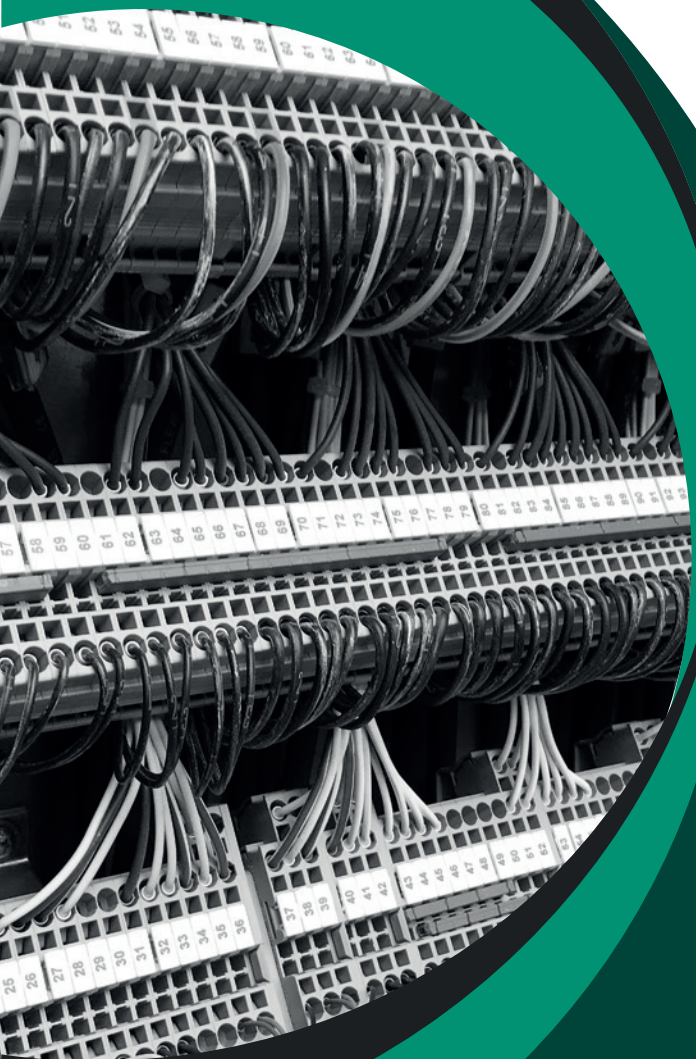




INDUSTRIALTECHNOLOGY

Legal Notice
Otto Schoch AG
Chrummacherstrasse 3
CH-8954 Geroldswil
Tel. 044 749 30 80
Fax 044 749 30 85
info@schochag.ch
www.schochag.ch

Catalouge Industrial technology 2023
Subject to technical modifications,
errors or printing errors.

All dimensions in millimeters.

Index

Introduction.	2
-----------------------	---

CONNECTORS

Polycarbonate insulated connecting material type «P»	4
Polycarbonate insulated connecting material type «CP» on tape	6
PVC insulated connecting material type «F»	8
Insulated and reinforced connecting material type «KY»	10
Insulated flat ferrules	12
Insulated flat plugs.	12
Insulated flat ferrules and round plugs	13
Parallel and butt connectors.	13
Butt connector	14
Heat-shrinkable compression connectors	14
End connectors.	14
Flat ferrules for copper conductors	15
Flat plug for copper conductors.	15
Insulation grommets for flat ferrules	16
Non-insulated wire end ferrules for finely-stranded copper conductors	17
Insulated wire end ferrules.	18
Insulated twin wire end ferrules	20
Insulated wire end ferrules.	21
Non-insulated mechanical compression lugs	23
Mechanical compression lugs according to DIN 46234.	25
Crimping lugs according to DIN 46235.	26
Crimping through connector according to DIN 46267 T.1	27
Tube cable lugs	28
Tube cable lugs with narrow glass lugs	31
V-Series tube cable lugs.	32
V-Series 90° tube cable lugs	33
V-Series butt connectors	33
Butt connector	34
Parallel connector	34
Uninsulated pin cable lugs	35
Flexible copper strip.	35
90° angled tube cable lugs	36
Tube cable lugs long version.	37
Commercially available tubular cable lugs HKS	38
Commercially available tubular cable lugs HK	40
90° and 45° angled tubular cable lugs	42
Nylon-insulated tube cable lugs.	44
Nylon-insulated ring cable lugs	46
Nylon-insulated forked cable lugs	47
Nylon-insulated pin cable lugs	47
Tinned branch terminals	48
Bare branch terminals	49
Aluminium crimping lug	50
Aluminium crimp cable connector	51

CABLE GLANDS

Cable glands MAXIblock ®	52
Cable glands spiralblock ®	54
Cable glands according to ATEX.	55
Cable glands MAXIbrass ®	56
Cable glands MAXinox	57
Cable glands	58
Cable glands MAXIbrass ® ATEX	60
Cable glands for flat cable	60
EMC safe cable glands	61
Locknuts with shoulder.	62
Locknuts without shoulder.	62
Brass locknuts	63
Brass hexagon nut for potential equalisation EMC	63
Locknuts for MAXinox	64
Accessories	64

Extensions, reductions and adapters	66
Seals	67
Dummy plugs.	68
Closing caps.	69
Dummy plugs and pressure screws	70
Seal entries Rutaseal	70

MOUNTING MATERIAL

Cable ties	71
Accessories	75
Heat Shrink Tubing.	76
Insulation grommets	81

MECHANICAL TOOLS

Mechanical crimping tools	82
Scissors	88
Wire strippers.	89
Stripping tool	90
Mechanical cable cutters.	91
Tool for cable ties	92
Hydraulic punching tool and punch head	93

CLOTHING TOOLS

Automatic trimming device	95
Wire stripping device	96
Stripping and crimping machine	96
Pneumatic crimper	97
Electrical crimper	98
Pneumatic bench press.	99
Bench crimp for connecting material from tape.	100
Cable duct cutter.	101
Rail cutter	101

THERMAL TRANSFER PRINTER

Thermal Transfer Printer MG3.	102
Thermal Transfer Printer ROLLY3000	102

HYDRAULIC TOOLS

Hydraulic crimp tools and crimp dies	103
Hydraulic cutting tools and cutting heads.	109
Hydraulic hole-punching heads.	116
Hydraulic nut splitter	118
Accessories	119
Rod-battery-crimper, 18V	122
Hydraulic battery crimp	123
Hydraulic battery-operated cutter	127
Hydraulic pumps.	131
Battery Lamps	133

INSULATED TOOLS

Insulated hand crimp	134
Insulated battery-operated tools	135
Safety cutting devices	137
Accessories	139

Crimp insert table	140
Appendix	156

All about Otto Schoch AG



The company

The OTTO SCHOCH AG company was founded in 1964 by Otto Schoch. From the very beginning, the company focused on the sale of cable shoes, wire-end ferrules and cable connectors as well as the special tools required for their processing. There later followed supplementary in-house developments. Since the early 1960s, the product range for the electrical wholesale trade, the demands of industry and switch cabinet construction has been constantly expanded in close collaboration with CEMBRE. Today, for example, cable glands and cable protection products have become industry standard – as has our own cable-labelling system with a wide product range for industrial labelling. Particularly deserving of mention in this regard is the Markingenius®MG3 mobile labelling system, which can be used for the labelling of cables, clamps, pushbuttons and switching elements alike.

At the end of the 1990s, OTTO SCHOCH AG expanded its range of products to include specialised tools for the railway industry. In addition to connecting devices for overhead lines and signal technology, this also includes machines such as rail drilling machines, rail cutting equipment as well as impact wrenches for performing track work.

In 2012, OTTO SCHOCH AG took over the general agency of GLW products for the Swiss market. At GLW, professional cable processing takes centre stage – ranging from wire-end ferrules, via cable assembly machines through to special tools designed for crimping special contacts.

In 2014, our product range was expanded to include the areas of torque tools and power sockets. The company has set as its goal to supply industry with quality mechanical and electronic tools – and recently including for the tightening of bolts and nuts with precisely defined torques. Torque products are to be found in practically all sectors of industry, including the watch industry, medical technology, steel construction, the railway sector, mechanical engineering as well as in a large number of power stations. As the general importer for TOHNICHI (Japan), MOMENTO (Sweden) and other international tool manufacturers, OTTO SCHOCH AG has established an enduring and cooperative relationship with the Swiss market. TOHNICHI torque testers have been successfully used by prestigious SCS calibration services for many years.

In 2016, the area of professional screwdriving technology was rounded off by taking over the general agency of ITH, the world's leading system supplier in the field of screwdriving technology. ITH products are a guarantee for maximum safety in all bolted and threaded connections.

OTTO SCHOCH AG is an extremely flexible SME with highly competent employees who possess long-standing experience in the areas of electrical connection, screwdriving and railway technology. Together with its customers, the team develops system-compatible solutions for a wide range of special applications within a reasonable period. Special customer-specific tool manufacture, single-unit products and small-batch series are also an integral part of our customer-oriented standard.

OTTO SCHOCH AG is justly famous as a reliable partner that provides logistics solutions tailored to customer requests, including "just-in-time deliveries based on framework contracts and demand forecasts and the maintenance of minimum inventory levels.

Quality

Quality is our basis for your trust. We are an ISO 9001 and 14001 certified company.

Our guiding principle

Innovation, quality and reliability for satisfied customers!

Some products

Cable lugs and cable connectors

We supply all standard blank and insulated cable lugs and connectors. In addition, we offer the possibility to meet customer-specific requirements.

All our **cable lugs and connectors** are made of electrolytic copper, they are soft annealed after mechanical processing and then electro-tinned. The insulation of the connection area is normally made of nylon or PVC.

Manual hydraulic and battery crimping tools

We carry a wide range of **manual hydraulic crimping tools** for crimping connectors and cable lugs up to 2000 mm². Dies in various designs, e.g. for hexagonal or deep crimping, are also available.

Our **electro-hydraulic tools** with battery power can be operated with one hand at any time. Thanks to the 180° rotation of the crimp head, it can be used even in the most confined spaces.

Rail drilling machines and rail connections

Four advantages that speak for our **rail contact system**:

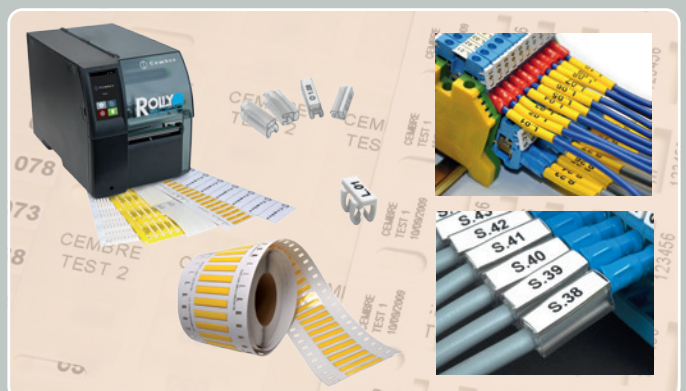
- Quick and easy installation, during scheduled rail operations and also possible regardless of weather conditions.
- Reliable and long-lasting contact thanks to gas-tight riveting.
- Detachable, reusable connections.
- High personal safety, as assembly and disassembly can be carried out during short breaks in operation.

We recommend our **rail drilling jigs** for drilling the rivet holes. These are the result of continuous development and meet the high requirements of track construction.

With a total weight of 18 kg, our machines are undoubtedly among the lightest of their kind. The easy-to-handle **drilling devices** are ideally suited for one-man operation.

Industrial marking

With Cembre's independent marking system you cover all your marking needs. The universal thermal transfer printer MG3 labels without any problems cables, wires, devices, terminals or components. To label large quantities like material on reels or shrinkable tubing due to his speed the Rolly-3000 is the suitable printer.



Polycarbonate insulated Connecting material



Halogen-free

Temperature resistance
up to 115 °C

EN 45545

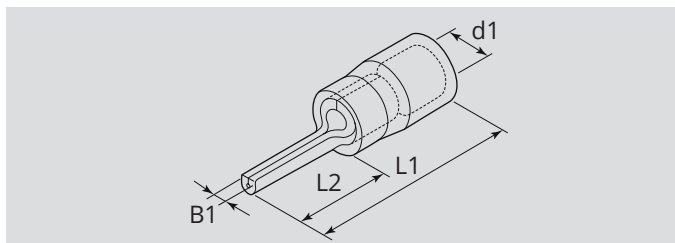
VP
RP
BP
GP

Mechanical compression lugs type "P" for copper conductors



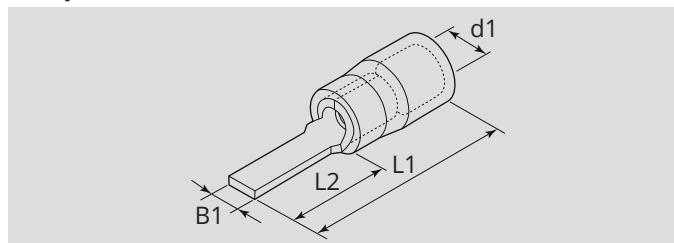
Type "P" cable lugs have a high quality standard and meet the requirements for low smoke emission and low toxicity to humans and the environment. The type "P" cable lugs are insulated with halogen-free plastic and have permanent thermal properties: from -20 to +115 °C permanent (short-term up to 130 °C). The self-extinguishing, halogen-free plastic achieves evaluation level V0 according to UL94. Suitable crimping tools are listed from page 84 onwards.

Pin



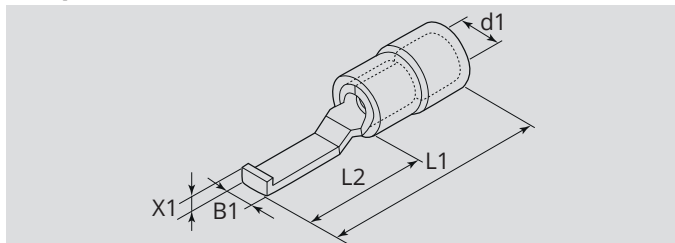
Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1 (Ø)	B1	L2	L1	
0.2 – 0.5 [24 – 20]	VP-P10	3.0	1.0	9.8	20.2	100
0.25 – 1.5 [22 – 16]	RP-P8	4.0	1.6	7.8	17.9	100
	RP-P10	4.0	1.6	9.8	19.9	100
	RP-P12	4.0	1.6	12.0	22.1	100
1.5 – 2.5 [14 – 12]	BP-P8	4.9	1.7	7.8	17.9	100
	BP-P10	4.9	1.8	9.8	19.9	100
	BP-P12	4.9	1.8	11.8	21.9	100
4 – 6 [12 – 10]	GP-P10	6.6	2.2	10.4	24.5	100
	GP-P12	6.6	2.2	12.6	26.7	100
	GP-P14	6.6	2.2	14.6	28.7	100

Flat pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1 (Ø)	B1	L2	L1	
0.2 – 0.5 [24 – 20]	VP-PP12-19	3.0	1.9	12.4	22.4	100
0.25 – 1.5 [22 – 16]	RP-PP12	4.0	3.0	12.8	22.9	100
	RP-PP12-1	4.0	3.0	11.3	21.4	100
	RP-PP12-19	4.0	1.9	13.2	23.3	100
	RP-PP12-23	4.0	2.3	13.2	23.3	100
	RP-PP14	4.0	3.0	14.8	24.9	100
	RP-PP16-23	4.0	2.3	17.2	27.3	100
	BP-PP12	4.9	3.5	12.8	22.9	100
1.5 – 2.5 [16 – 14]	BP-PP12-25	4.9	2.5	13.3	23.4	100
	BP-PP12-29	4.9	2.9	13.3	23.4	100
	BP-PP16-25	4.9	2.5	17.2	27.3	100
	GP-PP12	6.6	4.0	13.3	27.4	100
4 – 6 [12 – 10]	GP-PP17	6.6	2.9	19.1	33.2	100

Flat pin claw



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm					PU
		d1 (Ø)	B1	L2	L1	X1	
0.25 – 1.5 [22 – 16]	RP-PPL30 ♦	3.9	3.0	17.5	28.3	1.7	100
	RP-PPL46 ♦	3.9	4.6	17.5	28.3	1.7	100
1.5 – 2.5 [16 – 14]	BP-PPL30 ♦	4.9	3.0	17.5	28.3	1.7	100
	BP-PPL46 ♦	4.9	4.6	17.5	28.8	1.7	100
4 – 6 [12 – 10]	GP-PPL46 ♦	6.7	4.6	17.5	32.6	1.9	100

♦ Without UL approval

Example: Tool Typ HP 3
(see page 84)



Polycarbonate insulated Connecting material



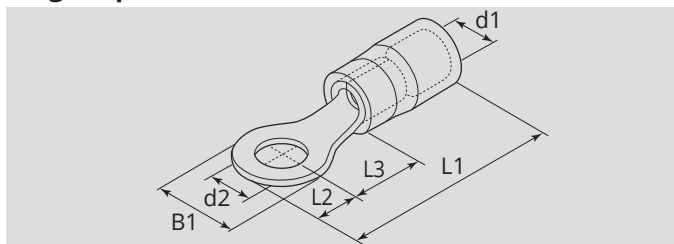
Halogen-free

Temperature resistance
up to 115 °C

EN 45545

VP
RP
BP
GP

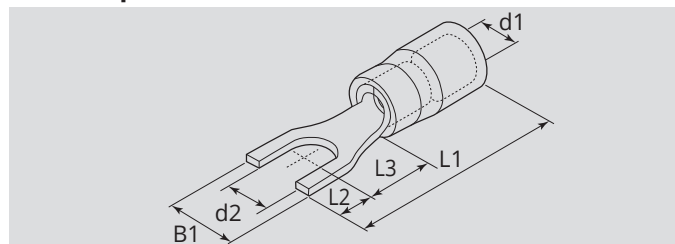
Ring shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.2 – 0.5 [24 – 20]	2	VP-M2 *	3.0	5.6	4.5	2.8	17.5	2.2	100
	3	VP-M3	3.0	5.6	4.5	2.8	17.5	3.2	100
	3.5	VP-M3.5	3.0	5.6	4.5	2.8	17.5	3.7	100
	4	VP-M4	3.0	7.0	6.5	3.5	20.2	4.3	100
	5	VP-M5	3.0	7.8	7.1	3.9	21.2	5.3	100
	6	VP-M6 *	3.0	9.4	8.1	4.7	23.0	6.4	100
0.25 – 1.5 [22 – 16]	2	RP-M2 *	4.0	5.6	4.5	2.8	17.4	2.2	100
	3	RP-M3	4.0	5.6	4.5	2.8	17.4	3.2	100
	3.5	RP-M3.5	4.0	5.6	4.5	2.8	17.4	3.7	100
	3.5	RP-M3.5-1	4.0	6.2	7.1	3.1	20.2	3.7	100
	4	RP-M4	4.0	7.0	6.5	3.5	20.1	4.3	100
	4	RP-M4-3	4.0	7.8	7.1	3.9	21.1	4.3	100
	5	RP-M5	4.0	7.8	7.1	3.9	21.1	5.3	100
	6	RP-M6	4.0	9.4	8.1	4.7	22.9	6.4	100
	6	RP-M6-1	4.0	12.0	10.3	6.0	26.4	6.4	100
	7	RP-M7	4.0	9.4	8.1	4.7	22.9	2.7	100
	8	RP-M8	4.0	12.0	10.3	6.0	26.4	8.4	100
	10	RP-M10	4.0	15.5	13.0	7.7	30.9	10.5	100
1.5 – 2.5 [16 – 14]	12	RP-M12	4.0	18.0	15.5	9.0	34.6	13.0	100
	2	BP-M2 *	4.9	5.6	5.0	2.8	17.9	2.2	100
	3	BP-M3	4.9	5.6	5.0	2.8	17.9	3.2	100
	3.5	BP-M3.5	4.9	5.6	5.0	2.8	17.9	3.7	100
	3.5	BP-M3.5-1	4.9	6.2	6.5	3.1	19.7	3.7	100
	4	BP-M4	4.9	8.0	6.5	4.0	20.6	4.3	100
	5	BP-M5	4.9	8.0	7.5	4.0	21.6	5.3	100
	6	BP-M6	4.9	9.4	8.6	4.7	23.4	6.4	100
	6	BP-M6-1	4.9	12.0	10.3	6.0	26.4	6.4	100
	6	BP-M6-2 *	4.9	8.4	5.4	2.4	19.7	6.4	100
	7	BP-M7	4.9	10.0	7.8	5.0	22.9	2.7	100
	8	BP-M8	4.9	12.0	10.3	6.0	26.4	8.4	100
4 – 6 [12 – 10]	10	BP-M10	4.9	15.5	13.0	7.7	30.9	10.5	100
	12	BP-M12	4.9	18.0	15.5	9.0	34.6	13.0	100
	3	GP-M3	6.6	8.0	8.1	4.0	26.2	3.2	100
	3.5	GP-M3.5	6.6	8.0	8.1	4.0	26.2	3.7	100
	4	GP-M4	6.6	9.0	8.1	4.5	26.7	4.3	100
	5	GP-M5	6.6	9.0	8.1	4.5	26.7	5.3	100
	6	GP-M6	6.6	11.0	11.1	5.5	30.7	6.4	100
	6	GP-M6-1	6.6	11.0	8.1	5.5	27.7	6.4	100
	7	GP-M7	6.6	11.0	11.1	5.5	30.7	7.2	100
	8	GP-M8	6.6	13.6	12.1	6.8	33.0	8.4	100
	8	GP-M8-1	6.6	11.0	8.1	5.5	27.7	8.4	100
	10	GP-M10	6.6	13.6	12.1	6.8	33.0	10.5	100
	10	GP-M10-1	6.6	15.5	13.8	7.7	35.7	10.5	100
	12	GP-M12	6.6	19.0	15.1	9.5	38.7	13.0	100
	14	GP-M14	6.6	21.0	16.1	10.5	40.7	15.0	100
	16	GP-M16	6.6	24.0	17.1	12.0	43.2	17.0	100

* Marked types only available on request.

Fork shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.2 – 0.5 [24 – 20]	3	VP-U3	3.0	5.5	5.5	4.0	18.7	3.2	100
	3.5	VP-U3.5	3.0	6.0	6.5	3.8	19.5	3.7	100
	4	VP-U4	3.0	6.5	7.5	3.7	20.4	4.3	100
0.25 – 1.5 [22 – 16]	3	RP-U3	4.0	5.5	5.5	4.0	19.6	3.2	100
	3.5	RP-U3.5	4.0	6.0	6.5	3.8	20.4	3.7	100
	3.5	RP-U3.5-2	4.0	6.4	6.5	3.8	20.4	3.7	100
	4	RP-U4	4.0	6.5	7.5	3.7	21.3	4.3	100
	4	RP-U4-1	4.0	8.5	7.5	3.7	21.3	4.3	100
	4	RP-U4-2	4.0	7.5	7.5	3.7	21.3	4.3	100
	5	RP-U5	4.0	8.5	7.5	3.7	21.3	5.3	100
	5	RP-U5-1 *	4.0	9.4	7.5	3.7	21.3	5.3	100
	6	RP-U6	4.0	9.4	8.1	4.7	22.9	6.4	100
	6	RP-U6-1	4.0	12.0	9.2	7.1	26.4	6.4	100
	8	RP-U8	4.0	14.0	10.0	6.3	26.4	8.4	100
	10	RP-U10	4.0	17.5	13.0	7.7	30.9	10.5	100
1.5 – 2.5 [16 – 14]	12	RP-U12	4.0	20.0	15.5	9.0	34.6	13.0	100
	3	BP-U3	4.9	5.5	5.5	4.0	19.6	3.2	100
	3.5	BP-U3.5	4.9	6.4	6.5	3.8	20.4	3.7	100
	3.5	BP-U3.5-1	4.9	2.7	6.5	3.8	20.4	3.7	100
	4	BP-U4	4.9	6.5	7.5	3.7	21.3	4.3	100
	4	BP-U4-1	4.9	8.5	7.5	3.7	21.3	4.3	100
	4	BP-U4-2	4.9	7.5	7.5	3.7	21.3	4.3	100
	5	BP-U5	4.9	8.5	7.5	3.7	21.3	5.3	100
	6	BP-U6	4.9	9.4	8.1	4.7	22.9	6.4	100
	6	BP-U6-1	4.9	12.0	9.2	7.1	26.4	6.4	100
	8	BP-U8	4.9	14.0	10.0	6.3	26.4	8.4	100
	10	BP-U10	4.9	17.5	13.0	7.7	30.9	10.5	100
4 – 6 [12 – 10]	12	BP-U12	4.9	20.0	15.5	9.0	34.6	13.0	100
	3.5	GP-U3.5	6.6	7.5	8.5	3.9	26.5	3.7	100
	4	GP-U4	6.6	7.5	8.0	4.4	26.5	4.3	100
	5	GP-U5	6.6	9.5	8.0	4.4	26.5	5.3	100
	6	GP-U6	6.6	10.0	11.0	5.5	30.6	6.4	100
	8	GP-U8	6.6	13.5	12.0	8.0	34.1	8.4	100
	10	GP-U10	6.6	15.5	13.0	8.0	35.1	10.5	100
	10	GP-U10-1	6.6	17.5	13.8	7.7	35.7	10.5	100
	12	GP-U12	6.6	21.0	15.1	9.5	38.7	13.0	100
	14	GP-U14	6.6	23.0	16.1	10.5	40.7	15.0	100
	16	GP-U16	6.6	26.0	17.1	11.5	42.7	17.0	100

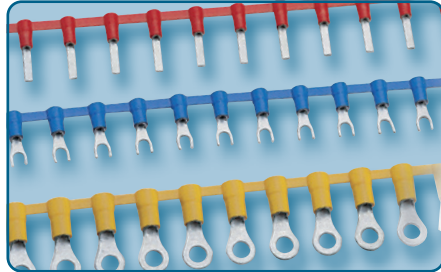
* Marked types only available on request.

Polycarbonate insulated Connecting material on tape



CRP
CBP
CGP

Mechanical compression lugs type «CP» for copper conductors



«CP» polycarbonate-insulated connection material on tape has been developed as an economical solution for cable assembly of medium and large series.

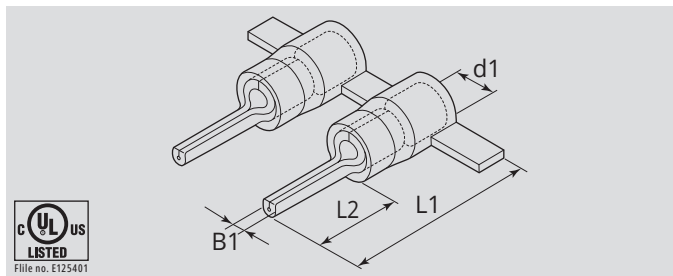
Insulating material: Polycarbonate halogen-free, roller diameter 450 mm, inner diameter 27 mm

Material: Brass tape, electrolytically tinned

Thermal properties: from -20 bis +115 °C continuous (short-term to 130°C). Self-extinguishing properties according to UL94-V0. Table press on page 100.

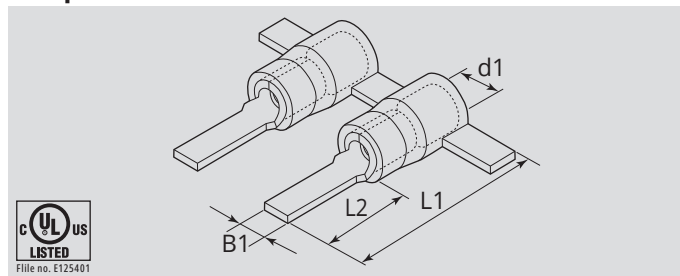


Pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm	Pieces per roll
		d1(Ø) B1 L2 L1	
0.25 – 1.5 [22 – 16]	CRP-P8	4.0 1.6 8.0 17.9	2 000
	CRP-P10	4.0 1.6 10.0 19.9	2 000
	CRP-P12	4.0 1.6 12.0 22.1	2 000
1.5 – 2.5 [16 – 14]	CBP-P8	4.9 1.8 8.0 17.9	1 750
	CBP-P10	4.9 1.8 10.0 19.9	1 750
	CBP-P12	4.9 1.8 12.0 21.9	1 750
4 – 6 [12 – 10]	CGP-P10	6.6 2.2 10.0 24.5	1 250
	CGP-P12	6.6 2.2 12.0 26.7	1 250
	CGP-P14	6.6 2.2 14.0 28.7	1 250

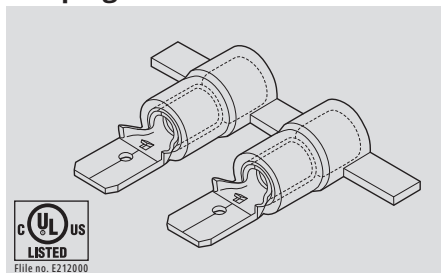
Flat pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm	Pieces per roll
		d1(Ø) B1 L2 L1	
0.25 – 1.5 [22 – 16]	CRP-PP12	4.0 3.0 12.8 22.9	2 000
	CRP-PP12-1*	4.0 3.0 11.3 21.4	2 000
	CRP-PP12-23*	4.0 2.3 13.2 23.3	2 000
	CRP-PP14	4.0 3.0 14.8 24.9	2 000
1.5 – 2.5 [16 – 14]	CBP-PP12	4.9 3.5 12.8 22.9	1 750
	CBP-PP12-25*	4.9 2.5 13.3 23.4	1 750
4 – 6 [12 – 10]	CGP-PP12	6.6 4.0 13.3 27.4	1 250
	CGP-PP17*	6.6 2.9 19.1 33.2	1 250

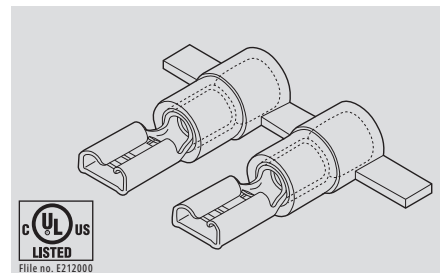
* Marked types only available on request.

Flat plug



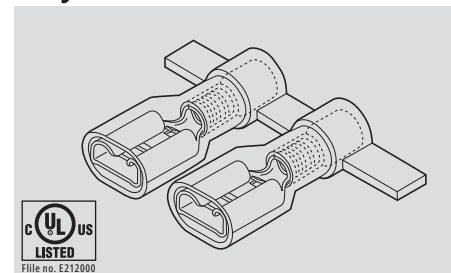
Conductor cross-section mm ² [AWG]	Item number	Plug mm	Pieces per roll
0.25 – 1.5 [22 – 16]	CRP-M608	6.35 x 0.8	2 000
1.5 – 2.5 [16 – 14]	CBP-M608	6.35 x 0.8	1 750
4 – 6 [12 – 10]	CGP-M608	6.35 x 0.8	1 250

Flat ferrules



Conductor cross-section mm ² [AWG]	Item number	Plug mm	Pieces per roll
0.25 – 1.5 [22 – 16]	CRP-F305	2.8 x 0.5	2 000
	CRP-F308	2.8 x 0.8	2 000
	CRP-F405	4.8 x 0.5	2 000
	CRP-F408	4.8 x 0.8	2 000
	CRP-F608	6.35 x 0.8	2 000
1.5 – 2.5 [16 – 14]	CBP-F405	4.8 x 0.5	1 750
	CBP-F408	4.8 x 0.8	1 750
	CBP-F608	6.35 x 0.8	1 750
4 – 6 [12 – 10]	CGP-F608	6.35 x 0.8	1 250

Fully insulated flat ferrules



Conductor cross-section mm ² [AWG]	Item number	Plug mm	Pieces per roll
0.25 – 1.5 [22 – 16]	CRP-F405P ♦	4.8 x 0.5	2 000
	CRP-F408P ♦	4.8 x 0.8	2 000
	CRP-F608P	6.35 x 0.8	1 500
1.5 – 2.5 [16 – 14]	CBP-F408P ♦	4.8 x 0.8	1 500
	CBP-F608P	6.35 x 0.8	1 500
4 – 6 [12 – 10]	CGP-F608P	6.35 x 0.8	1 250

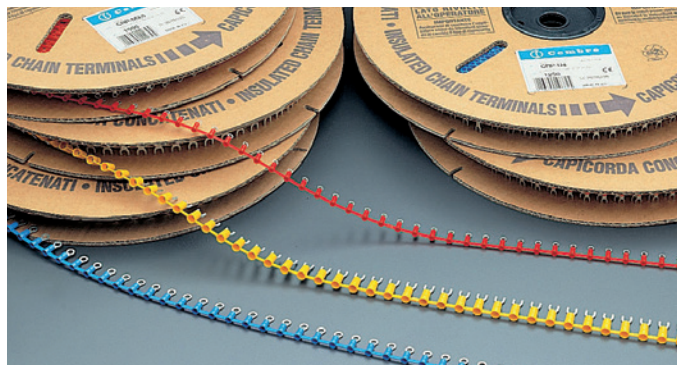
♦ Without UL approval

Polycarbonate insulated Connecting material on tape

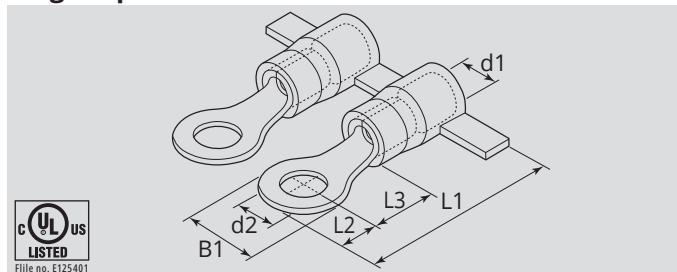


CRP
CBP
CGP

Mechanical compression lugs type «CP» for copper conductors



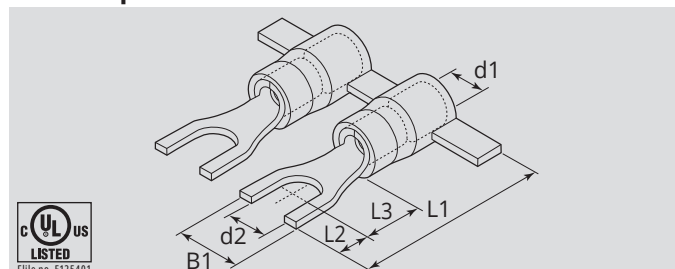
Ring shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	d1(Ø)	B1	Dimensions in mm			d2	Pieces per roll
					L3	L2	L1		
0.25 – 1.5 [22 – 16]	3	CRP-M3	4.0	5.6	4.5	2.8	17.4	3.2	2000
	3.5	CRP-M3.5	4.0	5.6	4.5	2.8	17.4	3.7	2000
	3.5	CRP-M3.5-1*	4.0	6.2	7.1	3.1	20.2	3.7	2000
	4	CRP-M4	4.0	7.0	6.5	3.5	20.1	4.3	2000
	4	CRP-M4-3*	4.0	7.8	7.1	3.9	21.1	4.3	2000
	5	CRP-M5	4.0	7.8	7.1	3.9	21.1	5.3	2000
	6	CRP-M6	4.0	9.4	8.1	4.7	22.9	6.4	2000
	6	CRP-M6-1*	4.0	12.0	10.3	6.0	26.4	6.4	2000
	7	CRP-M7	4.0	9.4	8.1	4.7	22.9	7.2	2000
	8	CRP-M8	4.0	12.0	10.3	6.0	26.4	8.4	2000
1.5 – 2.5 [16 – 14]	3	CBP-M3	4.9	5.6	5.0	2.8	17.9	3.2	1750
	3.5	CBP-M3.5	4.9	5.6	5.0	2.8	17.9	3.7	1750
	3.5	CBP-M3.5-1*	4.9	6.2	6.5	3.1	19.6	3.7	1750
	4	CBP-M4	4.9	8.0	6.5	4.0	20.6	4.3	1750
	5	CBP-M5	4.9	8.0	7.5	4.0	21.6	5.3	1750
	6	CBP-M6	4.9	9.4	8.6	4.7	23.4	6.4	1750
	6	CBP-M6-1*	4.9	12.0	10.3	6.0	26.4	6.4	1750
	7	CBP-M7	4.9	10.0	7.8	5.0	22.9	7.2	1750
4 – 6 [12 – 10]	3	CGP-M3	6.6	8.0	8.1	4.0	26.2	3.2	1250
	3.5	CGP-M3.5	6.6	8.0	8.1	4.0	26.2	3.7	1250
	4	CGP-M4	6.6	9.0	8.1	4.5	26.7	4.3	1250
	5	CGP-M5	6.6	9.0	8.1	4.5	26.7	5.3	1250
	6	CGP-M6	6.6	11.0	11.1	5.5	30.7	6.4	1250
	6	CGP-M6-1*	6.6	11.0	8.1	5.5	27.7	6.4	1250
	7	CGP-M7	6.6	11.0	11.1	5.5	30.7	7.2	1250
	8	CGP-M8	6.6	13.6	12.1	6.8	33.0	8.4	1250
	8	CGP-M8-1	6.6	11.0	8.1	5.5	27.7	8.4	1250
	10	CGP-M10	6.6	13.6	12.1	6.8	33.2	10.5	1250

* Marked types only available on request.

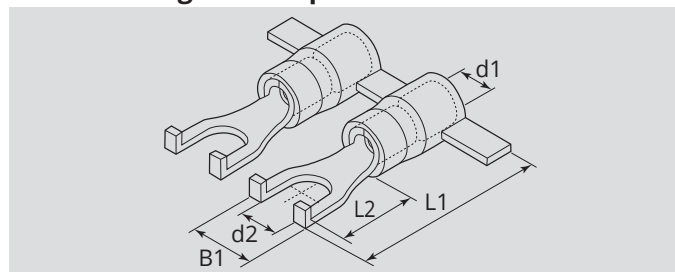
Fork shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	d1(Ø)	B1	Dimensions in mm			d2	Pieces per roll
					L3	L2	L1		
0.25 – 1.5 [22 – 16]	3	CRP-U3	4.0	5.5	5.5	4.0	19.6	3.2	2000
	3.5	CRP-U3.5	4.0	6.0	6.5	3.8	20.4	3.7	2000
	3.5	CRP-U3.5-2*	4.0	6.4	6.5	3.8	20.4	3.7	2000
	4	CRP-U4	4.0	6.5	7.5	3.7	21.3	4.3	2000
	4	CRP-U4-1*	4.0	8.5	7.5	3.7	21.3	4.3	2000
	4	CRP-U4-2*	4.0	7.5	7.5	3.7	21.3	4.3	2000
	5	CRP-U5	4.0	8.5	7.5	3.7	21.3	5.3	2000
	6	CRP-U6	4.0	9.4	8.1	4.7	22.9	6.4	2000
	6	CRP-U6-1*	4.0	12.0	9.2	7.1	26.4	6.4	2000
	8	CRP-U8*	4.0	14.0	10.0	6.3	26.4	8.4	2000
1.5 – 2.5 [16 – 14]	3	CBP-U3	4.9	5.5	5.5	4.0	19.6	3.2	1750
	3.5	CBP-U3.5	4.9	6.4	6.5	3.8	20.4	3.7	1750
	4	CBP-U4	4.9	6.5	7.5	3.7	21.3	4.3	1750
	4	CBP-U4-1*	4.9	8.5	7.5	3.7	21.3	4.3	1750
	4	CBP-U4-2*	4.9	7.5	7.5	3.7	21.3	4.3	1750
	5	CBP-U5	4.9	8.5	7.5	3.7	21.3	5.3	1750
4 – 6 [12 – 10]	3.5	CGP-U3.5	6.6	7.5	8.5	3.9	26.5	3.7	1250
	4	CGP-U4	6.6	7.5	8.0	4.4	26.5	4.3	1250
	5	CGP-U5	6.6	9.5	8.0	4.4	26.5	5.3	1250
	6	CGP-U6	6.6	10.0	11.0	5.5	30.6	6.4	1250

* Marked types only available on request.

