1 mm x 19mm, 108 mm (short)	<b>52085690</b>
11.1 mm x 19 mm, 127mm (long)	<b>52085689</b>



Size	Part No.
Adapter 19 mm to 28.6 mm	<b>50031708</b>



Size	Part No.
19 x 48 mm (Inside 9.5 mm)	<b>50339672</b>
19 x 48 mm (Inside 6.3 mm)	<b>50601148</b>
19 x 48 mm (Inside 12.7 mm)	<b>50601679</b>



Size	Part No.
19 x 122 mm (short)	<b>52085691</b>
19 x 143 mm (long)	<b>52085692</b>



Size	Part No.
19 x 140 mm for Slug Splitter®	<b>50294520</b>



Size	Part No.
11.1 x 108 mm for Slug Splitter®	<b>50294512</b>



Size	Part No.
9.5 mm x 19 mm, 122 mm	<b>52042827</b>

## Rectangular punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

### Operation

- Manual / hydraulic

### Predrilling




- 9.7 mm dia. pilot drill 50360183
- 12.7 mm dia. pilot drill 50344102
- 15.9 mm dia. pilot drill 50344030
- 30.2 mm dia. 50364146

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

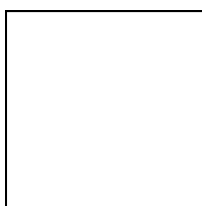
### Additional information

- \* = only for use with hydraulic punch drivers 52084920, 52084941, LS50FLEX
- \*\* = only for use with hydraulic punch drivers 52084920, 52084941, LS50FLEX

Punch size A x B	Max. Material thickness	Operating mode	Individual parts f. manual operation			Adapter for hydr. punch driver	Mounting hole-dia.	Complete unit
								
mm	mm (St37)		Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
11.1 x 22.2	1.5	Hand/Hydr.	50601156	50601202	50052446	50601148	9.7	<b>50600257</b>
17.0 x 19.0	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610281</b>
19.1 x 29.0	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600311</b>
19.1 x 33.3	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600346</b>
21.9 x 25.9	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600370</b>
22.0 x 30.0	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600400</b>
22.0 x 42.0	2.0	Hand/Hydr.	50184369	50601652	50602586	50601679	15.9	<b>50600435</b>
25.1 x 29.0	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600478</b>
31.8 x 35.1	2.0	Hand/Hydr.	50184369	50601652	50602586	50601679	15.9	<b>50600508</b>
29.0 x 71.0	3.0	Hydr.	52045298		52046101		28.6	<b>52045296</b>
30.0 x 90.0	3.0	Hydr.	52045298		52046101		28.6	<b>52045297</b>
33.3 x 66.7	3.0	Hydr.	52046100		52046101		30.2	<b>50600532</b>
35.0 x 52.0	3.0	Hydr.	52046100		52046101		30.2	<b>50600567</b>
35.0 x 65.0	3.0	Hydr.	52046100		52046101		30.2	<b>50600591</b>
35.0 x 82.0	2.0	Hydr.*	52046100		52046101		30.2	<b>50600621</b>
35.0 x 112.0	2.0	Hydr.*	52046100		52046101		30.2	<b>50600656</b>
46.0 x 92.0	3.0	Hydr.*	52046100		52046101		30.2	<b>50600680</b>
57.2 x 88.9	3.0	Hydr.*	52046100		52046101		30.2	<b>50600710</b>
68.0x138.0	2.0	Hydr.**	52046100		52046101		30.2	<b>50600745</b>



### Square punch



#### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

#### Operation

- Manual / hydraulic

#### Predrilling




- 9.7 mm dia. pilot drill 50360183
- 12.7 mm dia. pilot drill 50344102
- 15.9 mm dia. pilot drill 50344030
- 30.2 mm dia. 50364146

#### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

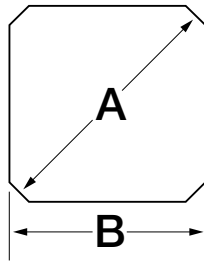
#### Additional information

- \* = only for use with hydraulic punch drivers 52084920, 52084941, LS50 Flex and LS100 Flex
- \*\* = only for use with hydraulic punch drivers 52084920, 52084941 and LS100Flex

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
								
12.7 x 12.7	1.5	Hand/Hydr.	50601156	50601202	50052446	50601148	9.5	<b>50600010</b>
15.9 x 15.9	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610045</b>
19.1 x 19.1	2.0	Hand/Hydr.	50184369	50347330	50602586	50339672	12.7	<b>50610076</b>
22.4 x 22.4	2.0	Hand/Hydr.	50184369	50347330	50602586	50339672	12.7	<b>50610106</b>
24.0 x 24.0	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610137</b>
25.4 x 25.4	2.0	Hand/Hydr.	50601172	50601652	50602586	50601679	15.9	<b>50600168</b>
45.0 x 45.0	3.0	Hydr.	52046100		52046101		30.2	<b>50115723</b>
46.0 x 46.0	3.0	Hydr.	52046100		52046101		30.2	<b>50600192</b>
50.8 x 50.8	3.0	Hydr.	52046100		52046101		30.2	<b>50601687</b>
68.0 x 68.0	3.0	Hydr.	52046100		52046101		30.2	<b>50601717</b>
92.0 x 92.0	3.0	Hydr.*	52046100		52046101		30.2	<b>50601741</b>
104.8 x 104.8	2.0	Hydr.*	52046100		52046101		30.2	<b>50601776</b>
138.0 x 138.0	2.0	Hydr.**	52055901				30.2	<b>50602349</b>



## Special square punch with flattened corners



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm
- Punching of burr-free openings

### Operation

- Manual / hydraulic

### Predrilling

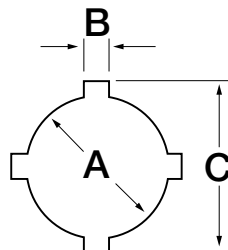
- 12.7 mm dia. pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)					Part No.	mm	Part No.
22.5 x 20.1	2.0	Hand/Hydr.	50184369	50347330	50602586	50339672	12.7	<b>50611257</b>

## Round punch with four anti-rotation tabs



### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 15.9 mm dia. pilot drill 50344030

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

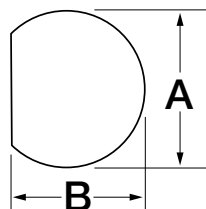
Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)					Part No.	mm	Part No.
22.5 x 3.2 x 25.4	2.0	Hand/Hydr.	50184369	50601652	50602586	50601679	15.9	<b>50602381</b>
30.5 x 4.8 x 36.0	3.0	Hand/Hydr.	50184369	50601652	50602586	50601679	15.9	<b>50602420</b>



# Punching

Round and special shape punches

## „D“ shaped punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 dia. mm pilot drill 50344102

### Scope of supply

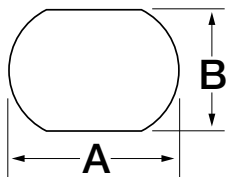
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- \* 50610809 and 50610830 available only as punch unit

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)					Part No.	mm	Part No.
12.7 x 11.9	2.0	Hand/Hydr.	50601156	50601202	50052446	50601148	9.5	<b>50600770</b>
15.9 x 15.1	2.0	Hand/Hydr.	50344218	50347330	50046381	50339672	12.7	<b>50610809</b>
19.1 x 17.9	2.0	Hand/Hydr.	50344218	50347330	50046381	50339672	12.7	<b>50610830</b>

## Double „D“ shaped punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 15.9 mm dia. pilot drill 50344030

### Scope of supply

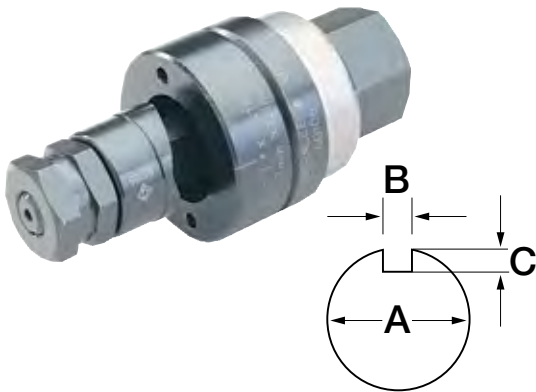
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- All punches available only as punch unit

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)					Part No.	mm	Part No.
19.5 x 16.3	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610861</b>
20.2 x 17.6	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610892</b>
23.2 x 19.2	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610922</b>
23.2 x 20.2	2.0	Hand/Hydr.	52020113	50347330	50046381	50339672	12.7	<b>50610953</b>

## Keyway punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

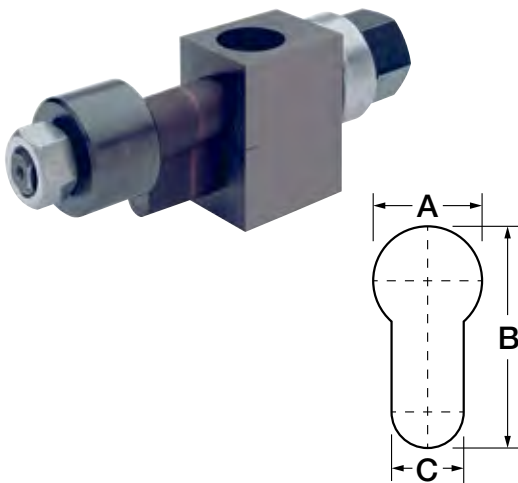
- 23.8 mm dia. pilot drill 50300083

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness	Operating mode	Individual parts for manual operation			Adapter for hydr. punch driver	Mounting hole-dia. mm	Komplettlocher
			Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)					Part No.	mm	Art.-Nr.
12.2 x 1.4 x 0.8	1.5	Hand/Hydr.	50601156	50601202	50052446	50601148	9.5	<b>50601016</b>

## Profile cylinder punch



### Suitable for

- Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 mm dia. pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

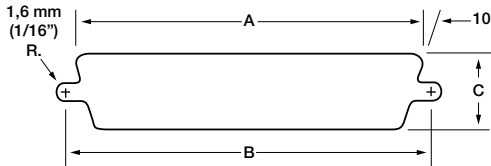
Punch size A x B x C	Max. Material thickness	Operating mode	Individual parts for manual operation				Adapter for hydr. punch driver	Mounting hole-dia. mm	Komplettlocher
			Draw studs	Ball bearing nut	Counter nut	Spacer bushing			
mm	mm (St37)						Part No.	mm	Art.-Nr.
17.0 x 33.3 x 10.5	2.0	Hand/Hydr.	50053043	50347330	90500113	50053051	50339672	12.7	<b>50053078</b>



# Punching

Round and special shape punches

## Sub-Min „D“ punch



### Suitable for

- Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick
- Front or rear mounting

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 mm dia. pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Standard	Number Pole	Operating mode	Dimension			Individual parts for manual operation			Adapter for hydr. punch driver	Complete unit
			A mm	B mm	C mm	Draw studs	Ball bearing nut	Counter nut		
229	9	Hand/hydr.	20.0	24.9	11.9	52020113	50347330	50046381	50339672	<b>50344366</b>
231	15	Hand/hydr.	28.6	33.3	11.9	52020113	50347330	50046381	50339672	<b>50344374</b>
RS232	25	Hand/hydr.	42.0	47.1	11.9	52020113	50347330	50046381	50339672	<b>50344200</b>
234	37	Hand/hydr.	58.3	63.4	11.9	52020113	50347330	50046381	50339672	<b>50344293</b>
238	50	Hand/hydr.	55.9	61.0	14.7	52020113	50347330	50046381	50339672	<b>50344447</b>

## Special shape punch for heavy duty connectors with 4 centre mark points



### Characteristics

- Rectangular punches for heavy duty connectors feature a drilling jig built into the die, for drilling the 4 locating holes.

### Suitable for

- Mild steel (St37) to 3.0 mm thick and aluminium to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- 30.2 mm dia. pilot drill 50364146

### Scope of supply

- Punch unit including punch, die, draw stud and counter nut

Item	Punch size A x B mm	Max. Material thickness mm	Operating mode	Individual parts for manual operation		Mounting hole-dia. mm	Complete unit Part No.
				Draw studs	Counter nut		
Special shaped punch for heavy duty connectors, 6-pin, 36 x 52 mm	36.0 x 52.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033816</b>
Special shaped punch for heavy duty connectors, 10-pin, 36 x 65 mm	36.0 x 65.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033817</b>
Special shaped punch for heavy duty connectors, 16-pin, 36 x 86 mm	36.0 x 86.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033818</b>
Special shaped punch for heavy duty connectors, 24-pin, 36 x 91 mm	36.0 x 91.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033819</b>
Special shaped punch for heavy duty connectors 36 x 112 mm	36.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033820</b>
Special shaped punch for heavy duty connectors 46 x 112 mm	46.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033832</b>



# Punching

Round and special shape punches

## Draw studs for shaped punch

### Order info

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Size	Part No.
19x150 mm	<b>52046100</b>



Size	Part No.
9.5 x 135 mm	<b>50053043</b>



Size	Part No.
12.7 x 117 mm	<b>50601172</b>



Size	Part No.
12.7 x 117 mm	<b>50601660</b>



Size	Part No.
6.3 x 87 mm	<b>50601156</b>



Size	Part No.
9.5 x 88 mm	<b>52020113</b>

# SAVE TIME AND MONEY - WITH EVERY PUNCH!

From the leaders in knockout technology comes the new SPEED PUNCH™ System. The patent pending “no-thread” design eliminates cross-threading, while the innovative SPEED LOCK mechanism quickly secures the punch in place. This means longer tool life and faster punches, saving you time and money on the job. SPEED PUNCH™ is available in ISO 16 to ISO 63 and PG 16 metric sizes and two kit configurations.



UP TO  
**3X**  
FASTER

**SPEED  
PUNCH**

5

## ▶ Speed Punch - saves time and money

- SPEED LOCK mechanism quickly secures the entire system in place: Punch more holes in less time.
- “No-thread” punch design quickly and easily slides on/off draw stud.
- The fastest punch system on the market today.
- Matched die heights eliminate need for additional spacers.
- Fewer extra parts to lose on the job site.
- No more thread damage and costly down time.

## ▶ Simplified punching processes

- Standard draw stud end
- Works with your existing hydraulic and battery-operated punch drivers.

### LS50 FLEX

- ▶ In combination with the hydraulic punching tool LS 50 Flex it represents the state of the art in performance and speed.



# THE ADVANTAGE IN PUNCHING - PUNCHING TOOLS AND SETS

Greenlee punching tools are quick. No matter whether for straight punchings in steel (St37) and stainless steel or confined areas with swivelling head: Greenlee equips you with the right set for every situation. Combined with the Speed Punch, the quickest and most-efficient punching system in our range puts you in pole position. Take the lead in punching!

**NEXT  
GENERATION**



**In brief**

- ▶ Always ready for use due to short battery-charging times
- ▶ Heads rotatable through 360° for optimised work ergonomics
- ▶ No fatigue due to low weight
- ▶ 3x quicker punching with the Speed Punch system



## ► The fast one: LS 50 FLEX

The LS 50 FLEX is not just fast. It is integrally designed and produced. It is fully re-charged and ready for use in just 22 minutes. Ergonomic design and a balanced centre of gravity support you when working over long periods of time. The head rotates through 360° and reliably punches in confined areas. Combine the LS 50 FLEX with the Speed Punch system for even faster operations. There's no faster punching than this.

- Can be used for steel (St37) and stainless steel
- Ergonomic design for effortless operations
- Automatic final switch-off for even longer service life of the hole punch
- 22 min. to recharge the battery
- Integrated LED illuminates the work position
- Head rotates through 360°
- Can be combined with Speed Punch punch system for maximum punch speed



## ► Speed Punch set

Punching is up to three times quicker with the Speed Punch. The threadless stamp profile can be quickly replaced via a clamp technology - no more screwing the counter nut on and off. The set contains everything you need for the Speed Punch.

- Speed Punch set ISO 16 - 63, including accessories for hydraulic activation
- For all standard steel sheet
- High-quality plastic transport case for optimum product protection

## ► Slug Buster® set ISO 16 - 40

The Slug Buster from Greenlee separates the punch remnants automatically so that they fall from the die by themselves. No jamming or time-consuming removal of the punch remnants. The set comprises all components of the punching system.

- Slug Buster system including accessories
- Including ratchet wrench for manual activation
- Pilot drill included
- High-quality plastic transport case for optimum product protection



# Punching

Punching tools and sets

## KWSET, Keyway punch for hydraulic use



### Characteristics

- Compatible with all Greenlee hand-operated and battery powered hydraulic punches
- Simple handling

### suitable for

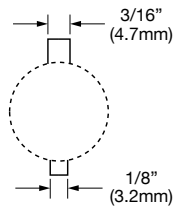
- Mild steel (St37) to 2.5 mm thickness
- Stainless steel to 2.5 mm thickness
- 19mm, 3/4" threaded draw stud

### Additional information

- When using the Quick Draw Series or LS50Flex, short spacer ( part no. 50032488 ) is required

Item	Part No.
KWSET	<b>52086978</b>
Accessory	Part No.
Spare Punch Kit for KWSET	52086956
Spare Spring Kit for KWSET	52086957
Spare Die Kit for KWSET	52086955

## Keyway punch



- ▶ Time-saving punching of slots for anti-twist protected parts
- ▶ Long service life

### Suitable for

- Mild steel (St37) to 3 mm thick
- Manual operation

Item	Part No.
Keyway punch	<b>50265342</b>
Accessories	Part No.
Spare punch for keyway punch	50265369
Spare die for keyway punch	50265385

## Hydraulic punch Quick Draw 90™ 7904E



- ▶ Ideal for fast, straight-on front panel punching
- ▶ Head rotates 180° for maximum flexibility
- ▶ Very robust

### Characteristics

- Compact design
- Hand hydraulic punch driver with 90° head

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

### Additional information

- Accompanying draw studs to 64 mm ST37 are suitable

Technical data	
Dimension	312 x 110 x 65 mm
Punching force	80 kN
Weight	3.4 kg
Item	Part No.
Quick Draw 90™ 7904E	<b>50342991</b>
Scope of supply	Part No.
Hand hydraulic punch 7904E	50337866
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672
Plastic case	50352024

## Hydraulic punch driver Quick Draw™ 7804E



- ▶ Ideal for fast, straight-on front panel punching
- ▶ Compact design
- ▶ Very robust

### Characteristics

- Hand hydraulic punch driver with straight head

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

### Additional information

- Accompanying draw studs to 64 mm ST37 are suitable

Technical data	
Dimension	321 x 110 x 70 mm
Punching force	80 kN
Weight	2.5 kg
Item	Part No.
Quick Draw™ 7804E	<b>50342916</b>
Scope of supply	Part No.
Hand hydraulic punch 7804E	50342886
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672
Plastic case	50352024



## Manual hydraulic punch



► Flexible head for multi-purpose use even in confined areas

### Characteristics

- Rotatable/Swivel

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

### Additional information

- Hand-operated hydraulic punch incl. draw stud, pilot drill and spacer in plastic case
- Without hole
- Accompanying draw studs to 64 mm ST37 are suitable

### Technical data

Dimension 340 x 150 x 85 mm

Punching force 80 kN

Weight 2.2 kg

Revolving/rotatable 360°

Item	Part No.
Manual hydraulic punch	<b>52033843</b>
Scope of supply	Part No.
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827
HSS Co5 step bit	52049371
Spacer, short	50032488
Plastic case	

## LS 50 FLEX battery powered hydraulic punching tool

**NEXT  
GENERATION**



- ▶ High flexibility using 360° rotating head
- ▶ An integrated pressure sensor increases the service life of the hole punch
- ▶ Automatic stop makes the punching tools last longer

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Energy saving function with motor cut-out after successful operation
- Manual retract as required
- Always ready-to-use thanks to battery charge and service display

Technical data		
Punching force	60 kN	
Weight	2.1 kg	
Charging time	15 min.	
Punching time	5 s at 22.5 mm dia., 3 mm mild steel 6 s at 63.5 mm dia., 3 mm mild steel	
Ambient temperature	-15 °C up to +40 °C	
Dimensions	340 x 115 x 80 mm	
Punching capacity	120 punch operations at 22.5 mm dia., 3.4 mm mild steel 190 punch operations at 22.5 mm dia., 3 mm mild steel 280 punch operations at 22.5 mm dia., 2.5 mm mild steel	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
LS 50 FLEX battery powered hydraulic punching tool	<b>LS50FLEXCFB</b>	<b>LS50FLEXCFM</b>
Lieferumfang		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Draw stud for hydraulic operation 19.0 x 122 mm	52085691	52085691
Spacer 22 mm, short	50032488	50032488
HSS Co5 step bit	52049371	52049371
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672	50339672
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	51300430
Plastic case	KK50FLEXNG	KK50FLEXNG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with flexible battery powered hydraulic punch LS50FLEXCFB	LBOXXLS50FLEXCFB	
L-BOXX with flexible battery powered hydraulic punch LS50FLEXCFM		LBOXXLS50FLEXCFM



### LS 100 FLEX battery powered hydraulic punching tool

**NEXT  
GENERATION**



- ▶ High flexibility using rotating head
- ▶ An integrated pressure sensor increases the service life of the hole punch
- ▶ Automatic stop makes the punching tools last longer

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Energy saving function with motor cut-out after successful operation
- Changeable modes for automatic or manual retraction
- Always ready-to-use thanks to battery charge and service display

#### Additional information

- When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)



Technical data	
Punching force	100 kN
Weight	2.7 kg
Charging time	15 min.
Punching time	5 s at 22,5 mm dia., 3 mm mild steel 6 s at 63,5 mm dia., 3 mm mild steel
Ambient temperature	-15° up to +40 °C
Dimensions	370 x 120 x 80 mm
Punching capacity	St37 max.: 152.4 mm at a material thickness of 3 mm V2A max.: 104.8 mm at a material thickness of 3 mm

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
LS 100 FLEX battery powered hydraulic punching tool	<b>LS100FLEXCFB</b>	<b>LS100FLEXCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Draw stud for hydraulic operation 19.0 x 137 mm	52085692	52085692
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827	52042827
Spacer, short	50032488	50032488
HSS Co5 step bit	52049371	52049371
Plastic case	KK50FLEXNG	KK50FLEXNG

## Hydraulic punch with hand pump



### ► Compact design

#### Characteristics

- With hand pump, hose and cylinder

#### Suitable for

- All punches up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

#### Operation

- Hydraulic

#### Additional information

- When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)
- Draw stud 52085689 11.1 mm to 19mm, used for 22.5mm Pg16 SB-Punch\*52085633, or 22.5mm Pg16 SR-Punch\* 52085634.  
\*Suitable for mild steel 2.5mm / stainless steel 2mm

Technical data	
Punching force	110 kN
Weight	8.3 kg
Item	Part No.
Hydraulic punch with hand pump	<b>52084920</b>
Scope of supply	Part No.
Hydraulic cylinder	50170910
767 Hydraulic hand pump	50132849
Hydraulic hose 6.4 mm dia. x 0.9 m	50383167
Draw stud for hydraulic operation 19.0 x 137 mm	52085692
Draw stud for hydraulic operation 11.1 mm to 19 mm, 127 mm	52085689

## Hydraulic punch with foot pump



#### Characteristics

- With foot pump, hose and cylinder

#### Suitable for

- Up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

#### Operation

- Hydraulic

#### Additional information

- When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)
- Draw stud 52085689 11.1 mm to 19mm, used for 22.5mm Pg16 SB-Punch\*52085633, or 22.5mm Pg16 SR-Punch\* 52085634.  
\*Suitable for mild steel 2.5mm / stainless steel 2mm

Technical data	
Punching force	110 kN
Weight	15.2 kg
Item	Part No.
Hydraulic punch with foot pump	<b>52084941</b>
Scope of supply	Part No.
Hydraulic cylinder	50170910
1725 Hydraulic foot pump	50313533
Hydraulic hose 6.4 mm dia. x 3 m	50377299
Draw stud for hydraulic operation 19.0 x 137 mm	52085692
Draw stud for hydraulic operation 11.1 mm to 19 mm, 127 mm	52085689



## Punching

Punching tools and sets

### Thread grease



- ▶ Increases the service life
- ▶ Prevents "seizing"
- ▶ Screw and nut threads resistant to wear

#### Suitable for

- Statically and dynamically high stressed thread connections

Item	Part No.
Draw stud thread grease, 30 g	<b>50115472</b>

### Slug Buster® punch set for all applications from ISO 16 - 40



#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183
- draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® punch set ISO 16 to 40	<b>50366920</b>
Scope of supply	Part No.
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET
Draw studs for manual operation 9.5 x 40 mm	50000420
Draw studs for manual operation 19.0 x 55 mm	50040405
Ratchet	50349414
Kwik Stepper™ step bit 9.7 mm	50360183
Plastic case	50366858



## Slug Buster® punch set for all applications from PG 9 to PG 21 and 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® punch set PG 9 to PG 21 and 30.5 mm	<b>50366904SET</b>
Scope of supply	Part No.
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET
Draw studs for manual operation 9.5 x 40 mm	50000420
Ratchet	50349414
Kwik Stepper™ step bit 9.7 mm	50360183
Plastic case	50366858

## Slug Buster® punch set for ISO 16 - 63



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® punch set ISO 16 to 63	<b>50366939</b>
Scope of supply	Part No.
Slug Buster® punch set ISO 16 - 63	50068920SET
Draw studs for manual operation 9.5 x 40 mm	50000420
Draw studs for manual operation 19.0 mm x 75 mm	50040421
Ratchet	50349414
Kwik Stepper™ step bit 9.7 mm	50360183
Plastic case	50366858



## Punching

Punching tools and sets

### Slug Buster® punch set for all applications from PG 9 - 48 and 30.5 mm



#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® punch set PG 9 to PG 48 and 30.5 mm	<b>50366912SET</b>
Scope of supply	Part No.
Draw studs for manual operation 9.5 x 40 mm	50000420
Draw studs for manual operation 19.0 x 55 mm	50040405
Ratchet	50349414
Slug Buster® punch set PG 9 - 48, 30.5 mm	50328034SET
Plastic case	50366858

### Speed Punch™ Set ISO 16 – 40



- ▶ Up to 3-times faster than conventional punching tools
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- ▶ Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm
- LS50Flex and Quick Draw

#### Operation

- Hydraulic

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### Scope of supply

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.
Speed Punch™ punch set ISO 16/20/25/32/40	<b>52055439SET</b>
Scope of supply	Part No.
Punch and die ISO 16 (16.2 mm)	52055431
Punch and die ISO 20 (20.4 mm)	52055432
Punch and die ISO 25 (25.4 mm)	52055434
Punch and die ISO 32 (32.5 mm)	52055435
Punch and die ISO 40 (40.5 mm)	52055436
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440
Plastic case	KKSPIS016B63
Accessories	Part No.
Plastic case	KKSPIS016B63

## Speed Punch™ Set ISO 16 – 63



- ▶ Up to 3-times faster than conventional punching tools
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- ▶ Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm
- LS50Flex and Quick Draw

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.
Speed Punch™ Set ISO 16 – 63	<b>52055440SET</b>
<b>Scope of supply</b>	
	Part No.
Punch and die ISO 16 (16.2 mm)	52055431
Punch and die ISO 20 (20.4 mm)	52055432
Punch and die ISO 25 (25.4 mm)	52055434
Punch and die ISO 32 (32.5 mm)	52055435
Punch and die ISO 40 (40.5 mm)	52055436
Punch and die ISO 50 (50.8 mm)	52055437
Punch and die ISO 63 (64.0 mm)	52055438
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440
Plastic case	KKSPIS016B63
<b>Accessories</b>	
	Part No.
Plastic case	KKSPIS016B63



## Slug-Splitter® punch set (stainless steel) ISO 16 - 40



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030  
draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.
Slug-Splitter® punch set (stainless steel) ISO 16/20/25/32/40	<b>50766803</b>
Scope of supply	Part No.
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512
Draw stud for hydraulic operation 19 x 140 mm	50294520
Plastic case	KKSSIS016B63

## Slug-Splitter® punch set (stainless steel) ISO 16 - 63



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030  
draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.
Slug-Splitter® punch set (stainless steel) ISO 16/20/25/32/40/50/63	<b>50766797</b>
Scope of supply	Part No.
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616
Slug-Splitter® punch (stainless steel) 50.8 mm	50069632
Slug-Splitter® punch (stainless steel) 64 mm	50069667
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512
Draw stud for hydraulic operation 19 x 140 mm	50294520
Plastic case	KKSSIS016B63

## Slug Buster® hand hydraulic punch driver set PG 9 - PG 21, 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® hand hydraulic punch driver set PG 9 to PG 21 and 30.5 mm	<b>50356119SET</b>
Scope of supply	Part No.
Hand hydraulic punch 7804E	50342886
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET
Plastic case	50352024

## Slug Buster® hand hydraulic 90° punch driver set PG 9 - PG 21, 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® hand hydraulic punch driver set PG 9 to PG 21 and 30.5 mm	<b>50356151SET</b>
Scope of supply	Part No.
Hand hydraulic punch 7904E	50337866
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET
Plastic case	50352024



## Slug Buster® hand hydraulic punch driver set ISO 16 - 40



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® hand hydraulic punch driver set ISO 16 to 40	<b>50356143SET</b>
Scope of supply	Part No.
Hand hydraulic punch 7804E	50342886
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 105 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET
Plastic case	50352024

## Slug Buster® hand hydraulic 90° punch driver set ISO 16 - 40



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.
Slug Buster® hand hydraulic punch driver set ISO 16 to 40	<b>50356160SET</b>
Scope of supply	Part No.
Hand hydraulic punch 7904E	50337866
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET
Plastic case	50352024

## Hand hydraulic punching set 90° ISO 16 - 40



- ▶ Flexible head for multi-purpose use even in confined areas

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

Item	Part No.
Hand hydraulic punching set ISO 16 - 40	<b>52034233</b>
Scope of supply	Part No.
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827
Draw stud for hydraulic operation 19.0 x 122 mm	52085691
Spacer, short	50032488
HSS Co5 step bit	52049371
Plastic case	KK52034233

## Slug Buster® punch set ISO 16 – 40



- ▶ For quick, clean, effortless and burr-free holes
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.
Slug Buster® punch set ISO 16/20/25/32/40	<b>50356178SET</b>
Accessories	Part No.
Plastic case	KKIS016B63R

## Slug Buster® punch set ISO 16 – 63



- ▶ Long product life
- ▶ Very easy to use

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.
Slug Buster® punch set ISO 16/20/25/32/40/50/63	<b>50068920SET</b>
Accessories	Part No.
Plastic case	KKIS016B63R



## Punching

Punching tools and sets

### Slug Buster® punch set PG 9 - 21, 30.5 mm



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.
Slug Buster® punch set PG 9/11/13/16/21 and 30.5 mm	<b>50323989SET</b>
Accessories	Part No.
Plastic case	KKPG9B48

### Slug Buster® punch set PG 9 - PG 48, 30.5 mm



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

#### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.
Slug Buster® punch set PG 9/11/13/16/21/29/36/48 and 30.5 mm	<b>50328034SET</b>
Accessories	Part No.
Plastic case	KKPG9B48





# FOR DEEP INCISIONS - HOLE SAWS

Clear the way for cables and electrical connections. Our Greenlee hole saws offer a long-term precise solution. Reinforced back plate reduces vibrations. Saving you effort and ensuring precise concentricity. HSS bi-metal hole saws are suitable for processing steel sheet, cast iron, brass and other materials.



#### In brief

- ▶ Reduced vibrations thanks to reinforced back plate
- ▶ Long service life due to high-performance steel
- ▶ Suitable for numerous materials
- ▶ For multi-functional use, please note our universal tools

## ► HSS bi-metal hole saws

No material is safe from the HSS bi-metal hole saws. Very hard high-performance steel (M 42) for clean and reliable prolonged operation.

- Precise cut with positive pitch
- Reinforced back plate reduces vibrations
- High true running accuracy

- Cooling slots for low heat build-up
- Saws up to a cut depth of of 41.3 mm
- Improved service life due to tooth hardness Rc65-68
- Suitable for steel sheet, cast iron, brass, fibreglass, wood and plastic



## ► Set of hole saws: HSS bi-metal hole saw set

The hole saw set gives you all standard sizes tidily combined. Well sorted and perfectly protected.