Claw cable lug Fork shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	d1(Ø)	B1	Dimensions in mm			d2	Pieces per roll
					L2	L1			
1.5 – 2.5 [16 – 14]	4	CBP-U4-3L *	4.9	6.5	9.5	14.5	4.3	1750	

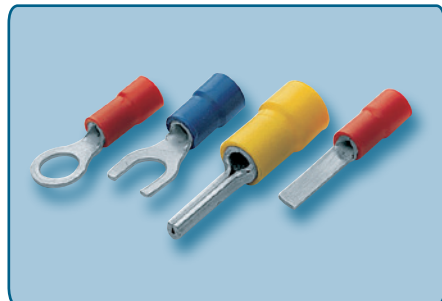
* Without UL approval

PVC insulated connecting material



RF
BF
GF

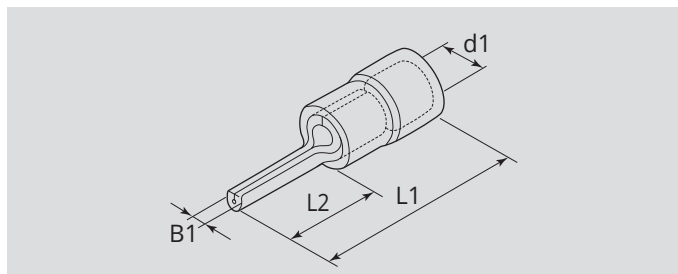
Mechanical compression lugs type "F" for copper conductors



The special funnel shape of the PVC collar has been specially developed to compensate for the "step" of the copper sleeve. Our new F-range therefore makes it easier to insert the conductor. With our F-range, the twisting of the strands is no longer necessary. The wire can be inserted directly into the connector. This saves time during assembly. Since all the wires are inserted into the sleeve, the conductor is completely crimped. This guarantees absolutely reliable crimping, both electrically and mechanically. Thermal properties: from -20 to +80 °C continuous (short-term to 90 °C). Crimping tools on page 84.

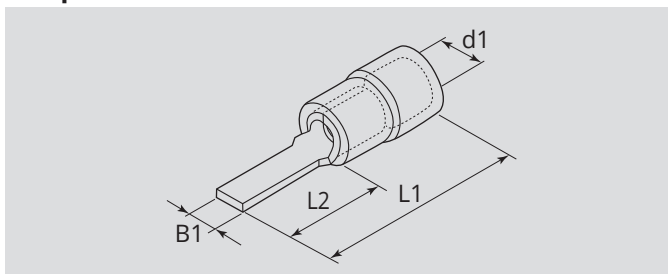


Pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.5 [22 – 16]	RF-P8	3.9	1.6	8.0	17.9	100
	RF-P10	3.9	1.6	10.0	19.9	100
	RF-P12	3.9	1.6	12.0	22.1	100
1.5 – 2.5 [16 – 14]	BF-P8	4.9	1.7	8.0	17.9	100
	BF-P10	4.9	1.8	10.0	19.9	100
	BF-P12	4.9	1.8	12.0	21.9	100
4 – 6 [12 – 10]	GF-P10	6.7	2.2	10.0	24.6	100
	GF-P12	6.7	2.2	12.0	26.8	100
	GF-P14	6.7	2.2	14.0	28.8	100

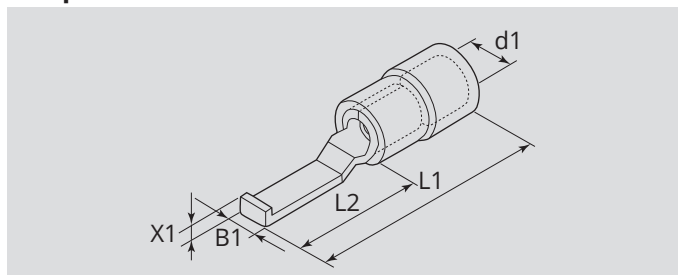
Flat pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.5 [22 – 16]	RF-PP12	3.9	3.0	12.8	22.9	100
	RF-PP12-1	3.9	3.0	11.3	21.4	100
	RF-PP12-19	3.9	1.9	13.2	23.3	100
	RF-PP12-23	3.9	2.3	13.2	23.3	100
	RF-PP14	3.9	3.0	14.8	24.9	100
	RF-PP16-23	3.9	2.3	17.2	27.3	100
1.5 – 2.5 [16 – 14]	BF-PP12	3.9	3.5	12.8	22.9	100
	BF-PP12-25	4.9	2.5	13.3	23.4	100
	BF-PP12-29 ♦	4.9	2.9	13.3	23.4	100
	BF-PP16-25	4.9	2.5	17.2	27.3	100
4 – 6 [12 – 10]	GF-PP12	6.7	4.0	13.3	27.5	100
	GF-PP17	6.7	2.9	19.2	33.4	100

♦ Without UL approval

Flat pin claws



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm					PU
		d1(Ø)	B1	L2	L1	X1	
0.25 – 1.5 [22 – 16]	RF-PPL30 ♦	3.9	3.0	17.5	28.4	1.7	100
	RF-PPL46 ♦	3.9	4.6	17.5	28.4	1.7	100
1.5 – 2.5 [16 – 14]	BF-PPL30 ♦	4.9	3.0	17.5	28.4	1.7	100
	BF-PPL46 ♦	4.9	4.6	17.5	28.4	1.7	100
4 – 6 [12 – 10]	GF-PPL46 ♦	6.7	4.6	17.5	32.7	1.9	100

♦ Without UL approval

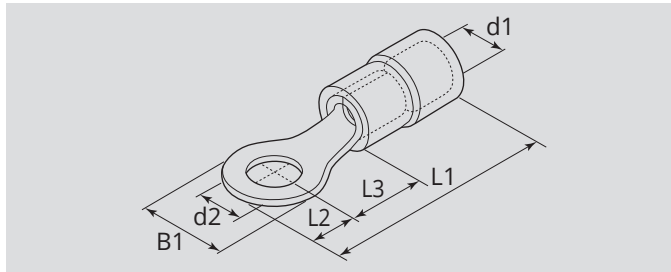
Example: Tool Typ HP 3
(see page 84)





Mechanical compression lugs type "F" for copper conductors

Ring shape

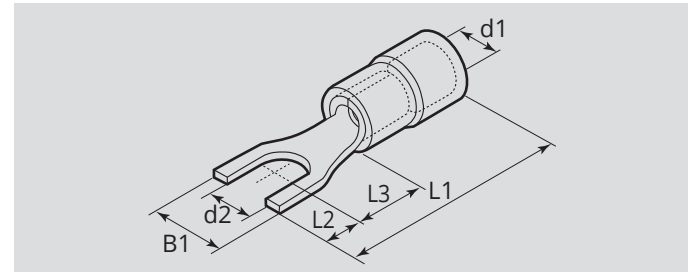


Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm							PU
			d1(Ø)	B1	L3	L2	L1	d2		
0.25 – 1.5 [22 – 16]	2	RF-M2 * ♦	3.9	5.6	4.5	2.8	17.4	2.2	100	
	3	RF-M3	3.9	5.6	4.5	2.8	17.4	3.2	100	
	3.5	RF-M3.5	3.9	5.6	4.5	2.8	17.4	3.7	100	
	3.5	RF-M3.5-1	3.9	6.2	7.1	3.1	20.3	3.7	100	
	4	RF-M4	3.9	7.0	6.5	3.5	20.1	4.3	100	
	4	RF-M4-3 ♦	3.9	7.8	7.1	3.9	21.1	4.3	100	
	5	RF-M5	3.9	7.8	7.1	3.9	21.1	5.3	100	
	6	RF-M6	3.9	9.4	8.1	4.7	22.9	6.4	100	
	6	RF-M6-1	3.9	12.0	10.3	6.0	26.4	6.4	100	
	7	RF-M7	3.9	9.4	8.1	4.7	22.9	7.2	100	
	8	RF-M8	3.9	12.0	10.3	6.0	26.4	8.4	100	
	10	RF-M10	3.9	15.5	13.0	7.7	30.9	10.5	100	
	12	RF-M12	3.9	18.0	15.5	9.0	34.6	13.0	100	
1.5 – 2.5 [16 – 14]	2	BF-M2 * ♦	4.9	5.6	5.0	2.8	17.9	2.2	100	
	3	BF-M3	4.9	5.6	5.0	2.8	17.9	3.2	100	
	3.5	BF-M3.5	4.9	5.6	5.0	2.8	17.9	3.7	100	
	3.5	BF-M3.5-1	4.9	6.2	6.5	3.1	19.7	3.7	100	
	4	BF-M4	4.9	8.0	6.5	4.0	20.6	4.3	100	
	5	BF-M5	4.9	8.0	7.5	4.0	21.6	5.3	100	
	6	BF-M6	4.9	9.4	8.6	4.7	23.4	6.4	100	
	6	BF-M6-1	4.9	12.0	10.3	6.0	26.4	6.4	100	
	6	BF-M6-2 * ♦	4.9	8.4	5.4	4.2	19.7	6.4	100	
	7	BF-M7	4.9	10.0	7.8	5.0	22.9	7.2	100	
	8	BF-M8	4.9	12.0	10.3	6.0	26.4	8.4	100	
	10	BF-M10	4.9	15.5	13.0	7.7	30.9	10.5	100	
	12	BF-M12	4.9	18.0	15.5	9.0	34.6	13.0	100	
4 – 6 [12 – 10]	3	GF-M3	6.7	8.0	8.1	4.0	26.3	3.2	100	
	3.5	GF-M3.5	6.7	8.0	8.1	4.0	26.3	3.7	100	
	4	GF-M4	6.7	9.0	8.1	4.5	26.8	4.3	100	
	5	GF-M5	6.7	9.0	8.1	4.5	26.8	5.3	100	
	6	GF-M6	6.7	11.0	11.1	5.5	30.8	6.4	100	
	6	GF-M6-1	6.7	11.0	8.1	5.5	27.8	6.4	100	
	7	GF-M7	6.7	11.0	11.1	5.5	30.8	7.2	100	
	8	GF-M8	6.7	13.6	12.1	6.8	33.1	8.4	100	
	8	GF-M8-1 * ♦	6.7	11.0	8.1	5.5	27.8	8.4	100	
	10	GF-M10	6.7	13.6	12.1	6.8	33.1	10.5	100	
	10	GF-M10-1	6.7	15.5	13.8	7.7	35.8	10.5	100	
	12	GF-M12	6.7	19.0	15.1	9.5	38.8	13.0	100	
	14	GF-M14	6.7	21.0	16.1	10.5	40.8	15.0	100	
	16	GF-M16	6.7	24.0	17.1	12.0	43.3	17.0	100	

* Marked types only available on request.

♦ Without UL approval

Fork shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm							PU
			d1(Ø)	B1	L3	L2	L1	d2		
0.25 – 1.5 [22 – 16]	3	RF-U3	3.9	5.5	5.5	4.0	19.6	3.2	100	
	3.5	RF-U3.5	3.9	6.0	6.5	3.8	20.4	3.7	100	
	3.5	RF-U3.5-1	3.9	7.2	6.5	3.8	20.4	3.7	100	
	3.5	RF-U3.5-2 ♦	3.9	6.4	6.5	3.8	20.4	3.7	100	
	4	RF-U4	3.9	6.5	7.5	3.7	21.3	4.3	100	
	4	RF-U4-1	3.9	8.5	7.5	3.7	21.3	4.3	100	
	4	RF-U4-2	3.9	7.5	7.5	3.7	21.3	4.3	100	
	5	RF-U5	3.9	8.5	7.5	3.7	21.3	5.3	100	
	5	RF-U5-1 * ♦	3.9	9.4	7.5	3.7	21.3	5.3	100	
	6	RF-U6	3.9	9.4	8.1	4.7	22.9	6.4	100	
	6	RF-U6-1	3.9	12.0	9.2	7.1	26.4	6.4	100	
	8	RF-U8	3.9	14.0	10.0	6.3	26.4	8.4	100	
	10	RF-U10	3.9	17.5	13.0	7.7	30.9	10.5	100	
	12	RF-U12	3.9	20.0	15.5	9.0	34.6	13.0	100	
1.5 – 2.5 [16 – 14]	3	BF-U3	4.9	5.5	5.5	4.0	19.6	3.2	100	
	3.5	BF-U3.5	4.9	6.4	6.5	3.8	20.4	3.7	100	
	3.5	BF-U3.5-1 *	4.9	7.2	6.5	3.8	20.4	3.7	100	
	4	BF-U4	4.9	6.5	7.5	3.7	21.3	4.3	100	
		BF-U4-1	4.9	8.5	7.5	3.7	21.3	4.3	100	
		BF-U4-2	4.9	7.5	7.5	3.7	21.3	4.3	100	
	5	BF-U5	4.9	8.5	7.5	3.7	21.3	5.3	100	
	5	BF-U5-2 ♦	4.9	12.0	11.3	5.0	26.3	5.3	100	
	6	BF-U6	4.9	9.4	8.1	4.7	22.9	6.4	100	
	6	BF-U6-1	4.9	12.0	9.2	7.1	26.4	6.4	100	
	8	BF-U8	4.9	14.0	10.0	6.3	26.4	8.4	100	
	10	BF-U10	4.9	17.5	13.0	7.7	30.9	10.5	100	
	12	BF-U12	4.9	20.0	15.5	9.0	34.6	13.0	100	
4 – 6 [12 – 10]	3.5	GF-U3.5	6.7	7.5	8.5	3.9	26.6	3.7	100	
	4	GF-U4	6.7	7.5	8.0	4.4	26.6	4.3	100	
	5	GF-U5	6.7	9.5	8.0	4.4	26.6	5.3	100	
	6	GF-U6	6.7	10.0	11.0	5.5	30.7	6.4	100	
	8	GF-U8	6.7	13.5	12.0	8.0	34.2	8.4	100	
	10	GF-U10	6.7	15.5	13.0	8.0	35.2	10.5	100	
	12	GF-U10-1	6.7	17.5	13.8	7.7	35.8	10.5	100	
	12	GF-U12	6.7	21.0	15.1	9.5	38.8	13.0	100	
	14	GF-U14	6.7	23.0	16.1	10.5	40.8	15.0	100	
	16	GF-U16	6.7	26.0	17.1	11.5	42.8	17.0	100	

* Marked types only available on request.

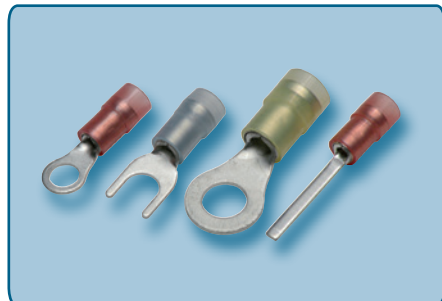
♦ Without UL approval

Reinforced connecting material



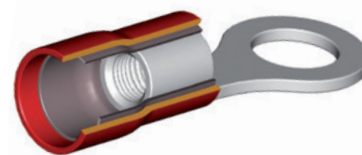
RKY
BKY
GKY

Mechanical compression lugs type "KY" for copper conductors

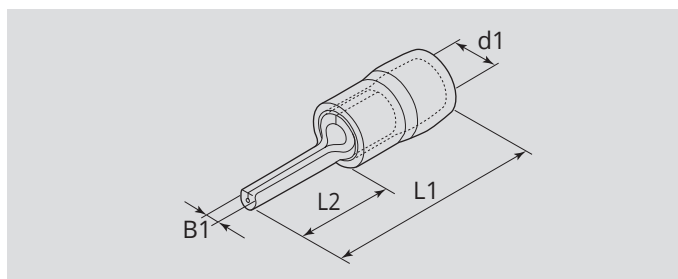


The "KY" series is designed to offer maximum reliability even in demanding applications, such as systems subject to continuous mechanical stress (vibrations, motors, etc.). The "easy entry" effect is achieved by an additional funnel-shaped copper sleeve between the conductor and insulation, which at the same time allows easy insertion of the conductor. The additional copper sleeve is crimped and formed onto the conductor insulation during crimping. This design results in a significant improvement in the mechanical and general quality of the connection.

Thermal properties: from - 20 to + 105 °C continuous (short-term to 110 °C).

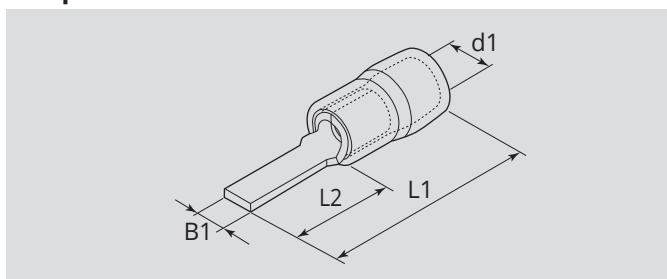


Pin



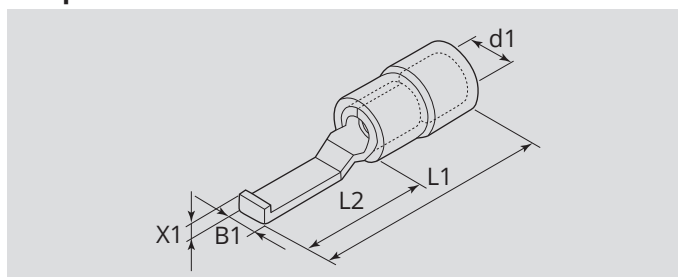
Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.5 [22 – 16]	■ RKY-P8	4.5	1.9	9.0	19.8	100
	■ RKY-P10	4.5	1.9	10.0	20.8	100
	■ RKY-P12	4.5	1.9	12.0	22.8	100
1.5 – 2.5 [16 – 14]	■ BKY-P8	5.2	1.9	9.0	19.8	100
	■ BKY-P10	5.2	1.9	10.0	20.8	100
	■ BKY-P12	5.2	1.9	12.0	22.8	100
4 – 6 [12 – 10]	■ GKY-P14	7.0	2.8	14.0	27.0	100

Flat pin



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.5 [22 – 16]	■ RKY-PP12	4.5	3.0	13.0	23.8	100
	■ RKY-PP12-19	4.5	2.0	18.0	28.8	100
	■ RKY-PP16-23	4.5	2.2	18.0	28.8	100
1.5 – 2.5 [16 – 14]	■ BKY-PP12	5.2	3.0	13.0	23.8	100
	■ BKY-PP12-25	5.2	2.4	13.0	23.8	100
	■ BKY-PP16-23	5.2	2.2	18.0	28.8	100
4 – 6 [12 – 10]	■ GKY-PP12	7.0	4.0	14.0	27.0	100
	■ GKY-PP17	7.0	2.0	18.0	31.0	100

Flat pin claws



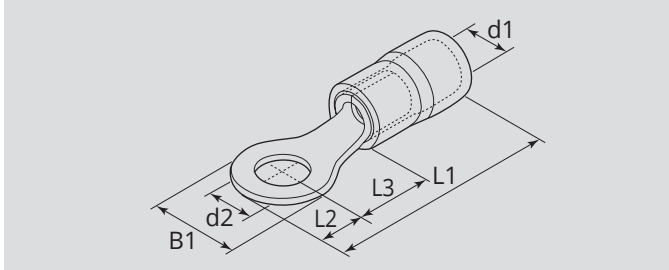
Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm					PU
		d1(Ø)	B1	L2	L1	X1	
0.25 – 1.5 [22 – 16]	■ RKY-PPL30	4.5	3.0	16.8	28.2	2.1	100
	■ RKY-PPL46	4.5	4.6	16.8	28.2	2.1	100
1.5 – 2.5 [16 – 14]	■ BKY-PPL30	5.2	3.0	16.8	28.2	2.1	100
	■ BKY-PPL46	5.2	4.6	16.8	28.2	2.1	100
4 – 6 [12 – 10]	■ GKY-PPL46	7.0	4.6	17.2	30.2	2.4	100

Other dimensions are available on request.

Example: Tool Typ HP 3
(see page 84)



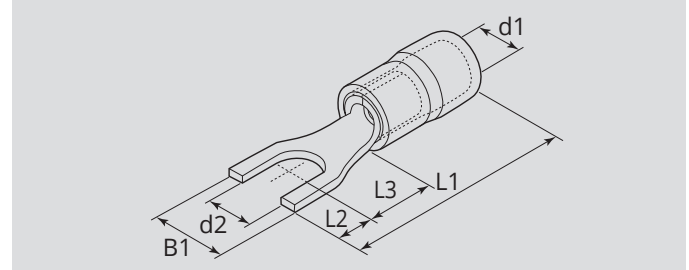
Ring shape



Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.25 – 1.5 [22 – 16]	3	RKY-M3	4.5	5.5	5.0	2.5	18.5	3.2	100
	3.5	RKY-M3.5	4.5	5.5	5.0	2.5	18.5	3.7	100
	3.5	RKY-M3.5-1	4.5	6.6	6.3	3.1	20.4	3.7	100
	4	RKY-M4	4.5	6.6	6.3	3.1	20.4	4.3	100
	5	RKY-M5	4.5	8.0	7.0	3.8	21.8	5.3	100
	6	RKY-M6-1	4.5	11.6	11.0	5.8	27.8	6.4	100
	8	RKY-M8	4.5	11.6	11.0	5.8	27.8	8.4	100
	10	RKY-M10	4.5	13.6	13.9	6.6	31.5	10.5	100
1.5 – 2.5 [16 – 14]	12	RKY-M12	4.5	19.6	16.0	9.4	36.4	13.0	100
	3	BKY-M3	5.2	6.6	4.8	3.0	18.8	3.2	100
	3.5	BKY-M3.5	5.2	6.6	4.8	3.0	18.8	3.7	100
	3.5	BKY-M3.5-1	5.2	6.6	6.3	3.1	20.4	3.7	100
	4	BKY-M4	5.2	8.5	7.8	4.0	22.8	4.3	100
	5	BKY-M5	5.2	8.5	7.8	4.0	22.8	5.3	100
	6	BKY-M6-1	5.2	12.0	11.0	5.8	27.8	6.4	100
	8	BKY-M8	5.2	12.0	11.0	5.8	27.8	8.4	100
4 – 6 [12 – 10]	10	BKY-M10	5.2	13.6	13.9	6.6	31.5	10.5	100
	12	BKY-M12	5.2	19.2	16.0	9.4	36.4	13.0	100
	3.5	GKY-M3.5	7.0	7.2	6.1	3.6	22.7	3.7	100
	4	GKY-M4	7.0	9.5	9.1	4.5	26.6	4.3	100
	5	GKY-M5	7.0	9.5	9.1	4.5	26.6	5.3	100
	6	GKY-M6	7.0	12.0	10.5	6.0	29.5	6.4	100
	8	GKY-M8	7.0	15.0	13.5	7.5	34.0	8.4	100
	10	GKY-M10	7.0	15.0	13.5	7.5	34.0	10.5	100
	12	GKY-M12	7.0	19.2	16.0	9.6	38.6	13.0	100
	14	GKY-M14	7.0	32.0	25.2	16.0	54.2	15.0	100
	16	GKY-M16	7.0	32.0	25.2	16.0	54.2	17.0	100

Other dimensions are available on request.

Fork shape

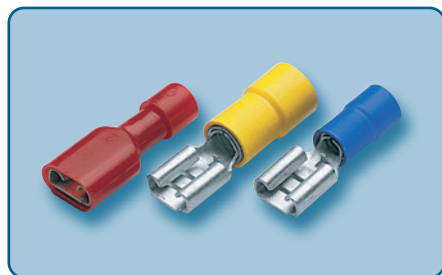


Conductor cross-section mm ² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.25 – 1.5 [22 – 16]	3	RKY-U3	4.5	5.7	6.5	4.5	22.0	3.2	100
	3.5	RKY-U3.5	4.5	5.7	6.5	4.5	22.0	3.7	100
	4	RKY-U4	4.5	6.4	6.5	4.5	22.0	4.3	100
	5	RKY-U5	4.5	8.1	6.5	4.5	22.0	5.3	100
	6	RKY-U6	4.5	9.5	6.5	4.5	22.0	6.4	100
	6	RKY-U6-1	4.5	12.0	11.0	6.0	28.0	6.4	100
1.5 – 2.5 [16 – 14]	3	BKY-U3	5.2	5.7	6.5	4.5	22.0	3.2	100
	3.5	BKY-U3.5	5.2	6.0	6.5	4.5	22.0	3.7	100
	4	BKY-U4	5.2	6.4	6.5	4.5	22.0	4.3	100
	5	BKY-U5	5.2	7.9	6.5	4.5	22.0	5.3	100
4 – 6 [12 – 10]	6	BKY-U6	5.2	9.3	6.5	4.5	22.0	6.4	100
	6	BKY-U6-1	5.2	12.0	11.0	6.0	28.0	6.4	100
	3.5	GKY-U3.5	7.0	7.2	7.5	3.9	24.4	3.7	100
	4	GKY-U4	7.0	7.2	7.5	3.9	24.4	4.3	100
	5	GKY-U5	7.0	9.0	7.0	5.5	25.5	5.3	100
	6	GKY-U6	7.0	12.0	12.0	6.5	31.5	6.4	100
	8	GKY-U8	7.0	14.0	10.5	7.0	30.5	8.4	100

Insulated flat ferrules



RF-F
BF-F
GF-F



Polycarbonate insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Plug mm	PU
0.25 – 1.5 [22 – 16]	RF-F305	2.8 x 0.5	100
	RF-F308 ♦	2.8 x 0.8	100
	RF-F405	4.8 x 0.5	100
	RF-F408	4.8 x 0.8	100
	RF-F608	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	BF-F405	4.8 x 0.5	100
	BF-F408	4.8 x 0.8	100
	BF-F608	6.35 x 0.8	100
4 – 6 [12 – 10]	GF-F608	6.35 x 0.8	100

♦ Without UL approval

PVC insulated, fully reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Plug mm	PU
0.25 – 1.5 [22 – 16]	RKF-F608	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	BKF-F608	6.35 x 0.8	100
4 – 6 [12 – 10]	GKF-F608	6.35 x 0.8	100

Polycarbonate fully insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Plug mm	PU
0.25 – 1.5 [22 – 16]	RF-F305P	2.8 x 0.5	100
	RF-F308P ♦	2.8 x 0.8	100
	RF-F405P	4.8 x 0.5	100
	RF-F408P	4.8 x 0.8	100
	RF-F608P	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	BF-F405P	4.8 x 0.5	100
	BF-F408P	4.8 x 0.8	100
	BF-F608P	6.35 x 0.8	100
4 – 6 [12 – 10]	GF-F608P	6.35 x 0.8	100

♦ Without UL approval

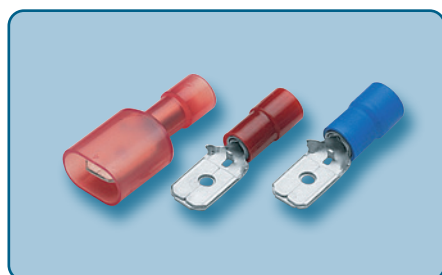
From brass tapes

- Electrolytically tinned
- Thermal properties:
- Polycarbonate
- PVC from – 20 to + 80 °C continuous (short-term to 90 °C).
- Crimping tools on page 84.

Insulated flat plugs



RF-M
BF-M
GF-M



Flat plug, Polycarbonate insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Plug mm	PU
0.25 – 1.5 [22 – 16]	RF-M608	6.35 x 0.8	100
	BF-M608	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	BF-M608	6.35 x 0.8	100
4 – 6 [12 – 10]	GF-M608	6.35 x 0.8	100

Fully insulated flat plug, Polycarbonate insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Plug mm	PU
0.25 – 1.5 [22 – 16]	RF-M608P	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	BF-M608P	6.35 x 0.8	100

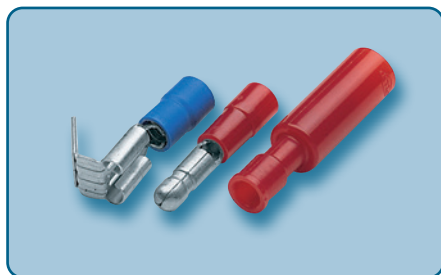
From brass tapes

- Electrolytically tinned
- Thermal properties: from – 20 to + 115 °C continuous (short-term to 130 °C).
- Crimping tools on page 84.

Insulated flat ferrules and round plugs



RF-FM
BF-FM
RF-B
BF-B



Double flat ferrules, Polycarbonate insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Tab mm	PU
0.25 – 1.5 [22 – 16]	■ RF-FM608	6.35 x 0.8	100
1.5 – 2.5 [16 – 14]	■ BF-FM608	6.35 x 0.8	100

Round plug, Polycarbonate insulated, partly reinforced by copper sleeve

Conductor cross-section mm ² [AWG]	Item number	Ø in mm	PU
0.25 – 1.5 [22 – 16]	■ RF-BM4 ♦♦ ■ RF-BF4 ♦	4	100
1.5 – 2.5 [16 – 14]	■ BF-BM5 ♦♦ ■ BF-BF5 ♦	5	100

♦ Without UL approval
♦ male

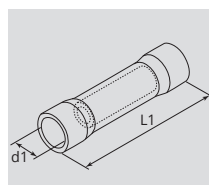
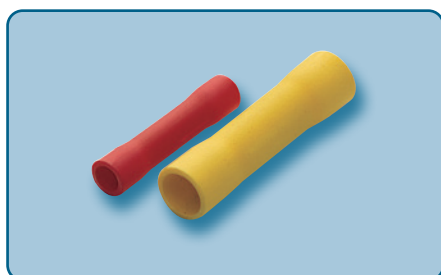
From brass tapes

- Electrolytically tinned
- Thermal properties:
from – 20 to + 115 °C continuous
(short-term to 130 °C).
- Crimping tools on page 84.

Parallel and butt connectors



PL-M
PL-P



PVC insulated

Conductor cross-section mm ² [AWG]	Item number	d1(Ø) in mm	L1 in mm	PU
0.2 – 0.5 [24 – 20]	■ PL01-M ♦	3.0	25	100
0.25 – 1.5 [22 – 16]	■ PL03-M	4.0	25	100
1.5 – 2.5 [16 – 14]	■ PL06-M	5.0	25	100
4 – 6 [12 – 10]	■ PL1-M	6.5	32	100
0.25 – 1.5 [22 – 16]	■ PL03-P ♦	4.0	20	100
1.5 – 2.5 [16 – 14]	■ PL06-P ♦	5.0	16	100

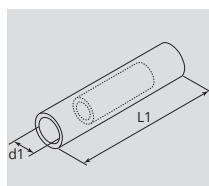
♦ Without UL approval

Made of copper tube

- Electrolytically tinned
- Thermal properties:
from – 20 to + 80 °C continuous (short-term to 90 °C).
- Crimping tools on page 85.

Butt connector

NL-M



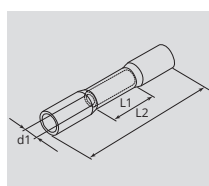
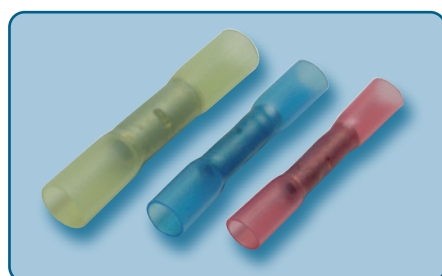
- Made of copper tube
- Electrolytically tinned
- Thermal properties:
from - 20 to + 115 °C continuous (short-term to 130 °C)
- Crimping tools on page 85.

Nylon insulated

Conductor cross-section mm² [AWG]	Item number	d1(Ø) in mm	L1 in mm	PU
0.25 – 1.5 [22 – 16]	■ NL03-M	4.0	25.0	100
1.5 – 2.5 [16 – 14]	■ NL06-M	5.4	25.5	100
4 – 6 [12 – 10]	■ NL1-M	5.4	32.0	100
10 [8 – 7]	■ NL2-M	6.8	43.0	100
16 [6 – 5]	■ NL3-M	7.9	44.0	100

Heat-shrinkable compression connectors

WL-M



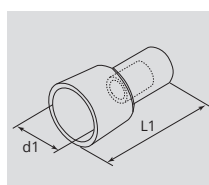
- Made of copper tube
- Electrolytically tinned
- Thermal properties: from - 40 to + 105 °C
- Shrink temperature: 150°C
- Max voltage: 600V
- Crimping tools from page 85.

High-Density-PE insulated

Conductor cross-section mm² [AWG]	Item number	d1(Ø)	L1	L2	PU
0.5 – 1 [20 – 17]	■ WL03-M	1.7	15.0	36.0	100
1.5 – 2.5 [16 – 14]	■ WL06-M	2.3	15.0	36.0	100
4 – 6 [12 – 10]	■ WL1-M	3.4	15.0	41.0	100

End connectors

NL-P



- Made of copper tube
- Electrolytically tinned
- Thermal properties:
from - 20 to + 115 °C continuous (short-term to 130 °C)
- Crimping tools on page 85.

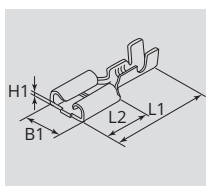
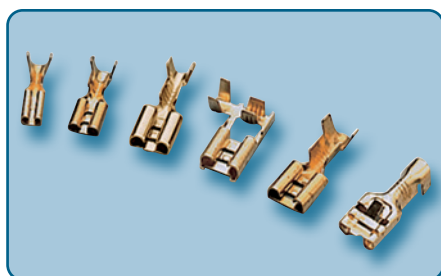
Nylon insulated

Conductor cross-section mm² [AWG]	Item number	d1(Ø) in mm	L1 in mm	PU
1.5 – 2.5 [16 – 14]	■ NL06-P	7.9	19.9	100
	■ NL06-PB	6.5	13.6	100
4 – 6 [12 – 10]	■ NL1-P	10.5	21.5	100
	■ NL1-PG	9.0	17.8	100

Flat ferrules for copper conductors



RN-FA
BN-FA



Material: Brass
Crimping tools on page 86.

Conductor cross-section mm ² [AWG]	Item number	Plug B2 H1 mm	L2 in mm	L1 in mm	PU
0.5 – 1 [20 – 17]	RN-FA305	2.8 x 0.5	6.3	15.0	100
	RN-FA405	4.8 x 0.5	6.3	15.0	100
	RN-FA608	6.3 x 0.8	7.7	19.0	100
1 – 2.5 [17 – 14]	BN-FA608	6.3 x 0.8	7.7	19.0	100
	BN-FAB608 *	6.3 x 0.8	7.7	15.5	100
	BN-FAR608 *2	6.3 x 0.8	7.7	19.0	100

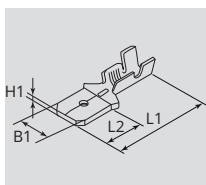
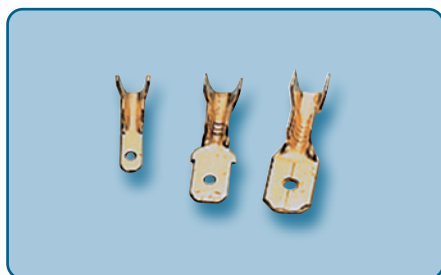
* with lateral conductor connection

*2 with fixing

Flat plug for copper conductors



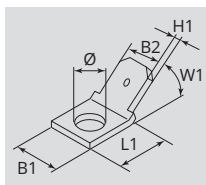
RN-MA
BN-MA



Material: Brass
Crimping tools on page 86.

Conductor cross-section mm ² [AWG]	Item number	Plug B1 H1 mm	L2 in mm	L1 in mm	PU
0.5 – 1 [20 – 17]	RN-MA305	2.8 x 0.5	5.8	13.0	100
	RN-MA405	4.8 x 0.5	6.3	17.3	100
	RN-MA608	6.3 x 0.8	7.9	19.7	100
1 – 2.5 [17 – 14]	BN-MA608	6.3 x 0.8	7.9	20.0	100

Flat plug for copper conductors



Material: Brass

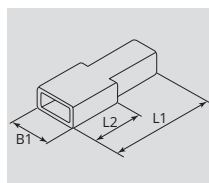
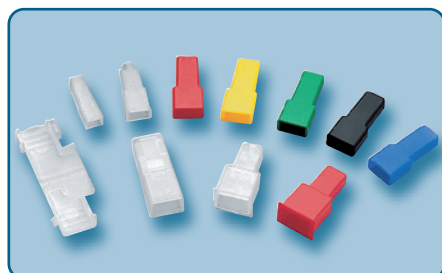
Item number	Plug B2 H1 mm	Ø Bolt mm	B1 mm	L1 in mm	W1	PU
MP608	6.3x0.8	4	8	8.5	0°	100
MP608-45	6.3x0.8	4	8	8.5	45°	100
MP608-90	6.3x0.8	4	8	8.5	90°	100
MP608D *	6.3x0.8	4	8	14	0°	100

* Double plug

Insulation grommets for flat ferrules



CFA
CMA



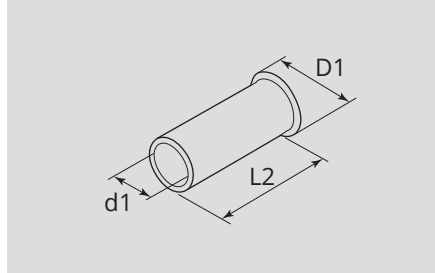
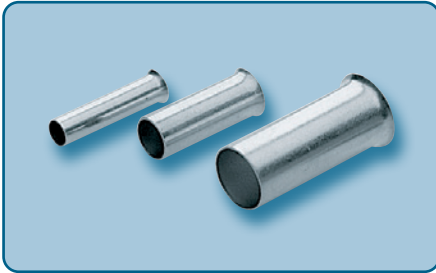
- Retrospectively pushable
- Engaging

Item number	Plug width	B1 mm	L2 mm	L1 mm	Material	PU
CFA300	2.8	5.5	7	18	PE	100
CFA400	4.8	7.5	9	20	PE	100
CFA600	6.3	9.0	11	24	PE	100
CFA2600 *	6.3	9.0	9	22	PE	100
CFAR600 ²	6.3 with fastening	9.0	12	25	PA 6.6	100
CFAB600	6.3 Flap nozzle for flat ferrules with lateral conductor connection	10.0	–	19	PA 6.6	100
CMA600 *	6.3 Flat plug	12.0	11	22	PE	100

* Entry for one wire. 3 colours: Transparent (standard),
■ (.... R), ■ (.... N)

² Entry for two wires. 6 colours: Transparent (standard),
■ (.... R), ■ (.... N), ■ (.... V), ■ (.... B), ■ (.... G)

Non-insulated wire end ferrules for finely-stranded copper conductors



Material: Copper
Surface: tinned

Cross-section	- Length	AWG	Item number	PU	Dimensions in mm		
mm ²	- mm				L2	d1	D1
0.25	- 5	24	AH-006825 ♦	1000	5*	0.8	1.7
	- 7		AH-006000 ♦		7*		
0.34	- 5	22	AH-006002 ♦	1000	5*	0.9	1.8
	- 7		AH-006004 ♦		7*		
0.50	- 6	20	AH-006006	1000	6	1	2.1
	- 8		AH-006008		8*		
	- 10		AH-006010		10		
0.75	- 6	20	AH-006012	1000	6	1.2	2.3
	- 8		AH-006014 ♦		8*		
	- 10		AH-006015		10		
	- 12		AH-006016 ♦		12*		
1	- 6	18	AH-006017	1000	6	1.4	2.5
	- 7		AH-006019 ♦		7*		
	- 8		AH-006020 ♦		8*		
	- 10		AH-006022		10		
	- 12		AH-006024 ♦		12*		
1.5	- 7	16	AH-006027	1000	7	1.7	2.8
	- 8		AH-006030 ♦		8		
	- 10		AH-006031		10		
	- 12		AH-006033		12		
	- 15		AH-006035 ♦		15*		
	- 18		AH-006036		18		
2.5	- 7	14	AH-006040	1000	7	2.2	3.4
	- 8		AH-006042 ♦		8		
	- 10		AH-006043		10		
	- 12		AH-006045		12		
	- 15		AH-006047 ♦		15*		
	- 18		AH-006048		18		
4	- 9	12	AH-006050	1000	9	2.8	4
	- 10		AH-006052 ♦		10		
	- 12		AH-006053		12		
	- 15		AH-006055		15		
	- 18		AH-006056		18		
	- 20		AH-006058 ♦		20*		
6	- 10	10	AH-006059	1000	10	3.5	4.7
	- 12		AH-006060		12		
	- 15		AH-006062		15		
	- 18		AH-006063		18		
	- 20		AH-006065 ♦		20*		

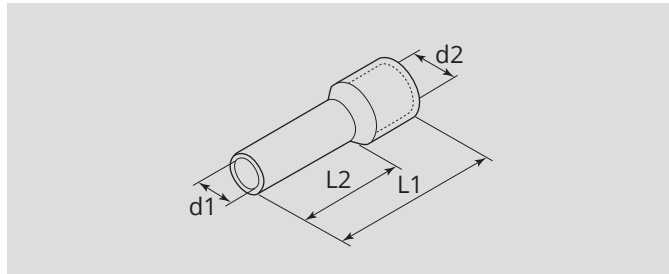
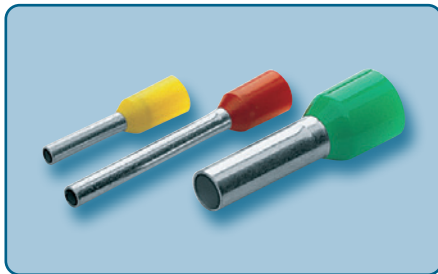
Cross-section	- Length	AWG	Item number	PU	Dimensions in mm		
mm ²	- mm				L2	d1	D1
10	- 12	8	AH-006068	500	12	4.5	5.8
	- 15		AH-006070		15		
	- 18		AH-006071		18		
	- 20		AH-006073 ♦		20*		
	- 25		AH-006074 ♦		25*		
16	- 12	6	AH-006079	250	12	5.8	7.5
	- 15		AH-006080		15		
	- 18		AH-006081		18		
	- 20		AH-006083 ♦		20*		
	- 25		AH-006084		25		
25	- 12	4	AH-006085	100	32	7.3	9.5
	- 15		AH-006089 ♦		12*		
	- 18		AH-006091		15		
	- 20		AH-006092		18		
	- 25		AH-006093 ♦		20		
35	- 18	2	AH-006094	100	25	8.3	11
	- 20		AH-006095		32		
	- 25		AH-006098		18		
	- 32		AH-006099 ♦		20*		
	- 32		AH-006100		25		
50	- 18	1/0	AH-006101	100	32	10.3	13
	- 22		AH-006102		18		
	- 25		AH-006103 ♦		22*		
	- 32		AH-006104		25		
	- 32		AH-006105		32		
70	- 22	2/0	AH-006106 ♦	100	22*	12.5	15
	- 25		AH-006107 ♦		25*		
	- 32		AH-006108 ♦		32*		
	- 32		AH-006109 ♦		25*		
95	- 30	3/0	AH-006110 ♦	50	30*	14.5	17
	- 32		AH-006111 ♦		32*		
	- 32		AH-006075 ♦		32*		
120	- 40	250	MCM AH-006076 ♦	50	40*	16.5	19
	- 40		MCM AH-006077 ♦		40*		
150	- 32	300	AH-006078 ♦	50	32*	18.5	21
	- 38		MCM AH-006078 ♦		38*		
185	- 32	350	AH-006086 ♦	25	32*	20.0	23.5
	- 40		MCM AH-006087 ♦		40*		
240	- 40	500	AH-006088 ♦	25	40*	22.8	25.8
	- 40		MCM				

* Not standardised according to DIN 46228T1

♦ Without UL / CSA approval



for finely stranded copper conductors



Material: Copper/Plastic
Surface: tinned

Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm			
										L1	L2	d1(Ø)	d2(Ø)
0.14	- 6	26	AH-005550 ♦	GY	AH-005548 ♦	BN	AH-005550 ♦	GY	500	10.5	6*	0.8	2.0
	- 8		AH-005554 ♦		AH-005552 ♦		AH-005554 ♦			12.5	8*		
0.25	- 6	24	AH-005558 ♦	YE	AH-005556 ♦	VT	AH-005562 ♦	BU	500	10.5	6*	0.8	2.0
	- 8		AH-005570 ♦		AH-005568 ♦		AH-005572 ♦			12.5	8*		
	- 12		-		-		AH-005574 ♦			16.0	12*		
0.34	- 6	24	AH-005578 ♦	TQ	AH-005576 ♦	PK	AH-005578 ♦	TQ	500	10.5	6*	0.8	2.0
	- 8		AH-005590 ♦		AH-005588 ♦		AH-005590 ♦			12.5	8*		
	- 12		AH-005594 ♦		-		AH-005594 ♦			16.0	12*		
0.5	- 6	20	AH-005596	WH	AH-005596	WH	AH-005600	OG	500	11.5	6	1.1	2.5
	- 8		AH-005607		AH-005607		AH-005617			13.5	8		
	- 10		AH-005626		AH-005626		AH-005632			15.5	10		
	- 12		AH-005636 ♦		AH-005636 ♦		-			18.0	12*		
0.75	- 6	20	AH-005640	GY	AH-005638	BU	AH-005643 ♦	WH	500	12.0	6	1.3	2.8
	- 8		AH-005656		AH-005645		AH-005668			14.0	8		
	- 10		AH-005684		AH-005678		AH-005690			16.0	10		
	- 12		AH-005700		AH-005696		AH-005706			18.0	12		
1	- 6	18	AH-005710	RD	AH-005710	RD	AH-005712	YE	500	12.5	6	1.5	3.0
	- 8		AH-005716		AH-005716		AH-005726			14.5	8		
	- 10		AH-005737		AH-005737		AH-005743			16.5	10		
	- 12		AH-005747		AH-005747		AH-006410 ♦			18.5	12		
1.5	- 6	16	AH-005757 ♦	BK	AH-005757 ♦	BK	AH-005759 ♦	RD	500	12.5	6*	1.8	3.4
	- 8		AH-005763		AH-005763		AH-005775 ♦			14.5	8		
	- 10		AH-005790		AH-005790		AH-005798			16.5	10		
	- 12		AH-005784		AH-005784		AH-005788			18.5	12		
	- 18		AH-005802		AH-005802		AH-005805			24.5	18		
2.08	- 8	14	AH-005807 ♦	YE	AH-005807 ♦	YE	AH-005807 ♦	YE	500	14.5	8*	2.05	3.6
2.5	- 8	14	AH-005819	BU	AH-005809	GY	AH-005819	BU	500	15.0	8	2.3	4.2
	- 10		AH-005834 ♦		AH-005830 ♦		AH-005834 ♦			17.0	10		
	- 12		AH-005842		AH-005836		AH-005842			19.0	12		
	- 18		AH-005849		AH-005847		AH-005849			25.0	18		
4	- 10	12	AH-005855	GY	AH-005852	OG	AH-005855	GY	500	18.0	10	2.9	4.8
	- 12		AH-005862		AH-005860		AH-005862		100	20.0	12		
	- 18		AH-005868		AH-005864		AH-005868		100	26.0	18		
6	- 12	10	AH-005876	YE	AH-005872	GN	AH-005881	BK	100	20.0	12	3.6	6.2
	- 18		AH-005889		AH-005885		AH-005893			26.0	18		
10	- 12	8	AH-005901	RD	AH-005897	BN	AH-005906 ♦	IV	100	21.0	12	4.6	7.5
	- 18		AH-005912		AH-005910		AH-005914			27.0	18		
16	- 12	6	AH-005924	BU	AH-005918	WH	AH-005931	GN	100	23.0	12	6.0	8.8
	- 18		AH-005943		AH-005939		AH-005947			29.0	18		

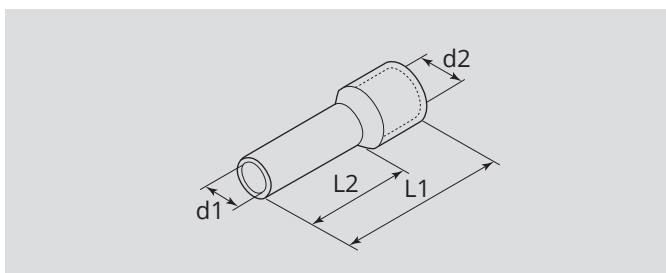
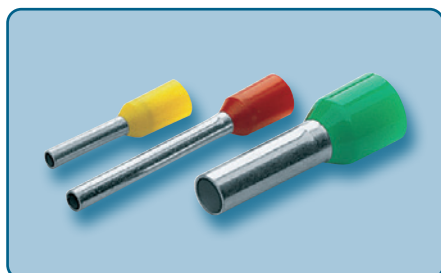
* Not standardised according to DIN 46228T4

♦ Without UL / CSA approval

Insulated wire end ferrules



for finely stranded copper conductors



Material: Copper/Plastic
Surface: tinned

Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm			
										L1	L2	d1(Ø)	d2(Ø)
25	- 16	4	AH-005953		AH-005951		AH-005955		50	29.0	16	7.5	11.0
	- 18		AH-005959	YE	AH-005957	BK	AH-005961	BN		31.0	18		
	- 22		AH-005965		AH-005963		AH-005967			35.0	22		
35	- 16	2	AH-005969		AH-005969		AH-005971		50	30.0	16	8.5	12.5
	- 18		AH-005973	RD	AH-005973	RD	AH-005975	BE		32.0	18		
	- 25		AH-005977		AH-005977		AH-005979			39.0	25		
50	- 20	1/0	AH-005981		AH-005981		AH-005983		50	36.0	20	10.5	15.0
	- 25		AH-005985 ♦	BU	AH-005985 ♦	BU	AH-005987	OL	25	41.0	25		
70	- 20	2/0	AH-005988 ♦		AH-005988 ♦		AH-005988 ♦		25	37.0	20*	12.7	16.0
	- 27		AH-005989 ♦	YE	AH-005989 ♦	YE	AH-005989 ♦	YE		44.0	27*		
95	- 25	3/0	AH-005990 ♦	RD	AH-005990 ♦	RD	AH-005990 ♦	RD	25	44.0	25*	14.7	18.0
120	- 27	250 MCM	AH-005915 ♦	BU	AH-005915 ♦	BU	AH-005915 ♦	BU	25	48.0	27*	16.7	21.0
150	- 32	300 MCM	AH-005916 ♦	YE	AH-005916 ♦	YE	AH-005916 ♦	YE	25	58.0	32*	19.7	23.0

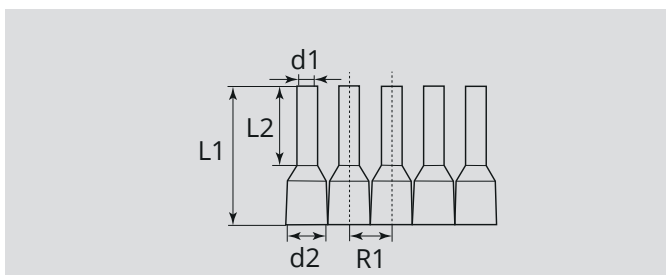
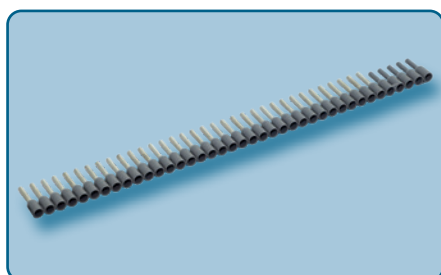
*Not standardized according to DIN 46228 T4

♦ Without UL / CSA approval

Insulated wire end ferrules for Battery crimper



for finely stranded copper conductors



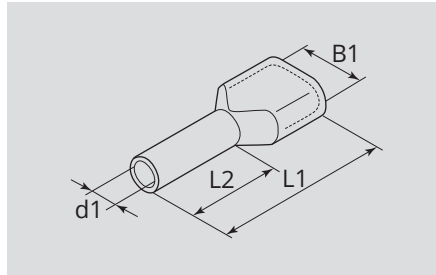
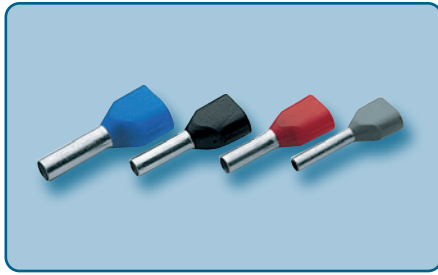
Cross-section mm ²	- Length - mm	Item number	Code DIN	Item number	Code T	Item number	Code W	PU	Dimensions in mm				
									d1(Ø)	d2(Ø)	L1	L2	R1
0.5	- 8	AH-006805	WH	AH-006805	WH	AH-006806	OG	20 x 50	1.1	2.6	14.5	8.0	3.5
0.75	- 8	AH-006808	GY	AH-006807	BU	AH-006809	WH	20 x 50	1.3	2.8	14.5	8.0	3.6
1	- 8	AH-006810	RD	AH-006810	RD	AH-006811	YE	20 x 50	1.5	3.0	14.5	8.0	3.9
1.5	- 8	AH-005769	BK	AH-005769	BK	AH-006812	RD	20 x 50	1.8	3.4	14.5	8.0	4.2

Insulated twin wire end ferrules

AH



for finely stranded copper conductors



Material: Copper/Plastic
Surface: tinned

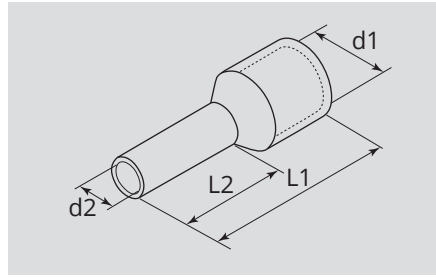
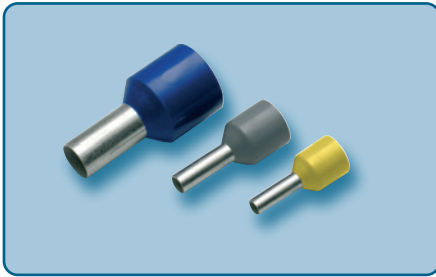
Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm			
										L1	L2	d1(Ø)	B1
2 x 0.5	- 6	2 x 20	AH-005598 ♦	□ WH	AH-005598 ♦	□ WH	AH-005602 ♦	□ OG	500	13.0	6	1.5	4.5
	- 8		AH-005614		AH-005614		AH-005624 ♦			15.0	8		
	- 10		AH-005630 ♦		AH-005630 ♦		AH-005634 ♦			17.0	10		
2 x 0.75	- 8	2 x 20	AH-005664	□ GY	AH-005654	□ BU	AH-005676	□ WH	500	15.0	8	1.8	5.1
	- 10		AH-005688		AH-005682		AH-005694			17.0	10		
	- 12		AH-005704 ♦		AH-005698 ♦		AH-005708 ♦			19.0	12		
2 x 1	- 8	2 x 18	AH-005723	■ RD	AH-005723	■ RD	AH-005733	■ YE	500	15.0	8	2.05	5.1
	- 10		AH-005741		AH-005741		AH-005745			17.0	10		
	- 12		AH-005751		AH-005751		AH-005755			19.0	12		
2 x 1.5	- 8	2 x 16	AH-005771	■ BK	AH-005771	■ BK	AH-005782	■ RD	500	16.0	8	2.3	6.4
	- 10		AH-005786 ♦		AH-005786 ♦		-			17.0	10		
	- 12		AH-005795		AH-005795		AH-005800			20.0	12		
2 x 2.5	- 10	2 x 14	AH-005826	■ BU	AH-005817	□ GY	AH-005826	■ BU	250	18.5	10	2.9	7.5
	- 13		AH-005844		AH-005840		AH-005844			21.5	13		
2 x 4	- 12	2 x 12	AH-005857	□ GY	AH-006449 ♦	□ OG	AH-005857	□ GY	250	23.0	12	3.8	8.6
	- 18		AH-005870 ♦		AH-005866 ♦		AH-005870 ♦			29.0	18		
2 x 6	- 14	2 x 10	AH-005878 ♦	■ YE	AH-005874 ♦	■ GN	AH-005883 ♦	■ BK	100	25.0	14	4.6	9.6
	- 18		AH-005891 ♦		AH-005887 ♦		AH-005895 ♦			29.0	18		
2 x 10	- 14	2 x 8	AH-005903	■ RD	AH-005899	■ BN	AH-005908	■ IV	100	26.0	14	6.5	12.6
2 x 16	- 16	2 x 6	AH-005928 ♦	■ BU	AH-005922 ♦	□ WH	AH-005935 ♦	■ GN	50	31.0	16	8.5	16.6

♦ Without UL / CSA approval

Insulated wire end ferrules



for short-circuit-proof cables



Material: Copper/Plastic
Surface: tinned

Cross-section mm ²	- Length - mm	AWG	Item number	Colourcode DIN	PU	Dimensions in mm			
						L1	L2	d2(Ø)	d1(Ø)
1.5	- 8	16	AH-005773	BK	100	17.5	8	1.8	6.9
	- 10		AH-005796			19.5	10		
2.5	- 8	14	AH-005828	BU	100	17.5	8	2.3	7.8
	- 12		AH-005845			21.5	12		
4	- 10	12	AH-005858	GY	100	19.5	10	2.9	7.8
6	- 12	10	AH-005879	YE	100	23.0	12	3.6	8.3
10	- 12	8	AH-005904	RD	100	24.0	12	4.6	9.8
16	- 12	6	AH-005929	BU	100	25.5	12	6.0	12.0

Wire end ferrules special design with large plastic collar for short-circuit and earth-fault proof cables with extra strong insulation.
Applications: For use with unsecured connections in switchgear and distributors, rail vehicles, solar systems, ignition cables, etc.



for conductor with thick insulation (GB)

Material: Copper/Plastic
Surface: tinned

Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Telemeca- nique	Item number	Colourcode Weid- müller	PU	Dimensions in mm			
										L1	L2	d2(Ø)	d1(Ø)
0.5	- 8	20	AH-005610	WH	AH-005610	WH	AH-005620	OG	500	14.5	8	1.1	2.9
	- 10		AH-005628		AH-005628		AH-007126			16.5	10		
0.75	- 8	20	AH-005659	GY	AH-005648	BU	AH-005671 ♦	WH	500	14.0	8	1.3	3.3
	- 10		AH-005686		AH-005680		AH-005692			16.0	10		
	- 12		AH-005702		AH-007117		AH-007119			18.0	12		
1	- 8	18	AH-005719	RD	AH-005719	RD	AH-005729	YE	500	14.0	8	1.5	3.3
	- 10		AH-005739		AH-005739		AH-007122			16.0	10		
	- 12		AH-005749		AH-005749		AH-005753			18.0	12		
1.5	- 6	16	AH-007128 ♦	BK	AH-007128 ♦	BK	AH-007130 ♦	RD	500	12.0	6	1.8	3.7
	- 8		AH-005766		AH-005766		AH-005778			14.0	8		
	- 10		AH-005792		AH-005792		AH-007134			16.0	10		
2.5	- 8	14	AH-005822	BU	AH-005812	GY	AH-005822	BU	500	16.0	8	2.3	4.7
	- 10		AH-007137 ♦		AH-005832 ♦		AH-007137 ♦			18.0	10		
	- 12		AH-007140 ♦		AH-005838		AH-007140 ♦			20.0	12		
4	- 10	12	AH-007740	GY	-		AH-007740	GY	500	18.0	10	2.9	6.1
	- 12		AH-007742		-		AH-007742			20.0	12		
16	- 12	6	AH-005926	BU	AH-005920	WH	AH-005933	GN	100	23.0	12	6.0	9.4
	- 18		AH-005945		AH-005941		AH-005949 ♦			29.0	18		

♦ Without UL / CSA approval

Insulated wire end ferrules

AH



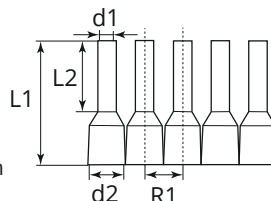
in strip form according to DIN 46228 T 4

Donor

Material: Copper/Plastic
Surface: tinned



150 x 150 x 18mm

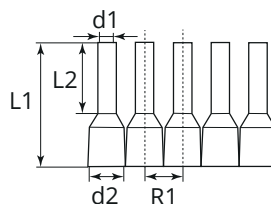


Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm				
										L1	L2	d1	d2	R1
0.25	- 8	24	AH-005559 ♦	YE			AH-005563 ♦	BU	1000	14.5	8	0.8	2.1	2.9
0.34	- 8	22	AH-005579 ♦	TQ			AH-005579 ♦	TQ	1000	14.5	8	0.8	2.1	2.9
0.5	- 8	20	AH-005611	WH	AH-005611	WH	AH-005621	OG	1000	14.5	8	1.1	2.6	3.5
0.75	- 8	20	AH-005660	GY	AH-005649	BU	AH-005672	WH	1000	14.5	8	1.3	2.8	3.6
1	- 8	18	AH-005720	RD	AH-005720	RD	AH-005730	YE	1000	14.5	8	1.5	3.0	3.9
1.5	- 8	16	AH-005767	BK	AH-005767	BK	AH-005779	RD	1000	14.5	8	1.8	3.4	4.2
2.5	- 8	14	AH-005823	BU	AH-005813	GY	AH-005823	BU	500	14.5	8	2.3	4.2	5.0

♦ Without UL / CSA approval

Strip

Material: Copper/Plastic
Surface: tinned



Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm				
										L1	L2	d1	d2	R1
0.25	- 8	24	AH-005560 ♦	YE			AH-005564 ♦	BU	10 x 50	14.5	8	0.8	2.1	2.9
0.34	- 8	22	AH-005581 ♦	TQ			AH-005581 ♦	TQ	10 x 50	14.5	8	0.8	2.1	2.9
0.5	- 8	20	AH-005612	WH	AH-005612	WH	AH-005622	OG	10 x 50	14.5	8	1.1	2.6	3.5
0.75	- 8	20	AH-005662	GY	AH-005651	BU	AH-005673	WH	10 x 50	14.5	8	1.3	2.8	3.6
1	- 8	18	AH-005721	RD	AH-005721	RD	AH-005731	YE	10 x 50	14.5	8	1.5	3.0	3.9
1.5	- 8	16	AH-005768	BK	AH-005768	BK	AH-005780	RD	10 x 50	14.5	8	1.8	3.4	4.2
2.5	- 8	14	AH-005824	BU	AH-005815	GY	AH-005824	BU	10 x 50	14.5	8	2.3	4.2	5.0

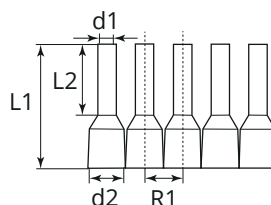
♦ Without UL / CSA approval

Spooling

Material: Copper/Plastic
Surface: tinned



D = 250mm

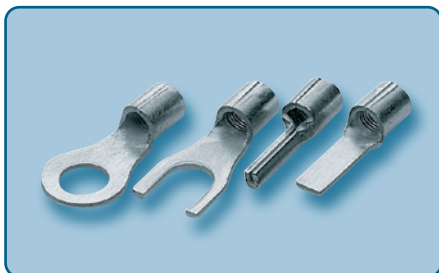


Cross-section mm ²	- Length - mm	AWG	Item number	Colour- code DIN	Item number	Colour- code Teleme- canique	Item number	Colour- code Weid- müller	PU	Dimensions in mm				
										L1	L2	d1	d2	R1
0.25	- 8	24	AH-008268 ♦	YE			AH-008271 ♦	BU	3000	14.5	8	0.8	2.1	2.9
0.34	- 8	22	AH-008272 ♦	TQ			AH-008272 ♦	TQ	3000	14.5	8	0.8	2.1	2.9
0.5	- 8	20	AH-005608	WH	AH-005608	WH	AH-005618	OG	3000	14.5	8	1.1	2.6	3.5
0.75	- 8	20	AH-005657	GY	AH-005646	BU	AH-005669	WH	3000	14.5	8	1.3	2.8	3.6
1	- 8	18	AH-005717	RD	AH-005717	RD	AH-005727	YE	3000	14.5	8	1.5	3.0	3.9
1.5	- 8	16	AH-005764	BK	AH-005764	BK	AH-005776	RD	2500	14.5	8	1.8	3.4	4.2
2.5	- 8	14	AH-005820	BU	AH-005810	GY	AH-005820	BU	1500	14.5	8	2.3	4.2	5.0

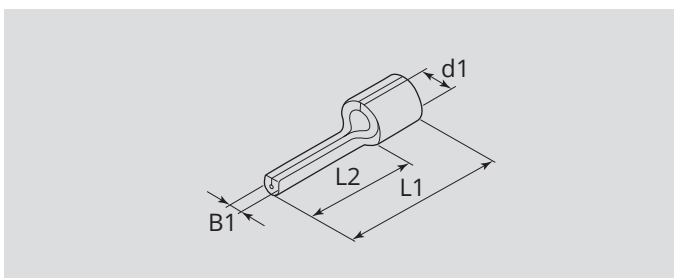
♦ Without UL / CSA approval



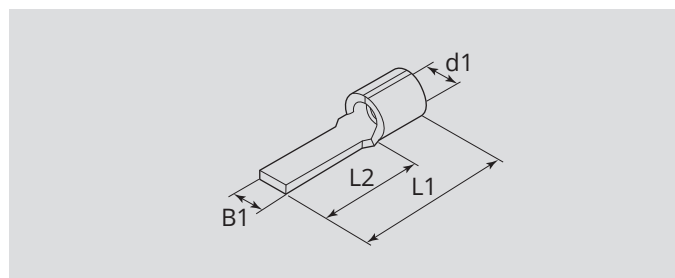
Type "S" for copper conductors



The mechanical compression lugs of the "S" series are stamped, soldered and annealed from copper strip. Annealing improves the structural material properties and enables the cable lugs to be used even with mechanical vibrations. They are protected against corrosion by tinning the surface. The sleeve is soldered. The roughened surface of the sleeve improves contact with the conductor and increases the tensile strength of the connection. For optimum crimping, use the hand pliers HN 1 and HN 5 (see page 85).



Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.25 [22 – 16]	S1.5-P8	1.8	1.6	8.0	12.0	100
	S1.5-P10	1.8	1.6	10.0	14.0	100
	S1.5-P12	1.8	1.6	12.0	16.2	100
1.5 – 2.5 [16 – 14]	S2.5-P8	2.4	1.7	8.0	12.0	100
	S2.5-P10	2.4	1.8	10.0	14.0	100
	S2.5-P12	2.4	1.8	12.0	16.0	100
4 – 6 [12 – 10]	S6-P10	3.6	2.2	10.0	16.8	100
	S6-P12	3.6	2.2	12.0	19.4	100
	S6-P14	3.6	2.2	14.0	21.0	100

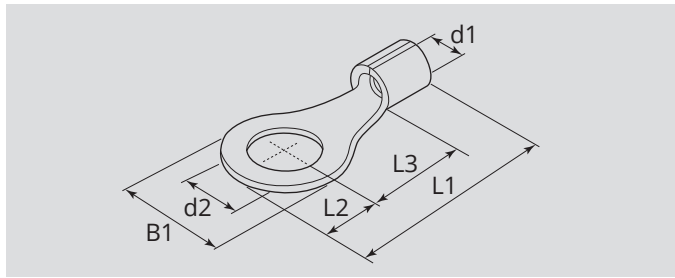


Conductor cross-section mm ² [AWG]	Item number	Dimensions in mm				PU
		d1(Ø)	B1	L2	L1	
0.25 – 1.25 [22 – 16]	S1.5-PP12	1.8	3.0	12.8	17.0	100
	S1.5-PP12-1 *	1.8	3.0	11.3	15.5	100
	S1.5-PP12-19	1.8	1.9	13.2	17.4	100
	S1.5-PP14	1.8	3.0	14.8	19.0	100
1.5 – 2.5 [16 – 14]	S2.5-PP12	2.4	3.5	12.8	17.0	100
	S2.5-PP12-25	2.4	2.5	13.3	17.5	100
	S2.5-PP16-25	2.4	2.5	17.2	21.4	100
4 – 6 [12 – 10]	S6-PP12	3.6	4.0	13.3	19.7	100
	S6-PP17	3.6	2.9	19.1	25.5	100

* Marked types only available on request

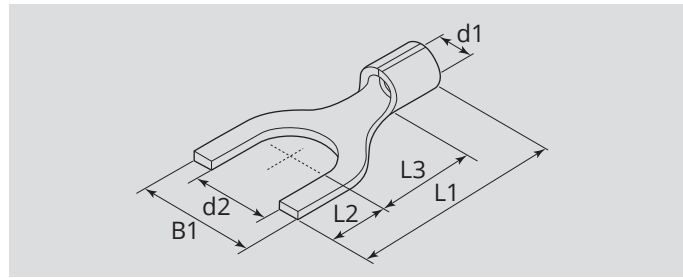


Typ «S» for copper conductors



Conductor cross-section mm² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.25 – 1.25 [22 – 16]	2	S1.5-M2 *	1.8	5.6	4.5	2.8	11.5	2.2	100
	3	S1.5-M3	1.8	5.6	4.5	2.8	11.5	3.2	100
	3.5	S1.5-M3.5	1.8	5.6	4.5	2.8	11.5	3.7	100
	3.5	S1.5-M3.5-1 *	1.8	6.2	7.1	3.1	14.4	3.7	100
	4	S1.5-M4	1.8	7.0	6.5	3.5	14.2	4.3	100
	4	S1.5-M4-3 *	1.8	7.8	7.1	3.9	15.2	4.3	100
	5	S1.5-M5	1.8	7.8	7.1	3.9	15.2	5.3	100
	6	S1.5-M6	1.8	9.4	8.1	4.7	17.0	6.4	100
	6	S1.5-M6-1	1.8	12.0	10.3	6.0	20.5	6.4	100
	7	S1.5-M7	1.8	9.4	8.1	4.7	17.0	7.2	100
	8	S1.5-M8	1.8	12.0	10.3	6.0	20.5	8.4	100
	10	S1.5-M10	1.8	15.5	13.0	7.7	25.0	10.5	100
	12	S1.5-M12	1.8	18.0	15.5	9.0	28.7	13.0	100
1.5 – 2.5 [16 – 14]	3	S2.5-M3	2.4	5.6	5.0	2.8	12.0	3.2	100
	3.5	S2.5-M3.5	2.4	5.6	5.0	2.8	12.0	3.7	100
	3.5	S2.5-M3.5-1 *	2.4	6.2	6.5	3.1	13.8	3.7	100
	4	S2.5-M4	2.4	8.0	6.5	4.0	14.7	4.3	100
	5	S2.5-M5	2.4	8.0	7.5	4.0	15.7	5.3	100
	6	S2.5-M6	2.4	9.4	8.6	4.7	17.5	6.4	100
	6	S2.5-M6-1	2.4	12.0	10.3	6.0	20.5	6.4	100
	7	S2.5-M7	2.4	10.0	7.8	5.0	17.0	7.2	100
	8	S2.5-M8	2.4	12.0	10.3	6.0	20.5	8.4	100
	10	S2.5-M10	2.4	15.5	13.0	7.7	25.0	10.5	100
	12	S2.5-M12	2.4	18.0	15.5	9.0	28.7	13.0	100
	12	S2.5-M12	2.4	18.0	15.5	9.0	28.7	13.0	100
4 – 6 [12 – 10]	3	S6-M3	3.6	8.0	8.1	4.0	18.5	3.2	100
	3.5	S6-M3.5	3.6	8.0	8.1	4.0	18.5	3.7	100
	4	S6-M4	3.6	9.0	8.1	4.5	19.0	4.3	100
	5	S6-M5	3.6	9.0	8.1	4.5	19.0	5.3	100
	6	S6-M6	3.6	11.0	11.1	5.5	23.0	6.4	100
	6	S6-M6-1 *	3.6	11.0	8.1	5.5	20.0	6.4	100
	7	S6-M7	3.6	11.0	11.1	5.5	23.0	7.2	100
	8	S6-M8	3.6	13.6	12.1	6.8	25.3	8.4	100
	8	S6-M8-1 *	3.6	11.0	8.1	5.5	20.0	8.4	100
	10	S6-M10	3.6	13.6	12.1	6.8	25.3	10.5	100
	10	S6-M10-1	3.6	15.5	13.8	7.7	28.0	10.5	100
	12	S6-M12	3.6	19.0	15.1	9.5	31.0	13.0	100
10 [8]	14	S6-M14	3.6	21.0	16.1	10.5	33.0	15.0	100
	16	S6-M16	3.6	24.0	17.1	12.0	35.5	17.0	100
	4	S10-M4	4.8	11.5	9.0	5.8	23.8	4.3	100
	5	S10-M5	4.8	11.5	9.0	5.8	23.8	5.3	100
	6	S10-M6	4.8	11.5	9.0	5.8	23.8	6.4	100
	7	S10-M7	4.8	11.5	9.0	5.8	23.8	7.2	100

* Marked types only available on request



Conductor cross-section mm² [AWG]	Ø Bolt	Item number	Dimensions in mm						PU
			d1(Ø)	B1	L3	L2	L1	d2	
0.25 – 1.25 [22 – 16]	3	S1.5-U3	1.8	5.5	5.5	4.0	13.7	3.2	100
	3.5	S1.5-U3.5	1.8	6.0	6.5	3.8	14.5	3.7	100
	3.5	S1.5-U3.5-2 *	1.8	6.4	6.5	3.8	14.5	3.7	100
	4	S1.5-U4	1.8	6.5	7.5	3.7	15.4	4.3	100
	4	S1.5-U4-1 *	1.8	8.5	7.5	3.7	15.4	4.3	100
	4	S1.5-U4-2	1.8	7.5	7.5	3.7	15.4	4.3	100
	5	S1.5-U5	1.8	8.5	7.5	3.7	15.4	5.3	100
	5	S1.5-U5-1 *	1.8	9.4	7.5	3.7	15.4	5.3	100
	6	S1.5-U6	1.8	9.4	8.1	4.7	17.0	6.4	100
	6	S1.5-U6-1 *	1.8	12.0	9.2	7.1	20.5	6.4	100
	8	S1.5-U8	1.8	14.0	10.0	6.3	20.5	8.4	100
	10	S1.5-U10	1.8	17.5	13.0	7.7	25.0	10.5	100
	12	S1.5-U12	1.8	20.0	15.5	9.0	28.7	13.0	100
1.5 – 2.5 [16 – 14]	3	S2.5-U3	2.4	5.5	5.5	4.0	13.7	3.2	100
	3.5	S2.5-U3.5	2.4	6.4	6.5	3.8	14.5	3.7	100
	3.5	S2.5-U3.5-1 *	2.4	7.2	6.5	3.8	14.5	3.7	100
	4	S2.5-U4	2.4	6.5	7.5	3.7	15.4	4.3	100
	4	S2.5-U4-1 *	2.4	8.5	7.5	3.7	15.4	4.3	100
	4	S2.5-U4-2 *	2.4	7.5	7.5	3.7	15.4	4.3	100
	5	S2.5-U5	2.4	8.5	7.5	3.7	15.4	5.3	100
	6	S2.5-U6	2.4	9.4	8.1	4.7	17.0	6.4	100
	6	S2.5-U6-1 *	2.4	12.0	9.2	7.1	20.5	6.4	100
	8	S2.5-U8	2.4	14.0	10.0	6.3	20.5	8.4	100
	10	S2.5-U10	2.4	17.5	13.0	7.7	25.0	10.5	100
	12	S2.5-U12	2.4	20.0	15.5	9.0	28.7	13.0	100
4 – 6 [12 – 10]	3.5	S6-U3.5	3.6	7.5	8.5	3.9	18.8	3.7	100
	4	S6-U4	3.6	7.5	8.0	4.4	18.8	4.3	100
	5	S6-U5	3.6	9.5	8.0	4.4	18.8	5.3	100
	6	S6-U6	3.6	10.0	11.0	5.5	22.9	6.4	100
	8	S6-U8	3.6	13.5	12.0	8.0	26.4	8.4	100
	10	S6-U10	3.6	15.5	13.0	8.0	27.4	10.5	100
	10	S6-U10-1 *	3.6	17.5	13.8	7.7	28.0	10.5	100
	12	S6-U12	3.6	21.0	15.1	9.5	31.0	13.0	100
	14	S6-U14 *	3.6	23.0	16.1	10.5	33.0	15.0	100
	16	S6-U16 *	3.6	26.0	17.1	11.5	35.0	17.0	100

* Marked types only available on request

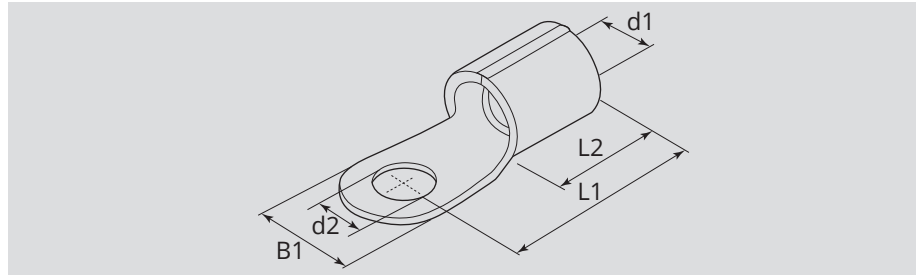
Example: Tool Typ HN1
(see page 85)



Mechanical compression lugs according to DIN 46234



for copper conductors



The cable lugs of series "Q" are made of electrolytic copper according to DIN 46234. The sleeve is closed all around by solder and electrolytically tinned. The manufacturer's symbol and the nominal conductor cross-section are stamped on the cable lug.

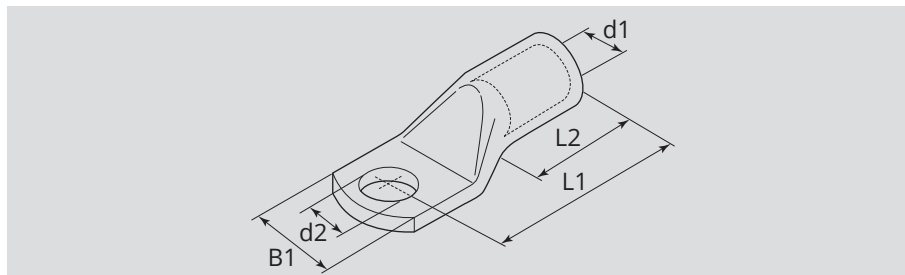
1 Mechanical tools

2 Hydraulic tools

Other sizes available on request.