- All standard sizes of hole saws
- Manufactured from M42 high-performance steel
- Including accessories
- Securely stowed in a robust case



## HSS Bi-metal hole saws



- ▶ Vibration-reduction and high true running accuracy due to thick back section
- ▶ High-quality serration easily assured, precise cut
- ▶ Cooling slots ensure low heat build-up
- ▶ No canting when sawing

### Characteristics

- High-quality, rake variable pitch design provides faster, easier cutting
- High true running accuracy
- Max. cutting depth 41.3 mm
- Tooth hardness Rc 65 - 68

### Suitable for

- Mild steel, cast iron, brass, aluminium, fibreglass, wood, VA sheet and plastic

### Additional information

- Arbors have to be ordered separately, not included in scope of supply

Punch size mm	Standard size Pg	Standard size ISO	Weight g	Recommended cutting speed r.p.m. for						Part No.
				steel sheet	tool and stainless steel	cast iron	non-ferrous metal	aluminium	wood	
14			46	580	300	400	790	900	800	<b>50191314</b>
15			46	580	300	400	790	900	800	<b>52057722</b>
16	Pg 9	ISO 16	46	550	275	365	730	825	760	<b>52057723</b>
17			46	500	250	330	665	750	720	<b>52057724</b>
18			46	500	250	330	665	750	720	<b>52057725</b>
19	Pg 11		46	460	230	300	600	690	680	<b>52057726</b>
20		ISO 20	46	445	220	290	580	660	640	<b>52057727</b>
21	Pg 13		46	425	195	280	560	635	580	<b>52057728</b>
22	Pg 16		46	390	195	260	520	585	560	<b>52057729</b>
23			46	380	190	250	510	570	540	<b>52057730</b>
24			46	370	185	245	494	555	520	<b>52057731</b>
25		ISO 25	46	350	175	235	470	525	500	<b>52057732</b>
26			46	325	160	215	435	480	500	<b>52057733</b>
27			46	300	150	200	400	450	450	<b>52057734</b>
28			46	300	150	200	400	450	450	<b>52057735</b>
29	Pg 21		91	285	145	190	380	425	430	<b>52057736</b>
30			91	270	140	180	360	410	410	<b>52057737</b>
32		ISO 32	91	270	140	180	360	410	410	<b>52057738</b>
33			46	250	125	165	330	375	370	<b>52057739</b>
35			46	240	120	160	315	360	30	<b>52057740</b>
36			91	240	120	160	315	360	30	<b>52057741</b>
37	Pg 29		91	230	115	150	300	345	330	<b>52057742</b>
38			91	220	110	145	290	330	310	<b>52057743</b>
40		ISO 40	91	210	110	140	280	315	290	<b>52057744</b>
41			91	205	105	135	270	305	270	<b>52057745</b>
42			137	205	105	135	270	305	270	<b>52057746</b>
43			91	195	100	130	260	295	250	<b>52057747</b>
44			91	190	95	125	250	285	230	<b>52057748</b>
45			91	190	95	125	250	285	230	<b>52057749</b>
46			137	180	90	120	240	270	210	<b>52057750</b>
48	Pg 36		91	180	90	120	240	270	210	<b>52057751</b>
50		ISO 50	91	170	85	115	230	255	200	<b>52057752</b>
51			137	165	80	110	220	245	200	<b>52057753</b>

Punch size mm	Standard size Pg	Standard size ISO	Weight g	Recommended cutting speed r.p.m. for						Part No.
				steel sheet	tool and stainless steel	cast iron	non-ferrous metal	aluminium	wood	
53			137	160	80	105	210	240	190	52057755
54	Pg 42		137	160	80	105	210	240	190	52057756
55			137	150	75	100	200	225	185	52057757
57			227	150	75	100	195	225	185	52057758
59			137	140	70	95	190	220	180	52057760
60	Pg 48		137	135	70	90	180	205	180	52057761
63		ISO 63	182	130	65	85	175	200	175	52057762
64			182	130	65	85	175	200	175	52057801
65			182	130	65	85	170	195	170	52057763
67			182	125	60	80	160	185	165	52057764
68			182	125	60	80	160	185	160	52057765
70			182	120	55	80	160	180	160	52057766
73			182	115	55	75	150	170	150	52057767
74			182	115	55	75	150	170	150	52057768
75			227	115	55	75	150	170	150	52057769
76			227	110	55	70	140	165	145	52057770
79			227	120	55	70	140	165	165	52057802
80			227	110	55	70	140	165	145	52057771
83			273	105	50	70	140	155	140	52057773
86			273	100	50	65	130	150	135	52057774
89			273	95	45	65	130	145	130	52057775
92			273	95	45	60	120	130	120	52057776
95			318	95	45	60	120	135	110	52057777
98			318	90	40	60	120	135	110	52057778
102			318	85	10	55	110	130	100	52057779
105			363	80	40	55	110	120	110	50191772
108			363	80	40	55	110	120	110	50191780
111			363	80	40	50	100	120	110	50191799
114			409	75	40	50	100	105	100	50191802
121			499	75	35	50	95	95	100	50191810
127			545	65	35	45	90	90	100	50191829
140			545	60	35	35	85	85	100	50191837
152			636	55	35	35	75	75	100	50191845
168			701	55	35	35	68	65	100	52057803
177			728	55	35	35	65	65	100	52057804
210			820	55	35	25	55	55	100	52057805

## HSS Bi-metal hole saw set



- ▶ Saves time thanks to low vibration and heat development
- ▶ Variable pitch for an uniform cut
- ▶ Requires minimal effort when drilling

### Characteristics

- High true running accuracy
- Less effort when cutting

### Suitable for

- Metal, brass, fibreglass, non-ferrous metal, cast iron, aluminium, wood and plastics, stainless steel sheet

Item	Part No.
HSS bi-metall hole saw set Elektro II	<b>52059292SET</b>
HSS bi-metal universal hole saw set	<b>52059293SET</b>
HSS bi-metal hole saw set ISO 16 to 63	<b>50069497SET</b>
HSS bi-metal plumbing hole saw set	<b>52059294SET</b>
HSS bi-metal hole saw set (830 PG)	<b>50292099SET</b>
HSS bi-metal electrical hole saw set	<b>52059295SET</b>
Electro set with countersink 35/68/75 mm	<b>50125630SET</b>

Description	Nominal size mm	Standard size		Hole set						
		Pg	ISO	52059292SET Elektro II	52059293SET Universal	50069497SET ISO 16-63	52059294SET Plumbing	50292099SET 830PG	52059295SET Standard	50125630SET Elektro
Bi-metal hole saw	16	Pg 9			●			●	●	
	17		ISO 16			●				
	19	Pg 11			●		●	●	●	
	21	Pg 13	ISO 20			●		●		
	22	Pg 16		●	●			●	●	
	24						●			
	25		ISO 25		●	●				
	29	Pg 21		●	●		●	●	●	
	30							●		
	33		ISO 32			●				
	35			●	●				●	●
	37	Pg 29						●		
	38				●		●			
	41		ISO 40			●				
	44			●	●		●		●	
	48	Pg 36						●		
	51		ISO 50	●	●	●				
	52								●	
	57						●		●	
	60	Pg 48						●		
	63		ISO 63	●	●	●				
	67						●		●	
	68			●						●
	75									●
	76				●					
Countersink for Hole Saw 68 mm										●
Arbor 14 to 30 mm				●	●	●	●	●	●	
Arbor 32 to 152 mm				●	●	●	●	●	●	●
Case				●	●	●	●	●	●	●

## Electro set with countersink



### Characteristics

- Countersink with two specially-hardened cutting teeth

### Suitable for

- Steel, non-ferrous metal, aluminium, cast iron, stainless steel, wood, plastic and building materials

### Scope of supply

- Consisting of hole saws 35 mm, 68 mm, 75 mm, countersink for 68 mm hole saw, arbor with pilot drill and counter nut for hole saws 32 - 152 mm and spare HSS pilot drill 6.35 mm dia.

Item	Part No.
Electro set with countersink 35/68/75 mm	<b>50125630SET</b>
Scope of supply	Part No.
HSS bi-metal hole saw 35 mm	52057740
HSS bi-metal hole saw 68 mm	52057765
HSS bi-metal hole saw 75 mm	52057769
Countersink for hole saws	52033839
Arbor for HSS bi-metal hole saws 8.6 mm	52057781
Plastic case	52059258



### Arbor for HSS bi-metal hole saws 14 - 30 mm



**Suitable for**

- Sizes from 14 - 30 mm

Item	Part No.
Arbor 6.3 mm	<b>50371576</b>
Arbor for HSS bi-metal hole saws 7.9 mm	<b>50385224</b>
Arbor 8.6 mm	<b>52057780</b>
Arbor 11.1 mm	<b>50371550</b>

### Arbor for HSS bi-metal hole saws 32 - 152 mm



**Suitable for**

- Sizes from 32 - 51 mm
- Sizes from 32 - 152 mm

Item	Part No.
Arbor 7.9 mm for HSS bi-metal hole saws 32 - 51 mm	<b>50371541</b>
Arbor 8.6 mm for HSS bi-metal hole saws 32 - 152 mm	<b>52057781</b>
Arbor 11.1 mm for HSS bi-metal hole saws 32 - 152 mm	<b>50371568</b>

### SDS arbor for HSS bi-metal hole saws



**Suitable for**

- Sizes from 32 - 152 mm
- Sizes from 14 - 30 mm

Item	Part No.
SDS arbor for HSS bi-metal hole saws 14 - 30 mm	<b>50069691</b>
SDS arbor for HSS bi-metal hole saws 32 - 152 mm	<b>50069292</b>

### Replaceable pilot drill for arbor HSS bi-metal hole saws



Item	Part No.
Replaceable pilot drill for arbor HSS bi-metal hole saws	<b>52057782</b>







# SIMPLE DRILLING – EVERYTHING IN ONE OPERATION

Greenlee bits are produced using the latest CNC technology. The benefit to you is clear: Clean cutting edges produce longer and better cutting operations from the very first use. That saves you effort. The two-sided deburring of the edge breaker saves you time. The Rotastop system on the shank prevents the bit from slipping through in the chuck. That's how drilling is done today.



## In brief

- ▶ Perfect cutting performance in the first pass
- ▶ Rotastop prevents the bit slipping through
- ▶ Split point requires less effort

### ► Kwik Stepper with Rotastop

Years of experience and development have gone into this bit. The Kwik Stepper drills not only burr-free with optimum swarf removal, the spiral groove also reduces heat build-up during the drilling operation. This makes the Kwik Stepper especially durable. The Rotastop system holds the bit in place - without slipping through. Additionally, the split point reduces your effort during the drilling operation. Great performance from just one bit.

- All required drilling ranges in one tool
- Rotastop for maximum torque transmission
- Quick bit change
- No slipping through in the chuck
- Spiral groove for improved cutting performance
- Two-sided burr removal
- Can be used for sheet, pipes, non-ferrous metals, stainless steel and plastics

### ► Performance in the set: Kwik Stepper set of step bits

To keep you flexible while drilling, we have combined all standard step bits in a practical set and accommodated them in a robust plastic box. Everything to hand.

- All common step bits
- Clear assignment of the bit through laser scaling of the step bit
- Robust plastic box with integrated pop-up hinge
- Easy to transport and store



## Kwik Stepper™ step bit



- ▶ Minimum burr
- ▶ Long service life
- ▶ Good torque transmission
- ▶ Less effort when drilling

### Suitable for

- Sheet, pipe, NF metal and plastic

Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit 3.2 - 12.7 mm	3.2 - 12.7	3.2 / 4.0 / 4.8 / 5.6 / 6.4 / 7.1 / 7.9 / 8.7 / 9.5 / 10.3 / 11.1 / 11.9 / 12.7	80	13	6.34	<b>52084123</b>
Kwik Stepper™ step bit 4.8 - 12.7 mm	4.8 - 12.7	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7	80	6	6.4	<b>52084124</b>
Kwik Stepper™ step bit 22.2 mm	22.2	22.2	85	1	9.5	<b>52084128</b>
Kwik Stepper™ step bit 4.8 - 22.2 mm	4.8 - 22.2	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7 / 14.3 / 15.9 / 17.5 / 19.1 / 20.6 / 22.2	85	12	9.5	<b>52084129</b>
Kwik Stepper™ step bit 12.7 - 28.6 mm	12.7 - 28.6	12.7 / 22.2 / 28.6	57	3	9.5	<b>52084131</b>
Kwik Stepper™ step bit 22.2 - 34.9 mm	22.2 - 34.9	22.2 / 28.6 / 31.0 / 31.8 / 34.9	73	5	9.5	<b>52084134</b>
Kwik Stepper™ step bit 9.7 mm	9.7	Predrilling for Green- lee-Draw stud 9.7	40	1	6.4	<b>50360183</b>
Kwik Stepper™ step bit 12.7 mm	12.7	Predrilling for Green- lee-Draw stud 12.7	40	1	6.4	<b>52084125</b>
Kwik Stepper™ step bit Pg 7 - 21	Pg 7 - 21	Pg7 / Pg9 / Pg11 / Pg13 / Pg16 / Pg21	90	7	9.5	<b>52084132</b>
Kwik Stepper™ step bit ISO 16 - 32	ISO 16 - 32	ISO 16 / 20 / 25 / 32	80	4	9.5	<b>52084133</b>
Kwik Stepper™ step bit 19.1 mm	19.1	Predrilling for Green- lee-Draw stud	99	1	9,5	<b>52084126</b>
Kwik Stepper™ step bit 12 mm	12	Predrilling for Green- lee-Draw stud	99	1	4,4	<b>52085453</b>
<b>Variants</b>						<b>Art.-Nr.</b>
Kwik Stepper™ step bit set consisting of 52084123 + 52084129						52084141
Kwik Stepper™ step bit set consisting of 52084123 + 52084129 + 52084131						52085454

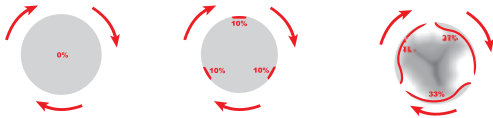
## Kwik Stepper™ step bit with ROTASTOP® shaft



- ▶ ROTASTOP® guarantees best-possible torque transmission
- ▶ Minimal burr
- ▶ No slipping in the chuck with ROTASTOP®
- ▶ Long service life
- ▶ Requires minimum effort when drilling

### Suitable for

- Reaming of steel sheets, pipes, non-ferrous metals and plastic



Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 12 mm	4 – 12	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0	80	9	8.0	<b>50069845</b>
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	4 – 20	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0	67	9	8.0	<b>50069853</b>
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm	6-21	6.0 / 8.0 / 10.0 / 11.5 / 12.5 / 14.5 / 17.0 / 21.0	67.5	8	8	<b>52049371</b>
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	6 – 30	6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	98	13	10.0	<b>50069861</b>
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 36 mm	6 – 36	6.0 / 9.0 / 12.0 / 15.0 / 18.0 / 21.0 / 24.0 / 27.0 / 30.0 / 33.0 / 36.0	85	11	12.0	<b>50069870</b>
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm	ISO 12 - 40	For ISO 12 / 16 / 20 / 25 / 32 / 40	110	6	12.0	<b>50069888</b>



## Kwik Stepper™ step bit set



- ▶ ROTASTOP® guarantees best-possible torque transmission
- ▶ Hardly any burr
- ▶ No slipping in the chuck with ROTASTOP®
- ▶ Long service life
- ▶ Requires minimal effort when drilling

### Suitable for

- Reaming of steel sheets, pipes, non-ferrous metals and plastic

Item	Part No.
Kwik Stepper™ step bit set	<b>50069900</b>
Scope of supply	Part No.
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 12 mm	50069845
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	50069853
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	50069861

## Combi bit set M 3 - M 10



- ▶ Drill, tap and deburr in one operation

### Suitable for

- For use with St37, non-ferrous metals, stainless steel and plastics

Item	Part No.
Combi bit set in plastic cassette M 3 - M 10	<b>50121510</b>
Scope of supply	Part No.
Combi bit M3	50116312
Combi bit M4	50116320
Combi bit M5	50116339
Combi bit M6	50116347
Combi bit M8	50116355
Combi bit M10	50116363
Combi bit holder	50116371

## Metric SS DTAP Kit (PKG)



### Suitable for

- For use with St37, non-ferrous metals, stainless steel and plastics

Item	Part No.
Metric SS DTAP Kit (PKG)	<b>52086846</b>
Scope of supply	Part No.
Drill/Tap M3 x 0.50 (PKG)	52086840
Drill/Tap M4 x 0.70 (PKG)	52086841
Drill/Tap M5 x 0.80 (PKG)	52086842
Drill/Tap M6 x 1.00 (PKG)	52086843
Drill/Tap M8 x 1.25 (PKG)	52086844
Drill/Tap M10 x 1.50 (PKG)	52086845
Quick change adapter	50116371

# THE ALL-ROUNDER.

Sometimes, you need to be the jack-of-all-trades: Crimping, cutting, bending, punching and offsetting. With Klauke, you have every facility in just one tool.







# Universal tools

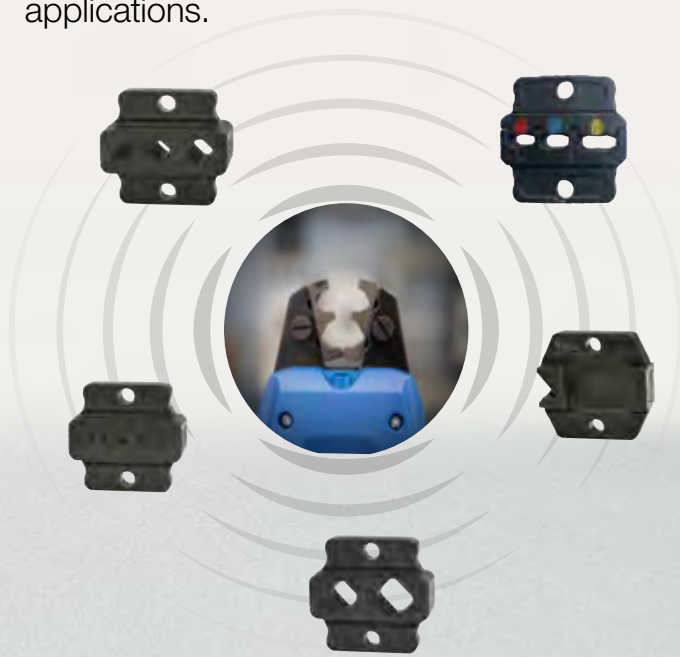
<b>Electromechanical universal tool</b>	<b>6.4</b>
<b>Electromechanical crimping tool for cable end-sleeves and twin cable end-sleeves</b>	<b>6.5</b>
<b>Electro mechanical crimping tool</b>	<b>6.6</b>
<b>Electromechanical cutting tool</b>	<b>6.8</b>
<b>Hand-operated hydraulic universal tool, hydraulic universal head</b>	<b>6.10</b>
<b>Battery powered universal tools</b>	<b>6.11</b>
<b>Bus bar tool centre</b>	<b>6.15</b>



# SO FAST IN SERIES PRODUCTION - THE KLAUKE MICRO

**Klauke** *micro*

The Klauke Micro is as convenient and quick as a mechanical tool, and just as powerful and easy to handle as a battery-powered hydraulic tool. Compact and portable in one device! Thanks to the innovative PowerSense technology. This tool simplifies your work like never before and that for a large number of applications.



## ▶ Manual pre-clamping - motorized working

- Flexible to use with interchangeable crimping and cutting dies
- Broad application range of crimping dies up to 50 mm<sup>2</sup>, cutting dies up to 13 mm dis.
- With LED illumination of the work area
- Low weight (< 1 kg)
- Intuitive operation thanks to PowerSense function
- Electronic control with ratchet function and motor stall protection
- Automatic retraction
- Long service life with servicing intervals of 35,000 cycles
- 3 year warranty on tool registration

### Link to tool registration:

[www.klauke.com/en/werkzeugregistrierung/login-tool-registration/](http://www.klauke.com/en/werkzeugregistrierung/login-tool-registration/)



## EK WF 50 ML Electro mechanical crimping tool 0,5 - 50 mm<sup>2</sup> for cable end-sleeves and twin cable end-sleeves



- ▶ The Klauke micro with intuitive PowerSense function combines the benefits of manual crimping tool K 507WF with the convenience of battery powered hydraulic crimping tools
- ▶ One crimping profile for all common types
- ▶ Quick and easy changing of the crimping dies
- ▶ Fewer pressures due to optimal crimping die width
- ▶ Excellent crimps with minimum effort

### Characteristics

- Simple and safe: One-button operating concept for controlling all tool functions
- PowerSense function: Manual pre-clamping, motorized crimping
- Electronic control with locking function monitors full closing of the dies
- Ergonomic 2C housing in the Klauke „In-line Design“
- Tool fixing point for use with balancer aid or lanyard
- Very low weight and high speed for maximum efficiency
- Powerful drive technology for effortless operations
- Powerful 10.8 V Li-Ion battery with charge status display
- LED for work area illumination
- Maintenance display via LED

### Suitable for

- Cable end-sleeves and twin cable end-sleeves

**K50**  
SERIE



Technical data	
Crimping range	0.5 - 50 mm <sup>2</sup>
Number of crimps	approx. 400 at 10 mm <sup>2</sup>
Battery voltage	10.8 V
Battery capacity	2.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	0.96 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Electro mechanical crimping tool 0.5 - 50 mm <sup>2</sup> for cable end-sleeves	<b>EKWF50ML</b>
Scope of supply	
Item	Part No.
Crimping dies AE 507 for cable end-sleeves, 0,5 - 6 mm <sup>2</sup>	AE5071
Crimping dies AE 507 for cable end-sleeves, 10 - 25 mm <sup>2</sup>	AE5072
Crimping dies AE 507 for cable end-sleeves, 35 - 50 mm <sup>2</sup>	AE5073
Crimping dies AE 507 for twin cable end-sleeves 2 x 6 - 2 x 16 mm <sup>2</sup>	ZAE5072
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230V	LGML1
Plastic case 450 x 370 x 105 mm	KKEK50ML



## Universal tools

Electro mechanical universal tool

### EK 50 ML Electromechanical crimping tool 0.1 - 50 mm<sup>2</sup>



- ▶ The Klauke micro with intuitive PowerSense function combines the benefits of manual crimping tools with the convenience of battery powered hydraulic crimping tools
- ▶ Excellent crimps with minimum effort

#### Characteristics

- Simple and safe: One-button operating concept for controlling all tool functions
- PowerSense function: Manual pre-clamping, motorized crimping
- Electronic control with locking function monitors full closing of the dies
- Ergonomic 2C housing in the Klauke "In-line Design"
- Tool fixing point for use with balancer aid or lanyard
- Very low weight and high speed for maximum efficiency
- Powerful drive technology for effortless operations
- Powerful 10.8 V Li-Ion battery with charge status display
- LED for work area illumination
- Maintenance display via LED

#### Suitable for

- 50-series interchangeable dies

























**K50**  
SERIE

Technical data	
Crimping range	0.1 - 50 mm <sup>2</sup>
Number of crimps	approx. 400 at 10 mm <sup>2</sup>
Battery voltage	10.8 V
Battery capacity	2.5 Ah, Li-Ion
Charging time	approx. 45 min.
Weight incl. battery	0.96 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Electromechanical crimping tool 0.1 - 50 mm <sup>2</sup>	<b>EK50ML</b>
Scope of supply	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230V	LGML1
Crimping dies IS 50, double crimping, 0.5 - 6 mm <sup>2</sup>	IS501
Plastic case 450 x 370 x 105 mm	KKEK50ML
Variants	Part No.
Electromechanical crimping tool 0.1 - 50 mm <sup>2</sup> with RAML1225 battery, no crimping die, case, charge	EK50ML-L
L-BOXX with electro-mechanical crimping tool EK 50 ML 0.1 to 50 mm <sup>2</sup> and extensive additional equipment	LBOXXEK50ML



## Available dies of series 50 for EK 50 ML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs, Cu, standard type		0,75 - 10		2.82
Tubular cable lugs and connectors, Cu, standard type		6 - 25		2.82
Tubular cable lugs and connectors for solid conductors, Cu		1,5 - 10		2.82
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 25		2.82
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		0,5 - 10		2.82
Insulated solderless terminals and connectors		10 - 16		2.83
<b>Cable end-sleeves</b>				
Cable end-sleeves		0,5 - 50		2.83
Twin cable end-sleeves		2 x 6 - 2 x 16		2.83
<b>Cable connections, insulated and non-insulated</b>				
Insulated cable connections, single crimping		0,5 - 16		2.83
Insulated cable connections, double crimping		0,1 - 6		2.83
Non insulated receptacles		0,25 - 6		2.83
for pin and shielded receptacles, BNC connectors for coax cables RG 58, 59, 60 and 71				2.83
Turned pin connectors, pin receptacles		0,1 - 4		2.83
<b>Cutting die</b>				
for cutting knotted chains, cable class 2 to 25 mm <sup>2</sup> , copper rails and steel cable		25 mm <sup>2</sup>		3.50



## EC 50 ML Electro mechanical cutting tool



K50  
SERIE



- ▶ The Klauke micro with intuitive PowerSense function combines the benefits of manual cutting tools with the convenience of battery powered hydraulic cutting tools
- ▶ Excellent cuts with minimum effort

### Characteristics

- Simple and safe: One-button operating concept for controlling all tool functions
- PowerSense function: Manual pre-clamping, motorized crimping
- Electronic control with locking function monitors full closing of the dies
- Ergonomic 2C housing in the Klauke „In-line Design“
- Tool fixing point for use with balancer aid or lanyard
- Very low weight and high speed for maximum efficiency
- Powerful drive technology for effortless operations
- Powerful 10.8 V Li-Ion battery with charge status display
- LED for work area illumination
- Maintenance display via LED

### Suitable for

- knotted chains
- For stranded conductors e.g. EN 60228 Class 2
- Copper bars up to 3 mm x 10 mm
- Steel cables and similar materials up to 3 mm

### Technical data

Cutting range	up to 13 mm Ø
Cutting time	< 2 s
Battery voltage	10,8 V
Battery capacity	2,5 Ah, Li-Ion
Charging time	ca. 45 min.
Weight incl. battery	0,96 kg
Ambient temperature	-10 °C bis +40 °C

Item	Part No.
Electro mechanical cutting tool	<b>EC50ML</b>
Scope of supply	Part No.
Cutting die	S502
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	RAML1225
Charger for 10.8 V Li-Ion batteries, 230V	LGML1
Plastic case 450 x 370 x 105 mm	KKEK50ML



## THINK OF YOUR HEALTH!

Frequent manual working eventually leads to over-strain in the wrist and lower arm. To work with the Klauke Micro, **you only need around 10% of the manual force required** by a mechanical hand tool. Motorised working with the Klauke micro is an investment that pays off!



# ONE TOOL FOR ALL SITUATIONS – UNIVERSAL TOOLS

Crimping, cutting or punching: Replaceable adapter and dies quickly adapt the tool to individual tasks. Low weight and powerful: Crimping up to 400 mm<sup>2</sup>, cutting up to 40 mm diameter or punching up to 92 x 92 mm, no problem at all for the Klauke Multi.

The Klauke Multi: The right tool in every instance.

**NEXT GENERATION**



## ► Systematic crimping

All crimping dies from Klauke function with every Klauke tool. Crimp cable lugs with the Klauke series 22 (6 t tools) and wide crimping with the series 13 (12 t tools). Differing crimp shapes and nominal cross-sections up to 400 mm<sup>2</sup> can be processed with just one tool.

- Can be used with dies series 22 (6 t)
- Wide crimping with dies series 13 (12 t) possible
- Cross sections up to 400 mm<sup>2</sup>
- Simple adapter replacement

## ► The plus one: Hole punching

Retooling of hole punches is really simple with the Klauke multi. In conjunction with hole punch adapters from Greenlee, you can punch holes up to 64 mm round and max. 92 mm x 92 mm square.

## ► All-around cutting

Stay prepared for various materials. Cables from copper and aluminium are not a problem with appropriate cutting head, likewise for DIN-profile rails, threaded bars or railway catenary wires. Klauke universal tool cuts everything up to 40 mm diameter.

- Differing materials can be cut: Aluminium and copper cables, threaded rods, profile rails, railway catenary wires and open wire
- The right cutting dies for every application
- Cutting range up to 40 mm

## ► Solid in use

The Klauke universal tool can also be used for machining operations on solid bus bars and laminated bus bars up to 120 mm x 12 mm. Bending, punching, cutting and offsetting with one device that can be operated with the AHP700L and the electric pumps from Klauke.



## Universal tools

Hand-operated hydraulic universal tool, Hydraulic universal head

### PK 60 UNV Hydraulic universal head



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for best possible crimping, cutting and punching results

#### Characteristics

- Universal head with quick coupling, 360° rotation when not pressurised, flip top style
- Various cutting dies for aluminium and copper conductors with and without armouring as well as Al/St-Cables (ACSR)
- Dies to punch DIN rails
- Adapter for crimping dies of the Klauke Series 22

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 6.14

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping cycle	3 s to 5 s (depending on crimping cross-section)
Number of crimps	approx. 300 at 150 mm <sup>2</sup> Cu DIN
Cutting range	max. 40 mm dia.
Number of cuts	approx. 110 at 4 x 70 mm <sup>2</sup> NYN
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Operating pressure	max. 700 bar
Length	350 mm
Weight	2.4 kg
Item	Part No.
Hydraulic universal head	<b>PK60UNV</b>
Scope of supply	Part No.
Carrying bag	TT2





## EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press app
- ▶ Small and slim, perfect for cramped conditions

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 6.14



Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	7 s up to 9 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Charging time	15 min.
Weight	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EKM60UNVCFB</b>	<b>EKM60UNVCFM</b>
Scope of supply		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1
Makita quick-charger for 18 V Li-Ion battery		LGL1
Adapter for crimping dies of Series 22	UA22	UA22
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2
Variants		
L-BOXX with battery powered universal tool EKM60UNVCFB	LBOXXEKM60UNVCFB	



## Universal tools

Battery powered universal tools

### EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and i-press app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 6.14



**K22  
SERIE**

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round
Charging time	45 min.
Weight	4.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EK60UNVCFB</b>	<b>EK60UNVCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Plastic case 450 x 370 x 105 mm	UA22	UA22
Adapter for crimping dies of Series 22	KK120UNVNG	KK120UNVNG

## EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 6.14





























**K13  
SERIE**

Technical data	
Crimping force	108 kN
Stroke	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Crimping cycle	Depending on cable type
Cutting range	max. 40 mm dia.
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square
Charging time	45 min.
Weight	6.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>	<b>EK120UNVCFB</b>	<b>EK120UNVCFM</b>
Scope of supply		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40
Makita quick-charger for 18 V Li-Ion battery		LGL1
Adapter for crimping dies of the Klauke 13-series	UA12TKL	UA12TKL
Plastic case	KK120NG	KK120NG
Accessories		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40

## Interchangeable adapters and dies for crimping, cutting or punching

Part description	Part no.	Tools	
		6 ton	12 ton
<b>Application: crimping</b>			
 Adapter for crimping dies series 13	<b>UA12TKL</b>		●
 Adapter for crimping dies series 22	<b>UA22</b>	●	
<b>Application: cutting</b>			
 Cutting die for Al/Cu conductors to max. 40 mm dia.	<b>UCACSR</b>	●	●
 Cutting die for Al/Cu conductors to max. 26 mm dia. (Not suitable for fine and superfine stranded conductors)	<b>UC26</b>	●	●
 Cutting die for Al/Cu conductors to max. 40 mm dia. (Not suitable for fine and superfine stranded conductors)	<b>UC40</b>	●	●
 Cutting die for threaded rods M5 metric	<b>UCM5</b>	●	●
 Cutting die for threaded rods M6 metric	<b>UCM6</b>	●	●
 Cutting die for threaded rods M8 metric	<b>UCM8</b>	●	●
 Cutting die for threaded rods M10 metric	<b>UCM10</b>	●	●
 Cutting die for threaded rods M12 metric	<b>UCM12</b>	●	●
 Cutting die for threaded rods 1/4"	<b>UCUNC14</b>	●	●
 Cutting die for threaded rods 3/8"	<b>UCUNC38</b>	●	●
 Cutting die for threaded rods 1/2"	<b>UCUNC12</b>	●	●
 Cutting die for profile conductors 35 x 15	<b>UCD3515</b>	●	●
 Cutting die for profile conductors 32 x 15 x 9	<b>UCD3215</b>	●	●
 Cutting die for profile conductors 35 x 7.5	<b>UCD3575</b>	●	●
 Cutting die for profile conductors 2980	<b>UCN2980</b>	●	●
 Cutting die for laminated Cu bus bars, max. width 37.5 mm	<b>UCF</b>	●	
 Cutting die 107 mm <sup>2</sup> type AC for catenary wires in railway construction	<b>UCAC107</b>	●	●
 Cutting die 85 mm <sup>2</sup> type BC for catenary wires in railway construction	<b>UCBC85</b>	●	●
 Cutting die 110 mm <sup>2</sup> type BC for catenary wires in railway construction	<b>UCBC110</b>	●	●
 Cutting die 120 mm <sup>2</sup> type BC for catenary wires in railway construction	<b>UCBC120</b>	●	●
 Cutting die 150 mm <sup>2</sup> type BC for catenary wires in railway construction	<b>UCBC150</b>	●	●
<b>Application: Punching</b>			
 Hole punch adapter for holes to 64 mm dia., 92 x 92 mm and 46 x 92 mm	<b>UA6P</b>	●	
 Hole punch adapter for holes to 144 mm dia., 138 x 138 mm and 68 x 138 mm	<b>UA12P</b>		●
 Die for punching DIN rails 35 x 15; 32 x 15 x 9; 35 x 7.5	<b>UPD6</b>	●	

## Bus bar tool centre



- ▶ Basic tool for bending, punching and cutting solid and laminated bus bars up to 120 x 12 mm
- ▶ Compact design and low weight

### Suitable for

- Drive with EHP4 or AHP700-L

### Additional information

- For drives with EHP4 the Part Number appendix „EHP4“ is required (50052241EHP4)  
For drives with AHP700-L connector Sbz4 is required.

Technical data	
Crimping force	185 kN
Max. operating pressure	700 bar
Capacity	1.5 l / min.
Required oil volume	0.15 l
Dimension	480 x 500 x 360 mm
Weight	51 kg
Item	Part No.
Bus bar tool centre	50052241

## Bending tool



- ▶ For Al/Cu materials to max. 120 x 12 mm
- ▶ Bending radius 5.00 mm

### Characteristics

- Max. bending angle 100°

Technical data	
Weight	7.1 kg
Item	Part No.
Bending tool, 5.0 mm bending radius	50052250

## Punching tool I



### Characteristics

- Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

### Suitable for

- Hole diameters from 6.5 - 21 mm

Technical data	
Weight	4.5 kg
Item	Part No.
Punching tool I	50052128

## Punching tool I



### Characteristics

- Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	<b>50052276</b>
Punch and die 8.5 mm dia.	<b>50052284</b>
Punch and die 11 mm dia.	<b>50052292</b>
Punch and die 13 mm dia.	<b>50052306</b>
Punch and die 15 mm dia.	<b>50052314</b>
Punch and die 17 mm dia.	<b>50052322</b>
Punch and die 21 mm dia.	<b>50052330</b>
Oblong punch and die 6.5 x 13 mm	<b>50052349</b>
Oblong punch and die 8.5 x 16 mm	<b>50052357</b>
Oblong punch and die 11 x 20 mm	<b>50052365</b>
Oblong punch and die 13 x 20 mm	<b>50052373</b>
Oblong punch and die 17 x 20 mm	<b>50052381</b>

## Punching tool III



### Characteristics

- Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

### Suitable for

- Hole diameters from 6.5 - 21 mm

Technical data	
Weight	4.5 kg
Item	Part No.
Punching tool III	<b>50766919</b>

## Punch & die for punching tool III

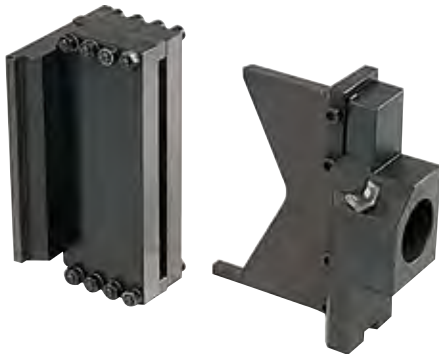


### Characteristics

- Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	<b>50115286</b>
Punch and die 8.5 mm dia.	<b>50115294</b>
Punch and die 11 mm dia.	<b>50115308</b>
Punch and die 13 mm dia.	<b>50115316</b>
Punch and die 15 mm dia.	<b>50115324</b>
Punch and die 17 mm dia.	<b>50115332</b>
Punch and die 21 mm dia.	<b>50115340</b>
Oblong punch and die 6.5 x 13 mm	<b>50115359</b>
Oblong punch and die 8.5 x 16 mm	<b>50115367</b>
Oblong punch and die 11 x 20 mm	<b>50115375</b>
Oblong punch and die 13 x 20 mm	<b>50115383</b>
Oblong punch and die 17 x 20 mm	<b>50115391</b>

## Cutting tool



### Characteristics

- For Al/Cu materials to max. 120 x 12 mm

Technical data	
Weight	5.3 kg
Item	Part No.
Cutting tool	<b>50052144</b>

## Offset tool



### Characteristics

- Workpiece offset 5, 6, 8, 10 and 12 mm by using insertion plates
- For Al/Cu materials to max. 120 x 12 mm

Technical data	
Dimension	175 x 90 x 135 mm
Weight	10.0 kg
Item	Part No.
Offset tool	<b>50052152</b>

## Aluminium accessory box for punching tools, empty



### Suitable for

- Storage of accessories

Technical data	
Dimension	350 x 250 x 200 mm
Weight	4.3 kg
Item	Part No.
Tool chest alu (empty)	<b>50052160</b>

# THE RIGHT DRIVE FOR EVERY ACTIVITY.

Even when it comes to drive units, Klauke leaves nothing to chance. No matter where, when and how: Klauke hydraulic pumps give you the power you need.