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm					PU	1	2
			d1(Ø)	d2	L1	B1	L2			
6 – 10	4	Q10-4	4.5	4.3	16.0	10.0	8.0	100	HN5	B35-50MD, HT51, RH50, B500, HT61, B600, RH61 HT131-C and all 13 tonne tools
	5	Q10-5	4.5	5.3	16.0	10.0	8.0	100		
	6	Q10-6	4.5	6.5	17.0	11.0	8.0	100		
	8	Q10-8	4.5	8.4	20.0	14.0	8.0	100		
	10	Q10-10	4.5	10.5	21.0	18.0	8.0	100		
	12	Q10-12	4.5	13.0	22.0	22.0	8.0	100		
10 – 16	5	Q16-5	5.8	5.3	20.0	11.0	10.0	100		
	6	Q16-6	5.8	6.5	20.0	11.0	10.0	100		
	8	Q16-8	5.8	8.4	22.0	14.0	10.0	100		
	10	Q16-10	5.8	10.5	24.0	18.0	10.0	100		
	12	Q16-12	5.8	13.0	26.0	22.0	10.0	100		
16 – 25	5	Q25-5	7.5	5.3	25.0	12.0	11.0	100		
	6	Q25-6	7.5	6.5	25.0	12.0	11.0	100		
	8	Q25-8	7.5	8.4	25.0	16.0	11.0	100		
	10	Q25-10	7.5	10.5	26.0	18.0	11.0	100		
	12	Q25-12	7.5	13.0	31.0	22.0	11.0	100		
	16	Q25-16	7.5	17.0	35.0	28.0	11.0	100		
25 – 35	6	Q35-6	9.0	6.5	26.0	15.0	12.0	100		
	8	Q35-8	9.0	8.4	26.0	16.0	12.0	100		
	10	Q35-10	9.0	10.5	27.0	18.0	12.0	50		
	12	Q35-12	9.0	13.0	31.0	22.0	12.0	50		
	16	Q35-16	9.0	17.0	36.0	28.0	12.0	50		
35 – 50	6	Q50-6	11.0	6.5	34.0	18.0	16.0	50		
	8	Q50-8	11.0	8.4	34.0	18.0	16.0	50		
	10	Q50-10	11.0	10.5	34.0	18.0	16.0	50		
	12	Q50-12	11.0	13.0	36.0	22.0	16.0	50		
	16	Q50-16	11.0	17.0	40.0	28.0	16.0	50		
50 – 70	6	Q70-6	13.0	6.5	38.0	22.0	18.0	50		
	8	Q70-8	13.0	8.4	38.0	22.0	18.0	50		
	10	Q70-10	13.0	10.5	38.0	22.0	18.0	50		
	12	Q70-12	13.0	13.0	38.0	22.0	18.0	50		
	16	Q70-16	13.0	17.0	42.0	28.0	18.0	50		
70 – 95	8	Q95-8	15.0	8.4	42.0	24.0	20.0	25		
	10	Q95-10	15.0	10.5	42.0	24.0	20.0	25		
	12	Q95-12	15.0	13.0	44.0	24.0	20.0	25		
	16	Q95-16	15.0	17.0	70.0	28.0	20.0	25		
95 – 120	8	Q120-8	16.5	8.4	44.0	24.0	22.0	25		
	10	Q120-10	16.5	10.5	44.0	24.0	22.0	25		
	12	Q120-12	16.5	13.0	44.0	24.0	22.0	25		
	16	Q120-16	16.5	17.0	48.0	28.0	22.0	25		
120 – 150	10	Q150-10	19.0	10.5	50.0	30.0	24.0	25		
	12	Q150-12	19.0	13.0	50.0	30.0	24.0	25		
	16	Q150-16	19.0	17.0	50.0	30.0	24.0	25		
150 – 185	10	Q185-10	21.0	10.5	50.0	36.0	28.0	20		
	12	Q185-12	21.0	13.0	50.0	36.0	28.0	20		
	16	Q185-16	21.0	17.0	50.0	36.0	28.0	15		
185 – 240	10	Q240-10	23.5	10.5	56.0	38.0	32.0	15		
	12	Q240-12	23.5	13.0	56.0	38.0	32.0	15		
	16	Q240-16	23.5	17.0	56.0	38.0	32.0	15		

for copper conductors



The crimping lugs according to DIN 46235 are made of electrolytic copper. All cable lugs are annealed again after mechanical processing in order to guarantee correct crimping. The cable lugs are then electrolytically tinned. The cable lugs have the following markings: Manufacturer's mark, cross-section (mm²), bolt diameter, positions of the crimping

- 1 Mechanical tools
- 2 Hydraulic tools

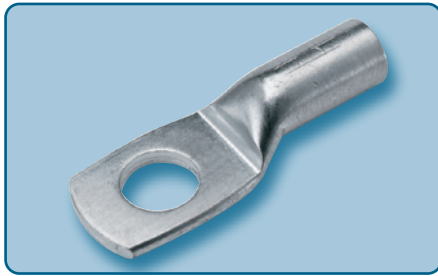
Conductor cross-section mm ²	Ø Bolt	Item number	Key number	Dimensions in mm					PU	1	2
				d1(Ø)	d2	L1	B1	L2			
6	5	DR6-5	5	3.7	5.3	24.0	8.5	10.0	100	ME5	TN70SE
	6	DR6-6	5	3.7	6.4	24.0	9.0	10.0	100		
	8	DR6-8*	5	3.7	8.4	26.0	13.0	10.0	100		
10	5	DR10-5	6	4.4	5.3	27.5	10.0	10.0	100	TN120SE	B35-45MD, B35-50MD
	6	DR10-6	6	4.4	6.4	27.0	10.0	10.0	100		
	8	DR10-8*	6	4.4	8.4	28.0	13.0	10.0	100		
	10	DR10-10*	6	4.4	10.5	28.5	15.0	10.0	100		
16	5	DR16-5*	8	5.5	5.3	36.0	13.0	20.0	100		HT45-E
	6	DR16-6	8	5.5	6.4	36.0	13.0	20.0	100		
	8	DR16-8	8	5.5	8.4	37.0	13.0	20.0	100		
	10	DR16-10	8	5.5	10.5	40.0	16.5	20.0	100		
	12	DR16-12*	8	5.5	13.0	41.0	19.0	20.0	100		
25	6	DR25-6	10	7.0	6.4	39.0	14.6	20.0	100		HT51, RH50, B500, HT61, B600, RH61
	8	DR25-8	10	7.0	8.4	39.5	16.0	20.0	100		
	10	DR25-10	10	7.0	10.5	40.0	16.0	20.0	100		
	12	DR25-12	10	7.0	13.0	40.5	18.0	20.0	100		
35	6	DR35-6*	12	8.2	6.4	42.5	17.5	20.0	100		HT131-C and all 13 tonne tools
	8	DR35-8	12	8.2	8.4	42.0	17.0	20.0	100		
	10	DR35-10	12	8.2	10.5	43.0	19.0	20.0	100		
	12	DR35-12	12	8.2	13.0	43.0	21.0	20.0	100		
	16	DR35-16*	12	8.2	17.0	44.0	28.0	20.0	100		
50	6	DR50-6*	14	10.0	6.4	52.0	20.0	28.0	25		
	8	DR50-8	14	10.0	8.4	52.0	20.0	28.0	25		
	10	DR50-10	14	10.0	10.5	53.0	22.0	28.0	25		
	12	DR50-12	14	10.0	13.0	53.0	24.0	28.0	25		
	16	DR50-16	14	10.0	17.0	57.0	28.0	28.0	25		
70	8	DR70-8	16	11.5	8.4	56.0	24.0	28.0	25		
	10	DR70-10	16	11.5	10.5	56.0	24.0	28.0	25		
	12	DR70-12	16	11.5	13.0	56.0	24.0	28.0	25		
	16	DR70-16	16	11.5	17.0	60.0	30.0	28.0	25		
	20	DR70-20*	16	11.5	21.0	84.5	30.0	28.0	25		
95	8	DR95-8*	18	13.5	8.4	65.0	28.0	35.0	25		
	10	DR95-10	18	13.5	10.5	66.0	28.0	35.0	25		
	12	DR95-12	18	13.5	13.0	66.0	28.0	35.0	25		
	16	DR95-16	18	13.5	17.0	65.5	32.0	35.0	25		
	20	DR95-20*	18	13.5	21.0	71.0	33.0	35.0	25		
120	8	DR120-8*	20	15.5	8.4	70.0	31.0	35.0	25		
	10	DR120-10	20	15.5	10.5	70.0	31.0	35.0	25		
	12	DR120-12	20	15.5	13.0	70.5	31.0	35.0	25		
	16	DR120-16	20	15.5	17.0	70.0	31.5	35.0	25		
	20	DR120-20	20	15.5	21.0	72.0	36.0	35.0	25		
150	10	DR150-10	22	17.0	10.5	79.0	34.0	35.0	25		
	12	DR150-12	22	17.0	13.0	78.5	34.0	35.0	25		
	16	DR150-16	22	17.0	17.0	78.0	34.0	35.0	25		
	20	DR150-20	22	17.0	21.0	78.0	38.0	35.0	25		

* not standardised; tube dimensions according to DIN 46235

Crimping lugs according to DIN 46235

DR

for copper conductors



- 1 Mechanical Tools
- 2 Hydraulic Tools

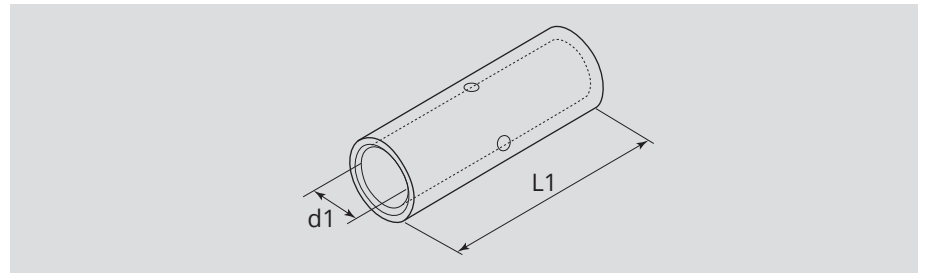
Conductor cross-section mm ²	Ø Bolt	Item number	Key number	Dimensions in mm				PU	2
				d1(Ø)	d2	L1	B1	L2	
185	10	DR185-10	25	19.0	10.5	83.0	37.0	40.0	25
	12	DR185-12	25	19.0	13.0	82.5	37.0	40.0	25
	16	DR185-16	25	19.0	17.0	82.0	37.0	40.0	25
	20	DR185-20	25	19.0	21.0	83.0	40.0	40.0	25
240	10	DR240-10*	28	21.5	10.5	92.0	42.0	40.0	10
	12	DR240-12	28	21.5	13.0	92.0	42.5	40.0	10
	16	DR240-16	28	21.5	17.0	92.0	42.5	40.0	10
	20	DR240-20	28	21.5	21.0	92.0	45.0	40.0	10
300	12	DR300-12*	32	24.5	13.0	101.0	48.0	55.0	5
	16	DR300-16	32	24.5	17.0	101.0	48.0	55.0	5
	20	DR300-20	32	24.5	21.0	101.0	48.0	55.0	5
400	12	DR400-12*	38	27.5	13.0	117.0	55.0	70.0	5
	16	DR400-16	38	27.5	17.0	117.0	55.0	70.0	5
	20	DR400-20	38	27.5	21.0	117.0	55.0	70.0	5
500	12	DR500-12*	42	31.0	13.0	130.0	60.0	70.0	5
	16	DR500-16*	42	31.0	17.0	130.0	60.0	70.0	5
	20	DR500-20	42	31.0	21.0	130.0	60.0	70.0	5
625	20	DR625-20	44	34.5	21.0	135.0	63.0	80.0	5
800	20	DR800-20	52	40.0	21.0	166.0	75.0	100.0	5
1000	20	DR1000-20	58	44.0	21.0	166.0	85.0	100.0	5

*nicht genormt; Rohrabmessungen nach DIN 46235

Crimping through connector according to DIN 46267 T.1

DSV

for copper conductors



DSV crimping through connectors are made of electrolytic copper. The crimping through connectors are annealed and tinned. The ends are chamfered to allow easy insertion of the conductor. They have the same dimensions as the tubes used for DR cable lugs. They are equipped with a central stop to ensure correct positioning of the conductor.

- 1 Mechanical tools
- 2 Hydraulic tools

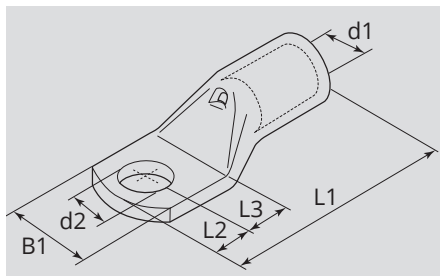
Conductor cross-section mm ²	Item number	Key number	Dimensions in mm		PU	1	2
			d1(Ø)	L1			
6	DSV6	5	3.7	30	100	ME5	TN70SE TN120SE B35-45MD, B35-50MD HT45-E HT51, RH50, B500, RH61, B600 HT131-C and all 13 tonne tools
10	DSV10	6	4.4	30	100		
16	DSV16	8	5.5	50	100		
25	DSV25	10	7.0	50	100		
35	DSV35	12	8.2	50	100		ECW-H3D RHU450, RHU520
50	DSV50	14	10.0	56	50		
70	DSV70	16	11.5	56	50		
95	DSV95	18	13.5	70	50		
120	DSV120	20	15.5	70	25		
150	DSV150	22	17.0	80	25		
185	DSV185	25	19.0	85	25		
240	DSV240	28	21.5	90	15		
300	DSV300	32	24.5	100	5		
400	DSV400	38	27.5	150	5		
500	DSV500	24	31.0	160	5		
625	DSV625	44	34.5	160	5		
800	DSV800	52	40.0	200	5		
1000	DSV1000	58	44.0	200	5		

Tube cable lugs

A-M



for copper conductors



Cable lugs type A-M are made of electrolytic copper tube (SE-Cu according to DIN EN 13600). The tube wall thickness guarantees the best electrical conductivity and mechanical protection against vibrations and pull-out of the conductor. Our cable lugs are annealed to guarantee optimum elongation. This is absolutely necessary, as the cable lugs must withstand strong deformation during crimping and the usual twisting of the tab during use. The connectors must also ensure reliable contact in the event of vibrations and oscillations. Under these circumstances, hardness plays a crucial role in preventing fractures and cracks. The viewing hole ensures correct insertion of the conductor. The sleeve length has been chosen to be large enough to ensure easy and correct positioning between the crimp inserts during crimping. Each cable lug has the following features: Company logo and product designation, material, conductor cross-section (mm²), bolt (mm)

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Bolt Ø	Item number	Dimensions in mm						PU		
			d1(Ø)	B1	L3	L2	L1	d2		1	2
0.25 – 1.5	3	A03-M3 ♦	1.8	6.0	4.5	3.5	16.0	3.2	100	MES	HN1
	3.5	A03-M3.5 ♦	1.8	6.5	4.5	3.5	16.0	3.7	100		
	4	A03-M4 ♦	1.8	6.5	5.0	4.0	17.0	4.3	100		
	5	A03-M5 ♦	1.8	7.5	5.5	4.5	18.0	5.3	100		
	6	A03-M6 ♦	1.8	9.0	6.0	5.0	19.0	6.4	100		
1.5 – 2.5	3	A06-M3 ♦	2.4	6.0	4.5	3.5	17.0	3.2	100		
	3.5	A06-M3.5 ♦	2.4	6.5	4.5	3.5	17.0	3.7	100		
	4	A06-M4 ♦	2.4	7.5	5.0	4.0	18.0	4.3	100		
	5	A06-M5 ♦	2.4	8.5	5.5	4.5	19.0	5.3	100		
	6	A06-M6 ♦	2.4	9.0	6.0	5.0	20.0	6.4	100		
	8	A06-M8 ♦	2.4	12.0	9.0	8.0	26.0	8.4	100		
	10	A06-M10 ♦♦	2.4	18.0	13.0	12.0	43.0	10.5	100		
4 – 6	3	A1-M3	3.6	7.5	4.5	3.5	20.5	3.2	100	HN5	TN70SE
	3.5	A1-M3.5	3.6	7.5	4.5	3.5	20.5	3.7	100		
	4	A1-M4	3.6	8.0	5.0	4.0	21.5	4.3	100		
	5	A1-M5	3.6	9.0	6.5	6.0	25.0	5.3	100		
	6	A1-M6	3.6	11.0	7.0	6.0	25.5	6.4	100		
	8	A1-M8	3.6	14.0	9.0	8.0	29.5	8.4	100		
	10	A1-M10	3.6	16.5	11.0	10.0	33.5	10.5	100		
	4	A2-M4	4.6	10.0	5.0	4.0	22.5	4.3	100		
	5	A2-M5	4.6	10.0	6.5	6.0	26.0	5.3	100		
	6	A2-M6	4.6	11.0	7.0	6.0	26.5	6.4	100		
10	8	A2-M8	4.6	15.0	9.0	8.0	30.5	8.4	100	TN120SE	B 35-45MD, B35-50MD, HT45-E, HT51, RH50, B500 HT61, RH61, B600, HT131-C and all 13-tonne tools
	10	A2-M10	4.6	18.0	11.0	10.0	34.5	10.5	100		
	12	A2-M12	4.6	19.0	14.0	12.0	39.5	13.2	100		
	4	A3-M4	5.8	11.5	5.0	4.0	25.5	4.3	100		
	5	A3-M5	5.8	11.5	6.5	6.0	29.0	5.3	100		
	6	A3-M6	5.8	11.5	7.0	6.0	29.5	6.4	100		
	8	A3-M8	5.8	15.0	9.0	8.0	33.5	8.4	100		
	10	A3-M10	5.8	18.0	11.0	10.0	37.5	10.5	100		
	12	A3-M12	5.8	20.0	14.0	12.0	42.5	13.2	100		
	14	A5-M14	7.0	24.0	16.0	16.0	56.0	15.0	100		
25	4	A5-M4	7.0	14.0	5.0	4.0	28.0	4.3	100		
	5	A5-M5	7.0	14.0	6.5	6.0	31.5	5.3	100		
	6	A5-M6	7.0	14.0	7.0	6.0	32.0	6.4	100		
	8	A5-M8	7.0	15.0	9.0	8.0	36.0	8.4	100		
stranded 35 finely stranded 25 – 35	10	A5-M10	7.0	18.0	11.0	10.0	40.0	10.5	100		
	12	A5-M12	7.0	21.0	14.0	12.0	45.0	13.2	100		
	14	A5-M14	7.0	24.0	16.0	16.0	56.0	15.0	100		
	6	A7-M6	8.9	17.0	6.5	6.0	34.0	5.3	100		
stranded 50 finely stranded 35 – 50	8	A7-M8	8.9	17.0	7.0	6.0	34.5	6.4	100		
	10	A7-M10	8.9	17.0	9.0	8.0	38.5	8.4	100		
	12	A7-M12	8.9	19.0	11.0	10.0	42.5	10.5	100		
	14	A7-M14	8.9	21.0	14.0	12.0	47.5	13.2	50		
stranded 70 finely stranded 50 – 70	6	A10-M6	10.0	19.0	8.0	7.0	38.5	6.4	50		
	8	A10-M8	10.0	19.0	9.0	8.0	40.5	8.4	50		
	10	A10-M10	10.0	20.0	11.0	10.0	44.5	10.5	50		
	12	A10-M12	10.0	21.0	14.0	12.0	47.5	13.2	50		
	14	A10-M14	10.0	25.0	16.0	14.0	55.5	15.0	50		
	16	A10-M16	10.0	26.0	18.0	16.0	59.5	17.0	50		
	6	A14-M6	11.3	21.0	8.0	7.0	44.0	6.4	50		
	8	A14-M8	11.3	21.0	9.0	8.0	46.0	8.4	50		
	10	A14-M10	11.3	21.0	11.0	10.0	50.0	10.5	50		
	12	A14-M12	11.3	22.0	14.0	12.0	55.0	13.2	50		
	14	A14-M14	11.3	25.0	16.0	14.0	59.0	15.0	50		
	16	A14-M16	11.3	26.0	18.0	16.0	63.0	17.0	50		

♦ Without UL approval

* Without viewing hole

Tube cable lugs

for copper conductors



All Cembre tube cable lugs are equipped with a safety code system (e.g. A 24 = 120 mm²).

When crimping with the ME hexagonal crimp inserts, the same code [24] is crimped by the crimp insert into the hexagonal surface of the crimping point. With a subsequent visual check a simple inspection is thus possible and a mistake is impossible. Cable lugs with two or more holes are available on request. Cable lugs are electrolytically tinned to prevent oxidation. Our technicians are available for further information.

1 Mechanical tools

2 Hydraulic tools



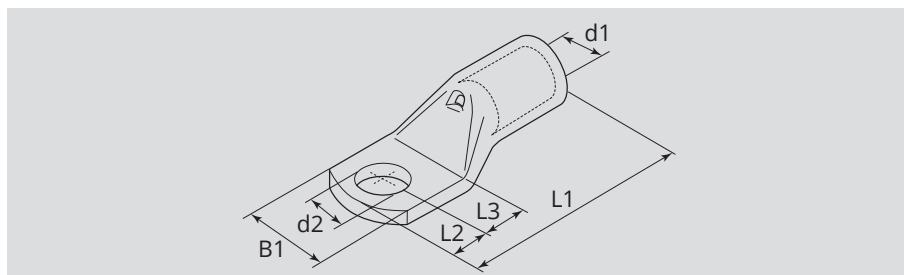
Insulation grommets made of PVC for subsequent insulation of the cable lugs see page 81



Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1	2
			d1(Ø)	B1	L3	L2	L1	d2			
stranded 95 finely stranded 70 – 95	6	A19-M6	13.5	25.0	8.0	7.0	50.5	6.4	25	TN120SE B35-45MD, B35-50MD, HT45-E HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools	
	8	A19-M8	13.5	25.0	9.0	8.0	52.5	8.4	25		
	10	A19-M10	13.5	25.0	11.0	10.0	56.5	10.5	25		
	12	A19-M12	13.5	25.0	14.0	12.0	61.5	13.2	25		
	14	A19-M14	13.5	25.0	16.0	14.0	65.5	15.0	25		
	16	A19-M16	13.5	27.0	18.0	16.0	69.5	17.0	25		
stranded 120 finely stranded 95 – 120	20	A19-M20	13.5	29.5	22.0	20.0	77.5	21.0	25		
	8	A24-M8	15.2	28.5	9.0	8.0	54.0	8.4	25		
	10	A24-M10	15.2	28.5	11.0	10.0	58.0	10.5	25		
	12	A24-M12	15.2	28.5	14.0	12.0	63.0	13.2	25		
	14	A24-M14	15.2	28.5	16.0	14.0	67.0	15.0	25		
	16	A24-M16	15.2	28.5	18.0	16.0	71.0	17.0	25		
stranded 150 finely stranded 120 – 150	20	A24-M20	15.2	30.0	22.0	20.0	79.0	21.0	25		
	8	A30-M8	16.7	31.5	13.0	11.0	69.0	8.4	25		
	10	A30-M10	16.7	31.5	13.0	11.0	69.0	10.5	25		
	12	A30-M12	16.7	31.5	16.0	14.0	75.0	13.2	25		
	14	A30-M14	16.7	31.5	18.0	16.0	79.0	15.0	25		
	16	A30-M16	16.7	31.5	19.0	17.0	81.0	17.0	25		
stranded 185 finely stranded 150 – 185	20	A30-M20	16.7	31.5	22.0	20.0	87.0	21.0	25		
	8	A37-M8	19.2	35.5	13.0	11.0	76.0	8.4	25		
	10	A37-M10	19.2	35.5	13.0	11.0	76.0	10.5	20		
	12	A37-M12	19.2	35.5	16.0	14.0	82.0	13.2	20		
	14	A37-M14	19.2	35.5	18.0	16.0	86.0	15.0	15		
	16	A37-M16	19.2	35.5	19.0	17.0	88.0	17.0	15		
stranded 240 finely stranded 185 – 240	20	A37-M20	19.2	35.5	22.0	20.0	94.0	21.0	15		
	8	A48-M8	21.1	39.0	13.0	11.0	77.5	8.4	15		
	10	A48-M10	21.1	39.0	13.0	11.0	77.5	10.5	15		
	12	A48-M12	21.1	39.0	14.0	12.0	79.5	13.2	15		
	14	A48-M14	21.1	39.0	18.0	16.0	92.0	15.0	15		
	16	A48-M16	21.1	39.0	19.0	17.0	94.0	17.0	15		
stranded 300 finely stranded 240	20	A48-M20	21.1	39.0	22.0	20.0	100.0	21.0	15		
	10	A60-M10	23.7	44.0	20.0	11.0	96.0	10.5	10		
	12	A60-M12	23.7	44.0	20.0	14.0	99.0	13.2	10		
	14	A60-M14	23.7	44.0	22.0	16.0	103.0	15.0	10		
	16	A60-M16	23.7	44.0	22.0	19.0	106.0	17.0	10		
	20	A60-M20	23.7	44.0	24.0	23.0	112.0	21.0	10		
stranded 400 finely stranded 300	12	A80-M12	27.0	51.0	22.0	19.0	113.0	13.2	1	ECW-H30 RHU520	
	14	A80-M14	27.0	51.0	22.0	19.0	113.0	15.0	1		
	16	A80-M16	27.0	51.0	22.0	19.0	113.0	17.0	1		
	20	A80-M20	27.0	51.0	24.0	23.0	119.0	21.0	1		
stranded 500 finely stranded 400	16	A100-M16	30.3	56.5	22.0	19.0	117.0	17.0	1		
	20	A100-M20	30.3	56.5	24.0	23.0	123.0	21.0	1		
stranded 630 finely stranded 500	16	A120-M16 ♦	33.4	61.6	22.0	19.0	128.0	17.0	1		
	20	A120-M20 ♦	33.4	61.6	24.0	23.0	134.0	21.0	1		
stranded 800 finely stranded 630	16	A160-M16 ♦	38.0	72.0	24.0	19.0	141.0	17.0	1		
	20	A160-M20 ♦	38.0	72.0	24.0	23.0	145.0	21.0	3		
stranded 1000 finely stranded 800	16	A200-M16 ♦	44.0	80.0	24.0	19.0	158.0	17.0	1		
	20	A200-M20 ♦	44.0	80.0	24.0	23.0	162.0	21.0	1		

♦ Without UL approval

for finely stranded conductors according to DIN EN 60228 or VDE 0295 Class 5 and 6



The Cembre range of tube cable lugs type A-M for finely-stranded conductors has been developed to meet the requirements of customers and users. For finely-stranded conductors according to DIN EN 60228 or VDE 0295 Class 5 and 6. The inner diameter of the cable lugs is designed to allow the insertion of most finely-stranded conductors (welding cables or similar) for which standard cable lugs cannot be used. Our cable lugs guarantee optimum electrical conductivity and excellent properties. Cembre offers the optimum ratio of quality, safety and price.

- 1 Mechanical tools
- 2 Hydraulic tools

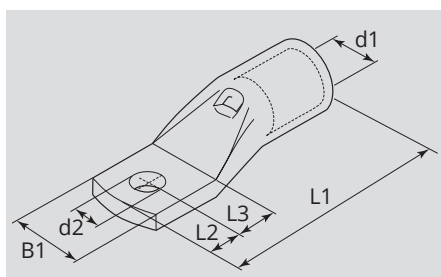
Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1	2
			d1(Ø)	B1	L3	L2	L1	d2			
35	6	A9-M6-15	9.3	15.0	8.0	7.0	38.5	6.4	100	TN70SE	TN120SE
	8	A9-M8	9.3	17.0	9.0	8.0	40.5	8.4	100		
	10	A9-M10	9.3	18.5	11.0	10.0	44.5	10.5	100		
	12	A9-M12	9.3	21.0	14.0	12.0	49.5	13.2	50		
50	6	A12-M6-15	11.0	15.0	8.0	7.0	40.5	6.4	50		
	8	A12-M8	11.0	19.8	9.0	8.0	42.5	8.4	50		
	10	A12-M10	11.0	19.8	11.0	10.0	46.5	10.5	50		
	10	A12-M10-19	11.0	19.0	11.0	10.0	46.5	10.5	50		
	12	A12-M12	11.0	22.0	14.0	12.0	51.5	13.2	50		
	14	A12-M14	11.0	25.0	15.5	12.0	57.5	15.0	25		
70	6	A17-M6	13.0	23.0	8.0	7.0	45.0	6.4	50		
	8	A17-M8	13.0	23.0	9.0	8.0	47.0	8.4	50		
	10	A17-M10	13.0	23.0	11.0	10.0	51.0	10.5	50		
	10	A17-M10-19	13.0	19.0	11.0	10.0	51.0	10.5	50		
	12	A17-M12	13.0	23.0	14.0	12.0	56.0	13.2	50		
	16	A17-M16	13.0	27.0	16.5	13.5	60.0	17.0	25		
95	8	A20-M8	15.0	27.0	9.0	8.0	50.0	8.4	25		
	10	A20-M10	15.0	27.0	11.0	10.0	54.0	10.5	25		
	12	A20-M12	15.0	27.0	14.0	12.0	59.0	13.2	25		
	14	A20-M14	15.0	27.0	15.5	12.0	60.5	15.0	25		
	16	A20-M16	15.0	27.0	16.5	13.5	63.0	17.0	25		
120	8	A29-M8	16.5	30.0	9.0	8.0	53.5	8.4	25		
	10	A29-M10	16.5	30.0	11.0	10.0	57.5	10.5	25		
	12	A29-M12	16.5	30.0	14.0	12.0	62.5	13.2	25		
	14	A29-M14	16.5	30.0	15.5	12.0	64.0	15.0	25		
	16	A29-M16	16.5	30.0	16.5	13.5	66.5	17.0	25		
	20	A29-M20	16.5	30.0	22.0	20.0	78.5	21.0	25		
150	10	A35-M10	19.2	34.2	13.0	11.0	65.5	10.5	25		
	12	A35-M12	19.2	34.2	16.0	14.0	71.5	13.2	25		
	14	A35-M14	19.2	34.2	18.0	16.0	75.5	15.0	25		
	16	A35-M16	19.2	34.2	19.0	17.0	77.5	17.0	25		
	20	A35-M20	19.2	34.2	22.0	20.0	83.5	21.0	25		
185	10	A40-M10	21.0	37.5	13.0	11.0	73.0	10.5	15		
	12	A40-M12	21.0	37.5	16.0	14.0	79.0	13.2	15		
	14	A40-M14	21.0	37.5	18.0	16.0	83.0	15.0	15		
	16	A40-M16	21.0	37.5	19.0	17.0	85.0	17.0	15		
	20	A40-M20	21.0	37.5	22.0	20.0	91.0	21.0	15		



Insulation grommets made of PVC for subsequent insulation of the cable lugs see page 81



Tube cable lugs with narrow glass lugs



These tube cable lugs have the characteristic of having a narrow tab dimension.

The tube cable lugs of this type are provided with a reduced and narrow tab to meet the requirements of customers and users. Suitable where the connection space (switch cabinets, etc.) does not correspond to the standard tube cable lugs. The cable lugs are annealed and made of electrolytically tinned copper. The tube wall thickness guarantees the best electrical conductivity as well as mechanical protection against vibrations and pull-out of the conductor. The entries are chamfered to allow easy insertion of the conductor.

The sleeve length provides easy and correct positioning during crimping. Each cable lug bears the Cembre logo and product designation on the back of the tab.

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1		2
			d1(Ø)	B1	L3	L2	L1	d2		MES	TN70SE	TN120SE
10	5	A2-M5-9	4.6	9.0	6.5	6.0	26.0	5.3	100			
16	5	A3-M5-9	5.8	9.0	6.5	6.0	29.0	5.3	100			
25	5	A5-M5-9	7.0	9.0	6.5	6.0	31.5	5.3	100			
	6	A5-M6-11	7.0	11.0	7.0	6.0	32.0	6.4	100			
35	6	A7B-M6-11.5*	8.9	11.5	8.0	7.0	36.5	6.4	100			
	8	A7B-M8-14*	8.9	14.0	9.0	8.0	38.5	8.4	50			
50	6	A10B-M6-11.5*	10.0	11.5	8.0	7.0	40.5	6.4	50			
	8	A10B-M8-14*	10.0	14.0	9.0	8.0	42.5	8.4	50			
70	6	A14B-M6-11.5*	11.3	11.5	8.0	7.0	44.0	6.4	50			
	8	A14B-M8-15.5*	11.3	15.5	9.0	8.0	46.0	8.4	50			
95	8	A19B-M8-15.5*	13.5	15.5	9.0	8.0	52.5	8.4	25			
	10	A19-M10-19	13.5	19.0	9.0	8.0	52.5	10.5	25			
120	8	A24B-M8-19*	15.2	19.0	14.0	9.0	60.0	8.4	25			
	10	A24B-M10-19*	15.2	19.0	14.0	9.0	60.0	10.5	25			
150	8	A30B-M8-19*	16.7	19.0	18.0	9.0	70.0	8.4	25			
	10	A30B-M10-19*	16.7	19.0	18.0	9.0	70.0	10.5	25			
185	10	A37B-M10-24.5*	19.2	24.5	18.0	9.0	77.0	10.5	25			
	12	A37B-M12-31	19.2	31.0	16.0	12.0	80.0	13.2	15			
240	10	A48-M10-31	21.1	31.0	13.0	9.0	80.0	10.5	15			
	12	A48-M12-31	21.1	31.0	16.0	12.0	86.0	13.2	15			
	16	A48-M16-31	21.1	31.0	19.0	17.0	94.0	17.0	15			
300	10	A60B-M10-31*	23.7	31.0	16.0	12.0	95.0	10.5	10			
	12	A60B-M12-31*	23.7	31.0	16.0	12.0	95.0	13.2	10			

*without inspection hole

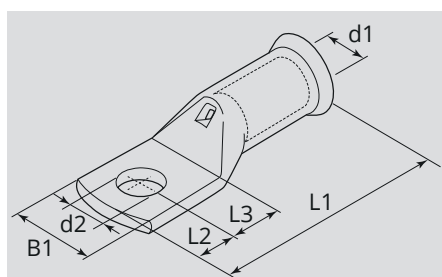


V-Series tube cable lugs

T-M



for compacted conductors



The Cembre range of tube cable lugs type A-M for compacted conductors has been developed to meet the requirements of customers and users.

For compacted conductors according to DIN EN 60228 or VDE 0295 Class 2.

The inner diameter of the tube is smaller than that of the standard cable lugs. The funnel at the beginning of the tube allows easy insertion of the conductor. The cable lugs comply with the French standard NF C20-130 part 1.

Our cable lugs guarantee optimum electrical conductivity and excellent properties.

Cembre offers the optimum ratio of quality, safety and price

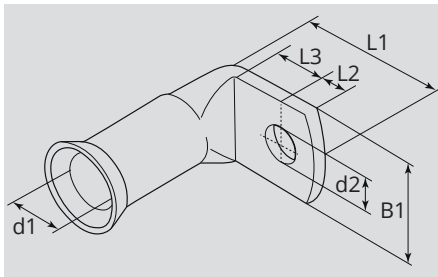
1 Mechanical tools

2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU		
			d1(Ø)	B1	L3	L2	L1	d2		1	2
4	4	T4-M4	2.7	9.0	7.0	6.0	27.5	4.2	100	HN1	B15MD
	5	T4-M5	2.7	9.0	7.0	6.0	27.5	5.2	100		
	6	T4-M6	2.7	12.0	9.0	8.0	32.0	6.4	100		
4÷6	4	T6-M4	3.3	10.0	6.5	6.0	30.0	4.2	100	TN70SE	B35-45MD, B35-50MD, HT45-E
	5	T6-M5	3.3	13.0	6.5	6.0	30.0	5.2	100		
	6	T6-M6	3.3	13.0	9.0	8.0	34.5	6.4	100		
	8	T6-M8	3.3	13.0	11.0	10.0	38.5	8.3	100		
10	5	T10-M5	4.2	11.0	6.5	6.0	30.0	5.2	100	HN5	TN120SE
	6	T10-M6	4.2	11.0	9.0	8.0	34.5	6.4	100		
	8	T10-M8	4.2	14.0	11.0	10.0	38.5	8.3	100		
	10	T10-M10	4.2	14.0	14.0	12.0	43.5	10.3	100		
16	5	T16-M5	5.3	12.0	6.5	6.0	34.0	5.2	100	HN-T25	B35-45MD, B35-50MD, HT45-E
	6	T16-M6	5.3	12.0	9.0	8.0	38.5	6.4	100		
	8	T16-M8	5.3	16.0	11.0	10.0	42.5	8.3	100		
	10	T16-M10	5.3	16.0	14.0	12.0	47.5	10.3	100		
25	6	T25-M6	6.6	13.0	9.0	8.0	40.0	6.4	100	TN70SE	B35-45MD, B35-50MD, HT45-E
	8	T25-M8	6.6	16.0	11.0	10.0	44.0	8.3	100		
	10	T25-M10	6.6	16.0	14.0	12.0	49.0	10.3	100		
	12	T25-M12	6.6	19.0	18.0	16.0	57.0	12.8	50		
35	6	T35-M6	7.9	15.0	9.0	8.0	41.0	6.4	50	HN5	TN120SE
	8	T35-M8	7.9	17.0	11.0	10.0	45.0	8.3	50		
	10	T35-M10	7.9	17.0	14.0	12.0	50.0	10.3	50		
	12	T35-M12	7.9	17.0	18.0	16.0	58.0	12.8	50		
50	6	T50-M6	9.2	18.0	9.0	8.0	46.5	6.4	25	TN70SE	B35-45MD, B35-50MD, HT45-E
	8	T50-M8	9.2	18.0	11.0	10.0	50.5	8.3	25		
	10	T50-M10	9.2	18.0	14.0	12.0	55.5	10.3	25		
	12	T50-M12	9.2	19.0	18.0	16.0	63.5	12.8	25		
70	8	T70-M8	11.0	21.0	11.0	10.0	54.0	8.3	25	TN70SE	B35-45MD, B35-50MD, HT45-E
	10	T70-M10	11.0	21.0	14.0	12.0	59.0	10.3	25		
	12	T70-M12	11.0	21.0	18.0	16.0	67.0	12.8	25		
95	8	T95-M8	13.1	23.0	11.0	10.0	60.0	8.3	25	TN70SE	B35-45MD, B35-50MD, HT45-E
	10	T95-M10	13.1	23.0	14.0	12.0	65.0	10.3	25		
	12	T95-M12	13.1	23.0	18.0	16.0	73.0	12.8	25		
	14	T95-M14	13.1	23.0	18.0	16.0	73.0	14.5	25		
	16	T95-M16	13.1	23.0	19.0	17.0	75.0	16.5	25		
120	8	T120-M8	14.5	28.0	11.0	10.0	63.0	8.3	25	TN70SE	B35-45MD, B35-50MD, HT45-E
	10	T120-M10	14.5	28.0	14.0	12.0	68.0	10.3	25		
	12	T120-M12	14.5	28.0	18.0	16.0	76.0	12.8	25		
	14	T120-M14	14.5	28.0	18.0	16.0	76.0	14.5	25		
	16	T120-M16	14.5	28.0	19.0	17.0	78.0	16.5	25		
150	10	T150-M10	16.2	30.0	14.0	12.0	77.5	10.3	10	TN70SE	B35-45MD, B35-50MD, HT45-E
	12	T150-M12	16.2	30.0	18.0	16.0	85.5	12.8	10		
	14	T150-M14	16.2	30.0	18.0	16.0	85.5	14.5	10		
	16	T150-M16	16.2	30.0	19.0	17.0	87.5	16.5	10		
185	10	T185-M10	18.0	33.0	14.0	12.0	83.5	10.3	10	TN70SE	B35-45MD, B35-50MD, HT45-E
	12	T185-M12	18.0	33.0	18.0	16.0	91.5	12.8	10		
	14	T185-M14	18.0	33.0	18.0	16.0	91.5	14.5	10		
	16	T185-M16	18.0	33.0	19.0	17.0	93.5	16.5	10		
240	10	T240-M10	20.6	37.0	13.0	11.0	87.5	10.3	10	TN70SE	B35-45MD, B35-50MD, HT45-E
	12	T240-M12	20.6	37.0	16.0	14.0	93.5	12.8	10		
	14	T240-M14	20.6	37.0	18.0	16.0	97.5	14.5	10		
	16	T240-M16	20.6	37.0	19.0	17.0	99.5	16.5	10		
	20	T240-M20	20.6	37.0	22.0	20.0	105.5	21.0	10		
300	10	T300-M10	23.1	41.0	14.0	11.0	95.0	10.3	5	TN70SE	B35-45MD, B35-50MD, HT45-E
	12	T300-M12	23.1	41.0	20.0	14.0	104.0	12.8	5		
	14	T300-M14	23.1	41.0	22.0	16.0	108.0	14.5	5		
	16	T300-M16	23.1	41.0	22.0	19.0	111.0	16.5	5		
	20	T300-M20	23.1	41.0	24.0	23.0	117.0	21.0	5		
400	16	T400-M16	26.1	47.0	22.0	19.0	119.0	16.5	5	TN70SE	B35-45MD, B35-50MD, HT45-E
	20	T400-M20	26.1	47.0	24.0	23.0	125.0	21.0	5		

V-Series 90° tube cable lugs

T-L



The Cembre 90° angled tube cable lugs type T-L are manufactured from electrolytic copper tube. The tube dimensions correspond to the cable lugs of the T-M series.

All cable lugs have been annealed again after mechanical processing to ensure optimum crimping. The cable lugs all have a viewing hole that allows the conductor to be inserted correctly.

- 1 Mechanical tools
 - 2 Hydraulic tools
- F* = approx. specification

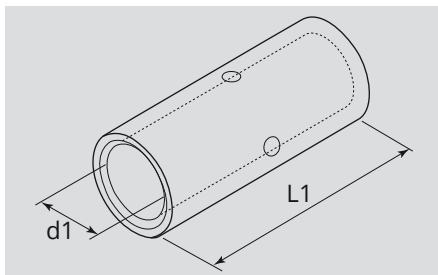
Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1				2		
			d1(Ø)	B1	L3	L2	L1	d2		HN1	HN5	HN-T25	TN70SE	TN120SE	B15MD	
4÷6	6	T6-L6	3.3	13.0	9.0	8.0	23.6	6.4	100	HN1	HN5	HN-T25	TN70SE	TN120SE	B15MD	B35-45MD, HT45-E, HT51, RMH50, RH50, B500, HT61, RH

V-Series butt connectors

L-T



for compacted conductors



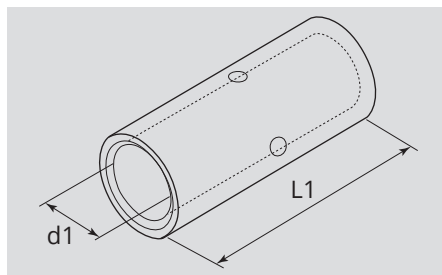
Butt connectors type L-T are made of electrolytic copper tube and have the same dimensions as the tubes used for T-M cable lugs. Thus you get the connectors ideal for compacted conductors of the class. The L-T connectors are annealed and electrolytically tinned. The ends are chamfered to allow easy insertion of the conductor. They are equipped with a central stop to ensure correct positioning of the conductors.

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Item number	Dimensions in mm			1	2
		d1(Ø)	L1	PU		
4	L4-T	2.7	20	100	HN1	B15MD
4÷6	L6-T	3.3	25	100	HN5	B35-45MD, B35-50MD, HT45-E
10	L10-T	4.2	27	100	HN-T25	HT51, RHM50, RH50, B500, HT81, RH61, B600, HT81-UD, RHU81D
16	L16-T	5.3	31	100	TN70SE	HT131-C and all 13-tonne tools, ECW-H3D, RHU520
25	L25-T	6.6	35	100	TN120SE	
35	L35-T	7.9	37	50		
50	L50-T	9.2	45	50		
70	L70-T	11.0	50	50		
95	L95-T	13.1	56	25		
120	L120-T	14.5	60	25		
150	L150-T	16.2	66	25		
185	L185-T	18.0	75	25		
240	L240-T	20.6	80	15		
300	L300-T	23.1	90	10		
400	L400-T	26.1	100	5		

Butt connector

L-M



Butt connectors type L-M have been developed for the connection of low voltage conductors. They are made of electrolytic copper tube and have the same dimensions as the tubes used for A-M cable lugs. The L-M connectors are annealed and electrolytically tinned.

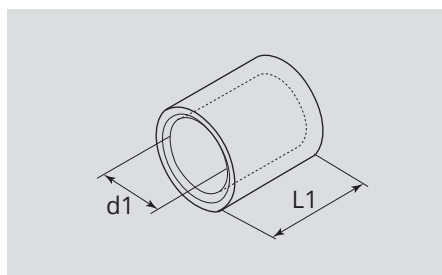
The ends are chamfered to allow easy insertion of the conductor. They are equipped with a central stop to ensure correct positioning of the conductor.

Conductor cross-section mm ²		Item number	Dimensions		PU		
stranded	finely stranded		d1(Ø)	L1		1	2
0.25 – 1.5	0.25 – 1.5	L03-M ♦	1.8	15	100	HN1	
1.5 – 2.5	1.5 – 2.5	L06-M ♦	2.4	15	100		
4 – 6	4 – 6	L1-M ♦	3.6	22	100	ME5	
10	10	L2-M	4.6	25	100	HN5	
16	16	L3-M	5.8	27	100	TN70SE	
25	25	L5-M	7.0	29	100	TN120SE	
35	25 – 35	L7-M	8.9	33	100		
50	35 – 50	L10-M	10.0	37	50		
70	50 – 70	L14-M	11.3	39	50		
95	70 – 95	L19-M	13.5	43	25		
120	95 – 120	L24-M	15.2	47	25		
150	120 – 150	L30-M	16.7	58	25		
185	150 – 185	L37-M	19.2	64	25		
240	185 – 240	L48-M	21.1	75	15		
300	240 – 300	L60-M	23.7	90	10		
400	300 – 400	L80-M	27.0	94	5		
500	400 – 500	L100-M	30.3	98	1		
630	500 – 630	L120-M	33.4	105	1		
800	600	L160-M	38.0	112	1		
1000	800	L200-M	44.0	120	1		

♦ Not UL approval

Parallel connector

L-P

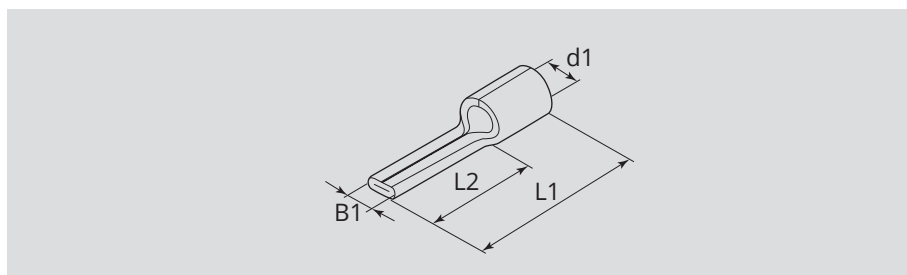


Parallel connectors type L-P have been developed for the connection of low voltage conductors. They are chamfered to allow easy insertion of the conductor. The L-P connectors are annealed and electrolytically tinned.

Conductor cross-section mm ²		Item number	Dimensions		PU		
stranded	finely stranded		d1(Ø)	L1		1	2
0.25 – 1.5	0.25 – 1.5	L03-P	1.8	6.0	100	HN1	
1.5 – 2.5	1.5 – 2.5	L06-P	2.4	6.0	100		
4 – 6	4 – 6	L1-P	3.6	9.0	100		
10	10	L2-P	4.6	10.5	100	HN5	
16	16	L3-P	5.8	11.5	100	TN70SE	
25	25	L5-P	7.0	13.0	100	TN120SE	
35	25 – 35	L7-P	8.9	14.0	100		
50	35 – 50	L10-P	10.0	16.0	100		
70	50 – 70	L14-P	11.3	18.0	100		
95	70 – 95	L19-P	13.5	19.0	50		
120	95 – 120	L24-P	15.2	22.0	50		
150	120 – 150	L30-P	16.7	26.5	50		
185	150 – 185	L37-P	19.2	26.5	50		
240	185 – 240	L48-P	21.1	34.0	15		
300	240 – 300	L60-P	23.7	43.0	25		

Uninsulated pin cable lugs

A-P



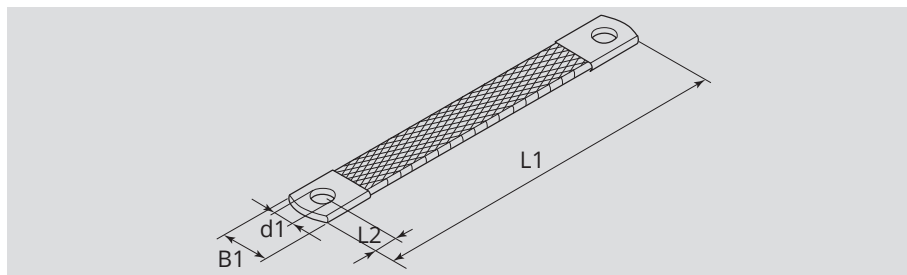
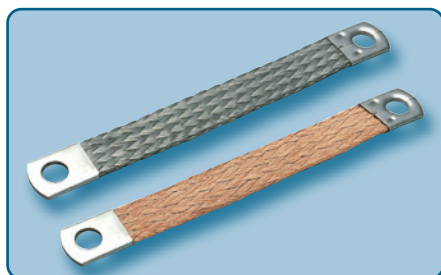
The pin cable lugs type A-P are stamped, soldered and annealed from copper strip.

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Item number	Dimensions in mm				PU	1		2
		d1(Ø)	B1	L2	L1		HN1	HN5	
10	A2-P12	4.8	4.3	14.5	23.5	100	TN70SE, TN120SE		B35-45MD, B35-50MD, HT45-E, HT51, RH50, B500, HT61, RH61, B600, HT131-C and all 13-tonne tools
16	A3-P14	5.9	5.5	18.0	28.0	100			
25	A5-P16	7.0	7.0	20.3	32.0	100			
35	A7-P20	8.9	8.0	24.5	39.0	100			
50	A10-P25	10.0	9.5	26.0	45.0	50			
70	A14-P30	11.5	11.0	31.0	55.0	50			

Flexible copper strip

FL



Flexible copper strip is made of electrolytic copper strand. Other cross-sections or lengths on request. The standard version is bare copper. The copper strips can also be supplied tinned and then have the additional designation "ST", e.g.: FL10-150 (bare copper) or FL10-150ST(tinned copper)

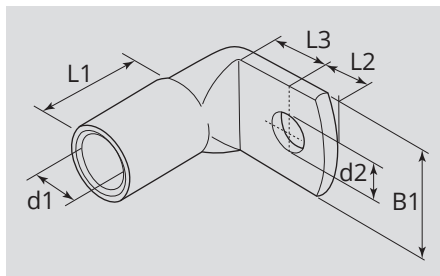
Conductor Size mm ²	Ø Bolt	Item number	Dimensions in mm				PU
			B1	L2	L1	d1	
10	8	FL10-150	17	10	150	8.5	50
	8	FL10-200	17	10	200	8.5	50
	8	FL10-250	17	10	250	8.5	50
	8	FL16-150	17	10	150	8.5	50
16	8	FL16-200	17	10	200	8.5	50
	8	FL16-250	17	10	250	8.5	50
	8	FL16-320	17	10	320	8.5	50
	8	FL16-350	17	10	350	8.5	50
	8	FL16-420	17	10	420	8.5	25
	8	FL16-570	17	10	570	8.5	25
	8	FL16-660	17	10	660	8.5	25
	8	FL25-150	21	10	150	8.5	50
25	8	FL25-200	21	10	200	8.5	50
	8	FL25-250	21	10	250	8.5	50
	8	FL25-300	21	10	300	8.5	50

90° angled tube cable lugs

A-L



for copper conductors



The 90° angled tube cable lugs type A-L are manufactured from electrolytic copper tube. The tube dimensions correspond to the cable lugs of the A-M series (from page 28). All cable lugs have been annealed again after mechanical processing to ensure optimum crimping. The cable lugs all have a viewing hole that allows the conductor to be inserted correctly. Each cable lug has the following features: Cembre logo, product designation, conductor cross-section (mm²), bolt (mm)

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ² stranded	Ø Bolt	Item number	Dimensions in mm						PU		
			d1(Ø)	B1	L3	L2	L1	d2		1	2
6	6	A1-L6 ♦	3.6	11.0	7.0	6.0	9.5	6.4	100	HN1	HN5
	10	A2-L4	4.6	10.0	5.0	4.0	10.5	4.3	100		
		A2-L5	4.6	10.0	6.5	6.0	10.5	5.3	100		
		A2-L6	4.6	11.0	7.0	6.0	10.5	6.4	100		
		A2-L8	4.6	15.0	9.0	8.0	10.5	8.4	100		
		A2-L10	4.6	18.0	11.0	10.0	10.5	10.5	100		
16	12	A2-L12	4.6	19.0	14.0	12.0	10.5	13.2	100		
	16	A3-L5	5.8	11.5	6.5	6.0	12.0	5.3	100		TN70SE
		A3-L6	5.8	11.5	7.0	6.0	12.0	6.4	100		
		A3-L8	5.8	15.0	9.0	8.0	12.0	8.4	100		
		A3-L10	5.8	18.0	11.0	10.0	12.0	10.5	100		
		A3-L12	5.8	20.0	14.0	12.0	12.0	13.2	100		
25	4	A5-L4	7.0	14.0	5.0	4.0	13.0	4.3	100		
	5	A5-L5	7.0	14.0	6.5	6.0	13.0	5.3	100		
	6	A5-L6	7.0	14.0	7.0	6.0	13.0	6.4	100		
	8	A5-L8	7.0	15.0	9.0	8.0	13.0	8.4	100		
	10	A5-L10	7.0	18.0	11.0	10.0	13.0	10.5	100		
	12	A5-L12	7.0	21.0	14.0	12.0	13.0	13.2	100		
35 finely stranded 25 – 35	6	A7-L6	8.9	17.0	7.0	6.0	15.5	6.4	100		TN120SE
	8	A7-L8	8.9	17.0	9.0	8.0	15.5	8.4	100		
	10	A7-L10	8.9	19.0	11.0	10.0	15.5	10.5	100		
	12	A7-L12	8.9	21.0	14.0	12.0	15.5	13.2	100		
50 finely stranded 35 – 50	8	A10-L8	10.0	19.0	9.0	8.0	16.5	8.4	100		
	10	A10-L10	10.0	20.0	11.0	10.0	16.5	10.5	100		
	12	A10-L12	10.0	21.0	14.0	12.0	16.5	13.2	100		
	16	A10-L16	10.0	26.0	18.0	16.0	18.5	17.0	100		
70 finely stranded 50 – 70	8	A14-L8	11.3	21.0	9.0	8.0	20.0	10.5	50		
	10	A14-L10	11.3	21.0	11.0	10.0	20.0	13.2	50		
	12	A14-L12	11.3	22.0	14.0	12.0	20.0	10.5	50		
95 finely stranded 70 – 95	8	A19-L8	13.5	25.0	9.0	8.0	24.5	8.4	25		
	10	A19-L10	13.5	25.0	11.0	10.0	24.5	10.5	25		
	12	A19-L12	13.5	25.0	14.0	12.0	24.5	13.2	25		
	14	A19-L14	13.5	25.0	16.0	14.0	24.5	15.0	25		
	16	A19-L16	13.5	25.0	18.0	16.0	24.5	17.0	25		
	20	A19-L20	13.5	27.0	22.0	20.0	24.5	21.0	25		
120 finely stranded 95 – 120	8	A24-L8	15.2	29.5	9.0	8.0	25.5	8.4	25		
	10	A24-L10	15.2	28.5	11.0	10.0	25.5	10.5	25		
	12	A24-L12	15.2	28.5	14.1	12.0	25.5	13.2	25		
	14	A24-L14	15.2	28.5	16.0	14.0	25.5	15.0	25		
	16	A24-L16	15.2	28.5	18.0	16.0	25.5	17.0	25		
	20	A24-L20	15.2	28.5	22.0	20.0	25.5	21.0	25		
150 finely stranded 120 – 150	8	A30-L8	16.7	30.0	13.0	11.0	28.5	8.4	25		
	10	A30-L10	16.7	31.5	13.0	11.0	28.5	10.5	25		
	12	A30-L12	16.7	31.5	16.0	14.0	28.5	13.2	25		
	14	A30-L14	16.7	31.5	18.0	16.0	28.5	15.0	25		
	16	A30-L16	16.7	31.5	19.0	17.0	28.5	17.0	25		
185 finely stranded 150 – 185	10	A37-L10	19.2	31.5	13.0	11.0	31.5	10.5	25		
	12	A37-L12	19.2	31.5	16.0	14.0	31.5	13.2	25		
	14	A37-L14	19.2	35.5	18.0	16.0	31.5	15.0	25		
	16	A37-L16	19.2	35.5	19.0	17.0	31.5	17.0	25		
	20	A37-L20	19.2	35.5	22.0	20.0	31.5	21.0	25		
240 finely stranded 185 – 240	14	A48-L14	21.1	35.5	18.0	16.0	36.5	15.0	25		
	16	A48-L16	21.1	35.5	19.0	17.0	36.5	17.0	15		
	20	A48-L20	21.1	35.5	22.0	20.0	36.5	21.0	15		
300 finely stranded 240 – 300	12	A60-L12	23.7	39.0	20.0	14.0	42.0	13.2	15		
	16	A60-L16	23.7	39.0	22.0	19.0	42.0	17.0	15		
	20	A60-L20	23.7	39.0	24.0	23.0	42.0	21.0	15		

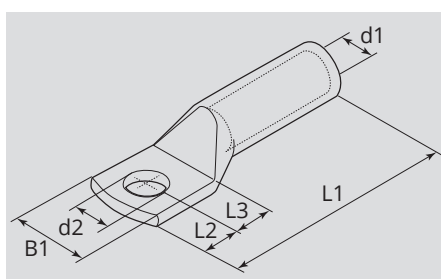
♦ Without UL approval

Tube cable lugs long version

2A-M



for copper conductors



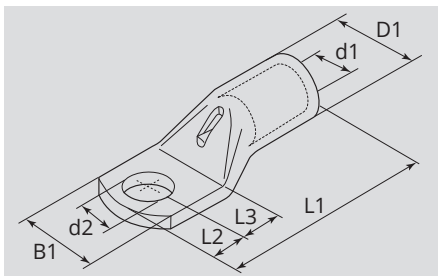
The cable lugs type 2A-M have been developed for earth lines and special applications in closed rooms as well as for outdoor installations. They are made of electrolytic copper tube and designed in such a way that an optimal connection is guaranteed. They are annealed and protected against corrosion by electrolytic tinning. The sleeve length allows multiple crimping. The cable lugs have no viewing hole to prevent moisture from penetrating.

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU		
			d1(Ø)	B1	L3	L2	L1	d2		1	2
16	8	2A3-M8	5.8	15.0	9	8	43.5	8.4	100	HM5	TN70SE TN120SE
	10	2A3-M10	5.8	18.0	11	10	47.5	10.5	100		
25	8	2A5-M8	7.0	15.0	9	8	51.0	8.4	100	HM5	TN70SE TN120SE
	10	2A5-M10	7.0	18.0	11	10	55.0	10.5	50		
35	12	2A5-M12	7.0	21.0	14	12	60.0	13.2	50	HM5	TN70SE TN120SE
	8	2A7-M8	8.9	17.0	9	8	53.0	8.4	50		
50	10	2A7-M10	8.9	19.0	11	10	57.0	10.5	50	HM5	TN70SE TN120SE
	12	2A7-M12	8.9	21.0	14	12	62.0	13.2	50		
70	10	2A10-M10	10.0	20.0	11	10	63.0	10.5	50	HM5	TN70SE TN120SE
	12	2A10-M12	10.0	21.0	14	12	68.0	13.2	50		
95	14	2A10-M14	10.0	25.0	16	14	72.0	15.0	50	HM5	TN70SE TN120SE
	16	2A10-M16	10.0	26.0	18	16	76.0	17.0	50		
120 – 125	10	2A14-M10	11.3	21.0	11	10	70.0	10.5	50	HM5	TN70SE TN120SE
	12	2A14-M12	11.3	22.0	14	12	75.0	13.2	50		
150	14	2A14-M14	11.3	25.0	16	14	79.0	15.0	50	HM5	TN70SE TN120SE
	16	2A14-M16	11.3	26.0	18	16	83.0	17.0	50		
185	10	2A19-M10	13.5	25.0	11	10	76.5	10.5	25	HM5	TN70SE TN120SE
	12	2A19-M12	13.5	25.0	14	12	81.5	13.2	25		
240	14	2A19-M14	13.5	25.0	16	14	85.5	15.0	25	HM5	TN70SE TN120SE
	16	2A19-M16	13.5	27.0	18	16	90.5	17.0	25		
300	20	2A19-M20	13.5	29.5	22	20	97.5	21.0	25	HM5	TN70SE TN120SE
	10	2A24-M10	15.2	28.5	11	10	82.0	10.5	25		
350	12	2A24-M12	15.2	28.5	14	12	87.0	13.2	25	HM5	TN70SE TN120SE
	14	2A24-M14	15.2	28.5	16	14	91.0	15.0	25		
400	16	2A24-M16	15.2	28.5	18	16	95.0	17.0	25	HM5	TN70SE TN120SE
	20	2A24-M20	15.2	30.0	22	20	103.0	21.0	25		
450	10	2A30-M10	16.7	31.5	13	11	92.0	10.5	25	HM5	TN70SE TN120SE
	12	2A30-M12	16.7	31.5	16	14	98.0	13.2	15		
500	14	2A30-M14	16.7	31.5	18	16	102.0	15.0	15	HM5	TN70SE TN120SE
	16	2A30-M16	16.7	31.5	19	17	104.0	17.0	15		
550	20	2A30-M20	16.7	31.5	22	20	110.0	21.0	15	HM5	TN70SE TN120SE
	12	2A37-M12	19.2	35.5	16	14	108.0	13.2	15		
600	14	2A37-M14	19.2	35.5	18	16	112.0	15.0	15	HM5	TN70SE TN120SE
	16	2A37-M16	19.2	35.5	19	17	114.0	17.0	15		
650	20	2A37-M20	19.2	35.5	22	20	120.0	21.0	15	HM5	TN70SE TN120SE
	12	2A48-M12	21.1	39.0	16	14	109.0	13.2	5		
700	14	2A48-M14	21.1	39.0	18	16	113.0	15.0	5	HM5	TN70SE TN120SE
	16	2A48-M16	21.1	39.0	19	17	115.0	17.0	5		
750	20	2A48-M20	21.1	39.0	22	20	121.0	21.0	5	HM5	TN70SE TN120SE
	12	2A60-M12	23.7	44.0	20	14	129.5	13.2	5		
800	14	2A60-M14	23.7	44.0	22	16	133.5	15.0	5	HM5	TN70SE TN120SE
	16	2A60-M16	23.7	44.0	22	19	136.5	17.0	5		
850	20	2A60-M20	23.7	44.0	24	23	142.5	21.0	5	HM5	TN70SE TN120SE
	12	2A80-M12	27.0	51.0	22	19	140.0	13.2	5		
900	14	2A80-M14	27.0	51.0	22	19	140.0	15.0	5	HM5	TN70SE TN120SE
	16	2A80-M16	27.0	51.0	22	19	140.0	17.0	5		
950	20	2A80-M20	27.0	51.0	24	23	146.0	21.0	5	HM5	TN70SE TN120SE
	16	2A100-M16 ♦	30.3	56.5	22	19	147.0	17.0	1		
1000	20	2A100-M20 ♦	30.3	56.5	24	23	153.0	21.0	1	HM5	TN70SE TN120SE
	16	2A120-M16 ♦	33.4	61.5	22	19	159.0	17.0	1		
1050	20	2A120-M20 ♦	33.4	61.5	24	23	165.0	21.0	1	HM5	TN70SE TN120SE
	16	2A160-M16 ♦	38.0	72.0	24	23	187.0	21.0	1		
1100	20	2A160-M20 ♦	38.0	72.0	24	23	187.0	21.0	1	HM5	TN70SE TN120SE
	20	2A200-M20 ♦	44.0	80.0	24	23	202.0	21.0	1		

♦ Without UL approval

for copper conductors



The HK cable lugs are made of electrolytic copper. The cable lugs are then electrolytically tin-plated. The dimensions correspond to the standard for electrical conductivity and mechanical stress. The viewing hole ensures correct insertion of the conductor.

- 1 Mechanical tools
- 2 Hydraulic tools



Insulation grommets made of PVC for subsequent insulation of the cable lugs see page 81



Conductor cross-section mm ²	Bolt Ø	Item number	Dimensions in mm							PU	1		2
			d1(Ø)	D1(Ø)	B1	L3	L2	L1	d2		HN1	HN5	
2.5	4	HKS2.5-4	2.3	4.2	7.5	5.0	4.0	17.0	4.3	100	HN1	HN5	TN70SE TN120SE B35-45MD, B35-50MD, HT45-E, HT51, RH50, B500, HT61, RH 61, B600, HT131-C and all 13 tonne tools
	5	HKS2.5-5	2.3	4.2	8.5	5.5	4.8	18.8	5.3	100			
	6	HKS2.5-6	2.3	4.2	9.5	6.5	6.5	22.5	6.5	100			
6	6	HKS6-6	3.5	6.5	12.0	7.5	6.5	27.5	6.5	100			
	8	HKS6-8	3.5	6.5	15.0	10.0	10.0	33.0	8.5	100			
	10	HKS6-10	3.5	6.5	17.0	12.0	12.0	37.0	10.5	100			
	12	HKS6-12	3.5	6.5	19.0	13.0	13.0	41.0	13.0	100			
10	5	HKS10-5	4.5	7.0	12.0	7.5	6.5	28.5	5.5	100			
	6	HKS10-6	4.5	7.0	12.0	7.5	6.2	28.2	6.5	100			
	8	HKS10-8	4.5	7.5	15.0	10.0	10.0	35.0	8.5	100			
	10	HKS10-10	4.5	7.5	17.0	12.0	12.0	39.0	10.5	100			
	12	HKS10-12	4.5	7.5	19.0	13.0	13.0	42.0	13.0	100			
16	5	HKS16-5	5.5	8.5	12.0	6.5	5.5	31.5	5.5	100			
	6	HKS16-6	5.5	8.5	12.0	7.5	6.2	33.2	6.5	100			
	8	HKS16-8	5.5	8.5	15.0	9.5	8.5	37.5	8.4	100			
	10	HKS16-10	5.5	8.5	17.0	11.5	10.5	41.5	10.5	100			
	12	HKS16-12	5.5	8.5	19.0	13.0	13.0	46.0	13.0	100			
25	5	HKS25-5	7.0	10.0	14.0	7.5	7.5	37.5	5.5	100			
	6	HKS25-6	7.0	10.0	14.0	7.5	7.5	37.5	6.5	100			
	8	HKS25-8	7.0	10.0	16.0	10.0	10.0	42.0	8.4	100			
	10	HKS25-10	7.0	10.0	18.0	12.0	12.0	46.0	10.5	100			
	12	HKS25-12	7.0	10.0	19.0	13.0	13.0	48.0	13.0	100			
35	6	HKS35-6	8.5	12.0	17.0	7.5	7.5	39.5	6.5	50			
	8	HKS35-8	8.5	12.0	17.0	10.0	10.0	44.0	8.4	50			
	10	HKS35-10	8.5	12.0	19.0	12.0	12.0	49.0	10.5	50			
	12	HKS35-12	8.5	12.0	21.0	13.0	13.0	51.0	13.0	50			
	14	HKS35-14	8.5	12.0	21.0	14.5	14.5	54.5	15.0	50			
	16	HKS35-16	8.5	12.0	26.0	16.0	16.0	58.0	17.0	50			
50	6	HKS50-6	10.0	14.0	20.0	10.0	10.0	47.0	6.5	50			
	8	HKS50-8	10.0	14.0	20.0	10.0	10.0	47.0	8.5	50			
	10	HKS50-10	10.0	14.0	20.0	12.0	12.0	51.0	10.5	50			
	12	HKS50-12	10.0	14.0	23.0	13.0	13.0	56.0	13.0	50			
	14	HKS50-14	10.0	14.0	23.0	14.5	14.5	59.5	15.0	50			
	16	HKS50-16	10.0	14.0	28.0	16.0	16.0	62.0	17.0	50			
70	20	HKS50-20	10.0	14.0	30.0	19.0	19.0	67.0	21.0	50			
	6	HKS70-6	12.0	16.5	23.0	10.0	10.0	53.0	6.5	25			
	8	HKS70-8	12.0	16.5	23.0	10.0	10.0	53.0	8.5	25			
	10	HKS70-10	12.0	16.5	23.0	12.0	12.0	56.0	10.5	20			
	12	HKS70-12	12.0	16.5	23.0	13.0	13.0	59.0	13.0	20			
	14	HKS70-14	12.0	16.5	23.0	14.5	14.5	62.5	15.0	20			
95	16	HKS70-16	12.0	16.5	28.0	16.0	16.0	66.0	17.0	15			
	20	HKS70-20	12.0	16.5	30.0	19.0	19.0	72.0	21.0	15			
	8	HKS95-8	13.5	18.0	26.0	12.0	12.0	60.0	8.5	25			
	10	HKS95-10	13.5	18.0	26.0	12.0	12.0	60.0	10.5	25			
	12	HKS95-12	13.5	18.0	26.0	13.0	13.0	62.0	13.0	25			
	14	HKS95-14	13.5	18.0	26.0	14.5	14.5	65.5	15.0	25			
120	16	HKS95-16	13.5	18.0	28.0	16.0	16.0	70.0	17.0	25			
	20	HKS95-20	13.5	18.0	36.0	22.0	22.0	82.0	21.0	25			
	8	HKS120-8	15.0	19.5	28.0	14.0	14.0	65.0	8.5	25			
	10	HKS120-10	15.0	19.5	28.0	14.0	14.0	65.0	10.5	25			
	12	HKS120-12	15.0	19.5	28.0	14.0	14.0	65.0	13.0	25			
	14	HKS120-14	15.0	19.5	28.0	15.0	15.0	67.0	15.0	25			
150	16	HKS120-16	15.0	19.5	30.0	16.0	16.0	70.0	17.0	25			
	20	HKS120-20	15.0	19.5	30.0	22.0	22.0	85.0	21.0	25			
	8	HKS150-8	16.5	21.0	31.0	14.0	14.0	70.0	8.5	10			
	10	HKS150-10	16.5	21.0	31.0	14.0	14.0	70.0	10.5	10			
	12	HKS150-12	16.5	21.0	31.0	15.0	15.0	72.0	13.0	10			

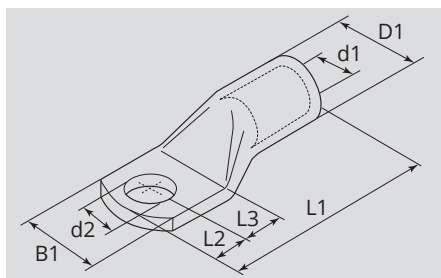
for copper conductors

1 Mechanical tools

2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm							PU	2
			d1(Ø)	D1(Ø)	B1	L3	L2	L1	d2		
150	14	HKS150-14	16.5	21.0	31.0	15.0	15.0	72.0	15.0	10	B35-45MD, B35-50MD, HT45-E
	16	HKS150-16	16.5	21.0	31.0	16.0	16.0	74.0	17.0	10	
	20	HKS150-20	16.5	21.0	36.0	22.0	22.0	88.0	21.0	15	
185	10	HKS185-10	19.0	24.0	35.0	18.0	18.0	83.0	10.5	10	HT51, RH50, B500, HT61, B600, RH61, HT131-C and all 13 tonne tools
	12	HKS185-12	19.0	24.0	35.0	18.0	18.0	83.0	13.0	10	
	14	HKS185-14	19.0	24.0	35.0	18.0	18.0	83.0	15.0	10	
	16	HKS185-16	19.0	24.0	35.0	18.0	18.0	83.0	17.0	10	
	20	HKS185-20	19.0	24.0	39.0	22.0	22.0	91.0	21.0	10	
240	10	HKS240-10	21.0	26.0	39.0	19.0	21.5	93.5	10.5	10	
	12	HKS240-12	21.0	26.0	39.0	19.0	21.5	93.5	13.0	10	
	14	HKS240-14	21.0	26.0	39.0	19.0	21.5	93.5	15.0	10	
	16	HKS240-16	21.0	26.0	39.0	19.0	21.5	93.5	17.0	10	
	20	HKS240-20	21.0	26.0	39.0	19.0	21.5	93.5	21.0	10	
300	12	HKS300-12	23.5	29.5	43.0	24.0	24.0	111.0	13.0	5	
	14	HKS300-14	23.5	29.5	43.0	24.0	24.0	111.0	15.0	5	
	16	HKS300-16	23.5	29.5	43.0	24.0	24.0	111.0	17.0	5	
	20	HKS300-20	23.5	29.5	43.0	24.0	24.0	111.0	21.0	5	
400	12	HKS400-12	27.0	34.0	49.0	24.0	24.0	114.0	13.0	5	
	14	HKS400-14	27.0	34.0	49.0	24.0	24.0	114.0	15.0	5	
	16	HKS400-16	27.0	34.0	49.0	24.0	24.0	114.0	17.0	5	
	20	HKS400-20	27.0	34.0	49.0	24.0	24.0	114.0	21.0	5	

for copper conductors



The HK cable lugs are made of electrolytic copper. The cable lugs are then electrolytically tin-plated. The dimensions correspond to the standard for electrical conductivity and mechanical stress. The cable lugs are all without a viewing hole.

- 1 Mechanical tools
- 2 Hydraulic tools



Insulation grommets made of PVC for subsequent insulation of the cable lugs see page 81



Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1		2
			d1(Ø)	D1(Ø)	B1	L3	L2	L1	d2			
2.5	4	HK2.5-4	2.3	4.2	7.5	5.0	4.0	17.0	4.3	100	HN1 HN5 TN70SE TN120SE	B35-45MD, B35-50MD, HT45-E, HT51, RH50, B500, HT61, RH 61, B600, HT131-C and all 13 tonne tools
	5	HK2.5-5	2.3	4.2	8.5	5.5	4.8	18.8	5.3	100		
	6	HK2.5-6	2.3	4.2	9.5	6.5	6.5	22.5	6.5	100		
6	6	HK6-6	3.5	6.5	12.0	7.5	6.5	27.5	6.5	100		
	8	HK6-8	3.5	6.5	15.0	10.0	10.0	33.0	8.5	100		
	10	HK6-10	3.5	6.5	17.0	12.0	12.0	37.0	10.5	100		
	12	HK6-12	3.5	6.5	19.0	13.0	13.0	41.0	13.0	100		
10	5	HK10-5	4.5	7.0	12.0	7.5	6.5	28.5	5.5	100		
	6	HK10-6	4.5	7.0	12.0	7.5	6.2	28.2	6.5	100		
	8	HK10-8	4.5	7.5	15.0	10.0	10.0	35.0	8.5	100		
	10	HK10-10	4.5	7.5	17.0	12.0	12.0	39.0	10.5	100		
	12	HK10-12	4.5	7.5	19.0	13.0	13.0	42.0	13.0	100		
16	5	HK16-5	5.5	8.5	12.0	6.5	5.5	31.5	5.5	100		
	6	HK16-6	5.5	8.5	12.0	7.5	6.2	33.2	6.5	100		
	8	HK16-8	5.5	8.5	15.0	9.5	8.5	37.5	8.4	100		
	10	HK16-10	5.5	8.5	17.0	11.5	10.5	41.5	10.5	100		
	12	HK16-12	5.5	8.5	19.0	13.0	13.0	46.0	13.0	100		
25	5	HK25-5	7.0	10.0	14.0	7.5	7.5	37.5	5.5	100		
	6	HK25-6	7.0	10.0	14.0	7.5	7.5	37.5	6.5	100		
	8	HK25-8	7.0	10.0	16.0	10.0	10.0	42.0	8.4	100		
	10	HK25-10	7.0	10.0	18.0	12.0	12.0	46.0	10.5	100		
	12	HK50-12	7.0	10.0	19.0	13.0	13.0	48.0	13.0	100		
35	6	HK35-6	8.5	12.0	17.0	7.5	7.5	39.5	6.5	50		
	8	HK35-8	8.5	12.0	17.0	10.0	10.0	44.0	8.4	50		
	10	HK35-10	8.5	12.0	19.0	12.0	12.0	49.0	10.5	50		
	12	HK35-12	8.5	12.0	21.0	13.0	13.0	51.0	13.0	50		
	14	HK35-14	8.5	12.0	21.0	14.5	14.5	54.5	15.0	50		
	16	HK35-16	8.5	12.0	26.0	16.0	16.0	58.0	17.0	50		
50	6	HK50-6	10.0	14.0	20.0	10.0	10.0	47.0	6.5	50		
	8	HK50-8	10.0	14.0	20.0	10.0	10.0	47.0	8.5	50		
	10	HK50-10	10.0	14.0	20.0	12.0	12.0	51.0	10.5	50		
	12	HK50-12	10.0	14.0	23.0	13.0	13.0	56.0	13.0	50		
	14	HK50-14	10.0	14.0	23.0	14.5	14.5	59.5	15.0	50		
	16	HK50-16	10.0	14.0	28.0	16.0	16.0	62.0	17.0	50		
	20	HK50-20	10.0	14.0	30.0	19.0	19.0	67.0	21.0	50		
70	6	HK70-6	12.0	16.5	23.0	10.0	10.0	53.0	6.5	25		
	8	HK70-8	12.0	16.5	23.0	10.0	10.0	53.0	8.5	25		
	10	HK70-10	12.0	16.5	23.0	12.0	12.0	56.0	10.5	20		
	12	HK70-12	12.0	16.5	23.0	13.0	13.0	59.0	13.0	20		
	14	HK70-14	12.0	16.5	23.0	14.5	14.5	62.5	15.0	20		
	16	HK70-16	12.0	16.5	28.0	16.0	16.0	66.0	17.0	15		
	20	HK70-20	12.0	16.5	30.0	19.0	19.0	72.0	21.0	15		
95	8	HK95-8	13.5	18.0	26.0	12.0	12.0	60.0	8.5	25		
	10	HK95-10	13.5	18.0	26.0	12.0	12.0	60.0	10.5	25		
	12	HK95-12	13.5	18.0	26.0	13.0	13.0	62.0	13.0	25		
	14	HK95-14	13.5	18.0	26.0	14.5	14.5	65.5	15.0	25		
	16	HK95-16	13.5	18.0	28.0	16.0	16.0	70.0	17.0	25		
	20	HK95-20	13.5	18.0	36.0	22.0	22.0	82.0	21.0	25		
120	8	HK120-8	15.0	19.5	28.0	14.0	14.0	65.0	8.5	25		
	10	HK120-10	15.0	19.5	28.0	14.0	14.0	65.0	10.5	25		
	12	HK120-12	15.0	19.5	28.0	14.0	14.0	65.0	13.0	25		
	14	HK120-14	15.0	19.5	28.0	15.0	15.0	67.0	15.0	25		
	16	HK120-16	15.0	19.5	30.0	16.0	16.0	70.0	17.0	25		
	20	HK120-20	15.0	19.5	30.0	22.0	22.0	85.0	21.0	25		
150	8	HK150-8	16.5	21.0	31.0	14.0	14.0	70.0	8.5	10		
	10	HK150-10	16.5	21.0	31.0	14.0	14.0	70.0	10.5	10		
	12	HK150-12	16.5	21.0	31.0	15.0	15.0	72.0	13.0	10		

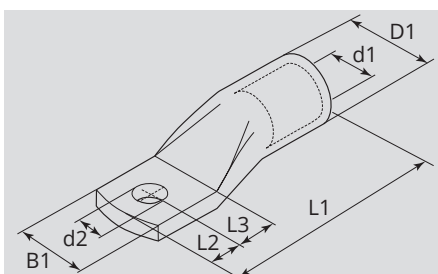
Commercially available tube cable lugs

for copper conductors

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm							PU	2
			d1(Ø)	D1(Ø)	B1	L3	L2	L1	d2		
150	14	HK150-14	16.5	21.0	31.0	15.0	15.0	72.0	15.0	10	B35-45MD, B35-50MD, HT45-E
	16	HK150-16	16.5	21.0	31.0	16.0	16.0	74.0	17.0	10	
	20	HK150-20	16.5	21.0	36.0	22.0	22.0	88.0	21.0	15	
185	10	HK185-10	19.0	24.0	35.0	18.0	18.0	83.0	10.5	10	
	12	HK185-12	19.0	24.0	35.0	18.0	18.0	83.0	13.0	10	
	14	HK185-14	19.0	24.0	35.0	18.0	18.0	83.0	15.0	10	
	16	HK185-16	19.0	24.0	35.0	18.0	18.0	83.0	17.0	10	
	20	HK185-20	19.0	24.0	39.0	22.0	22.0	91.0	21.0	10	
240	10	HK240-10	21.0	26.0	39.0	19.0	21.5	93.5	10.5	10	
	12	HK240-12	21.0	26.0	39.0	19.0	21.5	93.5	13.0	10	
	14	HK240-14	21.0	26.0	39.0	19.0	21.5	93.5	15.0	10	
	16	HK240-16	21.0	26.0	39.0	19.0	21.5	93.5	17.0	10	
	20	HK240-20	21.0	26.0	39.0	19.0	21.5	93.5	21.0	10	
300	12	HK300-12	23.5	29.5	43.0	24.0	24.0	111.0	13.0	5	HT51, RH50, B500, HT61, B600, RH61, HT131-C and all 13 tonne tools
	14	HK300-14	23.5	29.5	43.0	24.0	24.0	111.0	15.0	5	
	16	HK300-16	23.5	29.5	43.0	24.0	24.0	111.0	17.0	5	
	20	HK300-20	23.5	29.5	43.0	24.0	24.0	111.0	21.0	5	
400	12	HK400-12	27.0	34.0	49.0	24.0	24.0	114.0	13.0	5	
	14	HK400-14	27.0	34.0	49.0	24.0	24.0	114.0	15.0	5	
	16	HK400-16	27.0	34.0	49.0	24.0	24.0	114.0	17.0	5	
	20	HK400-20	27.0	34.0	49.0	24.0	24.0	114.0	21.0	5	

Tube cable lugs with narrow glass lugs



These tubular cable lugs are especially suitable for tight spaces in devices.