# Pumps

<b>Pumps</b>	<b>7.4</b>
Hydraulic pumps	7.5
Accessories for hydraulic tools	7.11





# THE DRIVE - HYDRAULIC PUMPS AND DRIVE UNITS

With Klauke, everything fits together. Klauke hydraulic pumps provide every Klauke crimping, cutting and multi head with the required thrust. All pumps are matched to the various heads. They generate 700 bar pressure so that the tool can provide full power with every operation.



## ► Foot pressure actuation: Hydraulic foot pumps

Keep your hands free: With the steady hydraulic foot pumps, you can operate all crimping and cutting tools by your foot pressure. The 2-stage hydraulic system work especially efficiently.

- Foot pumps with up to 700 bar pressure
- 2-stage hydraulic system for efficient pumping effect
- Automatic pressure switch off
- Best possible convenience and good durability
- Up to 10 m hydraulic hose available

## ► Portable pressure: Battery-powered hydraulic pumps

Pumps wherever you want. Simply take our battery-powered hydraulic pump AHP 700-L along with shoulder strap or rucksack.

- Pumps delivering up to 700 bar pressure
- Compact dimensions for portable use
- Simple operation via hand switch with 1.5 m cable
- Display with reverse function
- Hydraulic hose up to 10 m long available

## ► Pressure with current: Electro-hydraulic pumps

Use the full force of your tools also with EHP 2, 3 or 4 electro-hydraulic drive.

- Power output up to 700 bar
- High capacity with compact dimensions
- Hydraulic hose up to 10 m long available

## FHP 2 Foot pump 700 bar



- ▶ Two-stage hydraulics
- ▶ Manual retraction if required, also at high pressure
- ▶ Sturdy design

### Characteristics

- Automatic pressure switch off

### Suitable for

- The operation of hydraulic crimping and cutting heads

#### Technical data

Operating pressure max. 700 bar

Weight 12 kg

Item	Part No.
Foot pump 700 bar	<b>FHP2</b>
Scope of supply	
Hydraulic hose, 2 m	HS22
Accessories	
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210

## PHD 2 Pneumatic/hydraulic pressure transmitter, 700 bar



- ▶ Manual retraction if required, also at high pressure

### Suitable for

- The operation of hydraulic crimping and cutting heads

#### Technical data

Required air pressure max. 6 bar

Operating pressure max. 700 bar

Weight 6.3 kg

Item	Part No.
Pneumatic/hydraulic pressure transmitter	<b>PHD2</b>
Scope of supply	
Hydraulic hose, 2 m	HS22
Accessories	
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210

## EHP 2 Electro hydraulic drive unit 400 V, 700 bar

► Compact dimensions and low weight combined with high conveying capacity



### Characteristics

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control
- 70 % power-on time

### Suitable for

- The operation of hydraulic crimping and cutting heads

Technical data	
Version	Three-phase motor
Rated output	0.55 kW
Motor voltage	360 V - 440 V / 50 Hz
Capacity	0.82 l / min.
Operating pressure	max. 700 bar
Weight	22.9 kg
Operating mode	70 % power-on time
Item	Part No.
Electro-hydraulic pump, 400 V, 700 bar	<b>EHP2380</b>
Scope of supply	Part No.
Hydraulic hose, 2 m	HS22
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1
Accessories	Part No.
Transport trolley for electro-hydraulic pump EHP 2	TW50
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210
Adapter Klauke sleeve to Greenlee plug	CMGSK

## EHP 3 Electro hydraulic drive unit 400 V, 700 bar



- ▶ Continuous operation
- ▶ High conveying capacities with compact dimensions

### Characteristics

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control

### Suitable for

- The operation of hydraulic crimping and cutting heads

Technical data	
Version	Three-phase motor
Rated output	1.1 kW
Motor voltage	360 V - 440 V / 50 - 60 Hz
Capacity	0.9 l / min.
Operating pressure	max. 700 bar
Weight	40.9 kg
Operating mode	100 % power-on time
Item	Part No.
Electro-hydraulic pump, 400 V, 700 bar	<b>EHP3</b>
Scope of supply	Part No.
Hydraulic hose, 2m	HS22
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1
Accessories	Part No.
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210
Adapter Klauke sleeve to Greenlee plug	CMGSK



## EHP 4 Electro-hydraulic pumps, 700 bar

- ▶ High capacity
- ▶ Manually adjustable piston stroke speed / delivery volume of the pump
- ▶ Closed, compact and lockable housing (IP54 or higher) to protect against humidity, dust and unauthorised manipulation



### Characteristics

- Compatibility with Klauke hydraulic crimping and cutting heads
- For connecting to busbar machining centre
- For use in conjunction with the LSK 120 with adapter CMGSK for punching bus bars
- Compatible with Greenlee punching tools (round and special shape punches) with adapter CMGSK

### Additional information

- The hydraulic pumps can be individually configured as customer-specific system.

#### Technical data

Version	AC
Rated output	0.75 kW
Motor voltage	EHP4115: 115 V/50 Hz, EHP4230: 230 V/50 Hz
Capacity	0.82 l / min.
Operating pressure	max. 700 bar
Weight	28.3 kg
Operating mode	70% power-on time

Item	Part No.
Electro-hydraulic pump, 115 V	<b>EHP4115</b>
Electro-hydraulic pump, 230 V	<b>EHP4230</b>
Scope of supply	Part No.
Hydraulic hose, 3 m	HS23
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1
Accessories	Part No.
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3
Hydraulic hose, 3 m	HS23
Hydraulic hose, 4 m	HS24
Hydraulic hose, 5 m	HS25
Hydraulic hose, 6 m	HS26
Hydraulic hose, 8 m	HS28
Hydraulic hose, 10 m	HS210
Adapter Klauke sleeve to Greenlee plug	CMGSK

## AHP 700-L Battery powered hydraulic pump, 700 bar

- ▶ Compact and lightweight design for mobile use
- ▶ High capacity



### Characteristics

- Select programme from crimping, cutting, and punching
- Housing from impact-resistant, fibreglass reinforced polyamide
- Large display for monitoring, diagnostics and setting the pump
- Two powerful, high-capacity Li-Ion batteries
- Automatic retraction when operation is complete
- Manual retract stop with „teach-in“ (MRS+) for positioning control for multiple crimps
- Remote control with cable for easy operation of the battery-operated pump
- Maintenance display via LED
- All hydraulic hoses have coupling plug and coupling sleeve, oil filled
- High wearing comfort with padded shoulder strap

### Suitable for

- Operates all single-acting Klauke crimping, cutting and punching tools with 700 bar operating pressure
- The connection to busbar machining centre
- The punching of busbars in conjunction with the LSK 120 with adapter CMGSK

### Additional information

- Also available in country-specific variants, Part Number appendix „C“

Technical data		
Battery voltage	18 V	
Battery capacity	2 x 4.0 Ah, Li-Ion	
Charging time	22 min.	
Weight incl. battery	(with two batteries) approx. 6.4 kg	
Ambient temperature	-12 °C to +40 °C	
Operating pressure	max. 700 bar	
Max. oil volume;	approx. 800 ml	
Dimensions	L x W x H: 330 x 160 x 280 mm	
Item	Part No.	
Battery powered hydraulic pump, 700 bar	<b>AHP700L</b>	
Scope of supply	Part No.	Quantity
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	2
Makita quick-charger for 18 V Li-Ion battery	LGL1	1
Hydraulic hose, 2 m, oil filled	HSOEL2	1
Carrying strap with shoulder padding	TG3	1
Carrying bag	TT2	1
Remote control with 1.5 m cable	HTA4	1
Accessories	Part No.	
Hydraulic hose, 3 m, oil filled	HSOEL3	
Hydraulic hose, 4 m, oil filled	HSOEL4	
Hydraulic hose, 5 m, oil filled	HSOEL5	
Hydraulic hose, 6 m, oil filled	HSOEL6	
Hydraulic hose, 10 m, oil filled	HSOEL10	
18 V mains adapter for 230 V Voltage	NG2230	
Two-hand safety control for battery powered hydraulic pump AHP 700-L	ZST4	
Foot switch for battery powered hydraulic pump	FTA4	
Transport rucksack	TRAHP700L	
Variants	Part No.	
AHP 700-L with transport rucksack	TRAHP700LSET	



## 767 Hydraulic hand pump



- ▶ Lightweight, portable hand pump
- ▶ Robust construction

### Characteristics

- All-purpose - works in every position
- Incl. mounting holes for work bench assembly

### Additional information

- In combination with punch cylinder 50170910 for all hole sizes

Technical data	
Dimension	330 x 100 x 100 mm
Operating pressure	max. 460 bar
Weight	2.7 kg
Item	Part No.
Hydraulic hand pump 767	<b>50132849</b>
Accessories	Part No.
Hydraulic hose 6.4 mm dia. x 0.9 m	50383167

## 1725 Hydraulic foot pump



- ▶ Foot operation facilitates two-handed operation of round and special shaped punches

### Characteristics

- Lockable pedal for storage and transport
- All-purpose

### Additional information

- In combination with punch cylinder 50170910 for all hole sizes

Technical data	
Dimension	400 x 200 x 150 mm
Operating pressure	max. 460 bar
Weight	5.0 kg
Item	Part No.
1725 Hydraulic foot pump	<b>50313533</b>
Accessories	Part No.
Hydraulic hose 6.4 mm dia. x 3 m	50377299



## RAL 1 Makita battery 18 V / 1.5 Ah Li-Ion (27 Wh)



### Characteristics

- No memory effect
- Extremely low self-discharge
- Low weight

### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

#### Technical data

Battery voltage	18 V
Battery capacity	1.5 Ah
Charging time	With LGL1: 15 min.
Cell technology	Li-Ion
Weight	0.4 kg

Item	Part No.
Makita battery 18 V / 1.5 Ah, Li-Ion	<b>RAL1</b>

## RAL 2 Makita battery 18 V / 3.0 Ah Li-Ion (54 Wh)



### Characteristics

- No memory effect
- Extremely low self-discharge
- Low weight

### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

#### Technical data

Battery voltage	18 V
Battery capacity	3.0 Ah
Charging time	With LGL1: 22 min.
Cell technology	Li-Ion
Weight	0.6 kg

Item	Part No.
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	<b>RAL2</b>



## RAL 40 Makita battery 18 V / 4.0 Ah Li-Ion (72 Wh)



### Characteristics

- No memory effect
- Extremely low self-discharge
- Light - same weight as the Makita 3.0 Ah battery

### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	4.0 Ah
Charging time	With LGL1: 36 min.
Ambient temperature	-20 °C to +40 °C
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Makita battery 18 V / 4.0 Ah, Li-Ion	<b>RAL40</b>

## RAL 4 Makita battery 18 V / 5.0 Ah, Li-Ion



### Characteristics

- No memory effect
- Extremely low self-discharge
- Light - same weight as the Makita 3.0 Ah battery

### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	5.0 Ah, Li-Ion
Charging time	With LGL1: 45 min.
Ambient temperature	-20 °C to +40 °C
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Makita battery 18 V / 5.0 Ah, Li-Ion (90 Wh)	<b>RAL4</b>

## RAL B1 EU Bosch battery 18 V / 2.0 Ah, Li-Ion



Technical data	
Battery capacity	2.0 Ah
Charging time	With LGLB1EU: 15 min.
Cell technology	Li-Ion
Voltage range	18 V
Weight	0.4 kg
Item	Part No.
Bosch battery 18 V / 2.0 Ah, Li-Ion	<b>RALB1EU</b>

### RAL B2 EU Bosch battery 18 V / 5.0 Ah, Li-Ion



Technical data	
Battery voltage	18 V
Battery capacity	5.0 Ah, Li-Ion
Charging time	With LGLB1EU: 45 min.
Cell technology	Li-Ion
Weight	0.69 kg
Item	Part No.
Bosch battery 18 V / 5.0 Ah, Li-Ion	<b>RALB2EU</b>

### RAML1225 battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)



Technical data	
Battery voltage	10.8 V
Battery capacity	2.5 Ah
Cell technology	Li-Ion
Weight	0.3 kg
Item	Part No.
Battery 10.8 V / 2.5 Ah, Li-Ion (27 Wh)	<b>RAML1225</b>

### NG2 mains adapter 18 V for 120 V or 230 V mains voltage



#### Characteristics

- Temperature protection
- Current limiter
- Overload protection 250 V
- Cable lengths: 5 m

#### Suitable for

- For all Klauke tools with 18 V all-mains sets - Makita version

Technical data	
Mains supply	120 V / 230 V
Voltage range	18 V
Weight	0.8 kg
Item	Part No.
18 V mains adapter for 120 V Voltage	<b>NG2115</b>
18 V mains adapter for 230 V Voltage	<b>NG2230</b>



## LGL 1 Makita quick-charger for 18 V Li-Ion batteries



### Suitable for

- Klauke Li-Ion Makita battery 18 V

Technical data	
Charging time	With RAL1: 15 min., with RAL2: 22 min.
Mains supply	230 V
Voltage range	18 V
Weight	1 kg
Item	Part No.
Makita quick-charger for 18 V Li-Ion battery	<b>LGL1</b>

## LGL K18 EU Klauke charger for 18 V Li-Ion batteries



### Suitable for

- Klauke Li-Ion battery 18 V

Technical data	
Mains supply	220 - 240 V
Voltage range	18 V
Weight	0.982 kg
Item	Part No.
Klauke charger for 18 V Li-Ion batteries	<b>LGLK18EU</b>

## LGL 3 Makita quick-charger for 18V Li-Ion batteries



### Suitable for

- Klauke Li-Ion Makita battery 18 V

Technical data	
Charging time	60 min.
Mains supply	220 - 240 V
Voltage range	18 V
Weight	0.6 kg
Item	Part No.
Charger for 18 V Li-Ion batteries	<b>LGL3</b>

## LGL B1 EU Bosch charger for 18 V Li-Ion batteries



### Characteristics

- Charger for safety cutting unit batteries

### Suitable for

- 18 V / 3.30 Ah Li-Ion batteries

Technical data	
Charging time	With RALB1EU.:15 min, RALB2EU: 45 min.
Mains supply	230 V
Voltage range	18 V
Weight	0.65 kg
Item	Part No.
Bosch quick-charger for 18 V Li-Ion battery	<b>LGLB1EU</b>

## LGML 1 Charger for 10.8 V Li-Ion batteries, 230 V



### Suitable for

- Klauke Li-Ion battery 10.80 V

Technical data	
Cell technology	Li-Ion
Mains supply	220 - 240 V
Voltage range	10.8 V
Weight	0.5 kg
Item	Part No.
Charger for 10.80 V Li-Ion batteries, 230 V	<b>LGML1</b>

## TG 3 Carrying strap with shoulder padding



### Suitable for

- Battery powered hydraulic pump AHP 700-L

Item	Part No.
Carrying strap with shoulder padding	<b>TG3</b>



## Pumps

Accessories for hydraulic tools

### ZST 3 / ZST 4 Two-hand safety controls for pumps



#### Suitable for

- Pumps: EHP 4 and AHP 700-L

Item	Part No.
Two-hand safety controller for pumps EHP 2 to EHP 4	<b>ZST3</b>
Two-hand safety control for battery powered hydraulic pump AHP 700-L	<b>ZST4</b>

### FTA 1 / FTA 4 Foot switches for pumps



#### Suitable for

- Pumps: EHP 4, HK 12/2 EL, AHP 700-L

Item	Part No.
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	<b>FTA1</b>
Foot switch for battery powered hydraulic pump AHP 700-L	<b>FTA4</b>

### T 15 Special hydraulic oil



#### Characteristics

- Environmentally-friendly hydraulic oil, quickly biodegradable
- 5 l canister

#### Suitable for

- Hydraulic pumps

Item	Part No.
Special hydraulic oil	<b>T15</b>

## Hydraulic oil



### Characteristics

- Specially-developed for GREENLEE hydraulic tools

Item	Part No.
Hydraulic oil 3.8 l	<b>90510593</b>
Hydraulic oil 0.95 l	<b>90508068</b>

## HS 2 Hydraulic hoses



### Suitable for

- Hydraulic crimping and cutting systems and pumps
- For connecting to hydraulic pumps FHP 2, PHD 2, EHP 2, EHP 3, EHP 4, HK12/2 EL, HK 25/2 EL, AS 65 FHP, AS 105 FHP, HK 25/2, HK 45

Item	Part No.
Hydraulic hose, 2 m	<b>HS22</b>
Hydraulic hose, 3 m	<b>HS23</b>
Hydraulic hose, 4 m	<b>HS24</b>
Hydraulic hose, 5 m	<b>HS25</b>
Hydraulic hose, 6 m	<b>HS26</b>
Hydraulic hose, 8 m	<b>HS28</b>
Hydraulic hose, 10 m	<b>HS210</b>

## HS OEL hydraulic hose, oil filled



### Characteristics

- For connecting to battery-powered hydraulic pump AHP 700-L

### Additional information

- Also available in country-specific variants, Part Number appendix „C“

Item	Part No.
Hydraulic hose, 2 m, oil filled	<b>HSOEL2</b>
Hydraulic hose, 3 m, oil filled	<b>HSOEL3</b>
Hydraulic hose, 4 m, oil filled	<b>HSOEL4</b>
Hydraulic hose, 5 m, oil filled	<b>HSOEL5</b>
Hydraulic hose, 6 m, oil filled	<b>HSOEL6</b>
Hydraulic hose, 10 m, oil filled	<b>HSOEL10</b>



## Pumps

Accessories for hydraulic tools

### Hydraulic hose 6.4 mm dia. x 3 m



#### Characteristics

- Filled with hydraulic oil

#### Suitable for

- Hydraulic foot pump 1725

Item	Part No.
Hydraulic hose 6.4 mm dia. x 3 m	<b>50377299</b>
Scope of supply	Part No.
Hydraulic hose, 3 m	90525159
Coupler plug	90541693
Dust cap	90541707

### Hydraulic hose 6.4 mm dia. x 0.9 m



#### Characteristics

- Without hydraulic oil

#### Suitable for

- Hydraulic hand pump 767

Item	Part No.
Hydraulic hose 6.4 mm dia. x 0.9 m	<b>50383167</b>
Scope of supply	Part No.
Hydraulic hose, 0.9 m	50063022
Coupler plug	90541693
Dust cap	90541707

### KST 2 Coupler



#### Characteristics

- Including adapter

#### Suitable for

- Hydraulic crimping and cutting systems and pumps

Item	Part No.
Coupler plug	<b>KST2</b>



## KMF 1 Coupler for crimping and cutting heads



### Characteristics

- KMF 1: For connecting to hydraulic crimping/cutting heads: PK 22, PK 120/42, PK 120 U, PK 25/2, PK 60 VP, PK 60 VP/FT, PK 60 UNV, THK 22, THK 120, SDG 45, SDG 50, SDG 55, SDG 85/2, SDG 105, SDK 65, SDK 85, SDK 105, SDK 120
- Includes barrel nipple
- With 1/4" connection (external thread)

Item	Part No.
Coupler for crimping and cutting heads with barrel nipple	<b>KMF1</b>

## DNP 2 Barrel nipple



### Suitable for

- To connect and to extend hydraulic hoses HS 2

Item	Part No.
Barrel nipple	<b>DNP2</b>

## HTA 4 remote control for hydraulic pump



### Suitable for

- Battery powered hydraulic pump AHP 700-L

Item	Part No.
Remote control with 1.5 m cable	<b>HTA4</b>

# EFFORTLESS OPERATIONS.

Safety, ergonomics and reliability – these quality features are a given in day-to-day work. Klauke hand tools are designed for this very purpose.





# Hand tools

<b>VDE tools</b>	<b>8.4</b>
Pliers	8.6
Screwdrivers	8.10
Assortments and sets	8.13

---

<b>Standard tools and accessory</b>	<b>8.17</b>
Water pump pliers, fitting pliers	8.18
Electronic / precision mechanic's tools	8.19
Bits, holders and adapters	8.20
Assortments and sets	8.22
Measuring and marking	8.25
Basic tools	8.27
Tool cases	8.30

---

<b>Wire stripping tools</b>	<b>8.34</b>
Wire stripping tools	8.35
Stripping tools	8.38

---

<b>Stripping tools for communication technology</b>	<b>8.39</b>
---	-------------





# SAFETY-TESTED RANGE – VDE TOOLS

For the safety of our customers, we also have our tools tested by independent bodies. The "VDE Tool" marking indicates that this special Klauke range conforms to the current directives of the safety testing procedure to EN/IEC 60900. All tools with the VDE name are approved to 1000 V alternating current and 1500V direct current. Special tool steel creates additional robustness.



## In brief

- ▶ Conforms to current directive EN/IEC 60900
- ▶ Manufactured using special tools steel
- ▶ Effortless operations due to optimal ergonomic design

## ► When you need to go deeper: SLIM range

SLIM range screwdrivers have a tapered blade at the front. Deeper screws, such as those in circuit breakers, can be reached with ease. No slipping and rolling due to special handle shape. With its narrow tip, the SLIM range is best suited for loosening cables in spring terminals.

- For use in confined areas due to tapered blade
- Safe operations due to rolling protection



## ► More than just a force: Power combi-pliers

The power combi-pliers are really multi-talented: Cutting, gripping, counter holding, inserting conductors. Hence the name combi-pliers. Four tools in one: You need fewer tools and the power assist function also helps you when working.

- Cuts cables, conductors and wires
- Grips flat and round material such as safety splints
- Simplifies the insertion of cables into the clamp or circuit breaker
- Can also be used to tighten nuts

## ► Everything under control: VDE cable cutters

The VDE cable cutters are hard-wearing. They withstand cold impact tests to -25 °C, tests of the adhesion of the insulating material to 500 N and individual voltage tests in a water bath with 10,000 V AC. The reward: Certification to EN/IEC 60900. Completely safe.

- Extra hand protection against flying sparks
- Safe operations due to slip-proof overlay
- Safe even under extreme conditions
- For fine and superfine stranded copper and aluminium cables



## VDE Cable cutter



### Characteristics

- Adjustable joint
- Cuts fine and superfine stranded copper and aluminium cable

Part No.	KL010160IS	KL010210IS
Item	VDE Cable cutter 160 mm	VDE Cable cutter 210 mm
Dimension mm	160	210
Weight g	225	340
Cutting power up to dia.	16	25

## VDE Power combination pliers



### Characteristics

- With combination spanner from 11 - 17 mm (M8 - M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL020165IS	KL020180IS	KL020205IS
Item	VDE Power combination pliers, 165 mm	VDE Power combination pliers, 180 mm	VDE Power combination pliers, 205 mm
Dimension mm	165	180	205
Weight g	200	255	280
Cutting power soft wire dia. mm	4.0	5.2	5.9
Cutting power medium wire dia. mm	3.1	3.4	3.8
Cutting power hard wire dia. mm	2.0	2.2	2.5

## VDE Power combination pliers, angled



### Characteristics

- Comfortable working due to ergonomically optimised, 45° angled head
- With combination spanner from 11 - 17 mm (M8 - M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL026205IS
Item	VDE Power combination pliers, offset, 205 mm
Dimension mm	205
Weight g	285
Cutting power soft wire dia. mm	5.9
Cutting power medium wire dia. mm	3.8
Cutting power hard wire dia. mm	2.5

## VDE Side cutter



### Characteristics

- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL040145IS	KL040160IS	KL040180IS
Item	VDE Side cutter 145 mm	VDE Side cutter 160 mm	VDE Side cutter 180 mm
Dimension mm	145	160	180
Weight g	180	210	265
Cutting power soft wire dia. mm	5.0	6.0	7.0
Cutting power medium wire dia. mm	2.5	3.5	4.0
Cutting power hard wire dia. mm	1.7	2.0	2.5
Cutting power up to dia.	8.0	11.0	13.0

## VDE Electricians side cutter

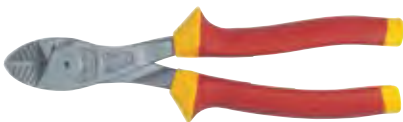


### Characteristics

- High cutting performance for superfine wires due to hardened precision cutters
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL042190IS
Item	VDE Electricians side cutter, 190 mm
Dimension mm	190
Weight g	285
Cutting power soft wire dia. mm	2.0
Cutting power medium wire dia. mm	1.0
Cutting power up to dia.	4.0

## VDE Power side cutter



### Characteristics

- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Optimum handling due to ergonomically-shaped handle
- High cutting performance on hard wires and piano wires

Part No.	KL045180IS	KL044200IS	KL045240IS
Item	VDE Power side cutter, 180 mm	VDE Electric power side cutter, 200 mm	VDE Power side cutter, 240 mm
Dimension mm	180	200	240
Weight g	285	280	420
Cutting power soft wire dia. mm	3.7	4.0	4.5
Cutting power medium wire dia. mm	2.6	2.8	3.5
Cutting power hard wire dia. mm	2.2		3.0
Cutting power piano wire dia. mm		2.5	

## VDE Lever power side cutter



### Characteristics

- 40% force saving
- High cutting performance for superfine wires due to hardened precision cutters
- Special tool steel drop-forged, oil-hardened
- Cuts medium-hard wires, e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire as well as piano wire

Part No.	<b>KL046200IS</b>
Item	VDE Lever power side cutter, 200 mm
Dimension mm	200
Cutting power medium wire dia. mm	4.5
Cutting power hard wire dia. mm	3.5
Cutting power piano wire dia. mm	3.0

## VDE Telephone pliers, straight



### Characteristics

- Long, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 - 17 mm (M8 - M10)
- With wire cutter for soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL050205IS</b>
Item	VDE long-nose pliers, straight, 205 mm
Dimension mm	205
Weight g	215
Cutting power soft wire dia. mm	3.9
Cutting power medium wire dia. mm	3.2
Cutting power hard wire dia. mm	2.2

## VDE Telephone pliers, curved



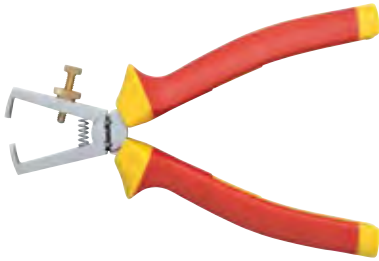
### Characteristics

- Long, 45° offset, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 - 17 mm (M8 - M10)
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL055205IS</b>
Item	VDE long-nose pliers, bent, 205 mm
Dimension mm	205
Weight g	215
Cutting power soft wire dia. mm	3.9
Cutting power medium wire dia. mm	3.2
Cutting power hard wire dia. mm	2.2



## VDE Wire stripper



### Characteristics

- With opening spring and V-shaped cutting edges
- With setting screw for setting the cable diameter

Part No.	<b>KL060160IS</b>
Item	VDE Wire stripper, 160 mm
Dimension mm	160
Weight g	185

## VDE Water pump pliers, jaw width 50 mm



### Characteristics

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area

Part No.	<b>KL070250IS</b>
Item	VDE Water pump pliers, jaw width 50 mm
Dimension mm	250
Weight g	410

## Automatic VDE wire stripper 0.2 - 6 mm<sup>2</sup>



### Characteristics

- For safe working on live conductors up to 1000 V
- Adjustable length stop from 5 - 12 mm
- Locking function to protect the blades

### Suitable for

- Flexible and solid conductors from 0.2 - 6 mm<sup>2</sup>

Part No.	<b>KL760180IS</b>
Item	Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>
Dimension mm	215
Weight g	130



### VDE Slotted screwdriver



#### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL1007525IS</b>	75	67	18	22	1
<b>KL10010030IS</b>	100	67	18	28	1
<b>KL10010035IS</b>	100	67	18	30	1
<b>KL10010040IS</b>	100	79	23	44	1
<b>KL10012555IS</b>	125	89	27	70	1
<b>KL10015065IS</b>	150	89	27	86	1
<b>KL10017580IS</b>	175	98	32	135	1

### VDE Slotted screwdriver, Slim Line



#### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL10010035ISLIM</b>	100	67	18	35,9	1
<b>KL10010040ISLIM</b>	100	79	23	44	1
<b>KL10012555ISLIM</b>	125	89	27	70	1
<b>KL10012565ISLIM</b>	125	89	27	86	1

### VDE Phillips screwdriver



#### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL110PH1IS</b>	80	89	27	52	1
<b>KL110PH2IS</b>	100	98	32	80	1
<b>KL110PH3IS</b>	150	98	32	145	1

### VDE Phillips screwdriver, Slim Line



#### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL110PH1ISLIM</b>	80	89	27	52	1
<b>KL110PH2ISLIM</b>	100	98	32	80	1

## VDE Pozidriv screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL120PZ1IS</b>	80	89	27	49	1
<b>KL120PZ2IS</b>	100	98	32	76	1
<b>KL120PZ3IS</b>	150	98	32	140	1

## VDE Pozidriv screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL120PZ1ISLIM</b>	80	89	27	49	1
<b>KL120PZ2ISLIM</b>	100	98	32	76	1

## VDE Plus/Minus-Pozidriv screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL130PM1IS</b>	80	89	27	52	1
<b>KL130PM2IS</b>	100	98	32	80	1

## VDE Plus/Minus-Pozidriv screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL130PM1ISLIM</b>	80	89	27	52	1
<b>KL130PM2ISLIM</b>	100	98	32	80	1

## VDE TORX® screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL150TX10IS</b>	100	79	23	45	1
<b>KL150TX15IS</b>	100	89	27	45	1
<b>KL150TX20IS</b>	125	98	32	69	1
<b>KL150TX25IS</b>	125	98	32	69	1
<b>KL150TX30IS</b>	150	98	32	96	1

## VDE TORX® screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL150TX15ISLIM</b>	100	89	27	45	1
<b>KL150TX20ISLIM</b>	125	98	32	69	1
<b>KL150TX25ISLIM</b>	125	98	32	69	1

## VDE-M-TEC Screwdriver for hexagonal nuts



### Characteristics

- With box spanner tube - immersion depth approx. 41 mm - optimal for deep-seated screws and nuts
- With spring-loaded magnetic body

Item	Dimension mm	For thread	Weight g	Part No.
VDE Screwdriver M-TEC size 5.5	110 x 5.5	M3	100	<b>KL14555IS</b>
VDE Screwdriver M-TEC size 6	110 x 6.0	M3.5	100	<b>KL14560IS</b>
VDE Screwdriver M-TEC size 7	110 x 7.0	M4	100	<b>KL14570IS</b>
VDE Screwdriver M-TEC size 8	110 x 8.0	M5	110	<b>KL14580IS</b>
VDE Screwdriver M-TEC size 10	125 x 10.0	M6	110	<b>KL145100IS</b>
VDE Screwdriver M-TEC size 13	110 x 13.0	M8	110	<b>KL145130IS</b>

## Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V



### Characteristics

- Single-pole
- With heavy duty handle

Item	Dimension mm	Weight g	Part No.
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	73 x 3.0 x 0.8	30	<b>KL19073IS</b>

## VDE Pliers set, 3-pce.



Item	Part No.
VDE Plier set, 3-pieces	<b>KL303IS</b>
Scope of supply	Part No.
VDE Power combination pliers, 180 mm	KL020180IS
VDE Side cutter 160 mm	KL040160IS
VDE long-nose pliers, straight, 205 mm	KL050205IS

## VDE Pliers set, 4-pce.



Item	Part No.
VDE Plier set, 4-pieces	<b>KL304IS</b>
Scope of supply	Part No.
VDE Power combination pliers, 180 mm	KL020180IS
VDE Electric power side cutter, 200 mm	KL044200IS
VDE long-nose pliers, straight, 205 mm	KL050205IS
VDE Wire stripper, 160 mm	KL060160IS

## VDE Pliers/screwdriver set, 6-pce.



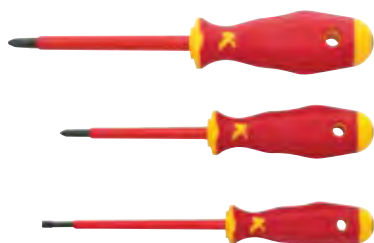
Item	Part No.
Pliers/screwdriver set, 6-pce.	<b>KL306IS</b>
Scope of supply	Part No.
VDE long-nose pliers, straight, 205 mm	KL050205IS
VDE Side cutter 160 mm	KL040160IS
VDE Phillips screwdriver, PH1	KL110PH1IS
VDE Phillips screwdriver, PH2	KL110PH2IS
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS

## VDE Screwdriver set, 3-pce.



Item	Part No.
VDE Screwdriver set, 3-pieces	<b>KL391IS</b>
Scope of supply	Part No.
VDE Phillips screwdriver, PH1	KL110PH1IS
VDE Phillips screwdriver, PH2	KL110PH2IS
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS

### VDE Screwdriver set, 3-pce.



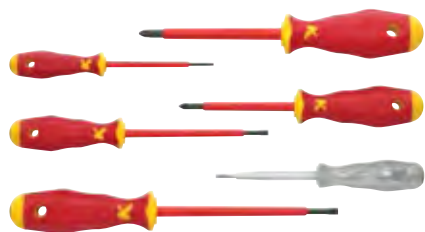
Item	Part No.
VDE Screwdriver set, 3-pieces	<b>KL392IS</b>
Scope of supply	Part No.
VDE Pozidriv screwdriver, PZ1	KL120PZ1IS
VDE Pozidriv screwdriver, PZ2	KL120PZ2IS
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS

### VDE Screwdriver set, 3-pce.



Item	Part No.
VDE Screwdriver set, 3-pieces	<b>KL393IS</b>
Scope of supply	Part No.
VDE Plus/Minus-Pozidriv screwdriver, Z1	KL130PM1IS
VDE Plus/Minus-Pozidriv screwdriver, Z2	KL130PM2IS
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS

### VDE Screwdriver set, 6-pce.



Item	Part No.
VDE Screwdriver set, 6-pce.	<b>KL390IS</b>
Scope of supply	Part No.
VDE Phillips screwdriver, PH1	KL110PH1IS
VDE Phillips screwdriver, PH2	KL110PH2IS
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS

### VDE Screwdriver set Slim Line, 5-pce.



#### Characteristics

- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item	Part No.
VDE Screwdriver set Slim Line, 5-pce.	<b>KL390ISLIM</b>
Scope of supply	Part No.
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLIM
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLIM
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIM
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIM
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS

## VDE Screwdriver set Slim Line, 6-pce., case



### Characteristics

- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item	Part No.
VDE Screwdriver set Slim Line, 6-pce., case	<b>KL391ISLIM</b>
Scope of supply	Part No.
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLIM
VDE Slotted screwdriver 4.0 x 0.8 x 100 Slim Line	KL10010040ISLIM
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLIM
VDE Phillips screwdriver PH2 Slim Line	KL110PH2ISLIM
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIM
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIM

## Tool bag, equipped with 9 VDE replaceable blades



### Characteristics

- Blades from special chrome/molybdenum/vanadium alloy
- Standard 1/4" mounting for use with torque handles
- Blade length: 170 mm

Item	Part No.
Tool bag, equipped with 9 VDE replaceable blades	<b>KL390TB9</b>
Scope of supply	
VDE Slotted blade, 3.5 x 0.6 mm in blister pack	
VDE Slotted blade, 4.0 x 0.8 mm in blister pack	
VDE Slotted blade, 5.5 x 1.0 mm in blister pack	
VDE Philips blade, PH1 in blister pack	
VDE Philips blade, PH2 in blister pack	
VDE Pozidriv blade, PZ1 in blister pack	
VDE Pozidriv blade, PZ2 in blister pack	
VDE Plus/Minus Pozidriv blade, PM1 in blister pack	
VDE Plus/Minus Pozidriv blade, PM2 in blister pack	
Accessory	Part No.
Tool bag, empty	<b>KL390TL</b>







# STANDARD – KLAUKE BASIC TOOLS, SETS AND ACCESSORIES

With Klauke sets, you always have your basic equipment to hand. Whether you are an electronics technician or precision engineer - the Klauke range includes all standard versions through to pliers for water pumps and fittings. Rely on Klauke quality from the outset - even just for quick, occasional use.