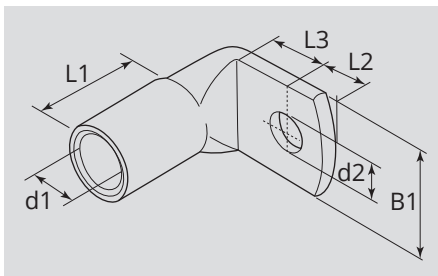
- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm							PU	1	2
			d1(Ø)	D1(Ø)	B1	L3	L2	L1	d2		ME5	TN70SE
35	6	HK35-T6-15	8.5	12.0	15.0	7.5	7.5	39.5	6.5	100	B35-45MD, B35-50MD, HT45-E	TN120SE
50	6	HK50-T6-15	10.0	14.0	15.0	10.0	10.0	47.0	6.5	50		
	8	HK50-T8-17	10.0	14.0	17.0	10.0	10.0	47.0	8.5	50		
	10	HK50-T10-19	10.0	14.0	19.0	12.0	11.5	50.5	10.5	50		
70	6	HK70-T6-17	12.0	16.5	17.0	10.0	10.0	53.0	6.5	50		
	8	HK70-T8-17	12.0	16.5	17.0	10.0	10.0	53.0	8.5	50		
	10	HK70-T10-19	12.0	16.5	19.0	12.0	11.5	55.5	10.5	50		
	12	HK70-T12-19	12.0	16.5	19.0	13.0	13.0	59.0	13.0	50		
95	6	HK95-T6-19	13.5	18.0	19.0	12.0	11.5	59.5	6.5	25		
	8	HK95-T8-19	13.5	18.0	19.0	12.0	11.5	59.5	8.5	25		
	10	HK95-T10-19	13.5	18.0	19.0	12.0	11.5	59.5	10.5	25		
	12	HK95-T12-19	13.5	18.0	19.0	13.0	13.0	62.0	13.0	25		
120	6	HK120-T6-19	15.0	19.5	19.0	14.0	11.5	62.5	6.5	25		
	8	HK120-T8-19	15.0	19.5	19.0	14.0	11.5	62.5	8.5	25		
	10	HK120-T10-19	15.0	19.5	19.0	14.0	11.5	62.5	10.5	25		
	12	HK120-T12-19	15.0	19.5	19.0	14.0	14.0	65.0	13.0	25		
150	6	HK150-T6-19	16.5	21.0	19.0	14.0	11.5	67.5	6.5	25		
	8	HK150-T8-19	16.5	21.0	19.0	14.0	11.5	67.5	8.5	25		
	10	HK150-T10-19	16.5	21.0	19.0	14.0	11.5	67.5	10.5	25		
	12	HK150-T12-19	16.5	21.0	19.0	15.0	15.0	72.0	13.0	25		
185	10	HK185-T10-24.5	19.0	24.0	24.5	18.0	11.5	76.5	10.5	25		
	12	HK185-T12-31	19.0	24.0	31.0	18.0	18.0	83.0	13.0	25		
	16	HK185-T16-31	19.0	24.0	31.0	18.0	18.0	83.0	17.0	25		
240	10	HK240-T10-31	21.0	26.0	31.0	19.0	11.5	83.5	10.5	15		
	12	HK240-T12-31	21.0	26.0	31.0	19.0	21.5	93.5	13.0	15		
	16	HK240-T16-31	21.0	26.0	31.0	19.0	21.5	93.5	17.0	15		

90° angled tube cable lugs

HK-L

for copper conductors



The 90° angled tubular cable lugs type HK-L are made of electrolytic copper tube. The tube dimensions correspond to the cable lugs of the HK series (from page 40). The cable lugs are all without an inspection hole.

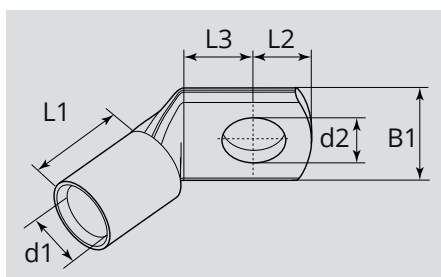
- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						PU	1		2
			d1(Ø)	B1	L3	L2	L1	d2		HN1	TN70SE	
6	5	HK6-L5	3.5	10.0	9.0	7.5	13.0	5.5	100	HN1	TN70SE	B35-45MD, B35-50MD, HT45-E HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	6	HK6-L6	3.5	12.0	10.0	7.5	13.0	6.5	100			
	8	HK6-L8	3.5	14.0	13.0	10.0	13.0	8.5	100			
10	5	HK10-L5	4.5	12.0	10.0	6.5	14.0	5.5	100	HN5	TN120SE	
	6	HK10-L6	4.5	12.0	10.0	6.5	14.0	6.5	100			
	8	HK10-L8	4.5	15.0	13.0	10.0	14.0	8.5	100			
	12	HK10-L12	4.5	18.0	13.0	12.0	14.0	13.0	100			
16	5	HK16-L5	5.5	12.0	10.0	7.5	17.0	5.5	100	HN5	TN120SE	
	6	HK16-L6	5.5	12.0	11.0	7.5	17.0	6.5	100			
	8	HK16-L8	5.5	15.0	13.0	10.0	17.0	8.5	100			
	10	HK16-L10	5.5	17.0	15.0	12.0	17.0	10.5	100			
25	5	HK25-L5	7.0	14.0	11.0	7.5	19.0	5.5	100	HN5	TN120SE	
	6	HK25-L6	7.0	14.0	11.0	7.5	19.0	6.5	100			
	8	HK25-L8	7.0	16.0	13.0	10.0	19.0	8.5	100			
	10	HK25-L10	7.0	18.0	15.0	12.0	19.0	10.5	100			
	12	HK25-L12	7.0	19.0	18.0	13.0	19.0	13.0	100			
35	6	HK35-L6	8.5	17.0	11.0	7.5	23.0	6.5	50	HN5	TN120SE	
	8	HK35-L8	8.5	17.0	13.0	10.0	23.0	8.5	50			
	10	HK35-L10	8.5	19.0	15.0	12.0	23.0	10.5	50			
	12	HK35-L12	8.5	21.0	18.0	13.0	23.0	13.0	50			
50	6	HK50-L6	10.0	20.0	13.0	10.0	25.0	6.5	50	HN5	TN120SE	
	8	HK50-L8	10.0	20.0	13.0	10.0	25.0	8.5	50			
	10	HK50-L10	10.0	20.0	16.0	12.0	25.0	10.5	50			
	12	HK50-L12	10.0	23.0	18.0	13.0	25.0	13.0	50			
70	6	HK70-L6	12.0	23.0	13.0	10.0	29.0	6.5	20	HN5	TN120SE	
	8	HK70-L8	12.0	23.0	14.0	10.0	29.0	8.5	20			
	10	HK70-L10	12.0	23.0	16.0	12.0	29.0	10.5	20			
	12	HK70-L12	12.0	23.0	18.0	13.0	29.0	13.0	20			
95	8	HK95-L8	13.5	26.0	14.0	12.0	33.0	8.5	25	HN5	TN120SE	
	10	HK95-L10	13.5	26.0	17.0	12.0	33.0	10.5	25			
	12	HK95-L12	13.5	26.0	18.0	13.0	33.0	13.0	25			
	16	HK95-L16	13.5	28.0	22.0	16.0	33.0	17.0	20			
120	8	HK120-L8	15.0	28.0	16.0	14.0	36.0	8.5	20	HN5	TN120SE	
	10	HK120-L10	15.0	28.0	17.0	14.0	36.0	10.5	20			
	12	HK120-L12	15.0	28.0	18.0	14.0	36.0	13.0	25			
	16	HK120-L16	15.0	30.0	22.0	16.0	36.0	17.0	20			
150	8	HK150-L8	16.5	31.0	16.0	14.0	40.0	8.5	25	HN5	TN120SE	
	10	HK150-L10	16.5	31.0	17.0	14.0	40.0	10.5	10			
	12	HK150-L12	16.5	31.0	18.0	15.0	40.0	13.0	10			
	16	HK150-L16	16.5	31.0	22.0	16.0	40.0	17.0	15			
	20	HK150-L20	16.5	36.0	24.0	22.0	40.0	21.0	15			
185	10	HK185-L10	19.0	35.0	22.0	18.0	42.0	10.5	10	HN5	TN120SE	
	12	HK185-L12	19.0	35.0	22.0	18.0	42.0	13.0	10			
	16	HK185-L16	19.0	35.0	22.0	18.0	42.0	17.0	10			
	20	HK185-L20	19.0	39.0	24.0	22.0	42.0	21.0	10			
240	10	HK240-L10	21.0	39.0	22.0	21.5	45.0	10.5	10	HN5	TN120SE	
	12	HK240-L12	21.0	39.0	22.0	21.5	45.0	13.0	10			
	16	HK240-L16	21.0	39.0	22.0	21.5	45.0	17.0	10			
	20	HK240-L20	21.0	39.0	24.0	21.5	45.0	21.0	10			
300	12	HK300-L12	23.5	43.0	24.0	24.0	56.0	13.0	5	HN5	TN120SE	

45° angled tube cable lugs

HK-L-45

for copper conductors



The 45° angled tubular cable lugs type HK-L-45 are made of electrolytic copper tube. The tube dimensions correspond to the cable lugs of the HK series (from page 40). The cable lugs are all without an inspection hole.

- 1 Mechanical tools
- 2 Hydraulic tools

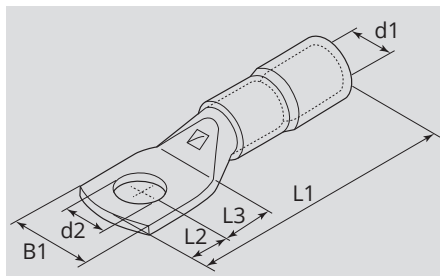
Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm					PU	1		2
			d1(Ø)	B1	L3	L2	L1		d2	HN1	
6	5	HK6-L5-45	3.5	10.0	9.0	7.5	9.0	5.5	100	HN1	TN70SE
	6	HK6-L6-45	3.5	12.0	10.0	7.5	9.0	6.5	100		
	8	HK6-L8-45	3.5	14.0	13.0	10.0	9.0	8.5	100		
10	5	HK10-L5-45	4.5	12.0	10.0	6.5	10.0	5.5	100	HN5	TN120SE
	6	HK10-L6-45	4.5	12.0	10.0	6.5	10.0	6.5	100		
	8	HK10-L8-45	4.5	15.0	13.0	10.0	10.0	8.5	100		
16	5	HK16-L5-45	5.5	12.0	10.0	7.5	13.0	5.5	100		B35-45MD, B35-50MD, HT45-E HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	6	HK16-L6-45	5.5	12.0	11.0	7.5	13.0	6.5	100		
	8	HK16-L8-45	5.5	15.0	13.0	10.0	13.0	8.5	100		
	10	HK16-L10-45	5.5	17.0	15.0	12.0	13.0	10.5	100		
25	5	HK25-L5-45	7.0	14.0	11.0	7.5	15.0	5.5	100		
	6	HK25-L6-45	7.0	14.0	11.0	7.5	15.0	6.5	100		
	8	HK25-L8-45	7.0	16.0	13.0	10.0	15.0	8.5	100		
	10	HK25-L10-45	7.0	18.0	15.0	12.0	15.0	10.5	100		
35	6	HK35-L6-45	8.5	17.0	11.0	7.5	17.0	6.5	50		
	8	HK35-L8-45	8.5	17.0	13.0	10.0	17.0	8.5	50		
	10	HK35-L10-45	8.5	19.0	15.0	12.0	17.0	10.5	50		
50	6	HK50-L6-45	10.0	20.0	13.0	10.0	19.0	6.5	50		
	8	HK50-L8-45	10.0	20.0	13.0	10.0	19.0	8.5	50		
	10	HK50-L10-45	10.0	20.0	16.0	12.0	19.0	10.5	50		
	12	HK50-L12-45	10.0	23.0	18.0	13.0	19.0	13.0	50		
70	6	HK70-L6-45	12.0	23.0	13.0	10.0	21.0	6.5	25		
	8	HK70-L8-45	12.0	23.0	14.0	10.0	21.0	8.5	25		
	10	HK70-L10-45	12.0	23.0	16.0	12.0	21.0	10.5	25		
95	8	HK95-L8-45	13.5	26.0	14.0	12.0	25.0	8.5	25		
	10	HK95-L10-45	13.5	26.0	17.0	12.0	25.0	10.5	25		
	12	HK95-L12-45	13.5	26.0	18.0	13.0	25.0	13.0	25		
120	8	HK120-L8-45	15.0	28.0	16.0	14.0	26.0	8.5	25		
	10	HK120-L10-45	15.0	28.0	17.0	14.0	26.0	10.5	25		
	12	HK120-L12-45	15.0	28.0	18.0	14.0	26.0	13.0	25		
150	8	HK150-L8-45	16.5	31.0	16.0	14.0	30.0	8.5	10		
	10	HK150-L10-45	16.5	31.0	17.0	14.0	30.0	10.5	10		
	12	HK150-L12-45	16.5	31.0	18.0	15.0	30.0	13.0	10		
185	10	HK185-L10-45	19.0	35.0	22.0	18.0	30.0	10.5	10		
	12	HK185-L12-45	19.0	35.0	22.0	18.0	30.0	13.0	10		
	16	HK185-L16-45	19.0	35.0	22.0	18.0	30.0	17.0	10		
240	10	HK240-L10-45	21.0	39.0	22.0	21.5	35.0	10.5	10		
	12	HK240-L12-45	21.0	39.0	22.0	21.5	35.0	13.0	10		
	16	HK185-L16-45	21.0	35.0	22.0	21.5	35.0	17.0	10		

Nylon-insulated tube cable lugs

ANE-M



for finely-stranded conductors



The cable lugs type ANE-M are made of seamless copper tube. The carefully electrolytically tinned surface provides excellent protection against corrosion on the one hand and produces a low electrical contact resistance on the contact surface on the other. The tube area is designed to achieve optimum mechanical strength and electrical conductivity.

The nylon insertion nozzle allows easy and clean insertion of the cable strands. The insulated cable entry is made of black nylon. Thanks to the nylon grommet, there is no need for any further insulating agents such as rubber grommets or shrink tubing. In addition, the nylon grommet provides a stop for cable entry.

Thermal properties:
from - 20 to + 115 °C continuous
(short-term to 130 °C).

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ² stranded	Ø Bolt	Item number	Dimensions in mm						PU	1		2
			d1(Ø)	B1	L3	L2	L1	d2		HNN3	HNN4	
10	4	ANE2-M4	8.0	10.0	5.0	4.0	34.1	4.3	100			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	5	ANE2-M5	8.0	10.0	6.5	6.0	37.6	5.3	100			
	6	ANE2-M6	8.0	11.0	7.0	6.0	38.1	6.4	100			
	8	ANE2-M8	8.0	15.0	9.0	8.0	42.1	8.4	100			
	10	ANE2-M10	8.0	18.0	11.0	10.0	46.1	10.5	100			
	12	ANE2-M12	8.0	19.0	14.0	12.0	51.1	13.2	100			
16	4	ANE3-M4	9.2	11.5	5.0	4.0	38.6	4.3	100			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	5	ANE3-M5	9.2	11.5	6.5	6.0	42.1	5.3	100			
	6	ANE3-M6	9.2	11.5	7.0	6.0	42.6	6.4	100			
	8	ANE3-M8	9.2	15.0	9.0	8.0	46.6	8.4	100			
	10	ANE3-M10	9.2	18.0	11.0	10.0	50.6	10.5	100			
	12	ANE3-M12	9.2	20.0	14.0	12.0	55.6	13.2	100			
25	4	ANE5-M4	11.1	14.0	5.0	4.0	41.0	4.3	100			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	5	ANE5-M5	11.1	14.0	6.5	6.0	44.5	5.3	100			
	6	ANE5-M6	11.1	14.0	7.0	6.0	45.0	6.4	100			
	8	ANE5-M8	11.1	15.0	9.0	8.0	49.0	8.4	100			
	10	ANE5-M10	11.1	18.0	11.0	10.0	53.0	10.5	100			
	12	ANE5-M12	11.1	21.0	14.0	12.0	58.0	13.2	50			
35	6	ANE7-M6	13.6	17.0	7.0	6.0	50.0	6.4	50			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	8	ANE7-M8	13.6	17.0	9.0	8.0	54.0	8.4	50			
	10	ANE7-M10	13.6	19.0	11.0	10.0	58.0	10.5	50			
	12	ANE7-M12	13.6	21.0	14.0	12.0	63.0	13.2	50			
50	6	ANE10-M6	13.8	19.0	8.0	7.0	55.0	6.4	50			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	8	ANE10-M8	13.8	19.0	9.0	8.0	57.0	8.4	50			
	10	ANE10-M10	13.8	20.0	11.0	10.0	61.0	10.5	50			
	12	ANE10-M12	13.8	21.0	14.0	12.0	66.0	13.2	50			
70	6	ANE14-M6	15.8	21.0	8.0	7.0	61.0	6.4	25			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	8	ANE14-M8	15.8	21.0	9.0	8.0	63.0	8.0	25			
	10	ANE14-M10	15.8	21.0	11.0	10.0	67.0	10.5	25			
	12	ANE14-M12	15.8	22.0	14.0	12.0	72.0	13.2	25			
	14	ANE14-M14	15.8	25.0	16.0	14.0	76.0	15.0	25			
	16	ANE14-M16	15.8	27.0	18.0	16.0	80.0	17.0	25			
95	8	ANE19-M8	18.0	25.0	9.0	8.0	73.0	8.4	25			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	10	ANE19-M10	18.0	25.0	11.0	10.0	77.0	10.5	25			
	12	ANE19-M12	18.0	25.0	14.0	12.0	82.0	13.2	25			
	14	ANE19-M14	18.0	25.0	16.0	14.0	86.0	15.0	25			
	16	ANE19-M16	18.0	27.0	18.0	16.0	80.0	17.0	25			
	20	ANE19-M20	18.0	31.5	22.0	20.0	113.0	21.0	15			
120	10	ANE24-M10	20.0	28.5	11.0	10.0	77.7	10.5	25			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	12	ANE24-M12	20.0	28.5	14.0	12.0	86.5	13.2	25			
	14	ANE24-M14	20.0	28.5	16.0	14.0	88.5	15.0	25			
	16	ANE24-M16	20.0	28.5	18.0	16.0	90.5	17.0	25			
	20	ANE24-M20	20.0	31.5	22.0	20.0	113.0	21.0	15			
	25	ANE24-M25	20.0	35.0	25.0	25.0	125.0	25.0	15			
150	12	ANE30-M12	23.0	31.5	16.0	14.0	101.0	13.2	15			TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
	14	ANE30-M14	23.0	31.5	18.0	16.0	105.0	15.0	15			
	16	ANE30-M16	23.0	31.5	19.0	17.0	107.0	17.0	15			
	20	ANE30-M20	23.0	31.5	22.0	20.0	113.0	21.0	15			
	25	ANE30-M25	23.0	35.0	25.0	25.0	125.0	25.0	15			
	30	ANE30-M30	23.0	38.0	28.0	28.0	135.0	28.0	15			

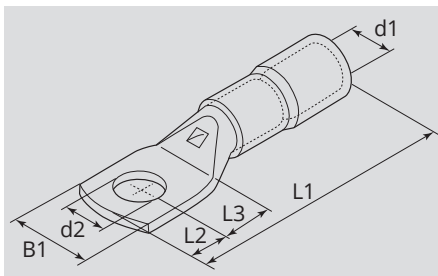
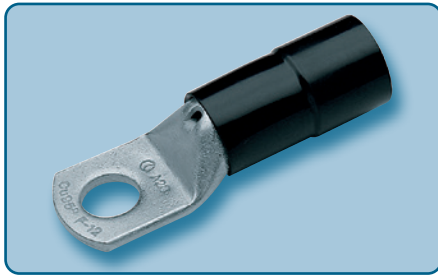


Nylon-insulated tube cable lugs

ANE-M



for finely-stranded conductors according to DIN EN60228 or VDE 0295 Class 5 and 6



Tube cable lugs with ANE type insulation grommets are designed to meet customer requirements. The inner diameter is adapted so that a simple insertion of finely stranded cables is possible without any problems.

Thermal properties:
from -20 to +115 °C continuous
(short-term up to 130 °C).

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ² stranded	Ø Bolt	Item number	Dimensions in mm						PU	1	2
			d1(Ø)	B1	L3	L2	L1	d2			
35	6	ANE9-M6-15 *	13.6	15.0	8.0	7.0	54.0	6.4	50	TNN70 TNN120 B35-50MD HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools	
	8	ANE9-M8	13.6	17.0	9.0	8.0	56.0	8.4	50		
	10	ANE9-M10	13.6	18.5	11.0	10.0	60.0	10.5	50		
	12	ANE9-M12	13.6	21.0	14.0	12.0	65.0	13.2	50		
50	6	ANE12-M6-15 *	15.7	15.0	8.0	7.0	59.5	6.4	25		
	8	ANE12-M8	15.7	19.8	9.0	8.0	61.5	8.4	25		
	10	ANE12-M10	15.7	19.8	11.0	10.0	65.5	10.5	25		
	10	ANE12-M10-19 *	15.7	19.0	11.0	10.0	65.5	10.5	25		
70	12	ANE12-M12	15.7	22.0	14.0	12.0	70.5	13.2	25		
	6	ANE17-M6	17.9	23.0	8.0	7.0	63.8	6.4	25		
	8	ANE17-M8	17.9	23.0	9.0	8.0	65.8	8.4	25		
	10	ANE17-M10	17.9	23.0	11.0	10.0	69.8	10.5	25		
	10	ANE17-M10-19 *	17.9	19.0	11.0	10.0	69.8	10.5	25		
	12	ANE17-M12	17.9	23.0	14.0	12.0	74.8	13.2	25		
	14	ANE17-M14	17.9	25.0	15.5	12.0	76.3	15.0	25		
	16	ANE17-M16	17.9	27.0	16.5	13.5	78.8	17.0	25		
95	8	ANE20-M8	20.0	27.0	9.0	8.0	70.6	8.4	25		
	10	ANE20-M10	20.0	27.0	11.0	10.0	74.6	10.5	25		
	12	ANE20-M12	20.0	27.0	14.0	12.0	79.6	13.2	25		
	14	ANE20-M14	20.0	27.0	15.5	12.0	81.1	15.0	25		
	16	ANE20-M16	20.0	27.0	16.5	13.5	83.6	17.0	25		
120	10	ANE29-M10	22.4	30.0	11.0	10.0	81.5	10.5	25		
	12	ANE29-M12	22.4	30.0	14.0	12.0	86.5	13.2	25		
	14	ANE29-M14	22.4	30.0	15.5	12.0	88.5	15.0	25		
	16	ANE29-M16	22.4	30.0	16.5	13.5	90.5	17.0	25		
	20	ANE29-M20	22.4	30.0	22.0	20.0	102.5	21.0	25		
150	12	ANE35-M12	25.0	34.2	16.0	14.0	95.0	13.2	15		
	14	ANE35-M14	25.0	34.2	18.0	16.0	99.0	15.0	15		
	16	ANE35-M16	25.0	34.2	19.0	17.0	101.0	17.0	15		
	20	ANE35-M20	25.0	34.2	22.0	20.0	107.0	21.0	15		

* Cable lugs with narrow lug e.g. for compact switches

PC-insulated tube cable lugs halogenfree

P-M



Material: copper
Electrolytically tinned

Thermal properties:
from -20 to +115 °C continuous
(short-term up to 130 °C).

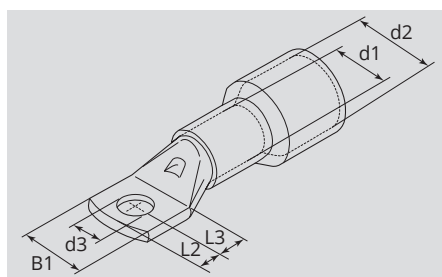
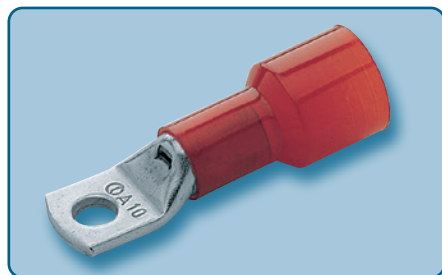
Conductor cross-section mm ²	Ø Bolt	Item number	Dimensions in mm						Insulated color	PU
			d1(Ø)	B1	L3	L2	L1	d2		
0.25 ÷ 1.5	3	P03-M3	4.0	6.0	4.5	3.5	22.0	3.2	Red	100
	3.5	P03-M3.5	4.0	6.5	4.5	3.5	22.0	3.7		100
	4	P03-M4	4.0	6.5	5.0	4.0	23.0	4.3		100
	5	P03-M5	4.0	7.5	5.5	4.5	24.0	5.3		100
	6	P03-M6	4.0	9.0	6.0	5.0	25.0	6.4		100
	6	P06-M6	4.9	9.0	6.0	5.0	25.6	6.4		100
1.5 ÷ 2.5	3	P06-M3	4.9	6.0	4.5	3.5	22.6	3.2	Blue	100
	3.5	P06-M3.5	4.9	6.5	4.5	3.5	22.6	3.7		100
	4	P06-M4	4.9	7.5	5.0	4.0	23.6	4.3		100
	5	P06-M5	4.9	8.5	5.5	4.5	24.6	5.3		100
	6	P06-M6	4.9	9.0	6.0	5.0	25.6	6.4		100
	8	P06-M8	4.9	12.0	9.0	8.0	31.3	8.4		100
	3	P1-M3	6.7	7.5	4.5	3.5	28.0	3.2	Yellow	100
	3.5	P1-M3.5	6.7	7.5	4.5	3.5	28.0	3.7		100
4 ÷ 6	4	P1-M4	6.7	8.0	5.0	4.0	30.0	4.3		100
	5	P1-M5	6.7	9.0	6.5	6.0	32.3	5.3		100
	6	P1-M6	6.7	11.0	7.0	6.0	32.8	6.4		100
	8	P1-M8	6.7	14.0	9.0	8.0	36.8	8.4		100
	10	P1-M10	6.7	16.5	11.0	10.0	41.4	10.5		100
	12	P1-M12	6.7	20.0	16.0	12.0	53.5	13.2		100

Nylon-insulated ring cable lugs



AN-M
IN-M
EN-M

short-circuit-proof copper connecting cables



The dimensions M, N and B correspond to those of Cembre cable lugs type A-M (from page 30).

These cable lugs made of electrolytic copper have been developed for short-circuit-proof cables.

The dimensions are selected so that a secure connection is guaranteed and at the same time tensile forces and vibrations have no influence on the connection. The cable lugs are annealed and tinned after mechanical processing.

Different cable lugs with different internal diameters of the insulation grommets are available for each cable cross-section. This grommet encloses the cable and prevents excessive bending of the cable at the cable lug end.

The diameter of the screw must be specified when ordering the cable lugs, e.g. AN 14-M8.

The cable lugs can also be used on stranded cables, if with oval crimp inserts MN ... RF are crimped (see page 150).

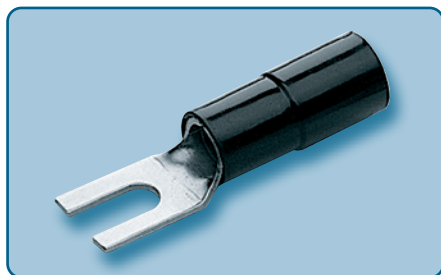
Thermal properties:
from - 20 to + 115 °C continuous
(short-term up to 130 °C).

- 1 Mechanical tools
- 2 Hydraulic tools

Conductor cross-section mm ² stranded finely stranded	Item number	Insulation		1	2
		Ø mm	colour		
1.5 – 2.5	AN06-M.....	4.1	■	HNIN3	
	IN06-M.....	5.3	■		
	ENR06-M.....	6.0	■		
	EN06-M.....	6.9	■		
4 – 6	AN1-M.....	5.3	■	HNIN4	
	IN1-M.....	6.6	■		
	ON1-M.....	7.6	■		
	UN1-M.....	8.7	■		
	EN1-M.....	14.1	■		
10	AN2-M.....	8.0	■	TNN70	
	IN2-M.....	10.8	■		
	ENR2-M.....	12.5	■		
	EN2-M.....	15.1	■		
16	AN3-M.....	9.2	■	TNN120	
	EN3-M.....	11.7	■		
	IN3-M.....	16.9	■		
25	AN5-M.....	11.1	■	B35-50MD	
35 25 – 35	AN7-M.....	11.9	■		
	EN7-M.....	13.0	■		
	IN7-M.....	18.7	■		
50 35 – 50	AN10-M.....	13.8	■	HT51, RH50, B500, HT61, RH61, B600	
	IN10-M.....	15.0	■		
	ENR10-M.....	17.3	■		
	EN10-M.....	20.2	■		
70 50 – 70	AN14-M.....	15.8	■	HT131-C and all 13 tonne tools	
	IN14-M.....	16.9	■		
	EN14-M.....	21.9	■		
70	AN17-M.....	17.9	■	ECW-H3D	
95 70 – 95	AN19-M.....	18.0	■		
	EN19-M.....	19.6	■		
	IN19-M.....	24.3	■		
120 95 – 120	AN24-M.....	20.0	■		
	IN24-M.....	22.2	■		
	EN24-M.....	27.1	■		
150 120 – 150	AN30-M.....	23.0	■		
	EN30-M.....	24.5	■		
	IN30-M.....	29.0	■		
185 150 – 185	INR37-M.....	29.0	■		
	IN37-M.....	31.6	■		
240 185 – 240	AN48-M.....	29.4	■		
	IN48-M.....	34.5	■		
300 240	EN60-M.....	33.5	■		
	IN60-M.....	38.0	■		
400 300	EN80-M.....	37.7	■		
	IN80-M.....	41.1	■		

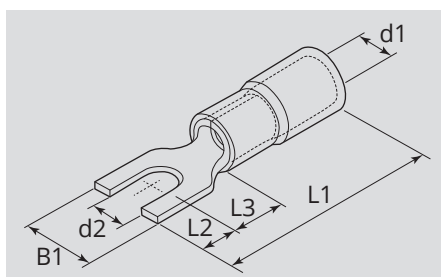
Nylon-insulated forked cable lugs

ANE-U



ANE-U cable lugs are stamped, formed and soldered from copper sheet. The nylon insertion nozzle allows easy and clean insertion of the cable strands.

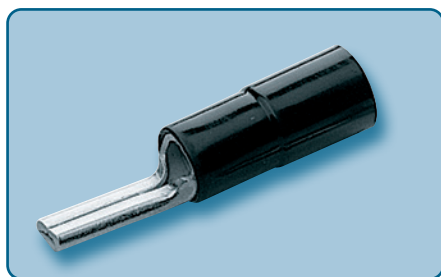
Thermal properties: from – 20 to + 115 °C continuous (short-term to 130 °C).



Conductor cross-section mm ² finely stranded	Ø Bolt	Item number	Dimensions in mm						PU	1	2
			d1(Ø)	B1	L3	L2	L1	d2			
10	4	ANE2-U4	8.0	9.8	7.5	7	35.1	4.3	100	HNN3 HNN4, TNN70, TNN120	B35-50MD, HT 51, RH50, B500, HT61, RH61, B600, HT131-C and all 13-tonne tools
	5	ANE2-U5	8.0	11.5	7.5	7	35.1	5.3	100		
16	4	ANE3-U4	9.2	10.0	10.0	8	41.1	4.3	100		
	5	ANE3-U5	9.2	11.5	10.0	8	41.1	5.3	100		

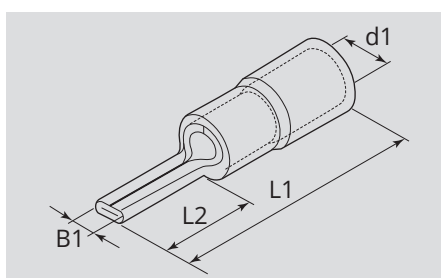
Nylon-insulated pin cable lugs

ANE-P



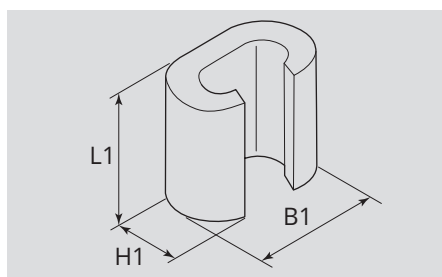
ANE-P cable lugs are stamped, formed and soldered from copper sheet.

Thermal properties: from – 20 to + 115 °C continuous (short-term to 130 °C).



Conductor cross-section mm ² finely stranded	Item number	Dimensions in mm				PU	1	2
		d1(Ø)	B1	L2	L1			
10	ANE2-P12	8.0	4.3	14.5	35.1	100	HNN3 HNN4 TNN70, TNN120	B35-50MD, HT 51, RH50, B500, HT61, RH61, B600, HT131-C and all 13-tonne tools
16	ANE3-P14	9.2	5.5	18.0	41.1	100		
25	ANE5-P16	11.1	7.0	20.3	45.0	100		
35	ANE7-P20	13.6	8.0	24.5	55.0	50		

Tinned branch terminals



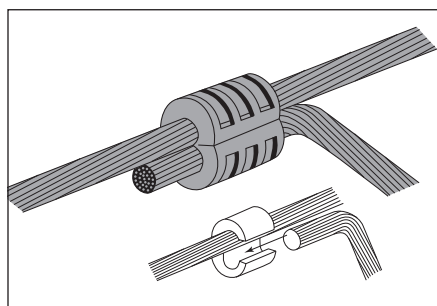
Conductor cross-section mm ²		Item number	Dimensions in mm			PU	1	2	
Main conductor	Branch conductor		L1	B1	H1				
6 – 2.5	6 – 1.5	C6-C6ST	9.0	9.8	6.4	100	HP4-C10	ME5	B35-45MD, B35-50MD, HT45-E HT51, RH450, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools
10	10 – 1.5	C10-C10ST	12.0	12.6	8.4	100			
16	16 – 1.5	C16-C16ST	17.0	19.4	12.0	100			
25 – 16	10 – 1.5	C25-C10ST	17.0	19.8	13.0	50			
25	25 – 16	C25-C25ST	17.0	21.4	13.0	50			
40 – 35	16 – 1.5	C35-C16ST	21.0	24.6	15.4	25			
40 – 35	40 – 25	C35-C35ST	21.0	26.6	15.6	25			
50	25 – 10								
50	25 – 4	C50-C25ST	25.0	32.9	21.0	25			
50	50 – 35	C50-C50ST	26.0	33.0	21.0	25			
70 – 63	25 – 1.5	C70-C25NST	21.0	26.4	17.5	25			
70 – 50	40 – 4	C70-C35ST	28.0	33.0	21.0	25			
70 – 50	70 – 35	C70-C70ST	28.0	34.0	21.0	25			
100 – 95	40 – 4	C95-C35ST	29.0	40.6	26.0	25			
100 – 95	70 – 40	C95-C70ST	29.0	41.0	26.0	25			
100 – 95	100 – 63	C95-C95ST	29.0	41.0	26.0	25			
125 – 110	125 – 25	C120-C120ST	30.0	45.0	28.0	25			
160 – 150	125 – 25	C150-C120ST	31.0	45.0	28.0	25			
150	150 – 63	C150-C150ST	30.0	45.0	28.0	25			
185	100 – 16	C185-C95ST	31.0	45.0	28.0	25			
185 – 120	185 – 120	C185-C185ST	22.6	68.0	34.0	15			
240 – 150	120 – 95	C240-C120ST	22.6	68.0	34.0	15			

The C terminals were developed for various applications, such as branching of overhead lines, branching of earthing cables and assembly of earthing systems. They are made of electrolytic copper and annealed. Annealing improves the structural material properties and enables the use of different conductor cross-sections. Each branch terminal is stamped:

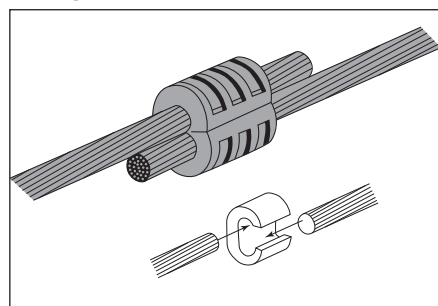
Company logo, type, cross-section of the main conductor, cross-section of the branch conductor, number of crimping cycles, crimp insert designation

- 1 Mechanical tools
- 2 Hydraulic tools

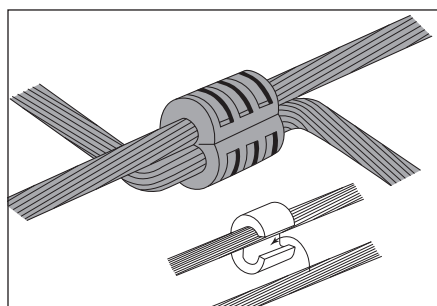
T-connection



Straight connection

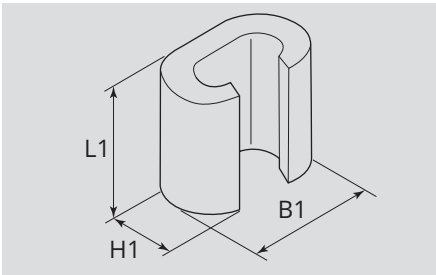
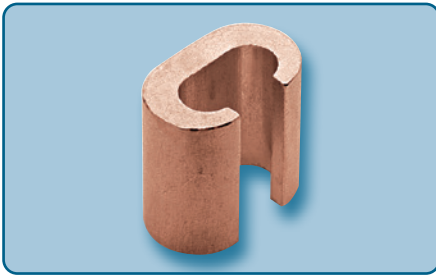


Cross connection (between two continuous conductors)

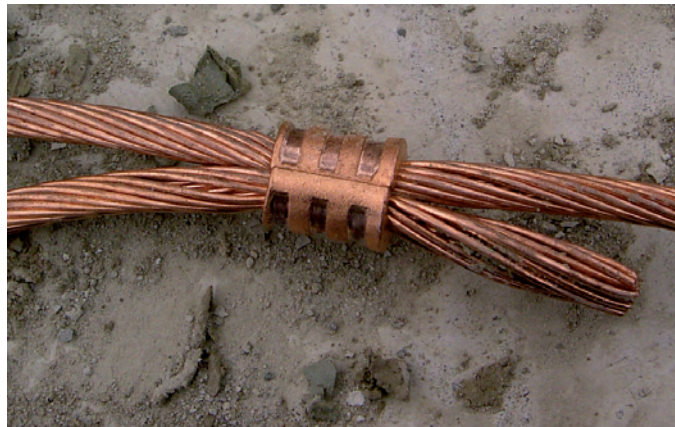


Conductor cross-section mm ²	Item number
25 – 25	C35-C16
35 – 35	C35-C35
50 – 50	C70-C70
63 – 63	C95-C70
70 – 70	
95 – 95	C150-C120
120 – 120	
125 – 125	C150-C150
120 – 120	C185-C95
125 – 125	

Bare branch terminals

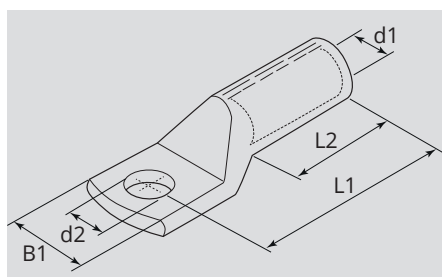


Conductor cross-section mm ²		Item number	Dimensions in mm			PU	1		2	
Main conductor	Branch conductor		L1	B1	H1		HP4-C10	ME5	B35-45MD, B35-50MD, HT45-E HT51, RH50, B500, HT61, RH61, B600 HT131-C and all 13 tonne tools	ECW-H3D
6 – 2.5	6 – 1.5	C6-C6	9.0	9.8	6.4	100				
10	10 – 1.5	C10-C10	12.0	12.6	8.4	100				
16	16 – 1.5	C16-C16	17.0	19.4	12.0	100				
25-16	10 – 1.5	C25-C10	17.0	19.8	13.0	50				
25	25 – 16	C25-C25	17.0	21.4	13.0	50				
40 – 35	16 – 1.5	C35-C16	21.0	24.6	15.4	25				
40 – 35	40 – 25	C35-C35	21.0	26.6	15.6	25				
50	25 – 10									
50	25 – 4	C50-C25	25.0	32.9	21.0	25				
50	50 – 35	C50-C50	26.0	33.0	21.0	25				
70 – 63	25 – 1.5	C70-C25N	21.0	26.4	17.5	25				
70 – 50	40 – 4	C70-C35	28.0	33.0	21.0	25				
70 – 50	70 – 35	C70-C70	28.0	34.0	21.0	25				
100 – 95	40 – 4	C95-C35	29.0	40.6	26.0	25				
100 – 95	70 – 40	C95-C70	29.0	41.0	26.0	25				
100 – 95	100 – 63	C95-C95	29.0	41.0	26.0	25				
125 – 110	125 – 25	C120-C120	30.0	45.0	28.0	25				
160 – 150	125 – 25	C150-C120	31.0	45.0	28.0	25				
150	150 – 63	C150-C150	30.0	45.0	28.0	25				
185	100 – 16	C185-C95	31.0	45.0	28.0	25				
185 – 120	185 – 120	C185-C185	22.6	68.0	34.0	15				
240 – 150	120 – 95	C240-C120	22.6	68.0	34.0	15				



Application example: Ring earthing

for strain-relieved connections and aluminium ropes according to DIN EN 50182



The cable lugs type AAD..-M. are made of aluminium tube.

The aluminium tube has at least a purity of 99.5%.

The cable lugs are suitable for aluminium ropes according to DIN EN 50182 up to 10 kV.

All cable lugs are filled with a special contact grease that destroys the oxidation layer in the crimping area during crimping and thus guarantees optimum crimping.

The tube end is closed with a cap for storage and transport.

The following information is visible on the cable lug:

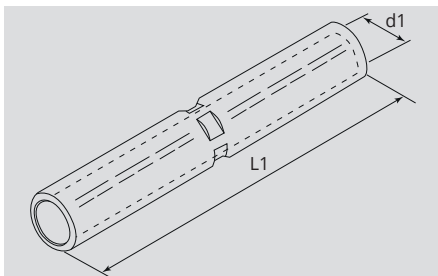
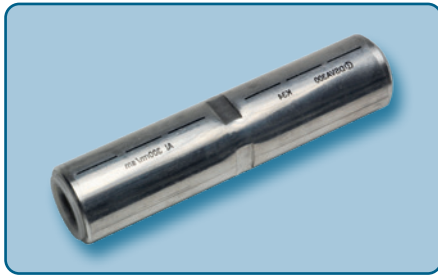
- Cembre logo
- Cable lug designation
- Cross-section
- Connecting bolt
- Number and position of crimping operations
- Crimp index according to DIN 48083

Conductor cross-section mm ²		Ø Bolt	Item number	Key figure	Dimensions in mm					PU	2
rm/ sm	re/ se				d1(Ø)	B1	L1	d2	L2		
16	25	8	AAD16-M8	12	5.8	18	52	8.5	32	50	B35-45MD B35-50MD HT45-E HT51, RH50, B500 HT61, RH61, B600, HT81-UD, RHU81-D HT131-C and all 13 tonne tools FCW-H3D, RHU450, RHU520
		10	AAD16-M10	12	5.8	18	52	10.5	32	50	
25	35	8	AAD25-M8	13	6.8	19	60	8.5	37	50	
		10	AAD25-M10	12	6.8	19	60	10.5	37	50	
35	50	10	AAD35-M10	14	8.0	21	67	10.5	42	35	
		12	AAD35-M12	14	8.0	21	67	13.0	42	35	
50	70	10	AAD50-M10	16	9.8	25	72	10.5	42	30	
		12	AAD50-M12	16	9.8	25	72	13.0	42	30	
70	95	10	AAD70-M10	18	11.2	28	83	10.5	52	15	
		12	AAD70-M12	18	11.2	28	83	13.0	52	15	
95	120	10	AAD95-M10	22	13.2	32	90	10.5	55	10	
		12	AAD95-M12	22	13.2	32	90	13.0	55	10	
		16	AAD95-M16	22	13.2	34	90	17.0	55	10	
120	150	10	AAD120-M10	22	14.7	32	91	10.5	55	10	
		12	AAD120-M12	22	14.7	32	91	13.0	55	10	
		16	AAD120-M16	22	14.7	34	91	17.0	55	10	
150	185	10	AAD150-M10	25	16.5	35	104	10.5	60	8	
		12	AAD150-M12	25	16.5	35	104	13.0	60	8	
		16	AAD150-M16	25	16.5	35	104	17.0	60	8	
		20	AAD150-M20	25	16.5	41	104	21.0	60	8	
185	240	12	AAD185-M12	28	18.3	40	105	13.0	60	15	
		16	AAD185-M16	28	18.3	40	105	17.0	60	15	
		20	AAD185-M20	28	18.3	40	105	21.0	60	15	
240	300	12	AAD240-M12	32	21.0	45	119	13.0	70	12	
		16	AAD240-M16	32	21.0	45	119	17.0	70	12	
		20	AAD240-M20	32	21.0	45	119	21.0	70	12	
300		12	AAD300-M12	34	23.3	49	125	13.0	70	9	
		16	AAD300-M16	34	23.3	49	125	17.0	70	9	
		20	AAD300-M20	34	23.3	49	125	21.0	70	9	
400		12	AAD400-M12	38	26.0	58	140	13.0	100	3	
		16	AAD400-M16	38	26.0	58	140	17.0	100	3	
		20	AAD400-M20	38	26.0	58	140	21.0	100	3	
500		16	AAD500-M16	44	29.0	63	160	17.0	100	3	
		20	AAD500-M20	44	29.0	63	160	21.0	100	3	

rm/sm = round stranded/rigid stranded
re/se = round stranded/sector stranded

- 1 Mechanical tools
- 2 Hydraulic tools

for strain-relieved connections and aluminium ropes according to DIN EN 50182



The crimping through connectors type DSVA... are manufactured according to DIN 46267 part 2.

The aluminium tube has a purity of at least 99.5%.

The crimping through connectors are suitable for aluminium ropes according to DIN EN 50182 up to 10 kV.

All connectors are filled with a special contact grease, which protects the oxidation layer during crimping in the crimping area during crimping and thus guarantees optimum crimping.

The tube end is closed with a cap for storage and transport.

The following information can be seen on the connector:

- Cembre logo
- Connector designation
- Cross-section
- Number and position of crimping operations
- Crimp index according to DIN 48083

1 Mechanical tools

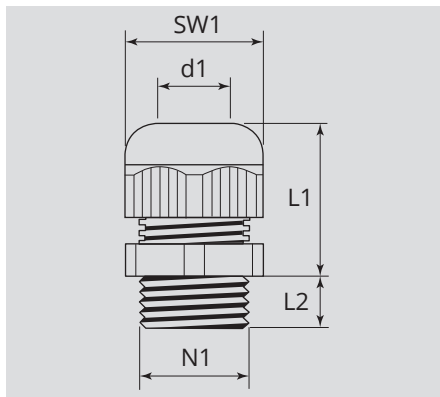
2 Hydraulic tools

Conductor cross-section mm ²		Key figure	Item number	Dimensions in mm		PU	2
rm/sm	re/se			d1(Ø)	L1		
16	25	12	DSVA16	5.8	55	30	B35-45MD B35-50MD HT45-E HT51, RH50, B500 HT61, RH61, B600, HT81-UD, RHU81-D HT131-C and all 13 tonne tools ECW-H3D RHU450, RHU520
25	35	12	DSVA25	6.8	70	25	
35	50	14	DSVA35	8.0	85	25	
50	70	16	DSVA50	9.8	85	20	
70	95	18	DSVA70	11.2	105	20	
95	120	22	DSVA95	13.2	105	15	
120	150	22	DSVA120	14.7	105	15	
150	185	25	DSVA150	16.5	125	10	
185	240	28	DSVA185	18.3	125	10	
240	300	32	DSVA240	21.0	145	5	
300	34	34	DSVA300	23.3	145	10	
400	38	42	DSVA400	26.0	210	3	
		42	DSVA401	28.0	210	3	
500	44	44	DSVA500	29.0	210	3	
		46	DSVA501	31.0	210	3	
600	52	52	DSVA625	35.0	330	3	
800	58	58	DSVA800	40.0	350	3	
1000	60	60	DSVA1000	44.0	350	3	

rm/sm = round stranded/rigid stranded
re/se = round stranded/sector stranded



Polyamide PA6.6, metric



Material: Polyamide PA6.6
self-extinguishing class V2 (UL94)
Operating temperature:
from -20 °C to +90 °C (continuous)
Seal: Neoprene®
Degree of protection: IP68
Colour: Light grey RAL 7035,
Black RAL 9005 or
Grey RAL 7001

MAXIblock®

Design: Metric M 1.5; CEI EN 60423 CEI EN 50262

Item number Light grey	Thread N1	Borehole-Ø	Dimensions in mm				PU
			d1(Ø)	SW1	L2	L1	
1900.M12	M12x1.5	12.5	3.5 – 7	15	8	18 – 22	100
1900.M16	M16x1.5	16.5	5 – 10	19	8	22 – 27	100
1900.M20	M20x1.5	20.5	7 – 13	25	9	24 – 30	100
1900.M25	M25x1.5	25.5	10 – 17	30	10	28 – 39	50
1900.M32	M32x1.5	32.5	13 – 21	36	10	33 – 44	25
1900.M40	M40x1.5	40.5	19 – 28	46	10	36 – 45	15
1900.M50	M50x1.5	50.5	27 – 35	55	12	43 – 52	10
1900.M63	M63x1.5	63.5	34 – 45	66	12	45 – 55	5

Available in black: Insert "N" after item number

Available in grey: Insert "G" after item number

Note: Also available as PG

MAXIblock® with reduction of the clamping range

Design: Metric M 1.5; CEI EN 60423 CEI EN 50262

Item number Light grey	Thread N1	Borehole-Ø	Dimensions in mm				PU
			d1(Ø)	SW1	L2	L1	
1910.M12	M12x1.5	12.5	2 – 5	15	8	18 – 22	100
1910.M16	M16x1.5	16.5	3 – 7	19	8	22 – 27	100
1910.M20	M20x1.5	20.5	5 – 10	25	9	24 – 30	100
1910.M25	M25x1.5	25.5	7 – 13	30	10	28 – 39	50
1910.M32	M32x1.5	32.5	8 – 14	36	10	33 – 44	25
1910.M40	M40x1.5	40.5	15 – 23	46	10	36 – 45	15
1910.M50	M50x1.5	50.5	21 – 29	55	12	43 – 52	10
1910.M63	M63x1.5	63.5	27 – 39	66	12	45 – 55	5

Available in black: Insert "N" after item number

Available in grey: Insert "G" after item number

Note: Also available as PG

MAXIblock® with long thread

Design: Metric M 1.5; CEI EN 60423 CEI EN 50262

Item number Light grey	Thread N1	Borehole-Ø	Dimensions in mm				PU
			d1(Ø)	SW1	L2	L1	
1901.M12	M12x1.5	12.5	3.5 – 7	15	15	18 – 22	100
1901.M16	M16x1.5	16.5	5 – 10	19	15	22 – 27	100
1901.M20	M20x1.5	20.5	7 – 13	25	15	24 – 30	50
1901.M25	M25x1.5	25.5	10 – 17	30	15	30 – 41	50
1901.M32	M32x1.5	32.5	13 – 21	36	15	33 – 44	25
1901.M40	M40x1.5	40.5	19 – 28	46	18	36 – 45	15
1901.M50	M50x1.5	50.5	27 – 35	55	18	43 – 52	10
1901.M63	M63x1.5	63.5	34 – 45	66	18	45 – 55	5

Available in black: Insert "N" after item number

Available in grey: Insert "G" after item number

Note: Also available as PG



Polyamide PA6.6

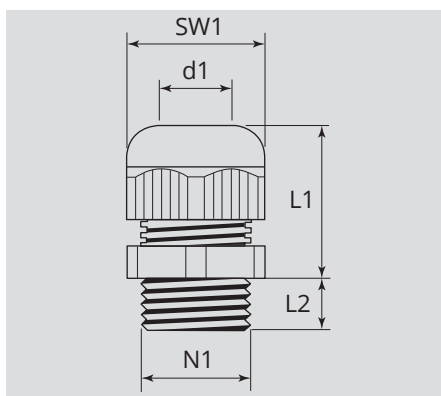


MAXIblock® complete with locknut

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number Light grey	Thread N1	Borehole-Ø	d1(Ø)	SW1	L2	L1	PU
1900.M12-X	M12x1.5	12.5	3.5 – 7	15	8	18 – 22	10
1900.M16-X	M16x1.5	16.5	5 – 10	19	8	22 – 27	10
1900.M20-X	M20x1.5	20.5	7 – 13	25	9	24 – 30	10
1900.M25-X	M25x1.5	25.5	10 – 17	30	10	28 – 39	10
1900.M32-X	M32x1.5	32.5	13 – 21	36	10	33 – 44	10
1900.M40-X	M40x1.5	40.5	19 – 28	46	10	36 – 45	5
1900.M50-X	M50x1.5	50.5	27 – 35	55	12	43 – 52	5
1900.M63-X	M63x1.5	63.5	34 – 45	66	12	45 – 55	5

Note: Also available as PG



Material: Polyamide PA6.6
self-extinguishing class V2 (UL94)
Operating temperature:
from – 20 °C to + 90 °C (continuous)
Seal: Neoprene®
Degree of protection: IP68
Colour: Light grey RAL 7035



Polyamide PA6.6



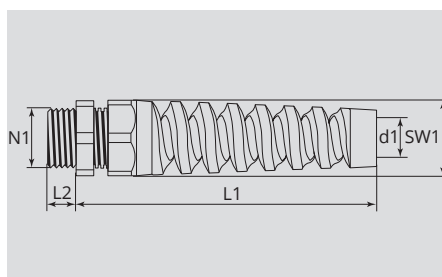
spiralblock®

Design: Metric M 1.5; CEI EN 60423 CEI EN 50262

Item number Light grey	Thread N1	Borehole-Ø	d1(Ø)	SW1	L2	L1	PU
1500.M12	M12x1.5	12.5	3.5 – 7	15	8	57	100
1500.M16	M16x1.5	16.5	5 – 10	19	8	79	50
1500.M20	M20x1.5	20.5	7 – 13	25	9	90	25
1500.M25	M25x1.5	25.5	10 – 17	30	10	120	20
1500.M32	M32x1.5	32.5	13 – 21	36	10	140	10

Available in black: Insert "N" after item number

Note: Also available as PG



Material: Polyamide PA6.6
self-extinguishing class V2 (UL94)

Operating temperature:
from – 20 °C to + 90 °C (continuous)

Seal: Neoprene®

Degree of protection: IP68

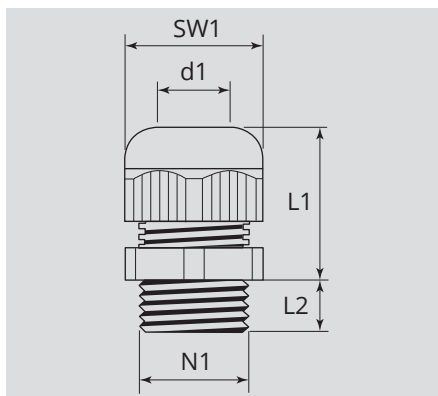
Colour: Light grey RAL 7035 or
Black RAL 9005

Cable glands according to ATEX

4900



for explosively hazardous areas



Material: Polyamide PA6.6
self-extinguishing class V2 (UL 94)
Protection type: Ex e IIC/Ex tb IIIC
Standard
EN 60079-0 : 2009
EN 60079-7 : 2007
EN 60079-31 : 2009
Zone: 1 and 2, 21 and 22
Operating temperature:
from -20°C to +75°C (continuous)
Seal: NEOPREN®
Degree of protection: IP 65
Colour: Light grey RAL 7035

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number Light grey	Thread N1	Dimensions in mm					PU
		Borehole-Ø	d1(Ø)	SW1	L2	L1	
4900.M12	M12x1.5	12.5	3.5 – 6.5	15	8	18 – 22	100
4900.M16	M16x1.5	16.5	6.5 – 10	19	8	22 – 27	100
4900.M20	M20x1.5	20.5	9 – 13	25	9	24 – 30	100
4900.M25	M25x1.5	25.5	11 – 17	30	10	28 – 39	50
4900.M32	M32x1.5	32.5	16 – 21	36	10	33 – 44	25
4900.M40	M40x1.5	40.5	21 – 28	46	10	36 – 45	15
4900.M50	M50x1.5	50.5	27 – 35	55	12	43 – 52	10
4900.M63	M63x1.5	63.5	35 – 42	66	12	45 – 55	5

Note: Also available as PG

with long thread

Item number Light grey	Thread N1	Dimensions in mm					PU
		Borehole-Ø	d1(Ø)	SW1	L2	L1	
4901.M12	M12x1.5	12.5	3.5 – 6.5	15	15	18 – 22	100
4901.M16	M16x1.5	16.5	6.5 – 10	19	15	22 – 27	100
4901.M20	M20x1.5	20.5	9 – 13	25	15	24 – 30	50
4901.M25	M25x1.5	25.5	11 – 17	30	15	28 – 39	50
4901.M32	M32x1.5	32.5	16 – 21	36	15	33 – 44	25
4901.M40	M40x1.5	40.5	21 – 28	46	18	36 – 45	15
4901.M50	M50x1.5	50.5	27 – 35	55	18	43 – 52	10
4901.M63	M63x1.5	63.5	35 – 42	66	18	45 – 55	5

Note: Also available as PG



Nickel-plated brass, metric



MAXIbrass[®]

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
2900.M12N	M12x1.5	12.5	3 – 7	16	18	6.5	16 – 20	100
2900.M16N	M16x1.5	16.5	4.5 – 10	20	23	7.0	20 – 25	100
2900.M20N	M20x1.5	20.5	7 – 13	24	27	8.0	20 – 27	50
2900.M25N	M25x1.5	25.5	10 – 17	29	32	8.0	24 – 30	50
2900.M32N	M32x1.5	32.5	11 – 21	36	40	9.0	27 – 34	25
2900.M40N	M40x1.5	40.5	19 – 28	45	50	9.0	34 – 42	10
2900.M50N	M50x1.5	50.5	26 – 35	54	60	10.0	35 – 43	8
2900.M63N	M63x1.5	63.5	34 – 45	67	74	15.0	40 – 52	5

Note: Also available as PG

MAXIbrass[®] with reduction of clamping range

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
2910.M12N	M12x1.5	12.5	1 – 5	16	18	6.5	16 – 20	100
2910.M16N	M16x1.5	16.5	2.5 – 7	20	23	7.0	20 – 25	100
2910.M20N	M20x1.5	20.5	5 – 10	24	27	8.0	20 – 27	50
2910.M25N	M25x1.5	25.5	6 – 13	29	32	8.0	24 – 30	50
2910.M32N	M32x1.5	32.5	7 – 14	36	40	9.0	27 – 34	25
2910.M40N	M40x1.5	40.5	13 – 23	45	50	9.0	34 – 42	10
2910.M50N	M50x1.5	50.5	20 – 29	54	60	10.0	35 – 43	8
2910.M63N	M63x1.5	63.5	27 – 39	67	74	15.0	40 – 52	5

Note: Also available as PG

MAXIbrass[®] with long thread

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
2901.M12N	M12x1.5	12.5	3 – 7	16	18	12	16 – 20	100
2901.M16N	M16x1.5	16.5	4.5 – 10	20	23	12	20 – 25	100
2901.M20N	M20x1.5	20.5	7 – 13	24	27	12	20 – 27	50
2901.M25N	M25x1.5	25.5	10 – 17	29	32	12	24 – 30	50
2901.M32N	M32x1.5	32.5	11 – 21	36	40	15	27 – 34	25
2901.M40N	M40x1.5	40.5	19 – 28	45	50	15	34 – 42	10
2901.M50N	M50x1.5	50.5	26 – 35	54	60	15	35 – 43	8

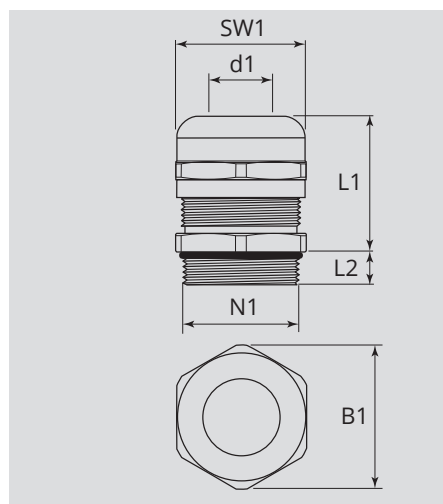
Note: Also available as PG

MAXIbrass[®] with reduction of the clamping range and long thread

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
2911.M12N	M12x1.5	12.5	1 – 5	16	18	12	16 – 20	100
2911.M16N	M16x1.5	16.5	2.5 – 7	20	23	12	20 – 25	100
2911.M20N	M20x1.5	20.5	5 – 10	24	27	12	20 – 27	50
2911.M25N	M25x1.5	25.5	6 – 13	29	32	12	24 – 30	50
2911.M32N	M32x1.5	32.5	7 – 14	36	40	15	27 – 34	25
2911.M40N	M40x1.5	40.5	13 – 23	45	50	15	34 – 42	10
2911.M50N	M50x1.5	50.5	20 – 29	54	60	15	35 – 43	8

Note: Also available as PG



Material: nickel-plated brass

Seal: Neoprene[®]

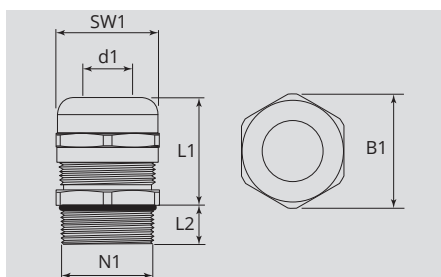
Clamping ring: Polyamide PA6.6

O-ring: nitrile 70 sh A
(enclosed, already assembled)

Degree of protection: IP68

Operating temperature:
from – 25 °C to +100 °C (short-term)

Stainless steel 303 or 316L



Material: stainless steel

Seal: Neoprene®

Clamping ring: Polyamide PA6.6

O-ring: nitrile 70 sh A
(enclosed, already assembled)

Degree of protection: IP68

Operating temperature:
from - 25 °C to + 100 °C (short-term)

MAXIinox Stainless steel 303 (X8 CrNiS 18-9)

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
7900.M12	M12x1.5	12.5	3 – 7	16	18	6.5	16 – 20	30
7900.M16	M16x1.5	16.5	4.5 – 10	20	23	7.0	20 – 25	30
7900.M20	M20x1.5	20.5	7 – 13	24	27	8.0	20 – 27	25
7900.M25	M25x1.5	25.5	10 – 17	29	32	8.0	24 – 30	20
7900.M32	M32x1.5	32.5	11 – 21	36	40	9.0	27 – 34	15
7900.M40	M40x1.5	40.5	19 – 28	45	50	9.0	34 – 42	15
7900.M50	M50x1.5	50.5	26 – 35	54	60	10.0	35 – 43	10
7900.M63	M63x1.5	63.5	34 – 45	67	74	15.0	40 – 52	5

Note: Also available as PG

MAXIinox Stainless steel 316L (X2 CrNiMo 17-12-2)

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	B1	L2	L1	
7900A.M12	M12x1.5	12.5	3 – 7	16	18	6.5	16 – 20	20
7900A.M16	M16x1.5	16.5	4.5 – 10	20	23	7.0	20 – 25	20
7900A.M20	M20x1.5	20.5	7 – 13	24	27	8.0	20 – 27	20
7900A.M25	M25x1.5	25.5	10 – 17	29	32	8.0	24 – 30	15
7900A.M32	M32x1.5	32.5	11 – 21	36	40	9.0	27 – 34	12
7900A.M40	M40x1.5	40.5	19 – 28	45	50	9.0	34 – 42	10
7900A.M50	M50x1.5	50.5	26 – 35	54	60	10.0	35 – 43	7
7900A.M63	M63x1.5	63.5	34 – 45	67	74	15.0	40 – 52	5

Note: Also available as PG

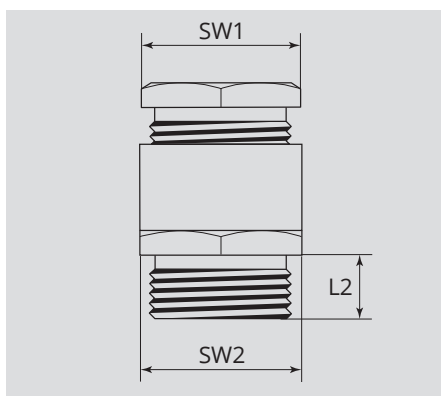
Brass



Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Borehole-Ø	Dimensions in mm					PU
			d1(Ø)	SW1	SW2	L2	L1	
2003M1221N	M12X1.5	12.5	4 – 6	13	14	5	13 – 16	100
2003M1621N	M16X1.5	16.5	8 – 10	15	17	5	14 – 17	100
2003M2021N	M20X1.5	20.5	10 – 12	20	22	6	16 – 19	50
2003M2521N	M25X1.5	25.5	17 – 19	28	30	7	19 – 23	50
2003M3221N	M32X1.5	32.5	26 – 28	37	39	8	21 – 25	50
2003M4021N	M40X1.5	40.5	33 – 35	47	50	8	24 – 30	20
2003M5021N	M50X1.5	50.5	39 – 41	54	57	9	28 – 34	5
2003M6321N	M63X1.5	63.5	43 – 45	60	66/68	10	30 – 36	5

Note: Also available as PG



Material: nickel-plated brass
(GAS version: Brass)

Seal: Rubber 55sh A
(GAS version: PVC 50 sh A)

Degree of protection: IP54

Cable glands

20G3
20H3
20L3

Nickel-plated brass

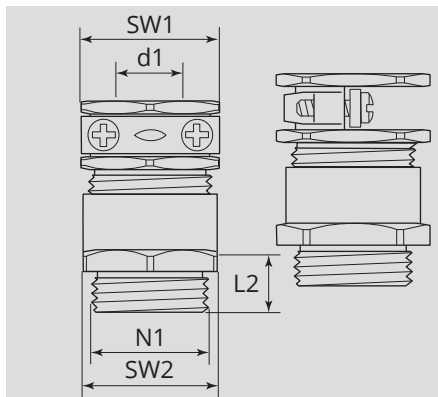


Material: nickel-plated brass with hexagonal socket on intermediate socket, pressure screw with strain relief

Universal seal ring: rubber NR 55 sh A

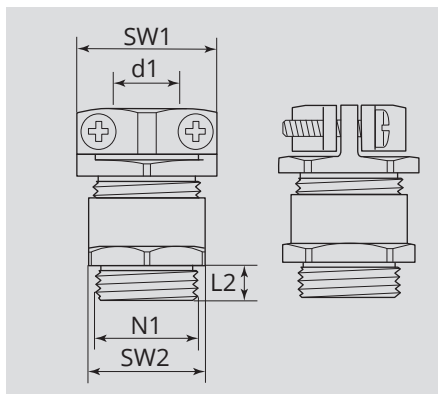
Degree of protection: IP54

Operating temperature: - 40 °C to +90 °C



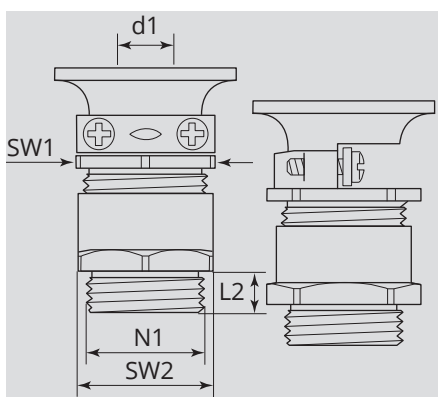
Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm				Clamping ring	PU
		Borehole-Ø	d1(Ø)	SW1	SW2	L2	
20G3M1621N	M16x1.5	16.5	4 – 10	17	18	5	6 – 10
20G3M2022N-1	M20x1.5	20.5	6.5 – 11.5	20	22	6	7.5 – 11.5
20G3M2022N	M20x1.5	20.5	6.5 – 14	22	22	6	8.5 – 14
20G3M2021N	M20x1.5	20.5	6.5 – 15	24	24	6	10 – 15
20G3M2521N	M25x1.5	25.5	9 – 20	30	30	7	13 – 20
20G3M3221N	M32x1.5	32.5	17 – 27	40	34	8	18 – 27
20G3M4021N	M40x1.5	40.5	23 – 35	50	50	8	29 – 35
20G3M5021N	M50x1.5	50.5	29 – 41	57	57	9	34 – 44
20G3M6321N	M63x1.5	63.5	35 – 46	64	66	10	39 – 50



Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm				Clamping ring	PU
		Borehole-Ø	d1(Ø)	SW1	SW2	L2	
20H3M1221N	M12x1.5	12.5	5 – 6	17	17	5	5 – 7
20H3M1621N	M16x1.5	16.5	4 – 10	19	18	5	6.5 – 10
20H3M2022N-1	M20x1.5	20.5	6.5 – 11.5	22	22	6	7.5 – 11.5
20H3M2022N	M20x1.5	20.5	6.5 – 14	24	22	6	8.5 – 14
20H3M2021N	M20x1.5	20.5	6.5 – 15	27	24	6	11 – 15
20H3M2521N	M25x1.5	25.5	9 – 20	34	30	7	12 – 20
20H3M3221N	M32x1.5	32.5	17 – 27	42	39	8	18 – 27
20H3M4021N	M40x1.5	40.5	23 – 35	52	50	8	24 – 35
20H3M5021N	M50x1.5	50.5	29 – 41	59	57	9	31 – 43
20H3M6321N	M63x1.5	63.5	35 – 46	68	66	10	35 – 48



Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm				Clamping ring	PU
		Borehole-Ø	d1(Ø)	SW1	SW2	L2	
20L3M1621N	M16x1.5	16.5	4 – 9	22	18	5	6 – 9
20L3M2022N-1	M20x1.5	20.5	6.5 – 11.5	26	22	6	7.5 – 11.5
20L3M2022N	M20x1.5	20.5	6.5 – 13.5	29	22	6	9 – 13.5
20L3M2021N	M20x1.5	20.5	6.5 – 15	32	24	6	10 – 15
20L3M2521N	M25x1.5	25.5	9 – 20	38	30	7	14 – 20
20L3M3221N	M32x1.5	32.5	17 – 27	50	34	8	19 – 27

Nickel-plated brass



MAXIbrass®

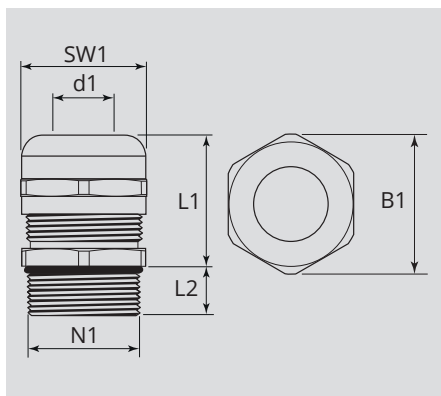
Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm						PU
		Borehole-Ø	d1(Ø)	SW1	B1	L2	L1	
5900.M12N	M12x1.5	12.5	3 – 6.5	16	18	6.5	16 – 20	100
5900.M16N	M16x1.5	16.5	6.5 – 10	20	23	7.0	20 – 25	100
5900.M20N	M20x1.5	20.5	10 – 13	24	27	8.0	20 – 27	50
5900.M25N	M25x1.5	25.5	11 – 17	29	32	8.0	24 – 30	50
5900.M32N	M32x1.5	32.5	14 – 21	36	40	9.0	27 – 34	25
5900.M40N	M40x1.5	40.5	21 – 27	45	50	9.0	34 – 42	10
5900.M50N	M50x1.5	50.5	26 – 35	54	60	10.0	35 – 43	8
5900.M63N	M63x1.5	63.5	35 – 42	67	74	15.0	40 – 52	5

MAXIbrass® with long thread

Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm						PU
		Borehole-Ø	d1(Ø)	SW1	B1	L2	L1	
5901.M12N	M12x1.5	12.5	3 – 6.5	16	18	12	16 – 20	100
5901.M16N	M16x1.5	16.5	6.5 – 10	20	23	12	20 – 25	100
5901.M20N	M20x1.5	20.5	10 – 13	24	27	12	20 – 27	50
5901.M25N	M25x1.5	25.5	11 – 17	29	32	12	24 – 30	50
5901.M32N	M32x1.5	32.5	14 – 21	36	40	15	27 – 34	25
5901.M40N	M40x1.5	40.5	21 – 27	45	50	15	34 – 42	10
5901.M50N	M50x1.5	50.5	26 – 35	54	60	15	35 – 43	8



Cable glands for flat cable

2003

Nickel-plated brass



This cable gland system can be used universally for flat cables of different sizes. All common flat cable dimensions between 4 x 1.5 mm² and 4 x 16 mm² can be connected with the five sizes.