## ► Socket wrench set KL 361

We have compiled the standard set of socket wrenches for you and made everything shockproof by storing in a high-quality plastic case. In total, the set comprises 29 pieces in 1/4" sizes.

- 29 piece: 16-piece bit set, bit holder, adapter, 7-piece socket set, professional ratchet, various extensions, T-Smart grip

## ► The apprentice's case: KL 855 B22

The impact-resistant case made from ABS material contains everything an apprentice electrician needs, from standard tools such as cable knives and phase testers through to VDE safety tools.

Head into your apprenticeship well-prepared!

## ► The technician's basic equipment: KL 905 B15

The practical notebook bag holds everything you need on-site. The 15-piece set is securely stowed in the fold-out compartments.

- Technician's notebook bag made from highly durable nylon
- Tools are quickly located thanks to fold-out front pocket

- Reliably transported due to splash-proof base
- Twin fixed carrying handle
- Basic set of VDE screwdrivers
- Standard tools such as phase tester and cable knife



## Water pump pliers, jaw width 50 mm



### Characteristics

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area
- Plastic coated handles
- 2-component handle

Part No.	<b>KL070250G</b>
Item	Water pump pliers, jaw width 50 mm
Dimension mm	250
Weight g	355

## Water pump pliers



### Characteristics

- Jaw width up to 65 mm
- Safe working due to clamp protection and safety joint
- Push button adjustment for setting quickly and accurately
- Inverted box joint with wide guide surfaces
- Optimum hold due to toothed grip area
- High retaining force and load-bearing capacity due to inductively-hardened teeth
- Plastic coated handles
- 2-component handle

Part No.	<b>KL072180G</b>	<b>KL072250G</b>	<b>KL072300G</b>
Item	Water pump pliers, jaw width 35 mm	Water pump pliers, jaw width 50 mm	Water pump pliers, jaw width 65 mm
Dimension mm	180	250	300
Weight g	190	300	530

## Screwdriver with interchangeable bits



### Characteristics

- Compact, versatile, ergonomic

Item	Dimension mm	Weight g	Part No.
Screwdriver with interchangeable bits, 8-pce.	128	64	<b>KL180B8</b>

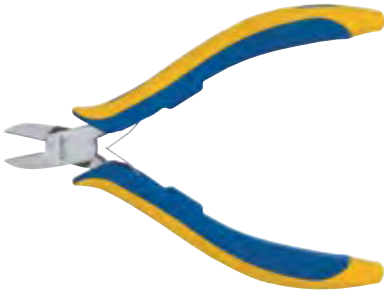
### Scope of supply

Slotted screwdriver bit, 1.0 x 5.5 mm
Philips screwdriver bit, PH 1 & PH 2
Pozidriv screwdriver bit, PZ 1 & PZ 2
TORX® screwdriver bit, Torx 15, 20, 25

### Magnetic bit holder

Variants	Part No.
Interchangeable bit screwdriver, 8-piece for 12 units in the sales display	<b>KL180B8DISPLAY</b>

## ESD Electronic side cutter



### Characteristics

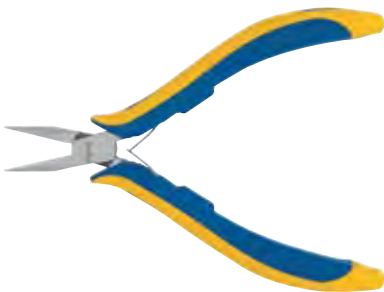
- Precision pliers for high precision work
- Double leaf spring with low friction
- High cutting force thanks to additional induction hardening
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 MΩm

### Suitable for

- For soft wires to 1.2 mm

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, with facet	115	62	<b>KL040115EL</b>
Electronic side cutter, without facet/surface flush cut	115	60	<b>KL040115ELW</b>

## ESD Electronic long-nose pliers



### Characteristics

- Smooth inside jaws, edges rounded
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 MΩm
- Optimised for gripping fine strands of wires

Item	Dimension mm	Weight g	Part No.
Electronic long-nose pliers	115	64	<b>KL050115EL</b>

## Electronic side cutter



### Characteristics

- Cutter angled at 21°
- Backlash-free operation
- With opening spring
- 2-component handle

### Suitable for

- For soft wires to 1.3 mm dia.

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, without wire trapping spring	128	64	<b>KL040128EL</b>
Electronic side cutter, with wire trapping spring	128	66	<b>KL040128ELH</b>



## Slotted screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Slotted screwdriver bit 1/4", 73 mm	73 x 0.6 x 3.5	16	2	<b>KL2007335</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 0.8 x 4.0	18	2	<b>KL2007340</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 1.0 x 5.5	26	2	<b>KL2007355</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 1.2 x 6.5	34	2	<b>KL2007365</b>

## Phillips screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Phillips screwdriver bit 1/4", 73 mm PH1	73 x PH 1	22	2	<b>KL21073PH1</b>
Phillips screwdriver bit 1/4", 73 mm PH2	73 x PH 2	30	2	<b>KL21073PH2</b>

## Pozidriv screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Pozidriv screwdriver bit 1/4", 73 mm PZ1	73 x PZ 1	22	2	<b>KL22073PZ1</b>
Pozidriv screwdriver bit 1/4", 73 mm PZ2	73 x PZ 2	30	2	<b>KL22073PZ2</b>

## Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm	73 x Z 1	20	2	<b>KL23073PM1</b>
Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm	73 x Z 2	30	2	<b>KL23073PM2</b>

## TORX® screwdriver bit, 1/4", 73 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
TORX® screwdriver bit, 1/4", 73 mm TX10	73 x TX 10	22	2	<b>KL25073TX10</b>
TORX® screwdriver bit, 1/4", 73 mm TX15	73 x TX 15	22	2	<b>KL25073TX15</b>
TORX® screwdriver bit, 1/4", 73 mm TX20	73 x TX 20	25	2	<b>KL25073TX20</b>
TORX® screwdriver bit, 1/4", 73 mm TX25	73 x TX 25	25	2	<b>KL25073TX25</b>
TORX® screwdriver bit, 1/4", 73 mm TX27	73 x TX 27	25	2	<b>KL25073TX27</b>
TORX® Screwdriver bit, 1/4", 73 mm TX30	73 x TX 30	30	2	<b>KL25073TX30</b>
TORX® Screwdriver bit, 1/4", 73 mm TX40	73 x TX 40	40	2	<b>KL25073TX40</b>

## Magnetic holder for screwdriver bits, 1/4", 58 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126
- Strong magnet



Item	Dimension mm	Weight g	Part No.
Magnetic holder for screwdriver bits, 1/4", 58 mm	58	32	<b>KL290</b>

## Bit holder with quick-change chuck E6.3 1/4"

### Characteristics

- Shank 1/4" (6.3), DIN 3126
- With quick-change chuck



Item	Dimension mm	Weight g	Part No.
Bit holder with quick-change chuck E6.3 1/4"	52	30	<b>KL291</b>

## Adapter, 1/4", 50 mm



► Shank E 6.3 and 1/4" socket wrench

### Characteristics

- Shank 1/4" (6.3)

### Suitable for

- Drive for 1/4" socket wrenches

Item	Dimension mm	Weight g	Part No.
Adapter, 1/4", 50 mm	50	15	<b>KL295</b>

## Adapter, 3/8", 50 mm



### Characteristics

- Shank 3/8" (10), DIN 3126

Item	Dimension mm	Weight g	Part No.
Adapter, 3/8", 50 mm	50	22	<b>KL296</b>

## Socket head bit set 1/4", 29-pce.



Item	Weight g	Number parts	Part No.
Socket head bit set 1/4", 29-pce.	1130	29	<b>KL361</b>

### Scope of supply

16-pce. Bit set C6.3 1/4"

Bit holder with quick-change chuck E6.3 1/4"

7-pce. Socket set AF5 - AF13 1/4"

Adapter C6.3 (25 mm) 1/4"

Extension E6.3 (150 mm) 1/4"

Extension (75 mm) 1/4"

Professional ratchet 1/4"

T-Smart handle 105 x 39 mm 1/4"

## Allen key set, 7-pce.



### Characteristics

- In practical holder

Item	Dimension mm	Weight g	Number parts	Part No.
Allen key set, 7-pce.	SW 2 - 8	171	7	<b>KL370</b>

## Ball-point allen key set, 9-pce.



### Characteristics

- In practical plastic holder

Item	Dimension mm	Weight g	Number parts	Part No.
Ball-point allen key set, 9-pce.	SW 1.5 - 10	273	9	<b>KL375</b>

## Torque-wrench set, 0.6 - 1.5 Nm



### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 0.6 - 1.5 Nm	1048	14	<b>KL38715</b>

### Scope of supply

Nm-slotted blade 3.0 x 0.5 x 170 mm

Nm-slotted blade 3.5 x 0.6 x 170 mm

Nm-Phillips blade PH 0 x 170 mm

Nm blade PZ 0 x 170 mm

Nm-TORX® blade TX 6 x 170 mm

Nm-TORX® blade TX 7 x 170 mm

Nm-TORX® blade TX 8 x 170 mm

Nm-TORX® blade TX IP 7 x 170 mm

Nm-TORX® blade TX IP 8 x 170 mm

Nm-TORX® blade TX IP 9 x 170 mm

Nm blade Z1 x 170 mm

Nm blade magnetic 170 mm

Nm handle 0.6 - 1.5 Nm

Adjusting spanner

## Torque-wrench set, 1.5 - 3.0 Nm



### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 1.5 - 3.0 Nm, 14 pieces	1066	14	<b>KL38830</b>
<b>Scope of supply</b>			
Nm-slotted blade 4.0 x 0.8 x 170 mm			
Nm-Phillips blade PH 1 x 170 mm			
Nm-Phillips blade PH 2 x 170 mm			
Nm blade PZ 1 x 170 mm			
Nm blade PZ 2 x 170 mm			
Nm-TORX® blade TX 10 x 170 mm			
Nm-TORX® blade TX 15 x 170 mm			
Nm-TORX® blade TX IP 10 x 170 mm			
Nm-TORX® blade TX IP 15 x 170 mm			
Nm blade Z1 x 170 mm			
Nm blade Z2 x 170 mm			
Nm blade magnetic 170 mm			
Nm handle 1.5 - 3.0 Nm			
Adjusting spanner			

## Torque-wrench set, 3.0 - 5.4 Nm



### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 3.0 - 5.4 Nm	1066	14	<b>KL38954</b>
<b>Scope of supply</b>			
Nm-slotted blade 4.0 x 0.8 x 170 mm			
Nm-Phillips blade PH 2 x 170 mm			
Nm-Phillips blade PH 1 x 170 mm			
Nm blade PZ 1 x 170 mm			
Nm blade PZ 2 x 170 mm			
Nm-TORX® blade TX 15 x 170 mm			
Nm-TORX® blade TX IP 10 x 170 mm			
Nm-TORX® blade TX IP 15 x 170 mm			
Nm blade Z2 x 170 mm			
Nm blade magnetic 170 mm			
Nm handle 3.0 - 5.4 Nm			
Adjusting spanner			



## Bit set, 6-piece, 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126
- KL330: 3.0 x 0.5 mm / 3.5 x 0.6 mm / 4.0 x 0.8 mm / 5.5 x 1.0 mm / PH 1 / PH 2
- KL331: PH 1 / PH 2 / PH 3 / PZ1 / PZ2 / PZ3
- KL335: TX10 / TX15 / TX20 / TX25 / TX30 / TX40

Item	Blade length mm	Weight g	Number parts	Part No.
Bit assortment, 1/4", 73 mm	73	120	6	<b>KL330</b>
Bit assortment, 1/4", 73 mm	73	120	6	<b>KL331</b>
TORX® bit assortment, 1/4", 73 mm	73	120	6	<b>KL335</b>

## Bit box Swift, 7-piece, 1/4", 25 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126
- In practical holder
- Incl. magnetic holder
- KL340: 1.0 x 5.5 mm / 1.2 x 6.5 mm / PZ 1 / PZ 2 / PH 1 / PH 2

Item	Blade length mm	Weight g	Number parts	Part No.
Bit box Swift, 1/4", 25 mm	25	75	7	<b>KL340</b>

## Combination spanner set, 12-pce.



### Characteristics

- Material: Chrome vanadium
- Surface: chromed

Item	Dimension mm	Weight g	Part No.
Combination spanner set, 12-pce.	SW 8 - 22	1055	<b>KL365</b>

## Control cabinet spirit level, 200 mm



### Characteristics

- With horizontal, vertical and 45° spirit level

Item	Dimension mm	Weight g	Part No.
Control cabinet spirit level, 200 mm	200x42x17	65	<b>KL420200</b>



## Alu spirit level



### Characteristics

- With horizontal and vertical spirit level

Item	Dimension mm	Weight g	Part No.
Alu spirit level, 400 mm	400 x 40 x 15	210	<b>KL425400</b>
Alu spirit level, 600 mm	600 x 40 x 15	305	<b>KL425600</b>

## Wooden folding rule, 2 m



### Characteristics

- White/yellow
- No. of links 10

Item	Weight g	Part No.
Wooden folding rule, 2 m	126	<b>KL402</b>

## Measuring tape, 3 m



### Characteristics

- With 3 functions: Length, inside dimension and circles

Item	Weight g	Part No.
Measuring tape, 3 m	124	<b>KL403</b>

## Carpenter's pencil



### Characteristics

- Oval shape
- Pointed

Item	Weight g	Part No.
Carpenter's pencil	10	<b>KL449</b>

## Marking pen



### Characteristics

- Multimark permanent marker, black
- Fine tip 0.6 mm

Item	Weight g	Part No.
Marking pen	10	<b>KL440F</b>

## Control cabinet key



### Characteristics

- With chain, adapter and interchangeable bit 1/4"
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 - 5 mm
- Bit PH2 and slot 1.2 x 0.7 mm
- Radiator valve key closing (5 mm square) in the centre slot

Item	Weight g	Part No.
Control cabinet key	75	<b>KL500</b>

## Universal cabinet key, subkey Electro



### Characteristics

- 30% lighter and simpler opening mechanism
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 - 5 mm
- Including 1/4" bit mounting and 2 double bits
- Radiator valve key closing (5 mm square) on the pin head
- Bit slot 1.2 x 7 mm, PH2

Item	Dimension mm	Weight g	Part No.
Universal cabinet key, subkey Electro	145	120	<b>KL510</b>

## Engineer's hammer



### Characteristics

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Engineer's hammer, 300 g	370	300	<b>KL580300</b>
Engineer's hammer, 500 g	610	500	<b>KL580500</b>

## Sledge hammer



### Characteristics

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Club hammer, 1000 g	1150	1000	<b>KL5821000</b>
Club hammer, 1250 g	1400	1250	<b>KL5821250</b>



## Jointing chisel



### Characteristics

- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Jointing chisel	230 x 26 x 7	250	<b>KL584230</b>

## Electricians chisel



### Characteristics

- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Electrician's chisel, 200 mm	200	90	<b>KL585200</b>
Electrician's chisel, 250 mm	250	120	<b>KL585250</b>

## Safety handle for jointing chisel



### Suitable for

- Jointing chisel, part no. KL584230

Item	Weight g	Part No.
Safety handle for jointing chisel	110	<b>KL586</b>

## Cable knife



### Characteristics

- Hinged, with plastic handle

Item	Dimension mm	Weight g	Part No.
Cable knife	80	115	<b>KL540</b>

## Mini saw



### Characteristics

- With fixed wooden handle

Item	Dimension mm	Weight g	Part No.
Mini saw	290	95	<b>KL559</b>
Metal saw blades, 12-piece	150	2	<b>KL550ES</b>

## Universal saw



### Characteristics

- With fibreglass reinforced plastic handle

Item	Dimension mm	Weight g	Part No.
Universal saw	250	170	<b>KL550</b>
Metal saw blades, 12-piece	150	2	<b>KL550ES</b>

## Combination scissors



### Characteristics

- Serrated cutting edges
- With safety lock
- Cuts e.g. round and flat material from copper, aluminium, plastic, paper, cardboard, leather

Item	Dimension mm	Weight g	Part No.
Combination scissors	190	100	<b>KL545</b>

## Universal knife



### Characteristics

- With adjustable and replaceable blades

Item	Dimension mm	Weight g	Part No.
Universal knife		305	<b>KL542</b>
Replacement blade for universal knife	60 x 19 x 0.5	8	<b>KL542ES</b>

## Cutter knife



### Characteristics

- Knife with knock-off blades, all 9 mm

Item	Dimension mm	Weight g	Part No.
Cutter knife	9	45	<b>KL544</b>
Replacement blade for cutter knife	9	5	<b>KL544ES</b>

## Apprentice case



► Tool case can be personalised with own brand logo - <http://www.klauke.com/personalization>

### Characteristics

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm	Weight kg	Part No.
Apprentice case	500 x 470 x 210	6.0	<b>KL855B22</b>
Scope of supply			Part No.
VDE Power combination pliers, 180 mm			KL020180IS
VDE Side cutter 160 mm			KL040160IS
VDE long-nose pliers, straight, 205 mm			KL050205IS
VDE Slotted screwdriver, 3.0 x 0.5 mm			KL10010030IS
VDE Slotted screwdriver, 4.0 x 0.8 mm			KL10010040IS
VDE Slotted screwdriver, 5.5 x 1.0 mm			KL10012555IS
VDE Pozidriv screwdriver, PZ1			KL120PZ1IS
VDE Pozidriv screwdriver, PZ2			KL120PZ2IS
VDE Plus/Minus-Pozidriv screwdriver, Z1			KL130PM1IS
VDE Plus/Minus-Pozidriv screwdriver, Z2			KL130PM2IS
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V			KL19073IS
Wooden folding rule, 2 m			KL402
Control cabinet spirit level, 200 mm			KL420200
Carpenter's pencil			KL449
Universal saw			KL550
Engineer's hammer, 300 g			KL580300
Cable knife with hooked blade			KL745HK
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>			KL760180IS
Water brush			
Plasterer's bowl 125 mm			
Painter's spatula 40 mm			

## Engineers professional case, 15-piece



► Engineers basic equipment, mainly with VDE tools

### Characteristics

- Technicians Notebook tool bag
- Material: hard-wearing nylon
- 90° folding-out front pocket
- High-quality zipper
- Spray-water protected bottom
- Each side pocket has a zipper
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Twin fixed carrying handle
- Insert for visitor cards

Item	Part No.
Engineers professional case, 15-piece	<b>KL905B15</b>
Scope of supply	Part No.
Technicians professional case, empty	KL905L
VDE Phillips screwdriver, PH1	KL110PH1IS
VDE Phillips screwdriver, PH2	KL110PH2IS
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS
VDE Plus/Minus-Pozidriv screwdriver, Z1	KL130PM1IS
VDE Plus/Minus-Pozidriv screwdriver, Z2	KL130PM2IS
Cable knife with hooked blade	KL745HK
VDE long-nose pliers, straight, 205 mm	KL050205IS
VDE Electric power side cutter, 200 mm	KL044200IS
Round cable stripper 8 - 13mm <sup>2</sup>	KL710
VDE Power combination pliers, 165 mm	KL020165IS
Measuring tape, 3 m	KL403

## OEM bag, 22-piece



### Characteristics

- Equipped with 22 mainly VDE-tested tools
- Robust version with plastic slide rails and upper metal rails with sponge rubber handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Outdoors: 1 large lockable label pocket, 9 pockets, 2 Velcro® for fastening spirit level etc. Indoor connections: 3 compartments, 14 straps

Item	Dimension mm	Weight g	Part No.
OEM bag, 22-piece	350 x 200 x 200	2600	<b>KL920B22</b>
Scope of supply			Part No.
VDE Power combination pliers, 180 mm			KL020180IS
VDE Side cutter 160 mm			KL040160IS
VDE long-nose pliers, straight, 205 mm			KL050205IS
VDE Slotted screwdriver, 3.0 x 0.5 mm			KL10010030IS
VDE Slotted screwdriver, 4.0 x 0.8 mm			KL10010040IS
VDE Slotted screwdriver, 5.5 x 1.0 mm			KL10012555IS
VDE Pozidriv screwdriver, PZ1			KL120PZ1S
VDE Pozidriv screwdriver, PZ2			KL120PZ2S
VDE-Plus/Minus-Pozidriv screwdriver Z1			KL130PM1IS
VDE Plus/Minus-Pozidriv screwdriver Z2			KL130PM2IS
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V			KL19073IS
Cable knife with hooked blade			KL745HK
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>			KL760180IS
Wooden folding rule, 2 m			KL402
Control cabinet spirit level, 200 mm			KL420200
Carpenter's pencil			KL449
Universal saw			KL550
Engineer's hammer, 300 g			KL580300
Electrician's chisel, 250 mm			KL585250



## Professional installers case



### Characteristics

- Robust version with plastic slide rails and upper metal rails with sponge rubber handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Outdoors: 1 large lockable label pocket, 9 pockets, 2 Velcro® for fastening spirit level etc. Indoor connections: 3 compartments, 14 straps

Item	Dimension mm	Weight g	Part No.
Profi-installer's pocket	350 x 200 x 200	2600	<b>KL920L</b>

## Technicians professional case, empty



### Characteristics

- Material: highly durable nylon, splash-proof base
- 90° folding front pocket, each side pocket has a zipper
- Twin fixed carrying handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Protected notebook compartment for laptops up to 17", dimensions 285 x 416 x 89 mm
- Insert for visitor cards
- High-quality zipper

Item	Dimension mm	Weight g	Part No.
Technicians professional case, empty	330 x 440 x 200	2600	<b>KL905L</b>

## Tool case, empty



### Characteristics

- Robust aluminium frame with abutting edges
- With lockable clips

Item	Dimension mm	Weight g	Part No.
Tool case Economy	490 x 365 x 188	4,5	<b>KL855L</b>
Tool case, empty	508 x 362 x 214	5,2	<b>KL865L</b>

## Tool wallet from nylon, empty



### Characteristics

- Material: Polytex
- Accepts up to 11 tools

Item	Dimension mm	Weight g	Part No.
Tool wallet from nylon, empty	200 x 200 x 50	100	<b>KL910L</b>

# PREPARATION WITH PRECISION - STRIPPING TOOLS

In the world of professionals, every assignment counts. Better if you can rely on your tool. Stripping tools from Klauke remove insulation and cable sheathing quickly and precisely. All strands remain intact.



## ► For very precise use

- Fast and precise removal of insulation and cable sheathing
- Automatic cross-section adjustment
- Reduced effort due to optimum power transmission
- Reduced wear
- Including replacement blade

Special sheath and insulation materials call for special stripping tools! Innovative blade geometries guarantee a clean cut edge - with hard insulation such as PTFE (Teflon) through to soft/tough materials such as silicon!

## Automatic wire stripper, 0.02 - 10 mm<sup>2</sup>



### Characteristics

- Self-setting cutting and stripping tool for commercially available flexible cables 0.02 - 10 mm<sup>2</sup> and solid conductors to 1.5 mm<sup>2</sup>
- Easily replaceable blade system
- Long service life of pliers due to precise adjustment for stripping thin insulation without damaging the conductor
- Integrated side cutter

Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire-stripping tool K43/2	0.02 - 10	140	<b>K432</b>
Accessories			Part No.
Interchangeable cassette, black, for wire-stripping tool K432 0.02 - 10 mm <sup>2</sup> flexible conductors and to 1.5 mm <sup>2</sup> solid conductors			<b>K432E</b>
Interchangeable cassette, blue, for wire-stripping tool K432 for PTFE insulated conductors 0.1 - 4 mm <sup>2</sup>			<b>K432E2</b>
Interchangeable cassette, red, for wire-stripping tool K432 / 4 - 16 mm <sup>2</sup>			<b>K432E3</b>

## Automatic wire stripper, 4 - 16 mm<sup>2</sup>



- ▶ Particularly suitable for application-specific cables in the plant and machinery construction, wind energy, robotics, eMobility, marine, shipbuilding, railway and rail transport sectors

### Characteristics

- Self-adjusting cutting and stripping tool for application-specific solid and flexible cables
- Ideal, lightweight and ergonomic tool with a long service life
- Automatic opening of the clamping jaws after the stripping process for added safety
- No splicing of single conductors - conductor enters the cable end-sleeve with greater ease
- Integrated professional, readily accessible cable cutter - accelerates working processes
- Adjustable stop with metric and imperial display for precise stripping length

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire stripper, 4 - 16 mm <sup>2</sup>	190	4 - 16	140	<b>K432U</b>
Accessories				Part No.
Wechselkassette rot für massive u. flexible Kabel 4 - 16 mm <sup>2</sup>				<b>K432E3</b>



## Hand tools

### Wire stripping tools

#### Wire stripper with stepless stripping range 0.03 - 16 mm<sup>2</sup>



- ▶ First wire stripper with stepless stripping range 0.03 - 16 mm<sup>2</sup>
- ▶ Perfect for damage-free stripping of solid and flexible conductors with PVC

##### Characteristics

- Effortless working thanks to ergonomic styling
- Safe working thanks to integrated clamp protection
- Durable tool with easily replaceable blades
- Integrated side cutter up to max. 9 mm dia.
- High stability due to glass fiber reinforced polyamide
- Accurate and consistent stripping length thanks to adjustable stop

Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper with stepless stripping range 0.03 - 16 mm <sup>2</sup>	0.03 - 16	140	<b>K433</b>
Accessories			Part No.
Detachable magazine			K433E

#### Wire stripper, 0.2 - 6 mm<sup>2</sup>



##### Characteristics

- Adjustable length stop from 5 - 12 mm
- Integrated easy to reach side cutter up to max. 2 mm dia.

##### Suitable for

- For all standard flexible and solid conductors from 0.2 - 6 mm<sup>2</sup>

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for flexible and solid conductors	180	0.2 - 6	130	<b>KL760180</b>

#### Wire stripper for round and flat cables



##### Characteristics

- Fine adjustment (5-way) on various cable types and cable diameters
- Optical length dimension 8 - 24 mm (5/16 - 1 inch)
- Integrated side cutter up to max. 3 mm dia.

##### Suitable for

- Flat cable: Baring and stripping of 2-core PVC-insulated flat cables from 0.75 - 1.5 mm<sup>2</sup>
- Round cable: Baring and stripping flexible cables in the range 0.5 - 16 mm<sup>2</sup> (20-6 AWG), solid conductors 0.5 - 10 mm<sup>2</sup> (20-8 AWG)

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for round and flat cables	180	0.5 - 16	205	<b>KL765FR215</b>

## Automatic wire stripper for round cables in the solar technology sector



### Characteristics

- Fine adjustment (5-way) on various cable types and cable diameters
- Integrated side cutter up to max. 3 mm dia.
- Optical length dimension 8 - 24 mm (5/16 - 1 inch)

### Suitable for

- Baring and stripping of all standard, flexible cables from 1.5 - 10.0 mm<sup>2</sup> (15-9 AWG) in the solar technology sector.

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire-stripping tool for round cables in the solar technology sector	180	1.5 - 10	205	<b>KL765PV</b>

## Cable knife without blade



### Characteristics

- Precise, fast and safe stripping of all standard round cables
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife, without blade 4 - 16 mm dia.	4 - 16	70	<b>KL740416</b>
Cable knife, without blade 8 - 28 mm dia.	8 - 28	70	<b>KL740828</b>
Accessories			Part No.
Replacement blade for electricians knife with hooked blade			<b>KL749ES</b>

## Cable knife with straight blade



### Characteristics

- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife with straight blade	4 - 28	80	<b>KL745GK</b>
Accessories			Part No.
Replacement blade for electricians knife with hooked blade			<b>KL749ES</b>



## Hand tools

Stripping tools for communication technology

### Cable knife with hooked blade



#### Characteristics

- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife with hooked blade	4 - 28	80	<b>KL745HK</b>
Accessories			Part No.
Replacement blade for electricians knife with hooked blade			<b>KL749ES</b>

### Round cable stripper 8 - 13 mm Ø



#### Characteristics

- Simple stripping even in hard-to-reach areas, e.g. ceiling and walls, junction and distribution boxes, switch cabinets etc.
- Strips round and damp proof installation cables from 8 - 13 mm dia. (e.g. NYM 3 x 1.5 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>)
- No need to adjust the cutting depth

Item	Dimension mm	Weight g	Part No.
Round cable stripper 8 - 13 mm Ø	8 - 13	43	<b>KL710</b>

### Multi-stripper



#### Characteristics

- Universal stripping tool with the following functions: Baring, round cut, long cut, stripping, cutting

Item	Dimension mm	Weight g	Part No.
Multi-stripper	8 - 13	77	<b>KL730</b>

## Photovoltaic stripper



### Characteristics

- Replaceable blade system
- Protected blade
- Simple handling
- Fixed stripping from 8.5 mm
- Compact design

### Suitable for

- For all standard PV cables to 8.5 mm

Item	Dimension mm	Weight g	Part No.
Photovoltaic stripper	8.5	40	<b>KL735PV</b>

## Coax-stripper



### Characteristics

- No need to adjust the cutting depth
- Gradual stripping of all standard coaxial cables (e.g. antenna and transmission cables) 4.8 - 7.5 mm outside diameter

### Suitable for

- Flexible cables, e.g. 3 x 0.75 mm<sup>2</sup>, 10 mm<sup>2</sup> and 16 mm<sup>2</sup>

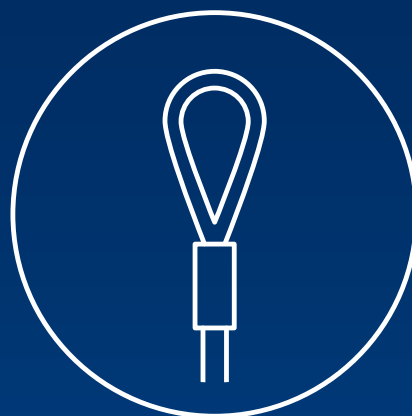
Item	Part No.
Coax-stripper	<b>KL720</b>

# PUTS CABLE WHERE IT NEEDS TO BE SIMPLY AND SAFELY.

Takes every corner flexibly and robustly – cable pulling technology from Greenlee is set apart by quality and the simplest operation possible for every challenge.







# Cable pulling technology

<b>Fish tapes/pulling rods</b>	<b>9.6</b>
Polyester	9.6
Perlon	9.6
Nylon	9.6
Flex-O-Twist speed flex leader	9.7
Fibreglass cable pulling rods	9.7
<hr/>	
<b>Cable pulling systems</b>	<b>9.8</b>
With Polyester tapes (Dura Spinner and Flexi Spinner)	9.8
With fibreglass tapes (Speedy Spinner)	9.9
Fish tapes in winder case	9.10
Smart Butler	9.12
Polyester Butler	9.14
<hr/>	
<b>Cable puller</b>	<b>9.14</b>
Easy Roller (cable drum unwinder)	9.14
Easy Roller Plus	9.15
Cable puller with accessory	9.15
<hr/>	
<b>Pulling grips</b>	<b>9.16</b>
Pulling grips, closed	9.16
Pulling grips, open	9.17
<hr/>	
<b>Accessory</b>	<b>9.18</b>



# THE PULLING AID - CABLE PULLING TECHNOLOGY

Clean construction site - clean laying. Our cable pulling technology ensures that all cables are cleanly rolled in and out. No parts not required left lying around. No awkward handling. Greenlee pulling systems are made from high-quality ABS plastic. Making them robust and drop-proof. You are in control: Reliable laying with safe cable pulling technology.



#### In brief

- ▶ Simple pulling through of cables and conductors
- ▶ Cable puller made from polyester, perlon, nylon and fibreglass
- ▶ Cable pulling rods for cavities and suspended ceilings
- ▶ Made from high-quality ABS plastic
- ▶ Solutions for light and heavy cable types, angled ducts or long straights

▶ **The Dura Spinner**

The Dura Spinner is small, but has a great effect. High-quality materials ensure robustness and the best functionality. Its user-friendly design also permits unwinding on the floor. The Dura Spinner is even able to hold in place cables that are laid around corners. A genuine help on the construction site.

- ABS plastic housing
- Cable puller made from virtually indestructible polyester tape
- Simple unwinding and rewinding
- Unwinding even on the floor
- User-friendly design ensures convenient and smooth operations



### Polyester fish tape green 4.5 mm dia.



- ▶ 50% less friction than nylon tapes
- ▶ Extremely flexible and almost unbreakable

#### Characteristics

- High thrust due to twisted tape design
- Reduces the pulling force due to much lower friction
- Replaceable pulling eyelet and spring guide head

#### Additional information

- Further detailed information can be found in the application table on page i-14

Length	Part No.	Diameter mm
10 m	<b>52055292</b>	4.5
15 m	<b>52055293</b>	4.5
20 m	<b>52055294</b>	4.5
25 m	<b>52055295</b>	4.5
30 m	<b>52055296</b>	4.5
Accessory	Part No.	
5-piece accessory set for polyester fish tapes	52055396	
Rotating spring guide head with eyelet, M5, 7 mm dia	52055264	

### Perlon® fish tape 4 mm dia.



#### Characteristics

- With pressed M4 front piece
- With unscrewable spring guide head and pulling eyelet

#### Additional information

- Further detailed information can be found in the application table on page i-14

Length	Part No.	Diameter mm
5 m	<b>52055276</b>	4
10 m	<b>52055277</b>	4
15 m	<b>52055278</b>	4
20 m	<b>52055279</b>	4
25 m	<b>52055280</b>	4
30 m	<b>52055281</b>	4
Accessory	Part No.	
Tension head with eyelet M4 (1) and spring guide head M4 (1)	52055288	

### Nylon fish tape 4 mm dia.



#### Characteristics

- With pressed spring guide head and eyelet

#### Additional information

- Further detailed information can be found in the application table on page i-14

Length	Part No.	Diameter mm
5 m	<b>52055270</b>	4
10 m	<b>52055271</b>	4
15 m	<b>52055272</b>	4
20 m	<b>52055273</b>	4
25 m	<b>52055274</b>	4
30 m	<b>52055275</b>	4
10 m including rotating spring guide head	<b>52055260</b>	4
20 m including rotating spring guide head	<b>52055261</b>	4
30 m including rotating spring guide head	<b>52055262</b>	4
Accessory	Part No.	
Rotating spring guide head with eyelet, M4, 6 mm dia.	52055263	

## Flex-O-Twist™ speed flex leader

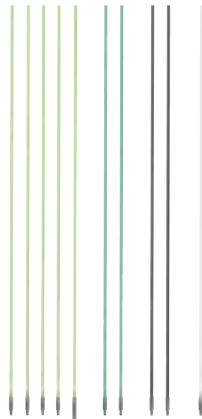


### Characteristics

- Especially suitable for sharp bends
- Flexible fish tape leader

Length	Part No.
300 mm	<b>50308599</b>

## Fibreglass cable pulling rods



### Characteristics

- Almost unbreakable due to special outer jacket
- Time-saving cable laying
- Laying also under the most difficult conditions

### Suitable for

- Cable installation and laying
- Pulling or pushing

Length	Part No.	Version
10 m	<b>52055385</b>	Comprising of: 4 pce. light green fibreglass rods 5.6 mm dia. with WW connecting sleeve, 1 pce. light green fibreglass rod 5.6 mm dia. with WW connecting sleeve and universal joint, 2 pce. black fibreglass rods 6 mm dia. with WW connecting sleeve, 1 pce. white nylon rod 4 mm dia. with WW connecting sleeve, 2 pce. green fibreglass rods 4.6 mm dia. with WW connecting sleeve
5 m	<b>52055386</b>	Consists of: 3 pce. light green fibreglass sticks 5.6 mm dia. with WW connecting bushing, 1 pce. black fibreglass stick 6 mm dia. with WW connecting bushing, 1 pce. white nylon stick 4 mm dia. with WW connecting bushing
Accessories		Part No.
Accessory set for cable pulling rods, 8-pcs.		52055387
Accessory set for cable pulling rods, 4-pcs.		52055388

## Dura Spinner polyester fish tape system



- ▶ Cable pulling systems with innovative, extremely robust, twisted polyester fish tape
- ▶ Rotatable spring guide head

### Characteristics

- Extremely robust fish tape for very narrow bending radii
- This product's high thrust makes it the ideal solution for laying additional cables
- New rotatable spring guide head
- Suitable for rigid and flexible conduits
- Tape pulled in and out very simply
- Can also be uncoiled on the floor
- Including accessories and spare parts
- Robust ABS housing
- No more broken tapes

### Suitable for

- The laying of additional cables

Item	Part No.
Dura Spinner 3.0 mm dia., 20 m	<b>52074656</b>
Dura Spinner 3.0 mm dia., 30 m	<b>52074657</b>
Scope of supply	Part No.
Rotating spring guide head with eyelet, M4, 6 mm dia.	52055263
Tension head with eyelet, M4	
Pulling aid for pulling system 3 - 6 mm dia.	52055311
Accessories	Part No.
Dura Spinner spare fish tape 3.0 mm dia., 20 m	52074654
Dura Spinner spare fish tape 3.0 mm dia., 30 m	52074655
Tension head with eyelet M4 (1) and spring guide head M4 (1)	52055288

## Flexi Spinner polyester cable pulling system



- ▶ Almost unbreakable
- ▶ Approx. 50 % less frictional resistance compared with nylon and perlon
- ▶ High thrust for long distances with narrow bending radius

### Characteristics

- Highly-flexible polyester tape
- Modern design
- Robust housing

### Additional information

- Further detailed information can be found in the application table on page i-14

Item	Length	Part No.	Diameter mm
Flexi Spinner polyester cable pulling system	20 m	<b>52055389</b>	4.5
Flexi Spinner polyester cable pulling system	25 m	<b>52055390</b>	4.5
Flexi Spinner polyester cable pulling system	30 m	<b>52055391</b>	4.5
Flexi Spinner, winder case empty		<b>52055392</b>	
Scope of supply	Part No.	Quantity	
5-piece accessory set for polyester fish tapes	52055396	1	
Accessories	Part No.		
Polyester fish tape green 4.5 mm dia., 20 m	52055294		
Polyester fish tape green 4.5 mm dia., 25 m	52055295		
Polyester fish tape green 4.5 mm dia., 30 m	52055296		
Rotatable head with eye M5, dia. 7 mm	52055264		

## Speedy Spinner fibreglass cable pull-in system



- ▶ Unique, user-friendly design
- ▶ Very simple and quick pulling in and out of fibreglass tapes

### Characteristics

- One-handed operation
- Uncoiling also possible on the floor
- Flexible fibreglass spring for quick pulling in and out
- High thrust
- Accessory set supplied as standard

### Suitable for

- Tube diameter: 16 - 32 mm

### Additional information

- Further detailed information can be found in the application table on page i-14
- Always order repair adhesive separately!

Item	Diameter mm	Length	Part No.
Speedy Spinner fibreglass cable pull-in system	3	20 m	<b>52055298</b>
Speedy Spinner fibreglass cable pull-in system	3	30 m	<b>52055299</b>
Speedy Spinner fibreglass cable pull-in system	3	40 m	<b>52055300</b>
Scope of supply			Part No.      Quantity
Head with eye M5			52055304      3
Spring guide head with eye M5			52055305      1
Spring guide head with eye M5 - 10 mm			52055306      1
Start/bushing sleeves M5			52055308      3
Connecting sleeves			52055309      3
Cable grip M5, 4-15 mm dia.			52055310      1
Pulling aid for pulling system 3 - 6 mm dia.			52055311
Accessories			Part No.
Speedy Spinner accessory, repair patch for fibreglass tape 3 mm dia.			52055312
Fibreglass replacement tape 3 mm dia., 20 m			52055289
Fibreglass replacement tape 3 mm dia., 30 m			52055290
Fibreglass replacement tape 3 mm dia., 40 m			52055291
Speedy Spinner repair set, 10-piece			52055303
Rotatable head with eye M5, dia. 7 mm			52055264
Item repair set			Part No.
Speedy Spinner repair set, 10-piece			52055303
Scope of supply repair set			Part No.      Quantity
Head with eye M5			52055304      3
Start/bushing sleeves M5			52055308      3
Connecting sleeves			52055309      3
Pulling aid for pulling system 3 - 6 mm dia.			52055311      1

## EASILY FORGOTTEN:

Be aware of the laying temperatures of cables and conductors! These can be obtained from manufacturer's data sheets. For a NYM conductor, for example, this temperature is +5° C.



### MagnumPRO™ oil-hardened steel fish tape



#### Characteristics

- Winder case eases cable pulling
- Dirt-free tape finish
- High impact nylon winder case with large handle grip

Item	Tape dimensions mm	Length	Part No.
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	19.8 m	<b>52041709</b>
MagnumPRO™ oil-hardened steel fish tape	6.4 x 1.5	30.5 m	<b>52041745</b>
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	38.1 m	<b>52041741</b>
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	73.2 m	<b>52041743</b>

### MagnumPRO™ stainless steel fish tape



- ▶ Stainless, speed flex leader
- ▶ Slim pulling eyelet permits trouble-free pulling in long and winding conduits

#### Characteristics

- Can be used in conjunction with every steel fish tape with a tape dimension of 3.0 x 1.5 mm
- High impact nylon winder case with large handle grip

Item	Tape dimensions mm	Length	Part No.
MagnumPRO™ stainless steel fish tape	3.2 x 1.5	30.5 m	<b>52041746</b>
MagnumPRO™ stainless steel fish tape	3.2 x 1.5	61 m	<b>52041747</b>

Accessory	Part No.
Speed Flex leader for fish tapes with tape dimension 3.0 x 1.5 mm	50143921

### MagnumPRO™ nylon fish tape



- ▶ Non-conductive, non-coiling nylon tape

#### Characteristics

- Diameter 4.8 mm
- High impact nylon winder case with large handle grip

Item	Diameter mm	Length	Part No.
MagnumPRO™ nylon fish tape	4.8	15.2 m	<b>52041750</b>
MagnumPRO™ nylon fish tape	4.8	30.5 m	<b>52041751</b>

Accessory	Part No.
Replacement tip	50016644



## MagnumPRO™ fish tape



### Characteristics

- Fish tape from multi-strand steel tape
- Flexible type
- High impact nylon winder case with large handle grip

### Suitable for

- For quick and simple application

Item	Diameter mm	Length	Part No.
MagnumPRO™ fish tape	4.8	15.2 m	<b>52041748</b>
MagnumPRO™ fish tape	4.8	30.5 m	<b>52041749</b>

## MagnumPRO™ fibreglass fish tape



### Characteristics

- Non-conductive fibreglass tape with low friction coating
- To fish in small and large conduits even with wire or cable in place
- High impact nylon winder case with large handle grip

### Suitable for

- Data and telecommunication industry

Item	Diameter mm	Length	Part No.
MagnumPRO™ fibreglass fish tape	4.3	15.2 m	<b>52041752</b>
MagnumPRO™ fibreglass fish tape	4.3	30.5 m	<b>52041753</b>
MagnumPRO™ fibreglass fish tape	4.8	61 m	<b>50357468</b>
Accessory			Part No.
Fibreglass fish tape accessory set			50357506
Pulling eyelet 4.8 mm			50359304

## Steel fish tape EZ Reach



### Characteristics

- With hand crank
- Flat steel tape for working above suspended ceilings, under carpets and through walls

Item	Tape dimensions mm	Length	Part No.
Steel fish tape EZ Reach	6.4 x 0.8	7.6 m	<b>50016962</b>

## Smart Butler fibreglass cable pulling-in system with steel reel basket



- ▶ Unique, user-friendly design, galvanised and sprayed
- ▶ Teflon-coated adapter for low resistance when winding and unwinding

### Characteristics

- High thrust
- Low-friction unwinding and rewinding
- Secure working thanks to operative holding brake
- Effective working with accessories mounted directly on frame
- From size 790 mm dia. steel reel basket, incl. rollers

### Additional information

- 4.5 / 6 mm dia.: Tension head with eyelet, fish tape with pressed start/end sleeves, connecting sleeve WW 1/4" - M6, starting spinner with shackle
- 7.5 / 9 / 11 mm dia.: Tension head with eyelet, fish tape with pressed start/end sleeves, connecting sleeve WW 1/2" - M12, starting spinner with shackle

Item	Diameter mm	steel reel basket mm	Version	Length	Weight kg	Part No.
Smart Butler fibreglass cable pulling-in system 4.5 mm dia. with steel reel basket 330 mm dia. 40 m	4.5	330 dia.		40 m	4	<b>52055313</b>
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 60 m	4.5	330 dia.		60 m	5	<b>52055315</b>
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 80 m	4.5	330 dia.		80 m	6	<b>52055316</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 40 m	6.0	550 dia.		40 m	10	<b>52055325</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 60 m	6.0	550 dia.		60 m	11	<b>52055326</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 80 m	6.0	550 dia.		80 m	12	<b>52055327</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 100 m	6.0	550 dia.		100 m	12	<b>52055328</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 40 m	7.5	660 dia.		40 m	13	<b>52055337</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 60 m	7.5	660 dia.		60 m	14	<b>52055338</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 80 m	7.5	660 dia.		80 m	15	<b>52055339</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 100 m	7.5	660 dia.		100 m	17	<b>52055340</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 120 m	7.5	660 dia.		120 m	18	<b>52055341</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 40 m	9.0	660 dia.		40 m	14	<b>52055347</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 60 m	9.0	660 dia.		60 m	16	<b>52055348</b>
Smart Butler fibreglass cable pulling-in system 790 mm dia. steel reel basket, 80 m	9.0	790 dia.	incl. rollers	80 m	31	<b>52055349</b>
Smart Butler fibreglass cable pulling-in system 790 mm dia. steel reel basket, 100 m	9.0	790 dia.	incl. rollers	100 m	33	<b>52055350</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 120 m	9.0	1000 dia.	incl. rollers	120 m	35	<b>52055351</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 150 m	9.0	1000 dia.	incl. rollers	150 m	37	<b>52055352</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 150 m	11.0	1000 dia.	incl. rollers	150 m	53	<b>52055359</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 200 m	11.0	1000 dia.	incl. rollers	200 m	60	<b>52055360</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 250 m	11.0	1000 dia.	incl. rollers	250 m	67	<b>52055361</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 300 m	11.0	1000 dia.	incl. rollers	300 m	75	<b>52055362</b>

Accessories	Part No.
Smart Butler fibreglass replacement tape 4.5 mm dia., 40 m	52055317
Smart Butler fibreglass replacement tape 4.5 mm dia., 60 m	52055318
Smart Butler fibreglass replacement tape 4.5 mm dia., 80 m	52055319
Smart Butler fibreglass replacement tape 6 mm dia., 40 m	52055329
Smart Butler fibreglass replacement tape 6 mm dia., 60 m	52055330
Smart Butler fibreglass replacement tape 6 mm dia., 80 m	52055331
Smart Butler fibreglass replacement tape 6 mm dia., 100 m	52055332
Smart Butler fibreglass replacement tape 7.5 mm dia., 40 m	52055342
Smart Butler fibreglass replacement tape 7.5 mm dia., 60 m	52055343
Smart Butler fibreglass replacement tape 7.5 mm dia., 80 m	52055344
Smart Butler fibreglass replacement tape 7.5 mm dia., 100 m	52055345
Smart Butler fibreglass replacement tape 7.5 mm dia., 120 m	52055346
Smart Butler fibreglass replacement tape 9 mm dia., 40 m	52055353
Smart Butler fibreglass replacement tape 9 mm dia., 80 m	52055355
Smart Butler fibreglass replacement tape 9 mm dia., 100 m	52055356
Smart Butler fibreglass replacement tape 9 mm dia., 150 m	52055358
Smart Butler fibreglass replacement tape 11 mm dia., 150 m	52055363
Smart Butler fibreglass replacement tape 11 mm dia., 200 m	52055364
Smart Butler fibreglass replacement tape 11 mm dia., 250 m	52055365
Smart Butler fibreglass replacement tape 11 mm dia., 300 m	52055366
Starter and end bushing WW ¼" for fish tape 4.5 mm dia.	52055321
Starter and end bushing WW ¼" for fish tape 6.0 mm dia.	52055333
Starter and end bushing WW ½" for fish tape 7.5 mm dia.	52055369

Accessory	Part No.
Starter and end bushing WW ½" for fish tape 9 mm dia.	52055370
Starter and end bushing WW ½" for fish tape 11 mm dia.	52055371
Connecting sleeve for fibreglass 4.5 mm dia.	52055322
Connecting sleeve for fibreglass 6 mm dia.	52055334
Connecting sleeves for fibreglass tape 9 mm dia.	52055372
Connecting sleeves for fibreglass tape 11 mm dia.	52055373
Connecting sleeve WW 1/2" with rotary swivel	52055374
Bulb with shackle WW ¼" for 4.5 mm dia.	52055323
Bulb with shackle WW ¼" for 6.0 mm dia.	52055335
Bulb with shackle WW ½" for 7.5 mm dia.	52055367
Bulb with castor WW ½"	52055368
Tension head with eyelet WW 1/4" for 4.5 - 6 mm dia.	52055320
Emergency repair set for fibreglass tape 4.5 mm dia.	52055324
Emergency repair set for fibreglass tape 6 mm dia.	52055336
Emergency repair set for fibreglass tape 7.5 mm dia.	52055375
Emergency repair set for fibreglass tape 9 mm dia.	52055376
Emergency repair set for fibreglass tape 11 mm dia.	52055377

## Mechanical counter for Smart Butler



### Characteristics

- Mechanical counter
- Can be retrofitted for smart butlers from 6 mm and production date from May 2019

Item	Part No.
Mechanical counter for 6 mm dia.	<b>52055267</b>
Mechanical counter for 7.5 / 9 and 11 mm dia.	<b>52055268</b>



### Polyester Butler cable pulling system with steel reel basket



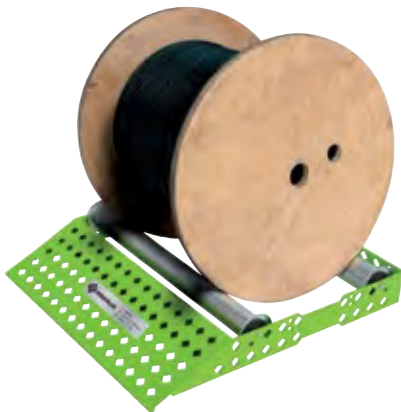
- ▶ Unique, user-friendly design, galvanised and sprayed
- ▶ Teflon-coated adapter for low resistance when winding and unwinding

#### Characteristics

- High thrust
- Low-friction unwinding and rewinding
- Secure working thanks to operative holding brake
- Effective working with accessories mounted directly on frame

Item	Diameter mm	steel reel basket mm	Length m	Weight kg	Part No.
Polyester Butler cable pulling system 350 mm dia. steel reel basket, 50 m	6	Ø 350	50	10	<b>52074658</b>
Scope of supply					Part No.
Smart Butler accessory - start/end sleeves WW 1/4" for rod 4.5 mm dia.					<b>52055321</b>
Smart Butler accessory - starting spinner with shackle WW 1/4" for 4.5 mm dia.					<b>52055323</b>
Spring guide head with eye M5					<b>52055265</b>
Head with eye M5 WW 1/4" for dia. 4.5 - 6 mm					<b>52055320</b>

### Easy Roller cable drum unwinder



- ▶ Unique, user-friendly design
- ▶ 30 % less weight
- ▶ Ramp with shallow incline

#### Characteristics

- Light - 30% less weight
- Easy loading and unloading of heavy cable drums thanks to the shallow inclined ramp
- Rollers with integrated side guides
- Possible to fit to the cable drum diameter

#### Suitable for

- Large and small cable drums
- Width 530 mm, 200 kg carrying capacity
- Width 670 mm, 250 kg carrying capacity

Item	Dimension mm	Width mm	Part No.
Standard	530 x 570 x 90	530	<b>52055383</b>
Wide	670 x 605 x 95	670	<b>52055384</b>
Accessory			Part No.
Easy Roller replacement roller, standard			52055383ER
Easy Roller replacement roller, wide			52055384ER

## Cable drum uncoilers Easy Roller Plus



- ▶ Reduced incline on the loading ramp allows simple rewinding of the cable drum
- ▶ Handles for easy positioning and carrying
- ▶ Ball-bearing mounted rollers
- ▶ U-sections for fixing the unwinding rails

### Additional information

- Cable drum unwinders consisting of 2 cable drum unwinding rails and one spacer rail

Item	Dimensions mm	Weight kg	Part No.
Cable drum uncoiler Easy Roller Plus S	950 x 145 x 110	33.5	<b>52055401</b>
Cable drum uncoiler Easy Roller Plus L	1050 x 145 x 110	35.5	<b>52055402</b>
Cable drum uncoiler Easy Roller Plus ALS	950 x 145 x 110	19.5	<b>52055403</b>

## Rope for cable puller 6800-22 CE



### Characteristics

- Breaking strength approx. 14.2 t
- Rope diameter 22 mm
- Rope on rope stand

Item	Part No.
Rope for cable puller 6800-22 CE, 91 m	<b>50341367</b>
Rope for cable puller 6800-22 CE, 182 m	<b>50341375</b>
Rope for cable puller 6800-22 CE, 365 m	<b>50341383</b>
Rope stand for ropes 91 m and 182 m	<b>50343629</b>

## Pulling grips Junior, closed



### Characteristics

- Single weave, galvanized steel mesh with flexible pulling eyelet

### Suitable for

- The pulling-in of small diameter cables
- For manual pulling of feed lines in pipes and cable ducts

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50305964</b>	110	83	5 - 6	0.3
<b>50305840</b>	110	83	7 - 9	0.4
<b>50305867</b>	180	96	10 - 12	0.8
<b>50305883</b>	220	110	13 - 15	1.1
<b>50305905</b>	255	130	16 - 18	1.7
<b>50305921</b>	255	146	19 - 25	2.4
<b>50305948</b>	300	165	26 - 31	3.4

## T-Basket type pulling grips, closed



### Characteristics

- Double weave galvanized steel mesh with flexible pulling eyelet

### Suitable for

- Medium-weight pulls in pipes and cable ducts

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50305581</b>	535	200	13 - 15	4.0
<b>50305603</b>	610	200	16 - 18	4.9
<b>50305620</b>	610	230	19 - 25	6.0
<b>50305646</b>	610	230	26 - 38	8.7
<b>50305662</b>	610	280	39 - 50	14.5
<b>50305689</b>	610	300	51 - 63	16.4
<b>50305700</b>	610	300	64 - 76	21.7
<b>50305727</b>	610	360	77 - 88	21.7
<b>50305743</b>	660	360	89 - 100	27.5
<b>50305760</b>	915	230	19 - 25	6.0
<b>50305786</b>	915	230	26 - 38	8.7
<b>50310100</b>	915	280	39 - 50	14.5
<b>50305808</b>	915	300	51 - 63	16.4
<b>50310127</b>	915	300	64 - 76	21.7
<b>50305824</b>	915	360	77 - 88	21.7
<b>50310143</b>	1020	360	89 - 100	27.5

Use a pulling grip so you don't have to strip the cable before it is pulled in! A cable grip allows you to pull with greater force. This prevents tapering of the cross-section.

## Pulling grip set, closed



### Characteristics

- Set of the most important pulling grips for the most frequently required pulling operations

Part No.	Diameter mm
<b>50307584</b>	7 - 31
<b>50314823</b>	19 - 50
<b>50314831</b>	51 - 76
<b>50314840</b>	19 - 76

## Pulling grip, open



### Characteristics

- Single weave, galvanised steel netting mesh with bar closure
- Offset flexible eyelet

### Suitable for

- Easy and straight pulls when the cable end is not available

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50306588</b>	150	175	13 - 15	1.3
<b>50310240</b>	200	175	16 - 18	1.6
<b>50306600</b>	250	175	19 - 25	1.9
<b>50310267</b>	300	200	26 - 31	3.0
<b>50306626</b>	350	200	32 - 38	4.0
<b>50310283</b>	380	230	39 - 44	5.1
<b>50306642</b>	400	250	45 - 50	6.7
<b>50310305</b>	480	250	51 - 63	8.0
<b>50306669</b>	500	250	64 - 76	9.7
<b>50310321</b>	530	300	77 - 88	10.6
<b>50306685</b>	600	300	89 - 100	10.6



## Cable installation lubricant



### Characteristics

- Reduces friction by up to 80 %
- Biodegradable
- Harmless to the user

### Suitable for

- Electric/telephone cables in pipes 16 - 25 mm dia.
- Large cable diameters

Item	Part No.
Cable lubricant gel in tube 0.25 kg	<b>52055379</b>
Lubricant foam bottle 1.00 kg	<b>52055380</b>
Cable lubricant liquid for optical fibres and power cables, canister 5 kg	<b>52055381</b>
Cable lubricant liquid for optical fibres and power cables, canister 10 kg	<b>52055382</b>

## Lubricant spray



### Characteristics

- Reduces friction by up to 80 %
- Biodegradable
- Silicon-free
- Not flammable

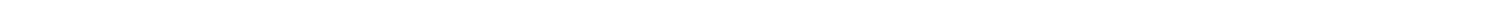
### Suitable for

- Electric/telephone cables in pipes 16 - 25 mm dia.

Item	Part No.
Lubricant foam bottle 400 ml	<b>52055378</b>







# Technical Appendix



<b>Legends of the different pictograms</b>	<b>i-2</b>
Legend of pictograms used for crimp profiles	i-2
Legend of pictograms used for type of cable	i-3
Legend of pictograms used for connecting materials	i-4
Legend of pictograms used for test marks	i-5

---

<b>Widely used names for conductors and cables</b>	<b>i-6</b>
Markings of conductors and cables according to VDE (Germany)	i-6
Marking of conductors and cables according to European harmonised standard	i-7
Assignment of cables and conductors	i-8

---

<b>Special properties of connecting materials</b>	<b>i-9</b>
Material properties	i-9
Electrical properties	i-9
Mechanical properties	i-9

---

<b>Processing instructions for connecting materials</b>	<b>i-10</b>
Assembly instructions for cable lugs and connectors	i-10
Assembly instructions for sleeves for type VHR and VHD compacted conductors	i-11
General notes	i-12
Assembly instruction for screw connectors	i-12
Customised cable lugs and connectors	i-13
The perfect connection (QR code for the checklist for the production of cable lugs and connectors)	i-13




---

<b>General technical information</b>	<b>i-14</b>
Cable pulling technology - Typical applications	i-14
Metric cable glands EN50262	i-15
Holemaking systems	i-15
Hydraulic punches	i-15
Standards and norms	i-16

---

<b>Alphabetical index</b>	<b>i-17</b>
---------------------------	-------------














---

<b>Alphanumerical Index</b>	<b>i-19</b>
-----------------------------	-------------




















---



### Technical notes on the various crimping types

	Crimping	Designation
	Hexagonal crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, compression cable lugs and connectors to DIN 46235/DIN 46267, aluminum cable lugs and connectors
	Indent crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, solderless terminals to DIN 46234 and pin cable lugs to DIN 46230, insulated solderless terminals, tubular cable lugs and connectors for fine stranded conductors, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors
	Oval crimping	for crimping tubular double compression cable lugs, C-clamps, insulated tubular cable lugs and connectors, insulated pin cable lugs and compression joints to DIN 48217, insulated cable connectors
	Indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors
	Double indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors
	Trapezoid crimping	for crimping cable end-sleeves and twin cable end-sleeves
	Indent crimping	for crimping cable end-sleeves and twin cable end-sleeves
	Square crimping	for crimping cable end-sleeves and twin cable end-sleeves
	Roll crimping	for crimping non-insulated receptacles and cable end-sleeves DIN 46228, part 2
	Round crimping	for crimping cable end-sleeves and twin cable end-sleeves of 90° and 120° sector-shaped conductors
	Quad-point indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors
	Four point crimping	for crimping turned pin receptacles and pin connectors
	Special trapezoid crimping	particularly for crimping cable end-sleeves with compacted fine stranded conductors

## Legend of pictograms used for type of conductors

Material conductor			Type of conductors
Cu	Al	Cu and Al	
			Solid conductor (class 1 according to EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
			Multi-stranded conductor (class 2 according to EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
			Fine stranded conductor (class 5 according to EN 60228) made of bright or coated soft-annealed copper
			Superfine stranded conductor (class 6 according to EN 60228) made of bright or coated soft-annealed copper
			Solid sector shaped conductor 120 ° (class 1 according to EN 60228) made of aluminium or aluminium alloy
			Solid sector shaped conductor 90 ° (class 1 according to EN 60228) made of aluminium or aluminium alloy
			Multi-stranded sector shaped conductor 120 ° (class 2 according to EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
			Multi-stranded sector shaped conductor 90 ° (class 2 according to EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
			Copper conductor for overhead lines (DIN 48201-1) and aluminium or aluminium alloy conductors (DIN EN 50182)










Please consider the material of the conductor (Cu, Al). This information is shown in the pictogram.



### Legend of pictograms used for connecting materials

Connecting material	Designation
	Tubular cable lugs and connectors – Cu, standard type
	Insulated cable lugs and connectors, standard type
	Tubular cable lugs and connectors for fine stranded conductors
	Tubular cable lugs and connectors for solid conductors
<b>VA</b> 	Tubular cable lugs and connectors – stainless steel
<b>Ni</b> 	Tubular cable lugs and connectors – Ni
<b>DIN</b> 	Compression cable lugs and connectors to DIN - Cu
	Copper compression cable lugs, double crimp (double cable entry)
	Solderless terminals, connectors and pin terminals to DIN - Cu
	Insulated solderless terminals
	Sleeves for compacted conductors and sector shaped conductors - Cu
<b>Al</b> 	Compression cable lugs and connectors to DIN - Al
<b>Al/Cu</b> 	Compression cable lugs and connectors - Al/Cu
	C-Clamps
	H-Clamps
	Cable end-sleeves
	Twin cable end-sleeves
	Insulated cable connections
	Non-insulated receptacles

## Legend of pictograms used for test marks

Test mark	Content
	<p><b>GS (safety tested):</b> The GS marking of our crimping and cutting tools stands for the highest possible safety and quality level.</p>
	<p><b>UL (Underwriters Laboratory):</b> The electrical connection material and the crimping tools are certified according to UL/CSA standards.</p>
	<p><b>CSA (Canadian Standard Association):</b> Electrical connection material and tooling certified to UL/CSA standards..</p>
	<p><b>VDE (Verband der Elektrotechnik e.V.):</b> Tests and certifies the electrical safety of tools, chargers and tools for live workung.</p>
	<p><b>IEC Certificates:</b> The unique safety level of our products has been proven in the area of electrical connection material with the internationally recognized test standard IEC 61238-1 and for battery tools with the internationally recognized standard IEC 60 45-1.</p>
	<p><b>DNV Certificates:</b> The world's largest consulting company for onshore and offshore systems</p>
	<p><b>CE Sign</b> The product has been tested by the manufacturer and meets all EU-wide requirements for safety, health protection and environmental protection.</p>



### Markings of conductors and cables according to VDE (Germany)

#### Notes on wire names

Some of the conductors and cables mentioned below are offered as solid and stranded conductors depending on the cross-section. Please note this when processing.

In the list, a possible protective conductor (marking -J-0) is not taken into account, as it is not relevant for the assignment and processing..

- Conductor class 1 = round conductor solid,
- Conductor class 2 = round conductor stranded,
- Conductor class 5 = round conductor fine-stranded,
- Conductor class 6 = round conductor superfine-stranded

Name of wire	Material conductor	Conductor class VDE 0295 / EN 60228	Connecting material							
2YSLCY	Copper	5	●*	●		●	●			●
HSL(C)H-OZ/JZ	Copper	5	●*	●		●	●			●
N2X(C)H	Copper	1			●	●				
		2	●			●	●			
NAYCWY	Aluminium	1						●	●	
		2						●	●	
NAYY	Aluminium	1						●	●	
		2						●	●	
NHX(C)H E30/E90	Copper	1			●	●				
		2	●			●	●			
NHXMH	Copper	1			●	●				
		2	●			●	●			
NSGAFÖU	Copper	5	●*	●		●	●			●
NSSHÖU	Copper	5	●*	●		●	●			●
NYCWY	Copper	1			●	●				
		2	●			●	●			
NYCY	Copper	1			●	●				
NYM	Copper	1			●	●				
		2	●			●	●			
NYY	Copper	1			●	●				
		2	●			●	●			
Y(S)SLY-OZ/JZ/OB/JB	Copper	5	●*	●		●	●			●











**Names of conductors and cables for Austria: The names correspond to the German names, but without the indicated „N“.**

**Sector shaped conductors must be pre-rounded !**

**\* Please note the correct choice of tools or the use of the correct crimping dies when processing fine-stranded conductors (conductor class 5) ! The products offered are designed for the processing of stranded round conductors !**



## Marking of conductors and cables according to European harmonised standard

Name of wire	Material conductor	Conductor class VDE 0295 / EN 60228	Connecting material							
										
H01N2-D	Copper	5	● *	●		●	●			●
		6		●		●	●			●
H03VV-F	Copper	5	● *	●		●	●			●
H05BQ-F	Copper	5	● *	●		●	●			●
H05RN-F	Copper	5	● *	●		●	●			●
H05RR-F	Copper	5	● *	●		●	●			●
H05V-K	Copper	5	● *	●		●	●			●
H05V-U	Copper	1			●	●				
H05VV-F	Copper	5	● *	●		●	●			●
H07BQ-F	Copper	5	● *	●		●	●			●
H07RN-F	Copper	5	● *	●		●	●			●
H07V-K	Copper	5	● *	●		●	●			●
H07V-R	Copper	2	●			●	●			
H07V-U	Copper	1			●	●				
H01N2-D	Copper	5	● *	●		●	●			●
NYFAZ	Copper	5	● *	●		●	●			●



\* Please note the correct choice of tools or the use of the correct crimping dies when processing fine-stranded conductors (conductor class 5) ! The products offered are designed for the processing of stranded round conductors !

## Assignment of cables and conductors

### a) Copper

- Our copper cable lugs and connectors are suitable for connecting copper cables according to DIN EN 60228 and copper conductors DIN 48201 part 1. Please use the table below.

### b) Aluminium

- Our aluminium cable lugs and connectors are suitable for connecting aluminium cables according to DIN EN 60228 and aluminium conductors according to DIN EN 50182. Please use the table below.



Sector-shaped conductors must be rounded with pre-rounding tools before assembly.

### Cross-section compatibility chart for cable lugs and connectors for copper and aluminum conductors

- With the help of this table you can determine the cross-section of your conductor in case of doubt. The minimum diameter of the conductor is for the classes 1 and 2 (not compacted). For classes 5 and 6 are defined by the conductance rather than the minimum diameter. Therefore, no specification can be made regarding the minimum diameter.

Nominal cross-section mm <sup>2</sup>	Type of conductor acc. to DIN EN 60228 / IEC 60228									
	Copper conductors					Aluminium conductors				
	Round conductor solid, class 1	Round conductor multi-stranded, class 2	Round conductor multi-stranded compacted, class 2		Round conductor fine and superfine, class 5 and class 6	Round conductor solid, class 1		Round conductor multi-stranded compacted, class 2		
	Max. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm	
0.5	0.9	1.1	–	–	1.1	–	–	–	–	
0.75	1	1.2	–	–	1.3	–	–	–	–	
1	1.2	1.4	–	–	1.5	–	–	–	–	
1.5	1.5	1.7	–	–	1.8	–	–	–	–	
2.5	1.9	2.2	–	–	2.4	–	–	–	–	
4	2.4	2.7	–	–	3	–	–	–	–	
6	2.9	3.3	–	–	3.9	–	–	–	–	
10	3.7	4.2	3.6	4	5.1	3.4	3.7	3.6	4	
16	4.6	5.3	4.6	5.2	6.3	4.1	4.6	4.6	5.2	
25	5.7	6.6	5.6	6.5	7.8	5.2	5.7	5.6	6.5	
35	6.7	7.9	6.6	7.5	9.2	6.1	6.7	6.6	7.5	
50	7.8	9.1	7.7	8.6	11	7.2	7.8	7.7	8.6	
70	9.4	11	9.3	10.2	13.1	8.7	9.4	9.3	10.2	
95	11	12.9	11	12	15.1	10.3	11	11	12	
120	12.4	14.5	12.3	13.5	17	11.6	12.4	12.3	13.5	
150	13.8	16.2	13.7	15	19	12.9	13.8	13.7	15	
185	15.4	18	15.3	16.8	21	14.5	15.4	15.3	16.8	
240	17.6	20.6	17.6	19.2	24	16.7	17.6	17.6	19.2	
300	19.8	23.1	19.7	21.6	27	18.8	19.8	19.7	21.6	
400	22.2	26.1	22.3	24.6	31	21.2	22.2	22.3	24.6	
500	–	29.2	25.3	27.6	35	24	25.1	25.3	27.6	
630	–	33.2	28.7	32.5	39	27.3	28.4	28.7	32.5	
800	–	37.6	–	–	–	30.9	32.1	–	–	
1000	–	42.2	–	–	–	34.8	36	–	–	

## Material properties

### Information on materials used for copper and aluminum cable lugs and connectors

- Cable end-sleeves to DIN 46228 part 1 and part 4 are manufactured from Cu to DIN EN 13600. from Cu to DIN EN 13600.

## Electrical properties

- Our cable connections can be loaded with the currents defined in VDE 0298. For higher current loads, we ask for consultation. The current values of VDE 0298 can be found in the table below.

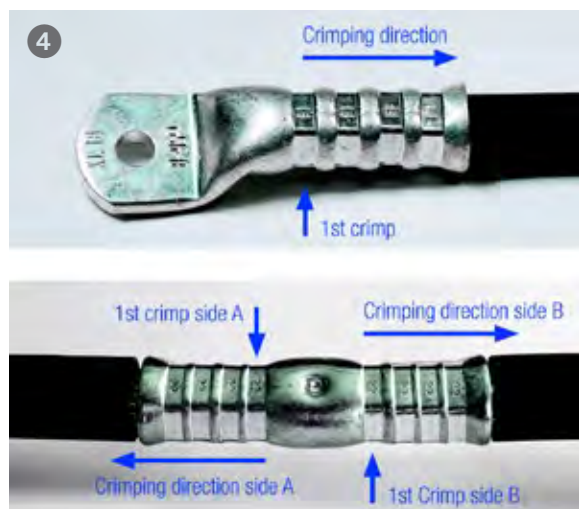
Nominal cross-section mm <sup>2</sup>	Group 1 One or more single-core conductors laid in conduits		Group 2 Multi-core conductors, e. g. sheathed conductors, conduit wires, lead-sheathed conductors, flat webbed conductors, flexible cables		Group 3 Overhead single-core conductors with clearance of at least their diameter	
	Cu (A)	Al (A)	Cu (A)	Al (A)	Cu (A)	Al (A)
0.75	–	–	12	–	15	–
1	11	–	15	–	19	–
1.5	15	–	18	–	24	–
2.5	20	–	26	–	32	–
4	25	–	34	–	42	–
6	33	–	44	–	54	–
10	45	–	61	48	73	57
16	61	48	82	64	98	77
25	83	65	108	85	129	103
35	103	81	135	105	158	124
50	132	103	168	132	198	155
70	165	–	207	163	245	193
95	197	–	250	197	292	230
120	235	–	292	230	344	268
150	–	–	335	263	391	310
185	–	–	383	301	448	353
240	–	–	453	357	528	414
300	–	–	504	409	608	479
400	–	–	–	–	726	569
500	–	–	–	–	830	649

Values applicable only at an ambient temperature of 30 °C

## Mechanical properties

- The connections made with our tools in accordance with the processing instructions have sufficient tensile strength in accordance with the standard applicable to the connection (depending on the material used), i.e. IEC 61238-1, DIN EN 60999, DIN EN 60352-2, UL486A-486B, DNV, UL486F.

**i** **Please note**, that crimping solderless cable connections using tools from other manufactures does not guarantee a proper connection. We recommend only the use of solderless cable connections from **Klauke** using **Klauke** tools.



### Assembly instructions for cable lugs and connectors

- 1 Strip conductor in line with insertion depth (+ 10 % because of length change of crimp sleeve).
- 2 The conductor ends must be cleaned mechanically prior to assembly.
- 3 Insert conductor fully into cable lug or connector.
- 4 Observing the crimping direction, crimp the cable lug or connector using the appropriate tools. The crimping direction for cable lug and connector is indicated in the diagram opposite.
- 5 Remove excess compound emerging from aluminum cable lugs and connectors.

We recommend the following number of crimps for individual cross sections:

Cross-section in mm <sup>2</sup>	Tubular cable lugs			Cable lugs DIN 46235		Al-Cable lugs		
	5 mm Crimping die	width Crimping dies (quad-point indent crimping **)	EKM60ID	5 mm Crimping die	width Crimping dies	7 mm Crimping die	width Crimping dies	EKM60ID
6****	1			2				
10****	1		1	2				
16****	1	1	1	2	1	4	2	
25	2	1	1	2	1	4	2	
35	2	1	1	2	1	5	2	
50	2	1	1	3	1	5	2	2
70	2	1	1	3	1	6	3	3
95	2	1	1	4	2	6	3	3
120	2	1	1	4	2	6	3	3
150	2	1	1	4	2	6	3	3
185	2	1*	1	4	2	6	3	3
240	4	2	2	5	2	8	3	3
300	4	2		5	2	8	3	
400	5	2			3		4	
500					3		4	
625					3			
800					3			
1000					4 (20 mm) 2 (40 mm)***			

\* when using quad-point indent crimping (HK60VP, EK60VP/FT etc.) Number of crimping operations: 2

\*\* Note the cross section of the tool !

\*\*\* Crimp with crimping dies of Series 100

\*\*\*\* When using crimping dies of the series 50, 2 crimps are required !



When crimping F-series cable lugs and solderless terminals according to DIN 46234 by using indent crimping dies, for each cross section only one crimp is necessary.

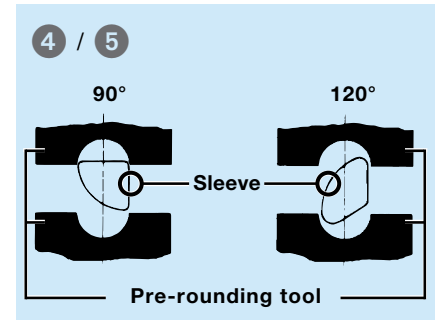
## Assembly instructions for sleeves for type VHR and VHD compacted conductors

We recommend the use of additional VHR and VHD sleeves for compacted round conductors to ensure that the tubular cable lugs and connectors fit accurately.

For sector-shaped conductors, we recommend the use of additional sector sleeves VHR 3 or VHR 4 and VHD 3 or VHD 4 with Cu cable lugs and connectors to prevent the conductor recoil. Sleeves need to be rounded with pre-rounding tools.

### Please note:

- 1 Ensure that the conductor is deformed as little as possible when cutting to length.
- 2 Strip the conductor insulation in line with the insertion length.
- 3 Slip the sleeve up to the front cut edge of the conductor.
- 4 Place the conductor and sleeve in the pre-rounding tool as per the diagram.
- 5 Crimp the sleeve
  - a) Crimping operation as per the diagram (1st pre-crimp)
  - b) Crimp turned through 90° (2nd pre-crimp)
  - c) Crimp turned through 30° (finish-crimp)
  - d) Crimp turned through 30° as required (finish-crimp)



## Instructions for fitting reduction sleeves

Only wide hydraulic crimping dies to be used when crimping more than two cross-sections.

## Assembly instructions for full tension Al/steel connectors to DIN 48085, part 3

The connectors consist of an Al sleeve (E-Al 99.5) and a soft steel sleeve (St 52).

- 1 Straighten cable ends, remove dirt and any oxide layer.
- 2 Slip the Al-compression joint onto one of the cable ends.
- 3 Tie off the cable end and strip the Al cores.
- 4 Tie off Al and steel cores.
- 5 Slip on the steel sleeve and crimp through according to the crimping marks.
- 6 Slide the Al sleeve centrally over the crimped steel sleeve and crimp according to the crimping marks



**Caution:** Do not crimp in the centre, in the area of the steel connector. Do not crimp in the area of the cones.

- 7 Remove excess compound after crimping the connector.



**Warning:** The compound must not be removed, either fully or partially, prior to assembly.

The tool dies can be assigned either by colour-coding, or preferably based on the code assigned to the cross-section. The dies for the steel sleeve have a black finish, those for the Al sleeve are zinc-coated.

### General information:

The crimping process has to be continued until the dies are completely closed, otherwise a proper crimp cannot be guaranteed.



### General notes

#### Crimping dies:

The crimping dies of the series 18 as well as the series 25 correspond in the external dimensions of DIN 48083 part 1 or part 3. For all interchangeable dies, for mechanical tools as well as hydraulic tools, the series D (= for DIN cable lugs and connectors 46235 and 46267) and the series A (aluminium cable lugs and connectors as well as aluminium/copper cable lugs and connectors) the hexagonal dimensions are of DIN 48083 part 4.

#### Surfaces:

All mentioned dies are supplied "chrome-yellow" or „blue coated“ for copper and "galvanized" for aluminum and nickel.

Testing of our copper and aluminium connecting material was carried out with the following maximum torque on the connecting bolt.

Size of thread	Tightening torque (Nm)	Size of thread	Torque (Nm)
M 5	5	M 12	75
M 6	9	M 14	120
M 7	15	M 16	190
M 8	22	M 20	380
M 10	44		

### Assembly instruction for screw connectors

Because they are detachable connecting elements, screw connectors are used preferably for heat-shrunk or cast resin joints. However, they also can be used in all other types of cable joints. Four-screw connectors are especially suitable for multi-stranded conductors, since the longer connector length increases the transverse conductance of the individual wires and the contact resistance decreases accordingly. In addition, higher pull-out values are achieved. Barrier type four-screw connector clamps are suitable for cables with mass-impregnated paper insulation.

In an electrolyte-free, e.g. dry environment, aluminum as well as copper conductors can be combined. This also applies in combination with heat-shrunk hoses. If conductors of different materials (e.g. Cu and Al cables) have to be connected, a barrier type connector is recommended.

While identical types of cables (e.g. NAYY-NAVY) can be used with non-barrier types of connectors for unequal cables (e.g. NAYY-NAKBA), plastic or earth cables, the use of connectors with barrier as an oil stop is recommended.

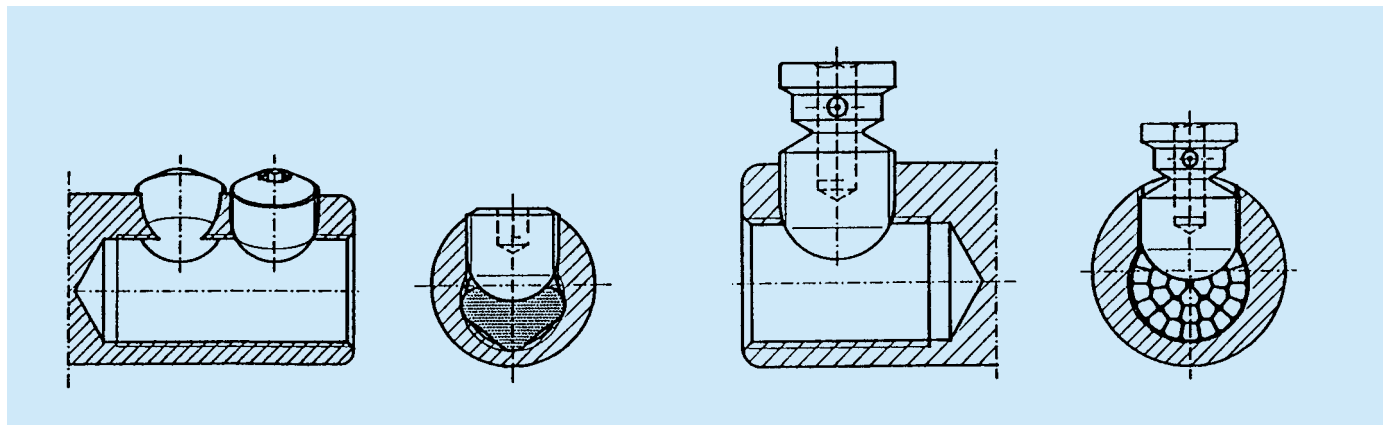
Insertion depth of conductors is controlled either by the conductor stop at the barrier, or by inspection hole on screw connectors without barrier.

In addition to the conventional screw connectors, we offer screw connectors with shear-off heads. The benefit of this design is the defined tightening torque, which is pre-determined by the maximum transferable torque at the rated breaking point. This contact force defined by the manufacturer guarantee optimum electrical and mechanical properties (DIN EN 61238). No torque wrenches are required for assembly of this connector type.

With standard screw connectors, the required contact pressures are reached at approx. 80% of the specified torque. Over-crimping beyond the torque specified for the connector must be avoided.

The cross-grooves on the conductor channels allow high tensile forces to be transmitted. The tensile forces of our screw connectors correspond to compression joints to DIN 46267, part 2, with identical cross section.

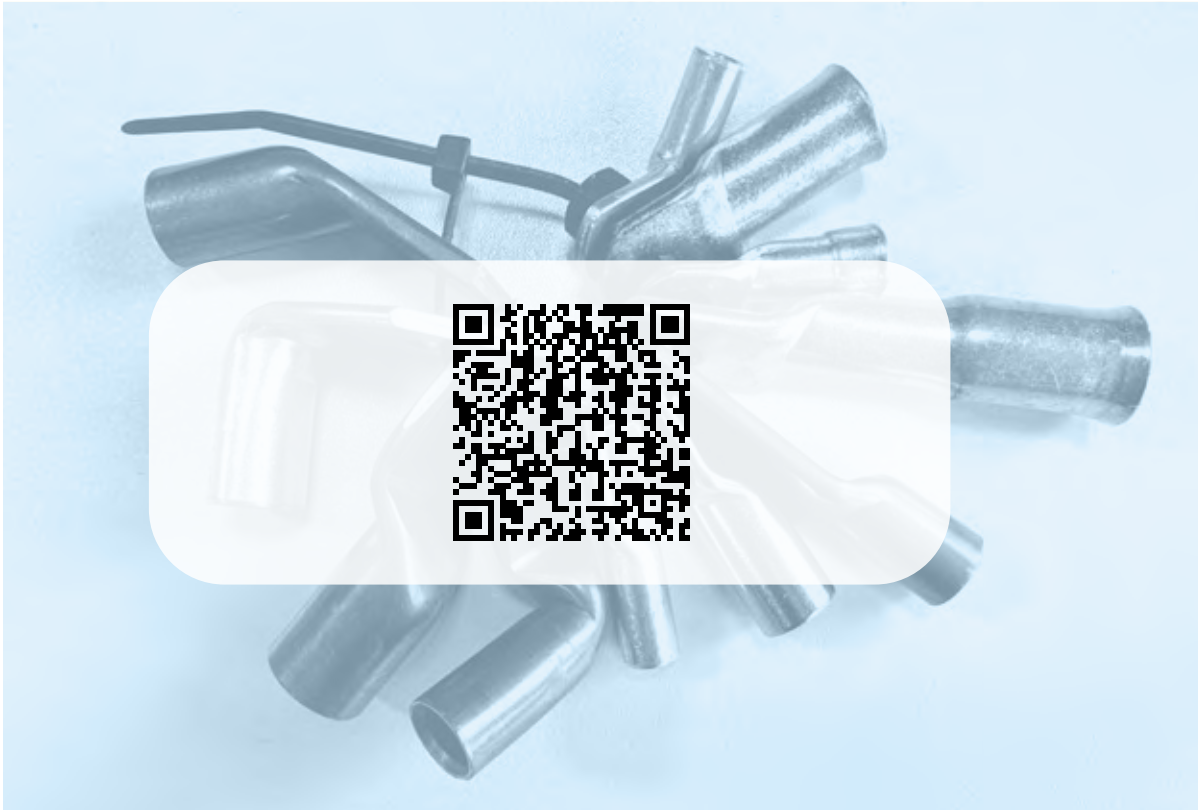
The screws are treated with a high-gliding, molybdenum sulphide-based lubricant. This guarantees adequate contact pressure with a relatively low tightening torque.



## The perfect connection

---

Klauke is a manufacturer of cable lugs and connectors. For special applications or requirements, the standardised cable lugs no longer satisfy certain users and specific solutions tailored to the application concerned are required. Upon request, we develop and produce cable lugs and connectors specifically for you.





## Cable pulling technology – Typical applications

Type	Tape dia.	Pipe dia.	Thrust	Min. curve radius	Breaking strength	Tensile force with start/end sleeve	Recommended length
	mm	mm	kg	mm	kg	kg	m
Fibreglass							
<b>Speedy Spinner</b>	3	16 - 32	+++	160	400	110	20-30
	4,5	40 - 60	+++	310	1200	>200	40-80
	6	50 - 80	+++	400	2000	>300	40-110
<b>Smart Butler</b>	7,5	63 - 100	+++	500	3000	>400	40-120
	9	63 - 125	+++	620	4500	>500	40-150
	11	63 - 150	+++	770	7500	>700	150-300
Polyester							
<b>Dura Spinner</b>	3	16 - 40	+++	50	300	100	20-30
<b>Polyester Butler</b>	6	40 - 60	+++	160	600	300	50
Nylon, Perlon®							
	4	16 - 25	+	80	280	120	10-20
Steel							
	4	16 - 25	+	100	900	115	10-20

for trade     for industry



## Metric cable glands for electrical installation EN 50262

The new European standard EN 50262 defines conditions for all manufacturers of electrical appliance housings and all electrical installation.

It's scope includes cables and conductors for control cabinets, distributor housings, junction boxes, domestic connections, installation boxes, equipment housings etc.

EN 50262 replaces the Pg thread (steel tank pipe thread) used for all housing designs for decades with a metric thread. Sizes Pg 7 to Pg 48 are being replaced by ISO M 6 to M75.







### Greenlee holemaking tools in ISO sizes acc. to EN 50262

ISO sizes	mm	Slug-Buster® punch	Slug-Splitter® punch	HSS hole saws	Step bits
12	12.5				
16	16.5				
20	20.5				
25	25.5				
32	32.5				
40	40.5				
50	50.5				
63	63.5				

## Holemaking systems

Round punch	Operation	Capacity	Hole size
Slug-Buster®	Manual, Hydraulic punches	max. 3.0 mm in St 37	12.5 to 64.0 mm
Slug-Splitter®	Hydraulic punches	max. 3.5 mm in V2A	15.2 to 64.0 mm
Speed Punch™	Hydraulic punches	3.5 mm in St 37	16.2 to 64.0 mm
Standard	Manual, Hydraulic punches	max. 3.0 mm in St 37	66.7 to 144.1 mm
Special shaped punches	Operation	Capacity	Hole size
Special shaped punches	Manual, Hydraulic punches	max. 3.0 mm in St 37 bzw. 1.5 mm in V2A	See data for the individual punches

## Hydraulic punches

			Description
	LS 50 FLEX Battery powered hydraulic punching tool	LS 50 FLEX	- with micro-processor control - 60 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch Quick Draw™ 7804E	50342916	- ideal for fast, frontal punching - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch Quick Draw 90™ 7904E	50342991	- rectangular cylinder head rotatable around 180° - maximum flexibility in narrow working spaces - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch with hand pump	52084920	- compact design of punch, pump and cylinder - 110 kN punching force - punches up to 3.5 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch with foot pump	52084941	- foot pump leaves both hands free for operating the punch - 110 kN punching force - punches up to 3.5 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hand hydraulic punch Flex Draw	52033843	- rectangular cylinder head rotatable around 180° - maximum flexibility in narrow working spaces - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size



## Standards for cabling

---

A number of standardisation committees that define the technical features of cabling systems have been in existence since 1993. These directives must be observed when planning and setting up networks.

Full volumes can be obtained from specialist bookshops.

## International standards

---

International Standards are published by the ISO (International Standards Organisation). In Europe these international directives are used for information purposes.

<b>ISO/IEC IS 11801</b>	Description of the performance requirements for a general cabling system	<b>IEC 1156-1</b>	Basic specification
<b>IEC 1156</b>	Multi-core and symmetrical conductors for digital message transmission	<b>IEC 1156-2</b>	Framework specification for service cables IEC1156-3 Framework specification for patch and equipment connecting cables
		<b>IEC 1156-4</b>	Framework specification for building connecting and rising cables

## European standards

---

In collaboration with national standard institutes, the European Committee for Electrical Standardisation CENELEC (Comite Europeen de Normalisation Electrotechnique) has published European standards that are based on the international ISO/IEC 11801 and hence normative for Europe.

<b>EN 50173</b>	Description of the performance requirements for a general cabling system (EN 50173 also refers to HD 608 and also EN 55022)	<b>EN 50168</b>	Framework specification for patch and equipment connecting cables
<b>608</b>	General specification for symmetrical conductors for digital message transmission	<b>EN 50169</b>	Framework specification for building connection and rising cables
<b>EN 50167</b>	Framework specification for service cables	<b>EN 55022</b>	Framework specification for electromagnetic compatibility (EMC). This specification contains threshold values and measuring procedures for radio interference of data processing equipment.

## American standards

---

The American standards are published by the EINTIA (Electronic Industries Association / Telecommunication Industries Association) an American Joint Venture.

<b>TSB 36</b>	Framework specification for symmetrical data cables (100 Ohm, unsheathed)	<b>EIA/TIA 568</b>	Framework specification for cabling systems
<b>TSB 40</b>	Framework specification for passive components (100 Ohm, unsheathed)		

Keyword	Page
10.8 V - base	2.30
18 V - base	2.34
<b>A</b>	
Accessories for hydraulic tools	7.11
Accessory	9.18
Alphabetical index	i-16
Alphanumerical Index	i-17
Aluminium compression cable lugs acc. to DIN 46329 and similar versions	1.82
Aluminium compression cable lugs and connectors acc. to DIN	1.80
Aluminium compression joints acc. to DIN 46267 part 2 and similar versions	1.85
Aluminium compression joints, full tension	1.89
Aluminium reduction compression joints	1.87
Aluminium/copper compression cable lugs and connectors	1.92
Aluminium/copper compression cable lugs	1.94
Aluminium/copper compression joints	1.97
Angle compression cable lugs	1.48
Angle tubular cable lugs	1.11
Assembly instructions for cable lugs and connectors	i-10
Assembly instructions for sleeves for type VHR and VHD compacted conductors	i-11
Assignment of cables and conductors	i-8
Assortment boxes with cable end-sleeves	1.167
Assortment boxes with insulated cable-end sleeves	1.168
Assortment boxes with insulated terminals	1.173
Assortment boxes with tubular and compression cable lugs	1.171
Assortments and sets	8.13, 8.22
Assortments	1.160
<b>B</b>	
Basic tools	8.27
Battery powered crimping tool	2.29
Battery powered cutting tools	3.10
Battery powered punching tool LS 50 FLEX	5.27
Battery powered punching tool LS100 FLEX	5.28
Battery powered universal tools	6.11
Bi-metallic washer	1.100
Bits and step bits	5.48
Bits, holders and adapters	8.20
Bus bar tool centre	6.15
<b>C</b>	
C- and H-shaped clamps - copper	1.107
Cable connections, insulated and non insulated	1.136
Cable end-sleeves DIN 46228, part 1 and part 2	1.122
Cable end-sleeves	1.120
Cable puller with accessory	9.15
Cable puller	9.14
Cable pulling systems	9.8
Cable pulling technology - Typical applications	i-13
Clamps and screw connectors	1.102
Compact tab connectors, high resistant aluminium alloy	1.115
Compression cable lugs acc. to DIN 46235	1.46
Compression cable lugs, special type	1.52
Compression joints acc. to DIN 46267, part 1 and similar versions	1.54
Connectors	1.15
Copper compression cable lugs and connectors acc. to DIN	1.44
Copper terminals, connectors and pin terminals acc. to DIN	1.62
Copper tubular cable lugs and connectors	1.4
Crimping dies	2.80

Keyword	Page
<b>D</b>	
DIN rail cutting tools	3.49
<b>E</b>	
Easy Roller (cable drum unwinder)	9.14
Easy Roller Plus	9.15
Electrical properties	i-9
Electro mechanical crimping tool	6.6
Electromechanical crimping tool for cable end-sleeves and twin cable end-sleeves	6.5
Electromechanical cutting tool	6.8
Electromechanical universal tool	6.4
Electronic / precision mechanic's tools	8.19
<b>F</b>	
Fibreglass cable pulling rods	9.7
Fish tapes in winder case	9.10
Fish tapes/pulling rods	9.6
Flexible connectors	1.154
Flex-O-Twist speed flex leader	9.7
<b>G</b>	
General notes	i-11
General technical information	i-13
<b>H</b>	
Hand-operated hydraulic crimping tools	2.55
Hand-operated hydraulic cutting tools	3.39
Hand-operated hydraulic universal tool, hydraulic universal head	6.10
Hole saws	5.40
Holemaking systems	i-14
HSS bi-metal hole saws	5.42
Hydraulic crimping heads and crimping systems	2.67
Hydraulic crimping heads	2.68
Hydraulic crimping systems	2.78
Hydraulic cutting heads and cutting systems	3.41
Hydraulic cutting heads	3.42
Hydraulic cutting systems	3.47
Hydraulic pumps	7.5
Hydraulic punches	i-14
<b>I</b>	
Insulated cable end-sleeves for short circuit resistant conductors	1.130
Insulated cable-end sleeves acc. to DIN 46228, part 4 and similar versions	1.125
Insulated cable-end sleeves, strips and tapes	1.132
Insulated solderless terminals for meter connections	1.70
Insulated solderless terminals	1.66
Insulated terminals	1.138
Insulated tubular cable lugs und connectors	1.19
Insulated twin cable-end sleeves	1.131
<b>K</b>	
KWSET Keyway punch	5.24
<b>L</b>	
L-BOXEs	1.180
Legend of pictograms used for connecting materials	i-4
Legend of pictograms used for crimp profiles	i-2
Legend of pictograms used for test marks	i-5
Legend of pictograms used for type of cable	i-3



Keyword	Page
Legends of the different pictograms	i-2
<b>M</b>	
Marking of conductors and cables according to European harmonised standard	i-7
Markings of conductors and cables according to VDE (Germany)	i-6
Material properties	i-9
Measuring and marking	8.25
Mechanical and hydraulic punching tools	5.24
Mechanical crimping tools with interchangeable dies	2.22
Mechanical crimping tools	2.4, 2.6
Mechanical cutting tools	3.4
Mechanical properties	i-9
Metric cable glands EN50262	i-14
<b>N</b>	
Non insulated flat connectors	1.149
Nylon	9.6
<b>P</b>	
Parallel groove clamps - copper	1.106
Perlon	9.6
Platform based on 10.8 V	3.11
Platform based on 18 V	3.14
Pliers	8.6
Pocket boxes with cable end-sleeves	1.162
Pocket boxes with insulated cable end-sleeves	1.163
Polyester Butler	9.14
Polyester	9.6
Processing instructions for connecting materials	i-10
Pulling grips	9.16
Pulling grips, closed	9.16
Pulling grips, open	9.17
Pumps	7.4
Punched cable lugs - copper	1.104
Punching tools and sets	5.22
<b>R</b>	
Round and special shape punches	5.4
<b>S</b>	
Safety cutters	4.14
Screw connector for shielded copper wires	1.109
Screw connectors for street lighting - brass	1.109
Screw connectors with soldering hole - brass	1.105
Screw connectors, high-resistant aluminium alloy	1.110
Screwdrivers	8.10
Series 4	2.84
Series 13	2.91
Series 15	2.95
Series 22	2.87
Series 25	2.96
Series 50	2.82
Sleeves for compacted conductors and sector-shaped conductors - copper	1.74
Slug Buster® punch sets	5.30
Slug Buster® punch systems	5.8
Slug Buster® punching tools and sets	5.35
Slug-Splitter® punch sets	5.34
Slug-Splitter® punch system for stainless steel	5.9
Smart Butler	9.12

Keyword	Page
Solderless connectors acc. to DIN 46341, part 1	1.70
Solderless terminals acc. to DIN 46234	1.64
Solderless terminals, fork and pin type	1.68
Special cutting tools	3.48
Special properties of connecting materials	i-9
Special shape punches	5.13
Speed-Punch™ punch sets	5.32
Speed-Punch™ punch system	5.10
Standard punch systems	5.6
Standard tools and accessory	8.17
Standards an norms	i-15
Steel carrying cases / bags	1.175
Stripping tools for communication technology	8.39
Stripping tools	8.38
<b>T</b>	
Tool cases	8.30
Tubular cable lugs and compression joints for solid conductors	1.22
Tubular cable lugs and connectors - nickel	1.40
Tubular cable lugs and connectors - nickel, stainless steel	1.36
Tubular cable lugs and connectors - stainless steel	1.38
Tubular cable lugs and connectors for fine stranded conductors	1.25
Tubular cable lugs for switchgear connections	1.10
Tubular cable lugs	1.6
<b>V</b>	
VDE tools	8.4
VDE-battery powered crimping and cutting tools	4.4
VDE-battery powered crimping tools	4.6
VDE-battery powered cutting tools	4.9
<b>W</b>	
Water pump pliers, fitting pliers	8.18
Widely used names for conductors and cables	i-6
Wire stripping tools	8.34, 8.35
Wiring duct cutter	3.50
With fibreglass tapes (Speedy Spinner)	9.9
With Polyester tapes (Dura Spinner and Flexi Spinner)	9.8

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
101R5	1.46	110R10	1.47	12R20	1.9	161R5	1.48
101R6	1.46	110R12	1.47	12R20MS	1.9	161R545	1.50
101R8	1.46	110R14	1.47	12SG10	1.10	161R6	1.48
1020	1.141	110R16	1.47	12SG12	1.10	161R645	1.50
1020V	1.142	110R20	1.47	12SG16	1.10	162010	1.64
102R5	1.46	111R10	1.47	130R	1.54	162025	1.64
102R6	1.46	111R12	1.47	131R	1.54	16203	1.64
102R8	1.46	111R14	1.47	132R	1.54	162035	1.64
1030	1.141	111R16	1.47	133R	1.54	16204	1.64
1030V	1.142	111R20	1.47	134R	1.54	16205	1.64
103R10	1.46	112R12	1.47	135R	1.54	16206	1.64
103R12	1.46	112R14	1.47	136DP12	1.53	16208	1.64
103R6	1.46	112R16	1.47	136DP212	1.53	1620C3	1.68
103R8	1.46	112R20	1.47	136R	1.54	1620C35	1.68
104R10	1.46	1130	1.146	137DP12	1.53	1620C4	1.68
104R12	1.46	113R12	1.47	137DP212	1.53	1620C5	1.68
104R6	1.46	113R14	1.47	137R	1.54	1620C6	1.68
104R8	1.46	113R16	1.47	138DP12	1.53	1620K	1.70
1050	1.141	113R20	1.47	138DP212	1.53	1620L	1.71
1050V	1.142	114R14	1.47	138R	1.54	162R	1.16
105R10	1.46	114R16	1.47	139DP12	1.53	162R5	1.48
105R12	1.46	114R20	1.47	139DP212	1.53	162R545	1.50
105R14	1.46	1150	1.146	13R12	1.9	162R6	1.48
105R6	1.46	115R16	1.47	13R12MS	1.9	162R645	1.50
105R8	1.46	115R20	1.47	13R14	1.9	162R8	1.48
106R10	1.47	116R16	1.47	13R14MS	1.9	162R845	1.50
106R12	1.47	116R20	1.47	13R16	1.9	163010	1.64
106R14	1.47	117R16	1.47	13R16MS	1.9	163012	1.64
106R16	1.47	117R20	1.47	13R20	1.9	16303	1.64
106R8	1.47	118R16	1.47	13R20MS	1.9	163035	1.64
107R10	1.47	118R20	1.47	13SG10	1.10	16304	1.64
107R12	1.47	11R10	1.9	13SG12	1.10	16305	1.64
107R14	1.47	11R10MS	1.9	13SG16	1.10	16306	1.64
107R16	1.47	11R12	1.9	147D212	1.52	16308	1.64
107R8	1.47	11R12MS	1.9	148D212	1.52	1630C3	1.68
108R10	1.47	11R14	1.9	148R	1.16	1630C35	1.68
108R12	1.47	11R14MS	1.9	149D212	1.52	1630C4	1.68
108R14	1.47	11R16	1.9	149R	1.16	1630C5	1.68
108R16	1.47	11R16MS	1.9	14R12	1.9	1630C6	1.68
108R8	1.47	11R20	1.9	14R12MS	1.9	1630K	1.70
109R10	1.47	11R20MS	1.9	14R14	1.9	1630L	1.71
109R12	1.47	11SG10	1.10	14R16	1.9	163R	1.16
109R14	1.47	11SG12	1.10	14R16MS	1.9	163R10	1.48
109R16	1.47	11SG16	1.10	14R20	1.9	163R1045	1.50
109R20	1.47	121R	1.54	14R20MS	1.9	163R12	1.48
10R10	1.9	122R	1.54	150D212	1.52	163R1245	1.50
10R10MS	1.9	123R	1.54	150R	1.16	163R6	1.48
10R12	1.9	124R	1.54	151D212	1.52	163R645	1.50
10R12MS	1.9	125R	1.54	151R	1.16	163R8	1.48
10R14	1.9	126R	1.54	152D212	1.52	163R845	1.50
10R14MS	1.9	127R	1.54	152R	1.16	164R10	1.48
10R16	1.9	128R	1.54	153R	1.16	164R1045	1.50
10R16MS	1.9	129R	1.54	154R	1.16	164R12	1.48
10R20	1.9	12R10	1.9	155R	1.16	164R1245	1.50
10R20MS	1.9	12R10MS	1.9	156R	1.16	164R6	1.48
10R8	1.9	12R12	1.9	157R	1.16	164R645	1.50
10R8MS	1.9	12R12MS	1.9	158R	1.16	164R8	1.48
10SG10	1.10	12R14	1.9	158R	1.16	164R845	1.50
10SG12	1.10	12R14MS	1.9	159R	1.16	165010	1.64
10SG6	1.10	12R16	1.9	160R	1.16	165012	1.64
10SG8	1.10	12R16MS	1.9	161R	1.16	16504	1.64



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
16505	1.64	165910	1.65	1696	1.128	172RM	1.127
16506	1.64	165912	1.65	1698	1.128	172R0	1.127
16508	1.64	165916	1.65	1690K	1.126	1730	1.149
1650C4	1.68	16598	1.65	169R10	1.49	1730AZ	1.149
1650C5	1.68	1659K	1.70	169R1045	1.51	17312	1.128
1650C6	1.68	1659L	1.71	169R12	1.49	17318	1.128
1650C8	1.68	165R10	1.48	169R1245	1.51	1738	1.128
1650K	1.70	165R1045	1.50	169R14	1.49	173B	1.127
1650L	1.71	165R12	1.48	169R1445	1.51	173BH	1.127
165210	1.64	165R1245	1.50	169R16	1.49	173BL	1.127
165212	1.64	165R14	1.48	169R1645	1.51	17410	1.128
16525	1.64	165R8	1.48	169R20	1.49	17412	1.128
16526	1.64	165R845	1.50	169R2045	1.51	17418	1.128
16528	1.64	166010	1.65	1706	1.128	174GR	1.127
1652C5	1.68	166012	1.65	1708	1.128	174GRH	1.127
1652C6	1.68	166016	1.65	170R10	1.49	174GRL	1.127
1652K	1.70	1660K	1.70	170R1045	1.51	1750	1.149
1652L	1.71	1660L	1.71	170R12	1.49	17512	1.128
165310	1.64	166112	1.65	170R1245	1.51	17518	1.128
165312	1.64	166116	1.65	170R14	1.49	175S	1.127
16535	1.64	166212	1.65	170R1445	1.51	175SL	1.127
16536	1.64	166216	1.65	170R16	1.49	17612	1.129
16538	1.64	1666	1.128	170R1645	1.51	17618	1.129
1653C6	1.68	1668	1.128	170R20	1.49	176E	1.127
1653K	1.70	166GR	1.126	170R2045	1.51	176EL	1.127
1653L	1.71	166GRL	1.126	170W	1.127	17712	1.129
165410	1.65	166R10	1.48	170WH	1.127	17718	1.129
165412	1.65	166R1045	1.50	170WK	1.127	177GR	1.127
165416	1.65	166R12	1.48	170WL	1.127	177GRL	1.127
16545	1.65	166R1245	1.50	1716	1.128	17816	1.129
16546	1.65	166R14	1.48	1718	1.128	17818	1.129
16548	1.65	166R1445	1.50	171G	1.127	17822	1.129
1654K	1.70	166R16	1.48	171GH	1.127	178BR	1.127
1654L	1.71	166R1645	1.50	171GK	1.127	178BRL	1.127
165510	1.65	166R8	1.48	171GL	1.127	179B	1.127
165512	1.65	166R845	1.50	171R10	1.49	179BL	1.127
165516	1.65	1676	1.128	171R1045	1.51	17R	1.15
16556	1.65	1678	1.128	171R12	1.49	1800	1.127
16558	1.65	167H	1.126	171R1245	1.51	181R	1.57
1655K	1.70	167HL	1.126	171R14	1.49	18201A	1.149
1655L	1.71	167R10	1.49	171R1445	1.51	18202	1.149
165610	1.65	167R1045	1.51	171R16	1.49	18203	1.149
165612	1.65	167R12	1.49	171R1645	1.51	18203AZ	1.149
165616	1.65	167R1245	1.51	171R20	1.49	18251	1.149
16566	1.65	167R14	1.49	171R2045	1.51	18251A	1.149
16568	1.65	167R16	1.49	1720	1.149	182R	1.57
1656K	1.70	167R1645	1.51	17210	1.128	1830	1.151
1656L	1.71	167R8	1.49	17212	1.128	18303	1.149
165710	1.65	167R845	1.51	17218	1.128	18303AZ	1.149
165712	1.65	1686	1.128	1726	1.128	183R	1.57
165716	1.65	1688	1.128	1728	1.128	184R	1.57
16576	1.65	168R10	1.49	172R12	1.49	185R	1.57
16578	1.65	168R1045	1.51	172R1245	1.51	186R	1.57
1657K	1.70	168R12	1.49	172R14	1.49	187R	1.57
1657L	1.71	168R1245	1.51	172R1445	1.51	188R	1.57
165810	1.65	168R14	1.49	172R16	1.49	189R	1.57
165812	1.65	168R1445	1.51	172R1645	1.51	18R	1.15
165816	1.65	168R16	1.49	172R20	1.49	190R	1.57
16588	1.65	168R1645	1.51	172RH	1.127	191R	1.57
1658K	1.70	168T	1.126	172RK	1.127	192R	1.57
1658L	1.71	168TL	1.126	172RL	1.127	193R	1.57

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
19R	1.15	222R	1.85	268R10	1.82	2785	1.152
1R10	1.8	2230	1.151	268R10V	1.82	2790	1.152
1R10MS	1.8	2235	1.151	268R12	1.82	27R	1.15
1R12	1.8	223R	1.85	268R12V	1.82	284R16	1.88
1R12MS	1.8	224R	1.85	268R16	1.82	285R25	1.88
1R5	1.8	2250	1.151	268R16V	1.82	286R25	1.88
1R5MS	1.8	225R	1.85	269R10	1.82	286R35	1.88
1R6	1.8	226R	1.85	269R10V	1.82	287R25	1.88
1R6MS	1.8	227R	1.85	269R12	1.82	287R35	1.88
1R8	1.8	228R	1.85	269R12V	1.82	287R50	1.88
1R8MS	1.8	229R	1.85	269R16	1.82	288R25	1.88
2010	1.153	22R	1.15	269R16V	1.82	288R35	1.88
2020	1.153	230R	1.85	26R	1.15	288R50	1.88
2025	1.153	231R	1.85	270R10	1.83	288R70	1.88
202R6	1.84	232R	1.85	270R10V	1.83	289R70	1.88
202R8	1.84	233R	1.85	270R12	1.83	289R95	1.88
2030	1.153	234R	1.85	270R12V	1.83	28R	1.15
2035	1.153	235R	1.85	270R16	1.83	290R120	1.88
203R10	1.84	23R	1.15	270R16V	1.83	290R70	1.88
203R8	1.84	243R	1.89	271R10	1.83	290R95	1.88
2040	1.152	244R	1.89	271R10V	1.83	291R120	1.88
2045	1.152	245R	1.89	271R12	1.83	291R150	1.88
204R10	1.84	246R	1.89	271R12V	1.83	292R120	1.88
204R8	1.84	247R	1.89	271R16	1.83	292R150	1.88
205R10	1.84	248R	1.89	271R16V	1.83	292R95	1.88
205R12	1.84	249R	1.89	271R20	1.83	29R	1.15
2060	1.152	24R	1.15	271R20V	1.83	2R10	1.8
206R10	1.84	250R	1.89	2720	1.150	2R10MS	1.8
206R12	1.84	251R	1.89	272R10	1.83	2R12	1.8
2070	1.152	252R	1.89	272R10V	1.83	2R12MS	1.8
2075	1.152	253R	1.89	272R12	1.83	2R5	1.8
207R10	1.84	25A13	2.96	272R12V	1.83	2R5MS	1.8
207R12	1.84	25R	1.15	272R16	1.83	2R6	1.8
2080	1.152	263R10	1.82	272R16V	1.83	2R6MS	1.8
2083	1.152	263R10V	1.82	272R20	1.83	2R8	1.8
208R10	1.84	263R8	1.82	272R20V	1.83	2R8MS	1.8
208R12	1.84	263R8V	1.82	2730	1.150	302R6	1.95
208R16	1.84	264R10	1.82	273R12	1.83	302R8	1.95
2090	1.152	264R10V	1.82	273R12V	1.83	303R10	1.95
209R12	1.84	264R12	1.82	273R16	1.83	303R8	1.95
209R16	1.84	264R12V	1.82	273R16V	1.83	304R10	1.96
20R	1.15	264R8	1.82	273R20	1.83	304R8	1.95
2105	1.152	264R8V	1.82	273R20V	1.83	305R10	1.96
210R12	1.84	265R10	1.82	274R12	1.83	305R12	1.96
210R16	1.84	265R10V	1.82	274R12V	1.83	306R10	1.96
2115	1.152	265R12	1.82	274R16	1.83	306R12	1.96
211R12	1.84	265R12V	1.82	274R16V	1.83	307R10	1.96
211R16	1.84	265R8	1.82	274R20	1.83	307R12	1.96
211R20	1.84	265R8V	1.82	274R20V	1.83	308R10	1.96
2123	1.153	266R10	1.82	2750	1.150	308R12	1.96
212R12	1.84	266R10V	1.82	2755	1.151	308R16	1.96
212R16	1.84	266R12	1.82	275R12	1.83	309R12	1.96
212R20	1.84	266R12V	1.82	275R12V	1.83	309R16	1.96
213R16	1.84	266R8	1.82	275R16	1.83	30R	1.15
213R20	1.84	266R8V	1.82	275R16V	1.83	310R12	1.96
2140	1.153	267R10	1.82	275R20	1.83	310R16	1.96
2145	1.153	267R10V	1.82	275R20V	1.83	311R12	1.96
214R16	1.84	267R12	1.82	2760	1.151	311R16	1.96
214R20	1.84	267R12V	1.82	2770	1.152	311R20	1.96
21R	1.15	267R8	1.82	2775	1.152	312R12	1.96
2220	1.151	267R8V	1.82	2780	1.152	312R16	1.96

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
312R20	1.96	332R120	1.98	372R10	1.95	42R10	1.11
313R16	1.96	332R150	1.98	372R12	1.95	42R1045	1.13
313R20	1.96	332R185	1.98	372R16	1.95	42R12	1.11
314R16	1.96	332R240	1.98	372R20	1.95	42R1245	1.13
314R20	1.96	332R50	1.98	3735	1.150	42R5	1.11
31R	1.15	332R70	1.98	3738	1.129	42R545	1.13
322R10	1.97	332R95	1.98	373R10	1.95	42R6	1.11
322R16	1.97	333R120	1.98	373R12	1.95	42R645	1.13
323R10	1.97	333R150	1.98	373R16	1.95	42R8	1.11
323R16	1.97	333R185	1.98	373R20	1.95	42R845	1.13
324R10	1.97	333R240	1.98	374R12	1.95	430R120	1.87
324R16	1.97	333R300	1.98	374R16	1.95	430R70	1.87
324R25	1.97	33R	1.15	380/+	1.130	430R95	1.87
324R35	1.97	344R	1.99	380/-	1.130	431R120	1.87
324R416	1.97	345R	1.99	380/0 bis 9	1.130	431R150	1.87
324R50	1.97	346R	1.99	380/A bis Z	1.130	431R70	1.87
325R16	1.97	347R	1.99	3R10	1.8	431R95	1.87
325R25	1.97	348R	1.99	3R10MS	1.8	43210	1.130
325R35	1.97	349R	1.99	3R12	1.8	4328	1.130
325R50	1.97	34R	1.15	3R12MS	1.8	432R120	1.87
325R616	1.97	350R	1.99	3R5	1.8	432R150	1.87
325R625	1.97	351R	1.99	3R5MS	1.8	432R185	1.87
325R635	1.97	352R	1.99	3R6	1.8	43312	1.130
326R16	1.97	353R	1.99	3R6MS	1.8	4338	1.130
326R25	1.97	363R10	1.94	3R8	1.8	433R150	1.87
326R35	1.97	363R8	1.94	3R8MS	1.8	433R185	1.87
326R50	1.97	364R10	1.94	405R	1.86	433R240	1.87
327R120	1.98	364R12	1.94	406R	1.86	43410	1.130
327R16	1.97	364R8	1.94	407R	1.86	434R300	1.87
327R25	1.98	365R10	1.94	408R	1.86	43512	1.130
327R35	1.98	365R12	1.94	409R	1.86	43612	1.130
327R50	1.98	365R8	1.94	410R	1.86	43712	1.130
327R70	1.98	366R10	1.94	411R	1.86	43R10	1.11
327R95	1.98	366R12	1.94	412R	1.86	43R1045	1.13
328R120	1.98	366R8	1.94	413R	1.86	43R12	1.11
328R16	1.98	367R10	1.94	414R	1.86	43R1245	1.13
328R25	1.98	367R12	1.94	416R	1.86	43R5	1.11
328R35	1.98	367R8	1.94	417R	1.86	43R545	1.13
328R50	1.98	368R10	1.94	418R	1.86	43R6	1.11
328R70	1.98	368R12	1.94	419R	1.86	43R645	1.13
328R95	1.98	368R16	1.94	41R10	1.11	43R8	1.11
329R120	1.98	368R8	1.94	41R1045	1.13	43R845	1.13
329R35	1.98	3698	1.129	41R12	1.11	44R10	1.11
329R50	1.98	369R10	1.94	41R1245	1.13	44R1045	1.13
329R70	1.98	369R12	1.94	41R5	1.11	44R12	1.11
329R95	1.98	369R16	1.94	41R545	1.13	44R1245	1.13
32R	1.15	369R8	1.94	41R6	1.11	44R14	1.11
330R120	1.98	3708	1.129	41R645	1.13	44R1445	1.13
330R150	1.98	370R10	1.94	41R8	1.11	44R5	1.11
330R16	1.98	370R12	1.94	41R845	1.13	44R545	1.13
330R25	1.98	370R16	1.94	420R	1.86	44R6	1.11
330R35	1.98	370R8	1.94	421R	1.86	44R645	1.13
330R50	1.98	3718	1.129	422R	1.86	44R8	1.11
330R70	1.98	371R10	1.95	423R	1.86	44R845	1.13
330R95	1.98	371R12	1.95	424R	1.86	45R10	1.11
331R120	1.98	371R16	1.95	425R25	1.87	45R1045	1.13
331R150	1.98	371R20	1.95	426R35	1.87	45R12	1.11
331R185	1.98	371R8	1.95	428R50	1.87	45R1245	1.13
331R50	1.98	3720	1.150	428R70	1.87	45R14	1.11
331R70	1.98	3725	1.150	429R70	1.87	45R16	1.11
331R95	1.98	3728	1.129	429R95	1.87	45R1645	1.13



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
45R6	1.11	47R645	1.14	50052306	6.16	50188909	5.7
45R645	1.13	47R8	1.12	50052314	6.16	50188917	5.7
45R8	1.11	47R845	1.14	50052322	6.16	50188925	5.7
45R845	1.13	48020	1.126	50052330	6.16	50191314	5.42
46910	1.125	48025	1.126	50052349	6.16	50191772	5.43
4696	1.125	48121	1.126	50052357	6.16	50191780	5.43
4698	1.125	48225	1.126	50052365	6.16	50191799	5.43
46R10	1.12	48327	1.126	50052373	6.16	50191802	5.43
46R1045	1.14	48432	1.126	50052381	6.16	50191810	5.43
46R12	1.12	48R10	1.12	50053043	5.20	50191829	5.43
46R1245	1.14	48R1045	1.14	50053078	5.17	50191837	5.43
46R14	1.12	48R12	1.12	50067273	5.8	50191845	5.43
46R16	1.12	48R1245	1.14	50068920SET	5.37	50199803	5.7
46R1645	1.14	48R14	1.12	50069292	5.46	50206672	5.6
46R20	1.12	48R16	1.12	50069497SET	5.44	50206680	5.6
46R6	1.12	48R1645	1.14	50069519	5.9	50206702	5.6
46R645	1.14	48R20	1.12	50069527	5.9	50206710	5.6
46R8	1.12	48R2045	1.14	50069535	5.9	50206737	5.6
46R845	1.14	48R8	1.12	50069543	5.9	50206761	5.7
47010	1.125	48R845	1.14	50069551	5.9	50206788	5.7
47012	1.125	49R10	1.12	50069560	5.9	50206796	5.7
4706	1.125	49R1045	1.14	50069578	5.9	50211153	5.6
4708	1.125	49R12	1.12	50069586	5.9	50212141	5.7
47110	1.125	49R1245	1.14	50069594	5.9	50212168	5.7
47112	1.125	49R14	1.12	50069608	5.9	50215191	5.7
4716	1.125	49R1445	1.14	50069616	5.9	50225634	5.6
4718	1.125	49R16	1.12	50069624	5.9	50225642	5.6
47210	1.125	49R1645	1.14	50069632	5.9	50225650	5.7
47212	1.125	49R20	1.12	50069640	5.9	50225677	5.7
47218	1.125	49R8	1.12	50069659	5.9	50244760	5.6
4726	1.125	49R845	1.14	50069667	5.9	50244779	5.7
4728	1.125	4R10	1.8	50069691	5.46	50253417	5.6
47312	1.125	4R10MS	1.8	50069845	5.51	50253425	5.6
47318	1.125	4R12	1.8	50069853	5.51	50253441	5.6
4738	1.125	4R12MS	1.8	50069861	5.51	50253492	5.7
47410	1.125	4R14	1.8	50069870	5.51	50253506	5.7
47412	1.125	4R14MS	1.8	50069888	5.51	50253514	5.7
47418	1.125	4R5	1.8	50069900	5.52	50253603	5.7
47512	1.125	4R5MS	1.8	50115286	6.16	50253611	5.7
47518	1.125	4R6	1.8	50115294	6.16	50253727	5.7
47612	1.125	4R6MS	1.8	50115308	6.16	50253832	5.7
47618	1.125	4R8	1.8	50115316	6.16	50254030	5.7
47712	1.126	4R8MS	1.8	50115324	6.16	50254278	5.7
47718	1.126	50000420	5.11	50115332	6.16	50254286	5.7
47816	1.126	50016962	9.11	50115340	6.16	50265342	5.24
47818	1.126	50024086	5.6	50115359	6.16	50292099SET	5.44
47822	1.126	50024094	5.6	50115367	6.16	50294512	5.12
47916	1.126	50024337	5.6	50115375	6.16	50294520	5.12
47918	1.126	50031708	5.12	50115383	6.16	50305581	9.16
47925	1.126	50040405	5.11	50115391	6.16	50305603	9.16
47R10	1.12	50041886	5.11	50115413	3.49	50305620	9.16
47R1045	1.14	50042181	5.11	50115472	5.30	50305646	9.16
47R12	1.12	50052128	6.15	50115723	5.14	50305662	9.16
47R1245	1.14	50052144	6.17	50121510	5.52	50305689	9.16
47R14	1.12	50052152	6.17	50125630SET	5.44	50305700	9.16
47R1445	1.14	50052160	6.17	50125630SET	5.45	50305727	9.16
47R16	1.12	50052241	6.15	50125701	3.50	50305743	9.16
47R1645	1.14	50052250	6.15	50132849	7.10	50305760	9.16
47R20	1.12	50052276	6.16	50186353	5.7	50305786	9.16
47R2045	1.14	50052284	6.16	50188860	5.6	50305808	9.16
47R6	1.12	50052292	6.16	50188879	5.6	50305824	9.16

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
50305840	9.16	50356143SET	5.36	50610106	5.14	52034233	5.37
50305867	9.16	50356151SET	5.35	50610137	5.14	52041709	9.10
50305883	9.16	50356160SET	5.36	50610281	5.13	52041741	9.10
50305905	9.16	50356178SET	5.37	50610809	5.16	52041743	9.10
50305921	9.16	50357468	9.11	50610830	5.16	52041745	9.10
50305948	9.16	50360183	5.50	50610861	5.16	52041746	9.10
50305964	9.16	50361716	5.8	50610892	5.16	52041747	9.10
50306588	9.17	50365061	5.6	50610922	5.16	52041748	9.11
50306600	9.17	50365088	5.8	50610953	5.16	52041749	9.11
50306626	9.17	50366904SET	5.31	50611257	5.15	52041750	9.10
50306642	9.17	50366912SET	5.32	506R	1.56	52041751	9.10
50306669	9.17	50366920	5.30	506RLD	1.56	52041752	9.11
50306685	9.17	50366939	5.31	50766797	5.34	52041753	9.11
50307584	9.17	50369105	5.6	50766803	5.34	52042827	5.12
50308599	9.7	50371541	5.46	50766919	6.16	52045296	5.13
50310100	9.16	50371550	5.46	507R	1.56	52045297	5.13
50310127	9.16	50371568	5.46	507RLD	1.56	52046100	5.20
50310143	9.16	50371576	5.46	508R	1.56	52049371	5.51
50310240	9.17	50377299	7.18	508RLD	1.56	52055260	9.6
50310267	9.17	50383167	7.18	509R	1.56	52055261	9.6
50310283	9.17	50385224	5.46	509RLD	1.56	52055262	9.6
50310305	9.17	504R	1.56	50R10	1.12	52055265	9.14
50310321	9.17	504RLD	1.56	50R1045	1.14	52055267	9.13
50313533	7.10	505R	1.56	50R12	1.12	52055268	9.13
50314823	9.17	505RLD	1.56	50R1245	1.14	52055270	9.6
50314831	9.17	50600010	5.14	50R14	1.12	52055271	9.6
50314840	9.17	50600168	5.14	50R1445	1.14	52055272	9.6
50319620	5.8	50600192	5.14	50R16	1.12	52055273	9.6
50319639	5.8	50600257	5.13	50R1645	1.14	52055274	9.6
50319647	5.8	50600311	5.13	50R20	1.12	52055275	9.6
50319655	5.8	50600346	5.13	50R8	1.12	52055276	9.6
50319663	5.8	50600370	5.13	50R845	1.14	52055277	9.6
50319892	5.8	50600400	5.13	510R	1.56	52055278	9.6
50319906	5.8	50600435	5.13	510RLD	1.56	52055279	9.6
50319914	5.8	50600478	5.13	511R	1.56	52055280	9.6
50319930	5.8	50600508	5.13	511RLD	1.56	52055281	9.6
50319957	5.8	50600532	5.13	512R	1.56	52055292	9.6
50319965	5.8	50600567	5.13	512RLD	1.56	52055293	9.6
50319981	5.8	50600591	5.13	51300430	5.12	52055294	9.6
50323989SET	5.38	50600621	5.13	513R	1.56	52055295	9.6
50328034SET	5.38	50600656	5.13	513RLD	1.56	52055296	9.6
50339672	5.12	50600680	5.13	514R	1.56	52055298	9.9
50341367	9.15	50600710	5.13	514RLD	1.56	52055299	9.9
50341375	9.15	50600745	5.13	51R10	1.12	52055300	9.9
50341383	9.15	50600770	5.16	51R1045	1.14	52055313	9.12
50342916	5.25	50601016	5.17	51R12	1.12	52055315	9.12
50342991	5.25	50601148	5.12	51R1245	1.14	52055316	9.12
50343629	9.15	50601156	5.20	51R14	1.12	52055320	9.14
50344200	5.18	50601172	5.20	51R1445	1.14	52055321	9.14
50344293	5.18	50601660	5.20	51R16	1.12	52055323	9.14
50344366	5.18	50601679	5.12	51R1645	1.14	52055325	9.12
50344374	5.18	50601687	5.14	51R20	1.12	52055326	9.12
50344447	5.18	50601717	5.14	51R2045	1.14	52055327	9.12
50351770	5.8	50601741	5.14	52020113	5.20	52055328	9.12
50351788	5.8	50601776	5.14	52033816	5.19	52055337	9.12
50351796	5.8	50602349	5.14	52033817	5.19	52055338	9.12
50351800	5.8	50602381	5.15	52033818	5.19	52055339	9.12
50351818	5.8	50602420	5.15	52033819	5.19	52055340	9.12
50351826	5.8	50602462	5.8	52033820	5.19	52055341	9.12
50351923	5.6	50610045	5.14	52033832	5.19	52055347	9.12
50356119SET	5.35	50610076	5.14	52033843	5.26	52055348	9.12

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
52055349	9.12	52057746	5.42	52085634	5.6	558R	1.105
52055350	9.12	52057747	5.42	52085671	5.8	559R	1.105
52055351	9.12	52057748	5.42	52085672	5.7	56C4	1.41
52055352	9.12	52057749	5.42	52085675	5.7	56C5	1.41
52055359	9.12	52057750	5.42	52085678	5.7	56N3	1.40
52055360	9.12	52057751	5.42	52085681	5.7	56N4	1.40
52055361	9.12	52057752	5.42	52085684	5.7	56N5	1.40
52055362	9.12	52057753	5.42	52085686	5.11	572R6	1.104
52055378	9.18	52057754	5.43	52085688	5.11	573R6	1.104
52055379	9.18	52057755	5.43	52085689	5.12	573R8	1.104
52055380	9.18	52057756	5.43	52085690	5.12	574R8	1.104
52055381	9.18	52057757	5.43	52085691	5.12	575R8	1.104
52055382	9.18	52057758	5.43	52085692	5.12	57C4	1.41
52055383	9.14	52057760	5.43	52085693	5.12	57C5	1.41
52055384	9.14	52057761	5.43	52085694	5.11	57C6	1.41
52055385	9.7	52057762	5.43	52086846	5.53	57N3	1.40
52055386	9.7	52057763	5.43	52086978	5.24	57N4	1.40
52055389	9.8	52057764	5.43	52093902	5.12	57N5	1.40
52055390	9.8	52057765	5.43	523R	1.55	57N6	1.40
52055391	9.8	52057766	5.43	524R	1.55	584R10	1.104
52055392	9.8	52057767	5.43	525R	1.55	584R8	1.104
52055401	9.15	52057768	5.43	526R	1.55	585R10	1.104
52055402	9.15	52057769	5.43	527R	1.55	585R12	1.104
52055403	9.15	52057770	5.43	528R	1.55	585R8	1.104
52055431	5.10	52057771	5.43	529R	1.55	586R10	1.104
52055432	5.10	52057773	5.43	52R10	1.12	586R12	1.104
52055433	5.10	52057774	5.43	52R1045	1.14	587R10	1.104
52055434	5.10	52057775	5.43	52R12	1.12	587R12	1.104
52055435	5.10	52057776	5.43	52R1245	1.14	588R10	1.104
52055436	5.10	52057777	5.43	52R14	1.12	588R12	1.104
52055437	5.10	52057778	5.43	52R16	1.12	589R10	1.104
52055438	5.10	52057779	5.43	52R1645	1.14	589R12	1.104
52055439	5.10	52057780	5.46	52R20	1.12	589R16	1.104
52055439SET	5.32	52057781	5.46	52R2045	1.14	58C4	1.41
52055440	5.10	52057782	5.46	530R	1.55	58C5	1.41
52055440SET	5.33	52057801	5.43	531R	1.55	58C6	1.41
52055684	3.49	52057802	5.43	532R	1.55	58N4	1.40
52057722	5.42	52057803	5.43	533R	1.55	58N5	1.40
52057723	5.42	52057804	5.43	534R	1.55	58N6	1.40
52057724	5.42	52057805	5.43	535R	1.55	58N8	1.40
52057725	5.42	52059292SET	5.44	53R12	1.12	590R12	1.104
52057726	5.42	52059293SET	5.44	53R1245	1.14	592R12	1.104
52057727	5.42	52059294SET	5.44	53R14	1.12	59C5	1.41
52057728	5.42	52059295SET	5.44	53R1445	1.14	59C6	1.41
52057729	5.42	52074656	9.8	53R16	1.12	59N5	1.40
52057730	5.42	52074657	9.8	53R1645	1.14	59N6	1.40
52057731	5.42	52074658	9.14	53R20	1.12	5R10	1.8
52057732	5.42	52084123	5.50	54R12	1.12	5R10MS	1.8
52057733	5.42	52084124	5.50	54R1245	1.14	5R12	1.8
52057734	5.42	52084125	5.50	54R14	1.12	5R12MS	1.8
52057735	5.42	52084126	5.50	54R1445	1.14	5R14	1.8
52057736	5.42	52084128	5.50	54R16	1.12	5R14MS	1.8
52057737	5.42	52084129	5.50	54R1645	1.14	5R16	1.8
52057738	5.42	52084131	5.50	54R20	1.12	5R16MS	1.8
52057739	5.42	52084132	5.50	551R	1.105	5R6	1.8
52057740	5.42	52084133	5.50	552R	1.105	5R6MS	1.8
52057741	5.42	52084134	5.50	553R	1.105	5R8	1.8
52057742	5.42	52084920	5.29	554R	1.105	5R8MS	1.8
52057743	5.42	52084941	5.29	555R	1.105	5SG6	1.10
52057744	5.42	52085453	5.50	556R	1.105	602R10	1.19
52057745	5.42	52085633	5.8	557R	1.105	602R12	1.19



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
602R5	1.19	620C3	1.139	6546	1.66	703F10	1.25
602R6	1.19	620C35	1.139	6548	1.66	703F12	1.25
602R8	1.19	620C4	1.139	65510	1.66	703F5	1.25
603R10	1.19	620C5	1.139	65512	1.66	703F6	1.25
603R12	1.19	620C6	1.139	65516	1.66	703F8	1.25
603R5	1.19	622R	1.21	6556	1.66	704	1.140
603R6	1.19	623R	1.21	6558	1.66	704F10	1.25
603R8	1.19	624R	1.21	65610	1.66	704F12	1.25
604R10	1.19	625R	1.21	65612	1.66	704F5	1.25
604R12	1.19	626R	1.21	65616	1.66	704F6	1.25
604R14	1.19	627R	1.21	6566	1.66	704F8	1.25
604R5	1.19	628R	1.21	6568	1.66	705	1.140
604R6	1.19	62N10	1.40	65710	1.67	705F10	1.25
604R8	1.19	62N6	1.40	65712	1.67	705F12	1.25
605R10	1.19	62N8	1.40	65716	1.67	705F14	1.25
605R12	1.19	62R	1.42	6576	1.67	705F6	1.25
605R14	1.19	63010	1.138	6578	1.67	705F8	1.25
605R16	1.19	6303	1.138	65810	1.67	705K	1.140
605R6	1.19	63035	1.138	65812	1.67	705V	1.122
605R8	1.19	6304	1.138	65816	1.67	706F10	1.25
606R10	1.20	6305	1.138	65910	1.67	706F12	1.25
606R12	1.20	6306	1.138	65912	1.67	706F14	1.25
606R14	1.20	6308	1.138	65916	1.67	706F16	1.25
606R16	1.20	630C3	1.139	65N10	1.40	706F6	1.25
606R20	1.20	630C35	1.139	65N12	1.40	706F8	1.25
606R8	1.20	630C4	1.139	65R	1.42	707F10	1.26
607R10	1.20	630C5	1.139	66010	1.67	707F12	1.26
607R12	1.20	630C6	1.139	66012	1.67	707F14	1.26
607R16	1.20	63N10	1.40	66016	1.67	707F16	1.26
607R6	1.20	63N8	1.40	669	1.147	707F8	1.26
607R8	1.20	63R	1.42	66R	1.42	707V	1.122
608R10	1.20	64N10	1.40	670	1.147	708F10	1.26
608R12	1.20	64N12	1.40	670WS	1.147	708F12	1.26
608R8	1.20	64R	1.42	680	1.147	708F14	1.26
609R10	1.20	65010	1.138	680WS	1.147	708F16	1.26
609R12	1.20	65012	1.138	695V	1.122	708F8	1.26
60C5	1.41	6504	1.138	697V	1.122	709F10	1.26
60C6	1.41	6505	1.138	6R10	1.9	709F12	1.26
60C8	1.41	6506	1.138	6R10MS	1.9	709F14	1.26
60N10	1.40	6508	1.138	6R12	1.9	709F16	1.26
60N5	1.40	650C10	1.139	6R12MS	1.9	709F20	1.26
60N6	1.40	650C4	1.139	6R14	1.9	710	1.140
60N8	1.40	650C5	1.139	6R14MS	1.9	710F10	1.26
6192	1.138	650C6	1.139	6R16	1.9	710F12	1.26
61925	1.138	650C8	1.139	6R16MS	1.9	710F14	1.26
6193	1.138	65210	1.66	6R20	1.9	710F16	1.26
61935	1.138	65212	1.66	6R20MS	1.9	710F20	1.26
6194	1.138	6526	1.66	6R6	1.9	710K	1.140
6195	1.138	6528	1.66	6R6MS	1.9	710L	1.140
619C3	1.139	652C5	1.70	6R8	1.9	7110V	1.122
61N10	1.40	652C6	1.70	6R8MS	1.9	7112V	1.122
61N6	1.40	65310	1.66	6SG10	1.10	7115V	1.122
61N8	1.40	65312	1.66	6SG6	1.10	711F10	1.26
62010	1.138	6535	1.66	6SG8	1.10	711F12	1.26
62025	1.138	6536	1.66	700	1.147	711F14	1.26
6203	1.138	6538	1.66	700WS	1.147	711F16	1.26
62035	1.138	653C6	1.70	702F10	1.25	711F20	1.26
6204	1.138	65410	1.66	702F12	1.25	712F10	1.26
6205	1.138	65412	1.66	702F5	1.25	712F12	1.26
6206	1.138	65416	1.66	702F6	1.25	712F14	1.26
6208	1.138	6545	1.66	702F8	1.25	712F16	1.26

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
712F20	1.26	742F6	1.27	7615V	1.123	8032V	1.123
713F12	1.26	742F8	1.27	7618V	1.123	8051	1.154
713F14	1.26	743F10	1.27	7620V	1.123	80512	1.154
713F16	1.26	743F12	1.27	7625V	1.123	8052	1.154
713F20	1.26	743F5	1.27	769	1.148	80R	1.39
715	1.140	743F6	1.27	770	1.148	80V4	1.38
716V	1.122	743F8	1.27	7712V	1.123	80V5	1.38
718V	1.122	744F10	1.27	7715V	1.123	80V6	1.38
71S10V	1.122	744F12	1.27	7718V	1.123	8101	1.154
71S6V	1.122	744F5	1.27	7720V	1.123	81012	1.154
71S8V	1.122	744F6	1.27	7725V	1.123	8102	1.154
720	1.143	744F8	1.27	7732V	1.123	8122V	1.124
7208	1.143	745F10	1.27	775	1.154	8125V	1.124
720AZ	1.144	745F12	1.27	780	1.148	8130V	1.124
720BZ	1.144	745F6	1.27	7812V	1.123	8132V	1.124
720V	1.145	745F8	1.27	7815V	1.123	8151	1.155
7210V	1.122	746F10	1.27	7818V	1.123	81512	1.155
7212V	1.122	746F12	1.27	7820V	1.123	816	1.156
7215V	1.122	746F14	1.27	7825V	1.123	817	1.156
7218V	1.122	746F6	1.27	7828V	1.123	81R	1.39
7220V	1.122	746F8	1.27	7832V	1.123	81V4	1.38
722F	1.29	747F10	1.28	790	1.148	81V5	1.38
723F	1.29	747F12	1.28	7912V	1.123	81V6	1.38
724F	1.29	747F14	1.28	7915V	1.123	820	1.146
725	1.154	747F16	1.28	7918V	1.123	8201	1.143
725F	1.29	747F8	1.28	7920V	1.123	8201A	1.143
726F	1.29	748F10	1.28	7922V	1.123	8201AV	1.145
726V	1.122	748F12	1.28	7925V	1.123	8201B	1.146
727F	1.29	748F14	1.28	7930V	1.123	8201C	1.146
727V	1.122	748F16	1.28	7932V	1.123	8201V	1.145
728F	1.29	748F8	1.28	79R	1.39	8202	1.143
728V	1.122	748V	1.123	79V4	1.38	8202B	1.146
729F	1.29	749F10	1.28	79V5	1.38	8202V	1.145
72S10V	1.122	749F12	1.28	7R10	1.9	8203	1.143
72S12V	1.122	749F14	1.28	7R10MS	1.9	8203B	1.146
72S15V	1.122	749F16	1.28	7R12	1.9	8203V	1.145
72S6V	1.122	749V	1.123	7R12MS	1.9	8225V	1.124
72S8V	1.122	750	1.143	7R14	1.9	8230V	1.124
730	1.143	7509	1.143	7R14MS	1.9	8232V	1.124
7308	1.143	750AZ	1.144	7R16	1.9	8234V	1.124
730AZ	1.144	750BZ	1.144	7R16MS	1.9	82R	1.39
730BZ	1.144	750F10	1.28	7R20	1.9	82V5	1.38
730F	1.29	750F12	1.28	7R20MS	1.9	82V6	1.38
730V	1.145	750F14	1.28	7R6	1.9	82V8	1.38
7310V	1.122	750F16	1.28	7R6MS	1.9	830	1.146
7312V	1.122	750F20	1.28	7R8	1.9	8301	1.143
7315V	1.122	750V	1.145	7R8MS	1.9	8301A	1.143
7318V	1.122	7510V	1.123	7SG10	1.10	8301AV	1.145
731F	1.29	7512V	1.123	7SG12	1.10	8301V	1.145
7320V	1.122	7515V	1.123	7SG6	1.10	8302	1.143
735	1.154	7518V	1.123	7SG8	1.10	8302B	1.146
737V	1.122	751F12	1.28	8001	1.154	8302V	1.145
738V	1.122	751F14	1.28	80012	1.154	8303	1.143
7410V	1.123	751F16	1.28	8002	1.154	8303B	1.146
7412V	1.123	751F20	1.28	8011	1.155	8303V	1.145
7415V	1.123	7520V	1.123	80112	1.155	8330V	1.124
7418V	1.123	7525V	1.123	8012	1.155	8332V	1.124
7420V	1.123	752F16	1.28	8018V	1.123	8334V	1.124
742F10	1.27	755	1.154	8022V	1.123	8338V	1.124
742F12	1.27	7610V	1.123	8025V	1.123	8340V	1.124
742F5	1.27	7612V	1.123	8030V	1.123	83R	1.39



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
83V5	1.38	8R20MS	1.9	9R12MS	1.9	BAG9728	1.133
83V6	1.38	8R8	1.9	9R14	1.9	BAG9738	1.133
83V8	1.38	8R8MS	1.9	9R14MS	1.9	BAK9698	1.132
8432V	1.124	8SG10	1.10	9R16	1.9	BAK9708	1.132
8434V	1.124	8SG12	1.10	9R16MS	1.9	BAK9718	1.132
8438V	1.124	8SG6	1.10	9R20	1.9	BAK9728	1.132
8440V	1.124	8SG8	1.10	9R20MS	1.9	BAK9738	1.132
84R	1.39	90508068	7.17	9R8	1.9	BNC501	2.83
84V6	1.38	90510593	7.17	9R8MS	1.9	C2216	2.90
84V8	1.38	91C3	1.7	9SG10	1.10	C2225	2.90
850	1.146	91C4	1.7	9SG12	1.10	C2235	2.90
8502B	1.146	91C5	1.7	9SG6	1.10	C2250	2.90
8502V	1.145	91R3	1.6	9SG8	1.10	C2270	2.90
8503	1.143	91R4	1.6	A2210	2.89	CK16	1.107
8503B	1.146	91R5	1.6	A22150	2.89	CK25	1.107
8503V	1.145	920	1.141	A221625	2.89	CK35	1.107
8532V	1.124	920V	1.142	A22185	2.89	CK50	1.107
8540V	1.124	92C3	1.7	A22240	2.89	CK70	1.107
85R	1.39	92C4	1.7	A22300	2.89	CK95	1.107
85V6	1.38	92C5	1.7	A2235	2.89	CR501	2.83
85V8	1.38	92C6	1.7	A2250	2.89	CR502	2.83
8634V	1.124	92R3	1.6	A2270	2.89	CR504	2.83
8640V	1.124	92R4	1.6	A2295120	2.89	CR505	2.83
8678	1.131	92R5	1.6	A22SET	2.89	CS1022	1.100
8688	1.131	92R6	1.6	A300	1.130	CS1228	1.100
8698	1.131	930	1.141	AE2213120	2.90	CS1428	1.100
86R	1.39	93C4	1.7	AE2213120	2.94	CS1635	1.100
86V10	1.38	93C5	1.7	AE2213150	2.90	CS615	1.100
86V12	1.38	93C6	1.7	AE2213150	2.94	CS818	1.100
86V6	1.38	93R3	1.6	AE2213185	2.90	D2210	2.88
86V8	1.38	93R4	1.6	AE2213185	2.94	D22120	2.88
87010	1.131	93R5	1.6	AE2213240	2.90	D22150	2.88
8708	1.131	93R6	1.6	AE2213240	2.94	D2216	2.88
87110	1.131	93R8	1.6	AE221325	2.90	D22185	2.88
8718	1.131	94C4	1.7	AE221325	2.94	D22240	2.88
87212	1.131	94C5	1.7	AE221335	2.90	D2225	2.88
8728	1.131	94C6	1.7	AE221335	2.94	D22300	2.88
87310	1.131	94C8	1.7	AE221350	2.90	D2235	2.88
87313	1.131	94R4	1.6	AE221350	2.94	D2250	2.88
87412	1.131	94R5	1.6	AE221370	2.90	D226	2.88
87514	1.131	94R6	1.6	AE221370	2.94	D2270	2.88
87614	1.131	94R8	1.6	AE221395	2.90	D2295	2.88
87714	1.131	950	1.141	AE221395	2.94	D22SET	2.88
87R	1.39	950V	1.142	AE5071	2.82	D504	2.82
87V10	1.38	95C4	1.7	AE5072	2.82	D505	2.82
87V12	1.38	95C5	1.7	AE5073	2.82	DNK742	2.21
87V16	1.38	95C6	1.7	AE512550	2.18	DNP2	7.19
87V8	1.38	95C8	1.7	AE515095	2.18	DP2270	2.88
88R	1.39	95R4	1.6	AH120120	1.108	EBS12CFB	3.18
88V10	1.38	95R5	1.6	AH7070	1.108	EBS12CFM	3.18
88V12	1.38	95R6	1.6	AH9595	1.108	EBS12ML	3.11
88V8	1.38	95R8	1.6	AHP700L	7.9	EBS6LGKS	3.16
8R10	1.9	96C5	1.7	AS105FHP	3.47	EBS8CFB	3.17
8R10MS	1.9	96C6	1.7	AS120FHP	3.47	EBS8CFM	3.17
8R12	1.9	96C8	1.7	ASSG105L	4.16	EBS8ML	3.11
8R12MS	1.9	97C5	1.7	ASSG120SL	4.16	EC50ML	6.8
8R14	1.9	97C6	1.7	ASSGG105L	4.16	EHP2380	7.6
8R14MS	1.9	97C8	1.7	ASSGG85L	4.16	EHP3	7.7
8R16	1.9	9R10	1.9	BAG9698	1.133	EHP4115	7.8
8R16MS	1.9	9R10MS	1.9	BAG9708	1.133	EHP4230	7.8
8R20	1.9	9R12	1.9	BAG9718	1.133	EK12032CFB	2.46

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
EK12032CFM	2.46	ESG105CFM	3.37	HA1310	2.94	HD450	2.85
EK12042CFB	2.48	ESG105RMCCFM	3.21	HA13150	2.94	HD46	2.85
EK12042CFM	2.48	ESG105RMCPCFB	3.22	HA131625	2.94	HD470	2.85
EK120IDCFB	2.45	ESG105RMCPCFM0000	3.23	HA13185	2.94	HD495	2.85
EK120IDCFM	2.45	ESG105RMCPCFM	3.23	HA13240	2.94	HD4SET	2.85
EK120UCFB	2.50	ESG25CFB	3.24	HA13300	2.94	HDP13120	2.93
EK120UCFM	2.50	ESG25CFM	3.24	HA1335	2.94	HDP1350	2.93
EK120UNVCFB	6.13	ESG45CFB	3.31	HA1350	2.94	HDP1370	2.93
EK120UNVCFM	6.13	ESG45CFM	3.31	HA1370	2.94	HDP1395	2.93
EK135FTCFB	2.52	ESG55CFB	3.33	HA1395120	2.94	HF1310	2.92
EK135FTCFM	2.52	ESG55CFM	3.33	HA13SET	2.94	HF13120	2.92
EK30IDML	2.30	ESG65RMCCFM	3.21	HA15400	2.95	HF13150	2.92
EK354CFB	2.36	ESG85CFB	3.35	HA15500	2.95	HF1316	2.92
EK354CFM	2.36	ESG85CFM	3.35	HA25400	2.97	HF1325	2.92
EK354ML	2.32	ESGM452CFM0000	3.30	HA25500	2.97	HF1335	2.92
EK50ML	6.6	ESGM452CFM	3.30	HA410	2.86	HF1350	2.92
EK6022CFB	2.40	ESGM45CFB	3.29	HA41625	2.86	HF1370	2.92
EK6022CFM	2.40	ESGM45CFM	3.29	HA435	2.86	HF1395	2.92
EK60UNVCFB	6.12	ESM25CFB	3.25	HA450	2.86	HF25240	2.96
EK60UNVCFM	6.12	ESM25CFM	3.25	HA470	2.86	HF410	2.84
EK60VPCFB	2.42	ESM25ISM	4.11	HAES410S	2.86	HF416	2.84
EK60VPCFM	2.42	ESM25ISMB	4.11	HAES416S	2.86	HF425	2.84
EK60VPFTCFB	2.43	ESM35CFB	3.28	HAES425S	2.86	HF435	2.84
EK60VPFTCFM	2.43	ESM35CFM	3.28	HAES435S	2.86	HIS1310	2.92
EKM6022CFB	2.38	ESM35ISB	4.10	HAES450S	2.86	HIS13120	2.92
EKM6022CFM	2.38	ESM35ISM	4.10	HAH13120	2.94	HIS13150	2.92
EKM6022ISB	4.6	ESM50CFB	3.32	HAH1370	2.94	HIS1316	2.92
EKM6022ISM	4.6	ESM50CFM	3.32	HAH1395	2.94	HIS1325	2.92
EKM60IDCFB	2.44	ESM50ISB	4.9	HC1316	2.94	HIS1335	2.92
EKM60IDCFM	2.44	ESM50ISM	4.9	HC1325	2.94	HIS1350	2.92
EKM60IDISB	4.8	ESSG105L	4.15	HC1335	2.94	HIS1370	2.92
EKM60IDISM	4.8	ESSGG85L	4.15	HC1350	2.94	HIS1395	2.92
EKM60UNVCFB	6.11	F2210	2.88	HC1370	2.94	HIS410	2.84
EKM60UNVCFM	6.11	F2216	2.88	HC2595	2.97	HIS416	2.84
EKWF120ML	2.31	F2225	2.88	HC416	2.86	HIS425	2.84
EKWF50ML	6.5	F2235	2.88	HC425	2.86	HIS435	2.84
ES105CFB	3.38	F2250	2.88	HD1310	2.92	HIS450	2.84
ES105CFM	3.38	F2270	2.88	HD13120	2.92	HIS470	2.84
ES20CFB	3.19	FHP2	7.5	HD13150	2.92	HISQ1310	2.93
ES20CFM	3.19	FTA1	7.16	HD1316	2.92	HISQ1316	2.93
ES20E	3.12	FTA4	7.16	HD13185	2.92	HISQ1325	2.93
ES20ISB	4.12	GR1698	1.128	HD13240	2.92	HISQ1335	2.93
ES20ISM	4.12	GR1708	1.128	HD1325	2.92	HISQ1350	2.93
ES20ML	3.12	GR170W	1.127	HD13300	2.92	HISQ1370	2.93
ES20RMCCFB	3.20	GR1718	1.128	HD1335	2.92	HISQ1395	2.93
ES20RMCCFM	3.20	GR171G	1.127	HD1350	2.92	HISQ410	2.85
ES32CFB	3.26	GR1728	1.128	HD1370	2.92	HISQ416	2.85
ES32CFM	3.26	GR172RO	1.127	HD1395	2.92	HK12030	2.60
ES32FCFB	3.27	GR1738	1.128	HD13SET	2.93	HK12042	2.62
ES32FCFM	3.27	GR173B	1.127	HD15400	2.95	HK120U	2.64
ES32FML	3.13	GR4698	1.125	HD15500	2.95	HK252	2.78
ES32ISB	4.13	GR4698DO	1.166	HD15625	2.95	HK6022	2.56
ES32ISM	4.13	GR4708	1.125	HD25300	2.96	HK60VPP	2.58
ES32ML	3.13	GR4708DO	1.166	HD25400	2.96	HK60VPFT	2.59
ES32RMCCFB	3.20	GR4718	1.125	HD25500	2.96	HMC1310	2.94
ES32RMCCFM	3.20	GR4718DO	1.166	HD25625	2.96	HMC1335	2.94
ES65CFB	3.34	GR4728	1.125	HD410	2.85	HMC1350	2.94
ES65CFM	3.34	GR4728DO	1.167	HD4120	2.85	HMC1370	2.94
ES85CFB	3.36	GR4738	1.125	HD416	2.85	HMC25120	2.97
ES85CFM	3.36	GR4738DO	1.167	HD425	2.85	HMC25150	2.97
ESG105CFB	3.37	H2270	2.90	HD435	2.85	HMC25185	2.97

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
HMC2595	2.97	HRU137050	2.93	K1041	3.9	KL050205IS	8.8
HMC410	2.86	HRU139570	2.93	K1051	3.8	KL055205IS	8.8
HMC435	2.86	HRU25400SM	2.96	K1061	3.7	KL060160IS	8.9
HN1316	2.92	HRU25500SM	2.96	K1062	3.7	KL070250G	8.18
HN1325	2.92	HRU412095	2.86	K118	3.6	KL070250IS	8.9
HN1335	2.92	HRU4150120	2.86	K130	3.8	KL072180G	8.18
HN1350	2.92	HRU416	2.86	K150	3.8	KL072250G	8.18
HN1370	2.92	HRU43525	2.86	K16	2.13	KL072300G	8.18
HN1395	2.92	HRU45035	2.86	K2	2.16	KL10010030IS	8.10
HN410	2.85	HRU47050	2.86	K22	2.26	KL10010035IS	8.10
HN41525	2.85	HRU49570	2.86	K25	2.17	KL10010035ISLIM	8.10
HN416	2.85	HS210	7.17	K3014K	2.10	KL10010040IS	8.10
HN446	2.85	HS22	7.17	K3016K	2.11	KL10010040ISLIM	8.10
HQ13120	2.93	HS23	7.17	K303	2.9	KL10012555IS	8.10
HQ13150	2.93	HS24	7.17	K304K	2.9	KL10012555ISLIM	8.10
HQ1316	2.93	HS25	7.17	K306K	2.10	KL10012565ISLIM	8.10
HQ1325	2.93	HS26	7.17	K3	2.6	KL10015065IS	8.10
HQ1335	2.93	HS28	7.17	K32	2.8	KL10017580IS	8.10
HQ1350	2.93	HSG45	3.40	K35	2.7	KL1007525IS	8.10
HQ1370	2.93	HSG852	3.40	K354	2.24	KL110PH1IS	8.10
HQ1395	2.93	HSOEL10	7.17	K36	2.8	KL110PH1ISLIM	8.10
HQ410	2.85	HSOEL2	7.17	K4	2.6	KL110PH2IS	8.10
HQ416	2.85	HSOEL3	7.17	K432	8.35	KL110PH2ISLIM	8.10
HQ425	2.85	HSOEL4	7.17	K432U	8.35	KL110PH3IS	8.10
HQ435	2.85	HSOEL5	7.17	K433	8.36	KL120PZ1IS	8.11
HR13120	2.91	HSOEL6	7.17	K48	2.7	KL120PZ1ISLIM	8.11
HR13150	2.91	HTA4	7.19	K50	2.23	KL120PZ2IS	8.11
HR1316	2.91	IS2210	2.87	K507	2.22	KL120PZ2ISLIM	8.11
HR13185	2.91	IS22120	2.87	K507WF	2.22	KL120PZ3IS	8.11
HR13240	2.91	IS22150	2.87	K5	2.18	KL130PM1IS	8.11
HR1325	2.91	IS2216	2.87	K582	2.14	KL130PM1ISLIM	8.11
HR13300	2.91	IS2225	2.87	K592	2.14	KL130PM2IS	8.11
HR1335	2.91	IS2235	2.87	K80	2.11	KL130PM2ISLIM	8.11
HR13400	2.91	IS2250	2.87	K82A	2.12	KL145100IS	8.12
HR1350	2.91	IS2270	2.87	K82T	2.13	KL145130IS	8.12
HR1370	2.91	IS2295	2.87	K93	2.15	KL14555IS	8.12
HR1395	2.91	IS503	2.83	K94	2.15	KL14560IS	8.12
HR13SET	2.91	IS504	2.83	K95	2.17	KL14570IS	8.12
HR25300	2.96	IS505	2.83	KF125	1.108	KL14580IS	8.12
HR25400	2.96	IS5071	2.83	KKPE	1.177	KL150TX10IS	8.12
HR410	2.84	IS5072	2.83	KKPE13	1.177	KL150TX15IS	8.12
HR4120	2.84	ISQ2210	2.89	KKPEH25	1.177	KL150TX15ISLIM	8.12
HR4150	2.84	ISQ2216	2.89	KL010160IS	8.6	KL150TX20IS	8.12
HR416	2.84	ISQ2225	2.89	KL010210IS	8.6	KL150TX20ISLIM	8.12
HR425	2.84	ISQ2235	2.89	KL020165IS	8.6	KL150TX25IS	8.12
HR435	2.84	ISQ2250	2.89	KL020180IS	8.6	KL150TX25ISLIM	8.12
HR450	2.84	ISQ2270	2.89	KL020205IS	8.6	KL150TX30IS	8.12
HR46	2.84	K02	2.16	KL026205IS	8.6	KL180B8	8.18
HR470	2.84	K05	2.19	KL040115EL	8.19	KL180B8DISPLAY	8.18
HR495	2.84	K05D	2.19	KL040115ELW	8.19	KL19073IS	8.12
HR4SET	2.84	K05WF50	2.18	KL040128EL	8.19	KL2007335	8.20
HRU1310	2.93	K05WF95	2.18	KL040128ELH	8.19	KL2007340	8.20
HRU1312095	2.93	K06	2.19	KL040145IS	8.7	KL2007355	8.20
HRU13150120	2.93	K06D	2.20	KL040160IS	8.7	KL2007365	8.20
HRU1316	2.93	K09	2.20	KL040180IS	8.7	KL21073PH1	8.20
HRU13185150	2.93	K09D	2.21	KL042190IS	8.7	KL21073PH2	8.20
HRU13240185	2.93	K100	3.6	KL044200IS	8.7	KL22073PZ1	8.20
HRU13300240	2.93	K1011	3.9	KL045180IS	8.7	KL22073PZ2	8.20
HRU13300SM	2.93	K1012	3.9	KL045240IS	8.7	KL23073PM1	8.21
HRU133525	2.93	K102	3.6	KL046200IS	8.8	KL23073PM2	8.21
HRU135035	2.93	K1031	3.7	KL050115EL	8.19	KL25073TX10	8.21



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
KL25073TX15	8.21	KL730	8.38	LS100FLEXCFM	5.28	R2250	2.87
KL25073TX20	8.21	KL735PV	8.39	LS50FLEXCFB	5.27	R226	2.87
KL25073TX25	8.21	KL740416	8.37	LS50FLEXCFM	5.27	R2270	2.87
KL25073TX27	8.21	KL740828	8.37	M22154	2.88	R2295	2.87
KL25073TX30	8.21	KL745GK	8.37	M2216	2.88	R22SET	2.87
KL25073TX40	8.21	KL745HK	8.38	M22610	2.88	R501	2.82
KL290	8.21	KL760180	8.36	M50154	2.82	R502	2.82
KL291	8.21	KL760180IS	8.9	M50610	2.82	R504	2.82
KL295	8.22	KL765FR215	8.36	MC2210	2.90	R505	2.82
KL296	8.22	KL765PV	8.37	MC2235	2.90	RAL1	7.11
KL303IS	8.13	KL855B22	8.30	MC2250	2.90	RAL2	7.11
KL304IS	8.13	KL855L	8.33	MCK1010	1.107	RAL40	7.12
KL306IS	8.13	KL865L	8.33	MCK1025	1.107	RAL4	7.12
KL330	8.25	KL905B15	8.31	MCK120120	1.108	RALB1EU	7.12
KL331	8.25	KL905L	8.33	MCK150150	1.108	RALB2EU	7.13
KL335	8.25	KL910L	8.33	MCK185185	1.108	RAML1225	7.13
KL340	8.25	KL920B22	8.32	MCK2550	1.107	RH12050	1.58
KL361	8.22	KL920L	8.33	MCK3535	1.107	RH12070	1.58
KL365	8.25	KMF1	7.19	MCK3570	1.107	RH12095	1.58
KL370	8.23	KSK1504	1.115	MCK3595	1.108	RH150120	1.58
KL375	8.23	KSK504	1.115	MCK5050	1.107	RH15070	1.58
KL38715	8.23	KST2	7.18	MCK7095	1.108	RH15095	1.58
KL38830	8.24	KV10	1.18	MK210L	1.176	RH185120	1.58
KL38954	8.24	KV120	1.18	MK220L	1.176	RH185150	1.58
KL390IS	8.14	KV16	1.18	MK22	1.177	RH18595	1.58
KL390ISLIM	8.14	KV2.5	1.18	MK230B507	1.173	RH240120	1.58
KL390TB9	8.15	KV35	1.18	MK230L	1.176	RH240150	1.58
KL390TL	8.15	KV4	1.18	MK55	1.176	RH240185	1.58
KL391IS	8.13	KV50	1.18	MKU	1.178	RH2510	1.58
KL391ISLIM	8.15	KV6	1.18	N2210	2.88	RH2516	1.58
KL392IS	8.14	KV70	1.18	N2216	2.88	RH300150	1.58
KL393IS	8.14	KV95	1.18	N2225	2.88	RH300185	1.58
KL402	8.26	LBOXX230B	1.184	N2235	2.88	RH300240	1.58
KL403	8.26	LBOXX3R8SET	1.183	N2250	2.88	RH3510	1.58
KL420200	8.25	LBOXX50B	1.183	NG2115	7.13	RH3516	1.58
KL425400	8.26	LBOXX65B	1.182	NG2230	7.13	RH3525	1.58
KL425600	8.26	LBOXX6R10SET	1.183	PHD2	7.5	RH5016	1.58
KL440F	8.26	LBOXXEK354CFB	1.186	PK12042	2.72	RH5025	1.58
KL449	8.26	LBOXXEK354CFM	1.186	PK120U	2.74	RH5035	1.58
KL500	8.27	LBOXXEK50ML	1.182	PK22	2.68	RH7025	1.58
KL510	8.27	LBOXXEKM6022CFB	1.186	PK252	2.76	RH7035	1.58
KL540	8.28	LBOXXEKM6022CFM	1.186	PK60ID	2.71	RH7050	1.58
KL542	8.29	LBOXXEKM60IDCFB	1.186	PK60UNV	6.10	RH9535	1.58
KL542ES	8.29	LBOXXEKM60IDCFM	1.186	PK60VP	2.70	RH9550	1.58
KL544	8.29	LBOXXEKM60UNVCFB	1.186	PK60VPFT	2.70	RH9570	1.58
KL544ES	8.29	LBOXXES20CFB	1.186	Q2210	2.89	RU2210	2.89
KL545	8.29	LBOXXES32CFB	1.186	Q2216	2.89	RU221095	2.89
KL550	8.29	LBOXXES32CFM	1.186	Q2225	2.89	RU22150120	2.89
KL550ES	8.28	LBOXXES32FCFB	1.186	Q2235	2.89	RU2216	2.89
KL550ES	8.29	LBOXXES32FCFM	1.186	Q2250	2.89	RU22185150	2.89
KL559	8.28	LBOXXLS50FLEXCFB	1.186	Q2270	2.89	RU2240185	2.89
KL580300	8.27	LBOXXLS50FLEXCFM	1.186	Q501	2.82	RU22300240	2.89
KL580500	8.27	LBOXXMINIK3014K	1.185	R2210	2.87	RU22300SM	2.89
KL5821000	8.27	LBOXXMINIK304K	1.185	R22120	2.87	RU223525	2.89
KL5821250	8.27	LBOXXMINIK306K	1.185	R22150	2.87	RU225035	2.89
KL584230	8.28	LGL1	7.14	R2216	2.87	RU227050	2.89
KL585200	8.28	LGL3	7.14	R22185	2.87	RU229570	2.89
KL585250	8.28	LGLB1EU	7.15	R22240	2.87	S502	3.50
KL586	8.28	LGLK18EU	7.14	R2225	2.87	SAK1095	1.106
KL710	8.38	LGML1	7.15	R22300	2.87	SAK16150	1.106
KL720	8.39	LS100FLEXCFB	5.28	R2235	2.87	SAK670	1.106

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
SB501	2.83	ST1717IS	1.67	SV306	1.112	UC26	6.14
SDG105	3.45	ST1718	1.69	SV306AK	1.112	UC40	6.14
SDG45	3.42	ST1718IS	1.67	SV306AKV	1.112	UCAC107	6.14
SDG55	3.43	ST1719	1.69	SV306V	1.112	UCACSR	6.14
SDG852	3.44	ST1719IS	1.67	SV307AKNL	1.110	UCBC110	6.14
SDK105	3.45	ST1720	1.69	SV307V	1.110	UCBC120	6.14
SDK120	3.46	ST1720IS	1.67	SV308	1.110	UCBC150	6.14
SDK65	3.43	ST1721	1.69	SV309	1.111	UCBC85	6.14
SDK85	3.44	ST1721IS	1.67	SV309AK	1.111	UCD3215	6.14
SK303P	1.169	ST1722	1.69	SV309AKV	1.111	UCD3515	6.14
SK303S	1.170	ST1722IS	1.67	SV309V	1.111	UCD3575	6.14
SK30B	1.167	ST1B	1.163	SV310	1.111	UCF	6.14
SK30L	1.175	ST21B	1.162	SV310AK	1.111	UCM10	6.14
SK32B	1.168	ST22B	1.162	SV310AKV	1.111	UCM12	6.14
SK32L	1.175	ST23B	1.162	SV310V	1.111	UCM5	6.14
SK43L	1.175	ST2B	1.164	SV311AKNL	1.111	UCM6	6.14
SK43NB	1.170	ST31B	1.164	SV312AKNL	1.111	UCM8	6.14
SK45B	1.168	ST32B	1.165	SV312AKNLV	1.111	UCN2980	6.14
SK47B	1.169	ST33B	1.166	SV315	1.111	UCUNC12	6.14
SK4L	1.175	ST3B	1.165	SV315V	1.111	UCUNC14	6.14
SK50B	1.172	ST5L	1.167	SV319AKNLV	1.111	UCUNC38	6.14
SK65B	1.171	ST9698	1.132	SV320	1.111	UPD6	6.14
SK65L	1.177	ST9708	1.132	SV320V	1.111	VHD1203	1.78
SK82P	1.174	ST9718	1.132	SV35	1.23	VHD1204	1.79
SK82S	1.174	ST9728	1.132	SV400	1.113	VHD1503	1.78
SKR1204	1.116	ST9738	1.132	SV405V	1.113	VHD1504	1.79
SKR1501504	1.116	STV10	1.23	SV4	1.23	VHD1853	1.78
SKR1503	1.116	STV1525	1.23	SV410	1.113	VHD1854	1.79
SKR1504	1.116	STV16	1.23	SV410AK	1.113	VHD2404	1.79
SKR150504	1.116	STV25	1.23	SV420V	1.113	VHD353	1.78
SKR1854	1.116	STV35	1.23	SV430	1.114	VHD354	1.79
SKV1525	1.24	STV4	1.23	SV430AK	1.114	VHD503	1.78
SKV16	1.24	STV50	1.23	SV440AK	1.114	VHD504	1.79
SKV4	1.24	STV6	1.23	SV50	1.23	VHD703	1.78
SKV6	1.24	SV100	1.109	SV6	1.23	VHD704	1.79
SR106	1.22	SV10	1.23	T15	7.16	VHD953	1.78
SR108	1.22	SV1525	1.23	TG3	7.15	VHD954	1.79
SR166	1.22	SV16	1.23	THK120	2.72	VHR120	1.76
SR168	1.22	SV200	1.109	THK22	2.68	VHR1203	1.77
SR256	1.22	SV200BK	1.109	TT2	1.178	VHR1204	1.79
SR258	1.22	SV25	1.23	TT4	1.178	VHR150	1.76
SR3510	1.22	SV300	1.110	TV10	1.17	VHR1503	1.77
SR358	1.22	SV300V	1.110	TV120	1.17	VHR1504	1.79
SR5010	1.22	SV301	1.110	TV150	1.17	VHR16	1.76
SR506	1.22	SV301AK	1.110	TV15	1.17	VHR185	1.76
SR508	1.22	SV301AKV	1.110	TV16	1.17	VHR1853	1.77
SR65	1.22	SV301V	1.110	TV185	1.17	VHR1854	1.79
SR66	1.22	SV302	1.110	TV2.5	1.17	VHR240	1.76
SSG105	4.14	SV302AK	1.110	TV240	1.17	VHR2404	1.79
SSGG105	4.14	SV302AKV	1.110	TV25	1.17	VHR25	1.76
SSGG85	4.14	SV302V	1.110	TV35	1.17	VHR300	1.76
ST11B	1.163	SV303	1.110	TV4	1.17	VHR35	1.76
ST12B	1.164	SV303AK	1.110	TV50	1.17	VHR353	1.77
ST13B	1.165	SV303AKNL	1.110	TV6	1.17	VHR354	1.79
ST15B	1.163	SV303V	1.110	TV70	1.17	VHR400	1.76
ST1705	1.69	SV304AKNL	1.110	TV95	1.17	VHR50	1.76
ST1710	1.69	SV304AKNLV	1.110	UA12P	6.14	VHR503	1.77
ST1715	1.69	SV305	1.112	UA12TKL	6.14	VHR504	1.79
ST1716	1.69	SV305AK	1.112	UA15T	2.95	VHR70	1.76
ST1716IS	1.67	SV305AKV	1.112	UA22	6.14	VHR703	1.77
ST1717	1.69	SV305V	1.112	UA6P	6.14	VHR704	1.79

<b>Part No.</b>	<b>Page</b>
VHR95	1.76
VHR953	1.77
VHR954	1.79
ZAE5072	2.83
ZST3	7.16
ZST4	7.16



**SALES HOTLINE: 02191 / 907-1070**

Klauke-anfragen@Emerson.com



**Germany  
(Head quarter)**

**GUSTAV KLAUKE GMBH**  
Auf dem Knapp 46  
42855 Remscheid  
Tel.: 02191 / 907-0  
Fax: 02191 / 907-2010  
Klauke-info@Emerson.com

**DIRECTOR SALES DACH NE  
EUROPE PROFESSIONAL TOOLS  
Outside Sales  
Kevin Holohan**  
Mobile: +49 151 6454 8242  
Kevin.Holohan@Emerson.com

**DIRECTOR CUSTOMER SERVICE  
EUROPE PROFESSIONAL  
Inside Sales  
Axel Rauch**  
Tel.: +49 2191 907 4010  
Mobile: +49 172 7051 240  
Axel.Rauch@Emerson.com

**Switzerland**  
**EMERSON PROFESSIONAL TOOLS  
GELTERKINDERSTRASSE 24,  
POSTFACH 293, CH 4450 SISSACH**  
TEL.: +41 796426938

**Austria**  
**EMERSON PROFESSIONAL TOOLS  
INDUSTRIE-ZENTRUM NOE SUED,  
STRASSE 2A, OBJ. M29  
A-2351 WIENER NEUDORF**  
Klauke-austria@Emerson.com



## Your Klauke contact in Europe

Distribution companies / Sales offices

# Klauke®

### Headquarter

GUSTAV KLAUKE GMBH

Auf dem Knapp 46

42855 Remscheid

Deutschland

Tel.: +49 (0) 2191 / 907 - 0

Fax: +49 (0)2191 / 907-1410

Klauke-info@emerson.com

### Service Center addresses

Your direct link to our tool

service offers:

[https://www.klauke.com/ee/en/  
inspecting-and-servicing-tools](https://www.klauke.com/ee/en/inspecting-and-servicing-tools)



# CONNECTING TOGETHER

**RIDGID**

**GREENLEE**

**Klauke**

Get the latest information on products, services and promotions  
by signing up to our newsletter:

[KLAUKE.COM/NEWSLETTER](https://www.klauke.com/newsletter)

Follow us!



© 2021 Gustav Klauke GmbH. All rights reserved. The Klauke logo and the Emerson logo are registered trademarks of Emerson Electric Co. and its subsidiaries in the USA and in other countries. All other logos are the property of their respective owners. Subject to change. KATHAUP7GB 07/24 |

**Klauke**

Gustav Klauke GmbH  
Auf dem Knapp 46  
D-42855 Remscheid

Tel.: +49 (0) 2191 / 907 - 0  
Klauke-Info@Emerson.com  
Klauke.com

**EMERSON**