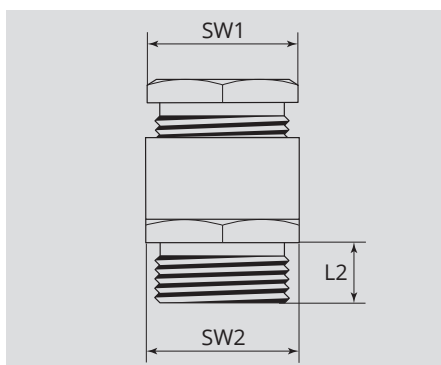
Material: nickel-plated brass with hexagonal socket on intermediate socket for flat cable

Degree of protection: IP54

Operating temperature: from – 30 °C to + 80 °C

Design: Metric M 1.5 – PG; CEI EN 60423 – DIN 40430

Item number	Thread		Borehole-Ø	Dimensions in mm					PU
	ext	int		Thickness	Width	SW1	SW2	L2	
2003M201EN	M20x1.5	PG 16	20.5	1 – 5	3 – 16	22	24	6	50
2003M251EN	M25x1.5	PG 21	25.5	3 – 8	9 – 21	28	30	7	50
2003M321EN	M32x1.5	PG 29	32.5	4 – 11.5	14 – 30	37	39	8	50
2003M401EN	M40x1.5	PG 36	40.5	4 – 11.5	24 – 40	47	50	8	20
2003M501EN	M50x1.5	PG 42	50.5	5 – 12	29 – 45	54	57	9	5
2003M631EN	M63x1.5	PG 48	63.5	5 – 12	34 – 50	60	66	10	5



Nickel-plated brass

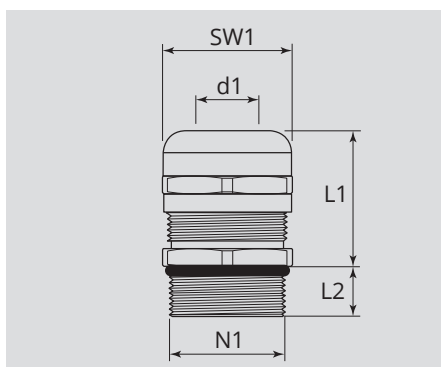


Material: nickel-plated brass for cable with shielding, with internal strain relief according to EN 50262 version A, blade insert made of PA6.6

Seal ring: Chloroprene (CR) with O-ring (NBR) on connection thread, watertight

Degree of protection: IP68, 5 bar

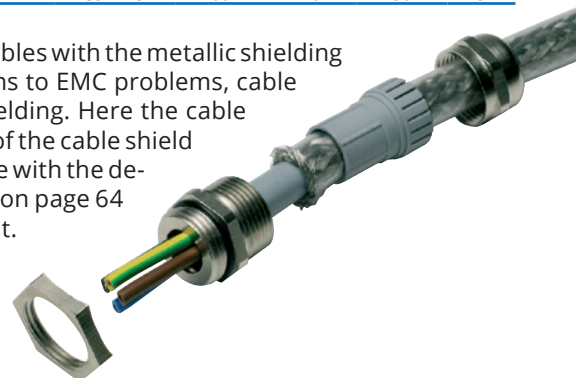
Operating temperature: -30 °C to +120 °C



Design: Metric M 1.5; CEI EN 60423, CEI EN 50262

Item number	Thread N1	Dimensions in mm					PU
		Borehole-Ø	d1(Ø)	SW1	L2	L1	
20M3M1261N	M12x1.5	12.5	3 – 6.5	14	5	22	100
20M3M1661N	M16x1.5	16.5	5.5 – 10	17	5.5	24.5	100
20M3M2061N	M20x1.5	20.5	8 – 13	22	6	27	50
20M3M2561N	M25x1.5	25.5	11 – 18	30	7	31	25
20M3M3261N	M32x1.5	32.5	15 – 21	34	8	33	10
20M3M4061N	M40x1.5	40.5	19 – 27	44	8	40	10
20M3M5061N	M50x1.5	50.5	26 – 35	55	9	48	5
20M3M6361N	M63x1.5	63.5	39 – 48	66	10	50	5

The EMC cable glands were developed to optimally connect the shielding of cables with the metallic shielding in electrical or electronic systems. In accordance with the technical solutions to EMC problems, cable glands represent an important link between metal parts and the cable shielding. Here the cable gland not only ensures a low contact resistance and a large-area connection of the cable shield with the metal housing; it is also responsible for a secure sealing in accordance with the degrees of protection and a high strain relief on the cable. The toothed locknut on page 64 prevents unintentional loosening and guarantees optimum electrical contact.



Locknuts with shoulder Polyamide PA6.6



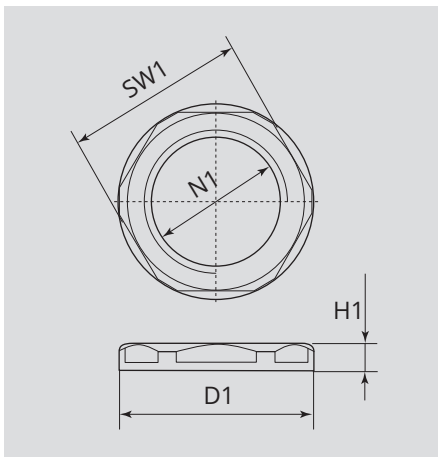
Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm			PU
		D1(Ø)	SW1	H1	
1143M12	M12x1.5	18.5	17	5	100
1143M16	M16x1.5	24	22	5	100
1143M20	M20x1.5	29	27	6	100
1143M25	M25x1.5	35.5	32	6	100
1143M32	M32x1.5	45	41	7	50
1143M40	M40x1.5	55	50	7	30
1143M50	M50x1.5	65	60	8	30
1143M63	M63x1.5	82	75	8	15

Available in black: Insert "N" after item number

Available in grey: Insert "G" after item number

Note: Also available as PG



Material: Polyamide PA6.6
self-extinguishing class V2 (UL94)

Operating temperature:
from - 20 °C to + 90 °C (continuous)

Colour: Light grey RAL 7035,
Black RAL 9005 or
Grey RAL 7001

Locknuts without shoulder Polyamide PA6.6



Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm		PU
		SW1	H1	
1112	M12x1.5	17	5	100
1116	M16x1.5	22	5	100
1120	M20x1.5	27	6	100
1125	M25x1.5	32	6	100
1132	M32x1.5	41	7	50
1140	M40x1.5	50	7	30
1150	M50x1.5	60	8	30
1163	M63x1.5	75	8	15

Available in black: Insert "N" after item number

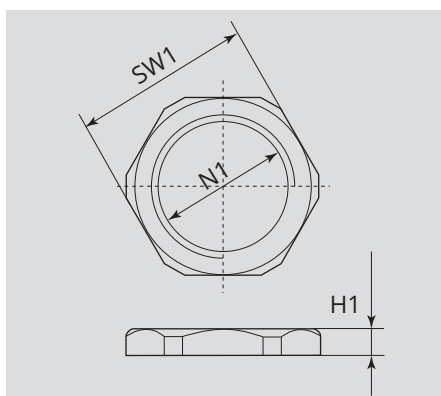
Note: Also available as PG

Material: Polyamide PA6.6
self-extinguishing class V2 (UL94)

Operating temperature:
from - 20 °C to + 90 °C (continuous)

Colour: Light grey RAL 7035 or
Black RAL 9005

Brass



Material: Metric and PG
made of nickel-plated brass
GAS version made of brass

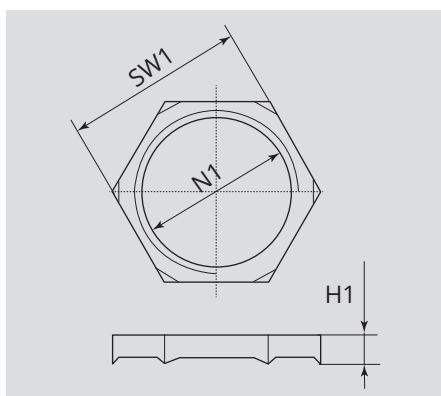
Design: Metric M 1.5; CEI EN 60423

Item number nickel-plated brass	Thread N1	Dimensions in mm		PU
		SW1	H1	
2033M12N	M12x1.5	16	2.8	100
2033M16N	M16x1.5	19	2.8	100
2033M20N	M20x1.5	24	3	100
2033M25N	M25x1.5	30	4	50
2033M32N	M32x1.5	36	4	25
2033M40N	M40x1.5	45	5	10
2033M50N	M50x1.5	60	5	10
2033M63N	M63x1.5	70	5.5	5

Note: Also available as PG

Brass hexagon nut for potential equalisation EMC

With cutting edges for contacting

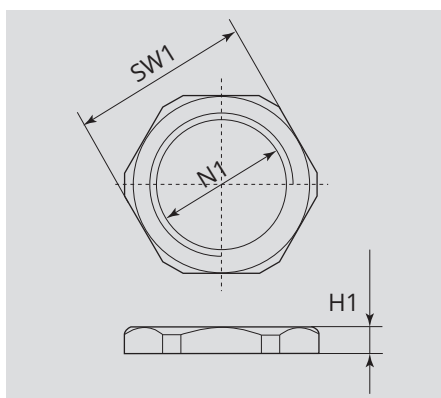


Material: nickel-plated brass

Design: Metric M 1.5; CEI EN 60423

Item number nickel-plated brass	Thread N1	Dimensions in mm		PU
		SW1	H1	
20N3M12N	M12x1.5	15	4.1	100
20N3M16N	M16x1.5	19	4.2	100
20N3M20N	M20x1.5	24	4.2	100
20N3M25N	M25x1.5	30	4.8	100
20N3M32N	M32x1.5	36	5.4	100
20N3M40N	M40x1.5	46	6.2	50
20N3M50N	M50x1.5	60	7.0	50
20N3M63N	M63x1.5	70	7.0	25

Stainless steel 303 (X8 CrNiS 18-9) or 316L (X2 CrNiMo 17-12-2)



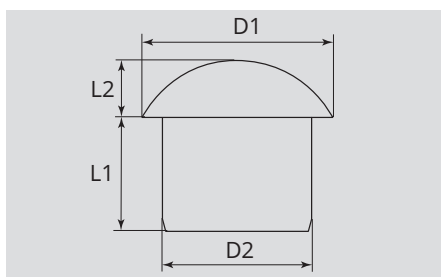
Item number Steel 303	Item number Steel 316L	Thread N1	Dimensions in mm		PU Steel 303	PU Steel 316L
			SW1	H1		
7033M12	7033AM12	M12x1.5	16	2.8	30	20
7033M16	7033AM16	M16x1.5	20	2.8	30	20
7033M20	7033AM20	M20x1.5	24	3.5	25	20
7033M25	7033AM25	M25x1.5	29	4	20	15
7033M32	7033AM32	M32x1.5	36	4	15	12
7033M40	7033AM40	M40x1.5	45	5	15	10
7033M50	7033AM50	M50x1.5	57	5	10	7
7033M63	7033AM63	M63x1.5	70	5.5	8	5

Note: Also available as PG

Accessories

TCP

Seals for cable glands



Item number	Suitable for		Dimensions in mm				PU
	MAXIblock®	MAXIbrass® MAXIinox	D2	D1	L1	L2	
TCP5	M12R	M12R	4.5	8.5	10.8	4.5	100
TCP12	M12 M16R	M12 M16R	6.8	12	12	4.5	100
TCP18	M16	M16	9.5	12.5	13	5	100
TCP20	M20R	M20R	10	15	14	6	100
TCP25	M20	M20	12.5	17	15	8	100
TCP30	M25R+M32R	M25R + M32R	12.5	22.5	18	9	100
TCP35	M25	M25	16	19.5	18	8	100
TCP40	M32	M32	19	22.5	19	9	50
TCP45	M40R	M40R	22	30	20	10	50
TCP50	M40 + M50R	M40 + M50R	27.5	38	25	12	25
TCP60	M50	M50	34.5	40	23.5	12	25
TCP65	M63R	M63R	37.5	48	26.5	12	15
TCP70	M63	M63	43	48	26.5	12	15

R: reduced cable entry

Material: Polyamide PA6.6 self-extinguishing class V2 (UL94)

Operating temperature:
from -20 °C to +90 °C (continuous)

Colour: Black RAL 9005

Field of application:

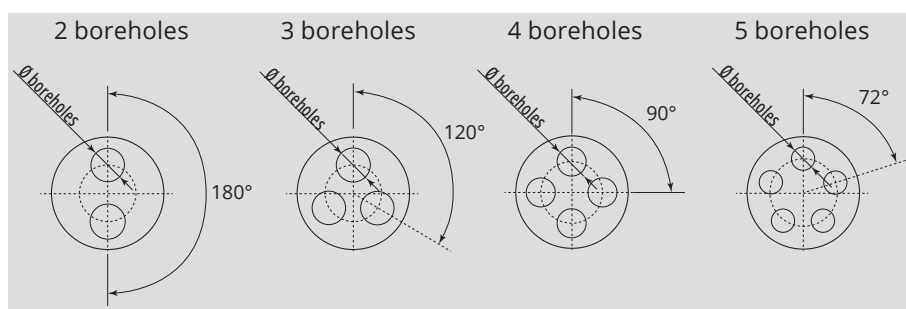
Sealing of **MAXIblock**®, **MAXIbrass**® and **MAXIinox**. cable glands while maintaining the IP68 degree of protection, where the cable connection is made later.

Multihole seals



Material: Neoprene® 70 sh A
Operating temperature:
from - 40 °C to + 130 °C
Degree of protection: IP68
Colour: Black
Field of application:
For the simultaneous insertion of several cables with only one cable gland.

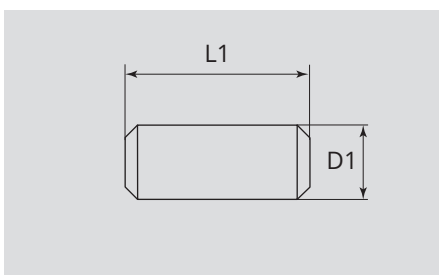
Item number	MAXIblock®	Suitable for MAXIbrass® + MAXIinox	number of boreholes	Ø Borehole	PU
36A3M1623	M16	M16	2	3	100
36A3M1624	M16	M16	2	4	100
36A3M16322	M16	M16	3	2.2	100
36A3M2025	M20	M20	2	5	100
36A3M2034	M20	M20	3	4	100
36A3M20356	M20	M20	3	5.6	100
36A3M2526	M25	M25	2	6	50
36A3M2536	M25	M25	3	6	50
36A3M2537	M25	M25	3	7	50
36A3M2545	M25	M25	4	5	50
36A3M2546	M25	M25	4	6	50
36A3M2554	M25	M25	5	4	50
36A3M3228	M32	M32	2	8	50
36A3M3239	M32	M32	3	9	50
36A3M32465	M32	M32	4	6.5	50
36A3M3248	M32	M32	4	8	50
36A3M4078	M40	M40	7	8	100
36A3M40106	M40	M40	10	6	100
36A3M5088	M50	M50	8	8	50



Seals for closing unoccupied boreholes



Material: Polyamide PA6.6
Operating temperature: from - 20 °C to + 90 °C (continuous)
Colour: Light grey RAL 7035
Field of application: Sealing of unused boreholes while maintaining the IP68 degree of protection.



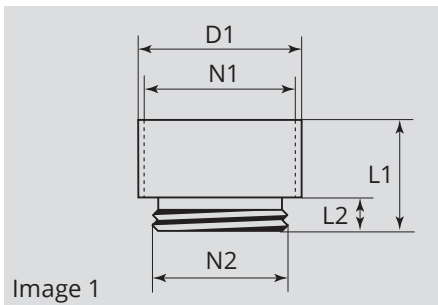
Item number	Suitable for seal	D1(Ø) mm	L1 mm	PU
TGM38	36A3M1623	3	10	100
TGM48	36A3M1624 + 36A3M2034 + 36A3M2554	4	8	100
TGM58	36A3M2025	5	8	100
TGM513	36A3M2545	5	13	50
TGM613	36A3M2526 + 36A3M2536 + 36A3M40106	6	13	50
TGM713	36A3M2537	7	13	50
TGM817	36A3M3248 + 36A3M5088 + 36A3M4078	8	17	100

Design: Metric M 1.5; CEI EN 60423



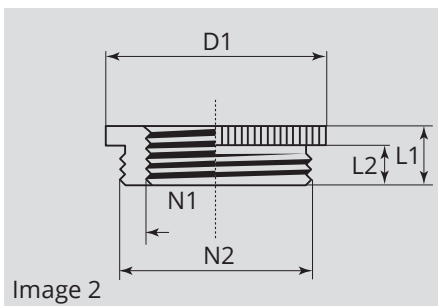
Extensions (Image 1)

Item number	Thread		Dimensions in mm			PU
	N1	N2	D1(Ø)	L2	L1	
20931216N	M12x1.5	M16x1.5	18	5	15.5	100
20931620N	M16x1.5	M20x1.5	22	5	17.5	100
20932025N	M20x1.5	M25x1.5	27	6	20	50
20932532N	M25x1.5	M32x1.5	34	7	22.5	50
20932540N	M25x1.5	M40x1.5	42	7	23.5	50
20933240N	M32x1.5	M40x1.5	42	8	24.5	50
20933250N	M32x1.5	M50x1.5	52	8	27.5	25
20934050N	M40x1.5	M50x1.5	52	8	27.5	25
20935063N	M50x1.5	M63x1.5	66	9	31	10



Reductions (Image 2)

Item number	Thread		Dimensions in mm			PU
	N1	N2	D1(Ø)	L2	L1	
20431612N	M16x1.5	M12x1.5	18	5	7.5	100
20432012N	M20x1.5	M12x1.5	22	6	9	100
20432016N	M20x1.5	M16x1.5	22	6	9	100
20432512N	M25x1.5	M12x1.5	27	7	10	50
20432516N	M25x1.5	M16x1.5	27	7	10	50
20432520N	M25x1.5	M20x1.5	27	7	10	100
20433220N	M32x1.5	M20x1.5	34	8	11	25
20433225N	M32x1.5	M25x1.5	34	8	11	50
20434025N	M40x1.5	M25x1.5	43	8	11.5	25
20434032N	M40x1.5	M32x1.5	43	8	11.5	25
20435032N	M50x1.5	M32x1.5	53	9	12.5	10
20435040N	M50x1.5	M40x1.5	53	9	12.5	25
20436340N	M63x1.5	M40x1.5	66	10	14	10
20436350N	M63x1.5	M50x1.5	66	10	14	10



Material: Nickel-plated brass

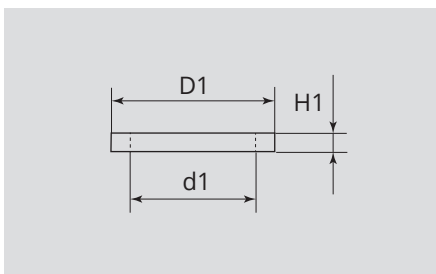
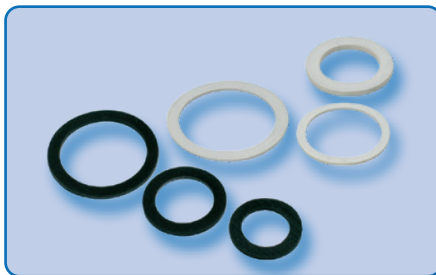
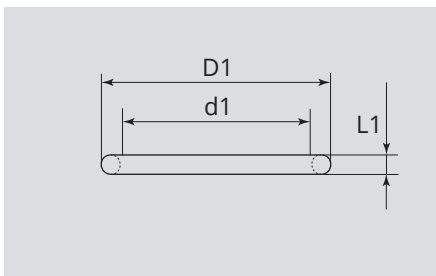
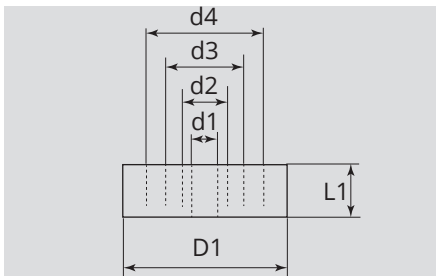
Adapter metric - PG

Item number	Thread		Image	Dimensions in mm			PU
	N1	N2		D1(Ø)	L2	L1	
20A42011N	M20x1.5	PG 11	1	22	6.5	17.5	100
20A42016N	M20x1.5	PG 16	1	24	6.5	20	50
20A42513N	M25x1.5	PG 13.5	2	27	7	10	50
20A42516N	M25x1.5	PG 16	2	27	7	10	50
20A43216N	M32x1.5	PG 16	2	36	8	11.5	25
20A43221N	M32x1.5	PG 21	2	36	8	11.5	25

Adapter PG - metric

Item number	Thread		Image	Dimensions in mm			PU
	N1	N2		D1(Ø)	L2	L1	
20A40916N	PG 9	M16x1.5	1	20	6	15	100
20A41120N	PG 11	M20x1.5	1	22	6	16	100
20A41320N	PG 13.5	M20x1.5	1	24	6.5	16.5	50
20A41620N	PG 16	M20x1.5	2	24	6.5	9.5	50
20A42120N	PG 21	M20x1.5	2	30	7	10	100
20A42125N	PG 21	M25x1.5	2	30	7	10	100
20A42925N	PG 29	M25x1.5	2	39	8	11.5	50

Seals



Cylindrical

Material: Nitrile butadiene NBR black with multiple cylindrical areas

Item number	Suitable for cable glands IP54	Dimensions in mm								PU
		D1(Ø)	d6	d5	d4	d3	d2	d1	L1	
1880	M16	13.3	–	–	–	10	7.5	5	5.5	100
1882	M20	18.3	–	–	–	12.5	10	7.5	6	100
1884	M25	26.0	–	–	19	16	13	10	8	100
1884A	M25	26.0	–	–	20.5	18	15	10.5	8	100
1885 *	M32	34.7	–	–	27	24	21	18	9.5	50
1886	M40	44.7	–	–	33	30	27	24	12	50
1887 *	M50	51.7	–	–	39	36	33	30	14	25
1888-5	M63	57.0	45	41	37	33	29	24	14	25
1888 *	M63	57.0	–	–	45	42	39	36	14	25

* Dimensions according to DIN 46230-7; Material Chloroprene

O-rings

Material: Nitrile butadiene NR 70 sh A

Item number	Suitable for	Dimensions in mm			PU
		D1(Ø)	d1(Ø)	L1	
1889	M12	12.81	9.25	1.78	1 000
1890A	M16	15.98	12.42	1.78	1 000
1891A	M20	20.73	17.17	1.78	1 000
1892B	M25	25.51	21.95	1.78	1 000
1893A	M32	30.00	26.00	2.00	500
1895	M40	39.84	34.60	2.62	500

Material: Nitrile butadiene rubber NBR 70 sh A

Operating temperature: from – 20 °C to + 70 °C

Item number	Suitable for	Dimensions in mm			PU
		D1(Ø)	d1(Ø)	H1	
35720131	M20x1.5	27.5	20.5	1.4	100
3573M16	M16x1.5	20.5	16.3	1	100
3573M20	M20x1.5	25.5	20.5	1	100
3573M25	M25x1.5	30.5	25.5	1	100
3573M32	M32x1.5	40.5	32.5	1	100

Note: Also available as PG

Material: Neoprene 80 sh A

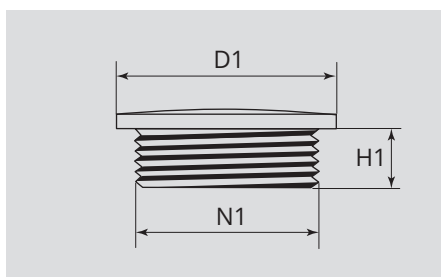
Operating temperature: from – 25 °C to + 100 °C

Item number	Suitable for	Dimensions in mm			PU
		D1(Ø)	d1(Ø)	H1	
FDM12	M12	16	10	1.2	50
FD9	M16	20	13.9	1.2	50
FDM16	M16*	20	15.5	1.2	50
FDM20	M20	24	18	1.2	50
FDM25	M25	31	23	1.2	20
FDM32	M32	40	30	1.5	20
FDM40	M40	48	38	1.5	20
FDM50	M50	55	47.5	1.0	10
FDM63	M63	68	60.5	1.0	5

* Screws recommended without underhead seam.

Note: Also available as PG

Polyamide PA6



Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm		PU
		D1(Ø)	H1	
1053M12	M12x1.5	15	6	100
1053M16	M16x1.5	20	6	100
1053M20	M20x1.5	25	7	100
1053M25	M25x1.5	30	7	100
1053M32	M32x1.5	37	9	50
1053M40	M40x1.5	47	9	30
1053M50	M50x1.5	58	10	20
1053M63	M63x1.5	72	12	10

Available in black: Insert "N" after item number
Note: Also available as PG

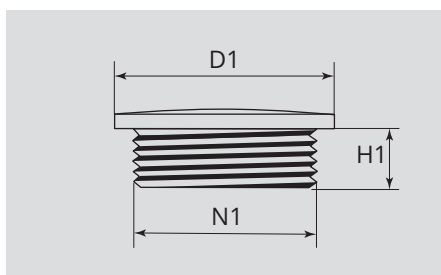
Material: Polyamide PA6
glass-fibre reinforced, self-extinguishing class HB (UL94)

Operating temperature:
from -20 °C to +90 °C (continuous)

Degree of protection: IP54

Colour: Light grey RAL 7035 or
Black RAL 9005

Polystyrene PS



Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm		PU
		D1(Ø)	H1	
1253M12	M12x1.5	15	6	100
1253M16	M16x1.5	20	6	100
1253M20	M20x1.5	25	7	100
1253M25	M25x1.5	30	7	100
1253M32	M32x1.5	37	9	50
1253M40	M40x1.5	47	9	30
1253M50	M50x1.5	58	10	20
1253M63	M63x1.5	72	12	10

Available in black: Insert "N" after item number
Note: Also available as PG

Material: Polystyrene PS

Operating temperature:
from -20 °C to +60 °C (continuous)

Degree of protection: IP54

Colour: Light grey RAL 7035 or
Black RAL 9005

Closing caps with borehole, polyamide PA6.6

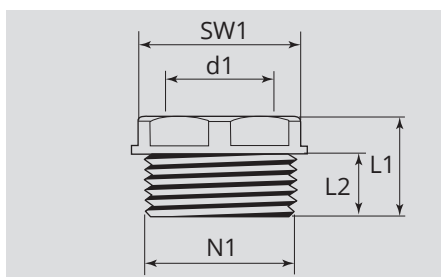


Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm				PU
		d1(Ø)	SW1	L2	L1	
1835G ¹	M16x1.5	11.5	17	9	14	100
1836 *	M20x1.5	13.5	21	11	16.5	100

* Available in black: Insert "N" after item number

¹ available only in grey RAL 7001



Material: Polyamide PA6.6 self-extinguishing class VCD (UL94)

Operating temperature:
from -20 °C to +90 °C (continuous)

Colour: Light grey RAL 7035 or
Black RAL 9005

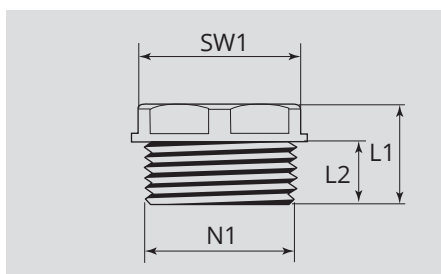
Closed end caps, polyamide PA6.6



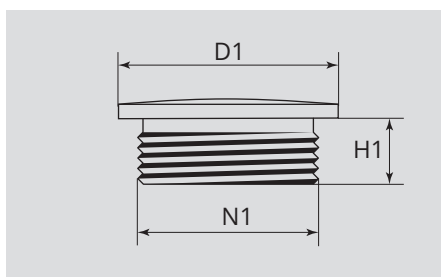
Design: Metric M 1.5; CEI EN 60423

Item number Light grey	Thread N1	Dimensions in mm				PU
		d1(Ø)	SW1	L2	L1	
1866 *	M20x1.5	–	21	11	17	100

* Available in black: Insert "N" after item number



Dummy plugs



Material: nickel-plated brass

Degree of protection: IP54

Design: Metric M 1.5; CEI EN 60423

Item number nickel-plated brass	Thread N1	Dimensions in mm		PU
		D1(Ø)	H1	
2053M12N	M12x1.5	14	5	100
2053M16N	M16x1.5	18	5	100
2053M20N	M20x1.5	22	6.5	100
2053M25N	M25x1.5	28	7	100
2053M32N	M32x1.5	35	8	25
2053M40N	M40x1.5	44	8.5	25
2053M50N	M50x1.5	54	9	25
2053M63N	M63x1.5	67	10	25

Note: Also available as PG

Seal entries Rutaseal

RS



Material: Rubber EPDM halogen-free

Operating temperature:

from -40 °C to +110 °C

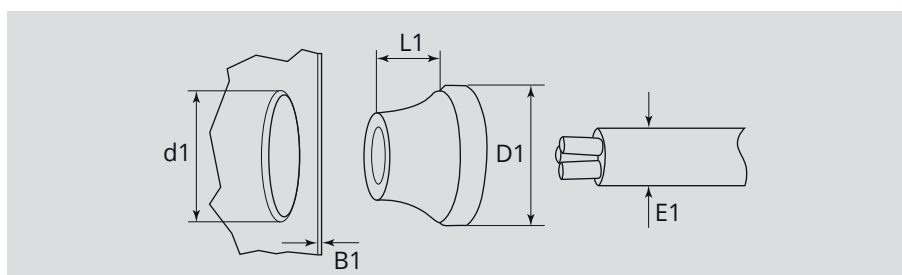
Degree of protection: IP67

Colour: Grey RAL 7001

Field of application:

for material thicknesses 0.5 - 4 mm.

They are suitable for various types of cables and hoses and are resistant to dust and water.



Item number	Suitable for	Dimensions in mm					PU
		d1	B1	L1	D1	E1	
RS0407.M12	M12	12.5	0.5 - 2	5.6	20.0	4 - 7	50
RS0509.M16	M16	16.5	1 - 4	11.0	21.0	5 - 9	50
RS0813.M20	M20	20.5	1 - 4	13.4	25.5	8 - 13	50
RS1117.M25	M25	25.5	1 - 4	15.3	30.5	11 - 17	50
RS1520.M32	M32	32.5	1 - 4	18.6	38.5	15 - 20	25
RS1928.M40	M40	40.5	1 - 4	21.7	48.5	19 - 28	25
RS2735.M50	M50	50.5	1 - 4	25.0	60.5	27 - 35	10

Note: Also available as PG

Cable tie

CT

Halogen
free



Series G



Material: PA6.6 Polyamide, halogen and silicone free

Flammability: UL 94 V2 (V0 available)

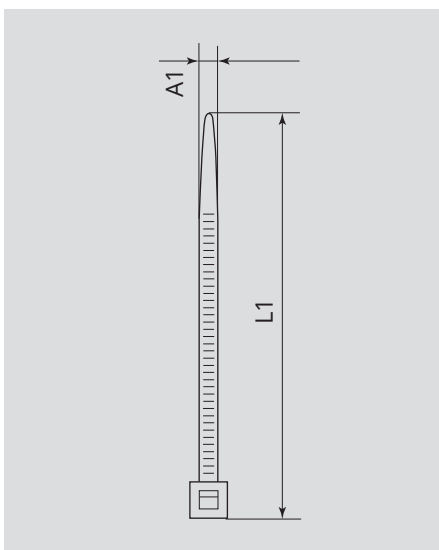
Operating temperatures: -40 °C to +85 °C

Standard: UL E75050, Lloyd's, GL 59425-08HH, Mil-23190D

Resistant to:

Alkalis, oils, oil products, greases, chlorate solvents.

Colour: natural



Rapid processing as the material has a low coefficient of friction.

Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
CT80X2.4	80	2.4	15	8.0	100
CT100X2.5	100	2.5	22	8.1	
CT120X2.5	120	2.5	30	8.1	
CT140X2.5	140	2.5	33	8.1	
CT160X2.5	160	2.5	40	8.1	
CT200X2.5	200	2.5	53	8.1	
CT140X3.6	140	3.6	33	18.2	
CT150X3.6	150	3.6	35	18.2	
CT200X3.6	200	3.6	53	18.2	
CT300X3.6	300	3.6	76	18.2	
CT370X3.6	370	3.6	102	18.2	
CT120X4.8	120	4.8	24	22.2	
CT160X4.8	160	4.8	38	22.2	
CT190X4.8	190	4.8	46	22.2	
CT200X4.8	200	4.8	50	22.2	
CT250X4.8	250	4.8	60	22.2	
CT300X4.8	300	4.8	76	22.2	
CT370X4.8	370	4.8	102	22.2	
CT390X4.8	390	4.8	105	22.2	
CT400X4.8	400	4.8	110	22.2	
CT530X4.8	530	4.8	140	22.2	
CT200X7.6	200	7.6	50	54.4	
CT250X7.6	250	7.6	65	54.4	
CT300X7.6	300	7.6	76	54.4	
CT370X7.6	370	7.6	102	54.4	
CT450X7.6	450	7.6	132	54.4	
CT530X7.6	530	7.6	140	54.4	
CT615X7.6	615	7.6	176	54.4	
CT750X7.6	750	7.6	218	54.4	
CT430X9.0	430	9.0	110	79.4	
CT530X9.0	530	9.0	140	79.4	
CT610X9.0	610	9.0	187	79.4	
CT710X9.0	710	9.0	190	79.4	
CT780X9.0	780	9.0	228	79.4	
CT830X9.0	830	9.0	239	79.4	
CT920X9.0	920	9.0	263	79.4	
CT1020X9.0	1020	9.0	295	79.4	
CT1220X9.0	1220	9.0	365	79.4	
CT1530X9.0	1530	9.0	460	79.4	
CT230X13.0	230	13.0	50	114.0	
CT480X13.0	480	13.0	120	114.0	
CT580X13.0	580	13.0	152	114.0	
CT730X13.0	730	13.0	204	114.0	
CT880X13.0	880	13.0	248	114.0	
CT1030X13.0	1030	13.0	295	114.0	

Note: colour natural



Series G



Material: PA6.6 Polyamide, halogen and silicone free

Flammability: UL 94 V2 (V0 available)

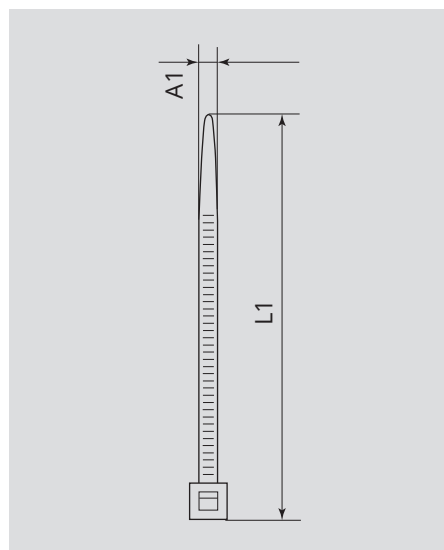
Operating temperatures: -40 °C to +85 °C

Standard: UL E75050, Lloyd's, GL 59425-08HH, Mil-23190D

Resistant to:

Alkalis, oils, oil products, greases, chlorate solvents.

Colour: black (UV resistant)



A higher UV resistance is achieved by the addition of soot particles (carbon black).

Rapid processing as the material has a low coefficient of friction.

Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
CT80X2.4BK	80	2.4	15	8.0	100
CT100X2.5BK	100	2.5	22	8.1	
CT120X2.5BK	120	2.5	30	8.1	
CT140X2.5BK	140	2.5	33	8.1	
CT160X2.5BK	160	2.5	40	8.1	
CT200X2.5BK	200	2.5	53	8.1	
CT140X3.6BK	140	3.6	33	18.2	
CT150X3.6BK	150	3.6	35	18.2	
CT200X3.6BK	200	3.6	53	18.2	
CT300X3.6BK	300	3.6	76	18.2	
CT370X3.6BK	370	3.6	102	18.2	
CT120X4.8BK	120	4.8	24	22.2	
CT160X4.8BK	160	4.8	39	22.2	
CT190X4.8BK	190	4.8	46	22.2	
CT200X4.8BK	200	4.8	50	22.2	
CT250X4.8BK	250	4.8	60	22.2	
CT300X4.8BK	300	4.8	76	22.2	
CT370X4.8BK	370	4.8	102	22.2	
CT390X4.8BK	390	4.8	105	22.2	
CT400X4.8BK	400	4.8	110	22.2	
CT530X4.8BK	530	4.8	140	22.2	
CT200X7.6BK	200	7.6	50	54.4	
CT250X7.6BK	250	7.6	65	54.4	
CT300X7.6BK	300	7.6	76	54.4	
CT370X7.6BK	370	7.6	102	54.4	
CT450X7.6BK	450	7.6	132	54.4	
CT530X7.6BK	530	7.6	140	54.4	
CT615X7.6BK	615	7.6	176	54.4	
CT750X7.6BK	750	7.6	218	54.4	
CT430X9.0BK	430	9.0	110	79.4	
CT530X9.0BK	530	9.0	140	79.4	
CT610X9.0BK	610	9.0	187	79.4	
CT710X9.0BK	710	9.0	190	79.4	
CT780X9.0BK	780	9.0	228	79.4	
CT830X9.0BK	830	9.0	239	79.4	
CT920X9.0BK	920	9.0	263	79.4	
CT1020X9.0BK	1020	9.0	295	79.4	
CT1220X9.0BK	1220	9.0	365	79.4	
CT1530X9.0BK	1530	9.0	460	79.4	
CT230X13.0BK	230	13.0	50	114.0	
CT480X13.0BK	480	13.0	120	114.0	
CT580X13.0BK	580	13.0	152	114.0	
CT730X13.0BK	730	13.0	204	114.0	
CT880X13.0BK	880	13.0	248	114.0	
CT1030X13.0BK	1030	13.0	295	114.0	

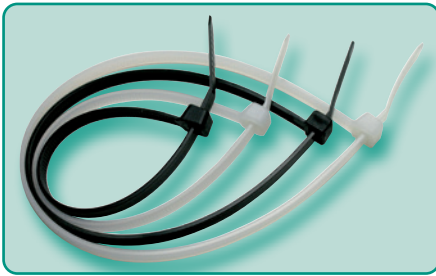
Note: colour black

Cable tie

Halogen
free

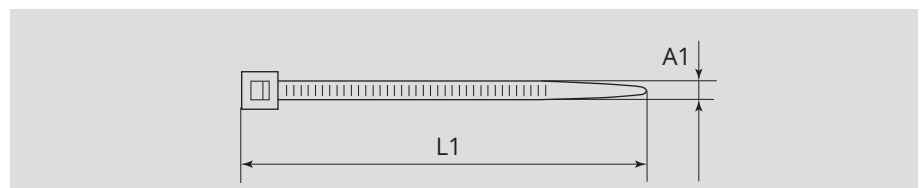
G V0
GR
GFH

Series G made of PA6.6 Polyamide V0 (UL94)



Further characteristics of the series "G":
self-extinguishing V0 (UL94)

Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
Natural					
G90X2.4V0	90	2.4	16	8	100
G100X2.5-MV0	100	2.5	22		1000
G140X2.5-MV0	140		33		
G200X2.5-MV0	200		53		
G150X3.6V0	150	3.6	35	18	100
G200X4.8-MV0	200	4.8	50	22	1000
G370X4.8V0	370		102		100
G430X4.8V0	430		110		
G710X9.0V0	710	9.0	190	80	

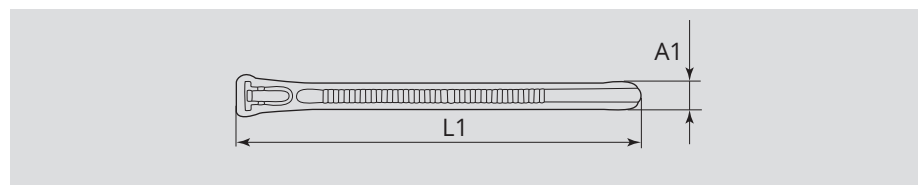


Series GR, removable, made of PA6.6 polyamide

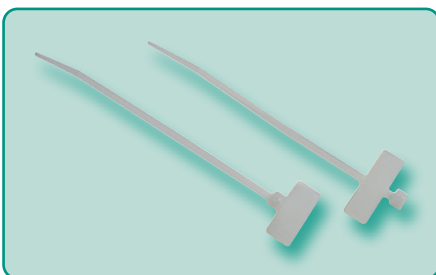


The properties correspond to the cable ties of the G series. The assembly is simple and possible without tools. The cable ties can be opened again by crimping the tongue, making them ideal for short-term bundling.

Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
Black					
GR100X7.6N	100	7.6	20	22.2	100
GR120X7.6N	120		30		
GR150X7.6N	150		35		
GR200X7.6N	200		50		
GR250X7.6N	250		66		
GR300X7.6N	300		80		
GR370X7.6N	370		102		

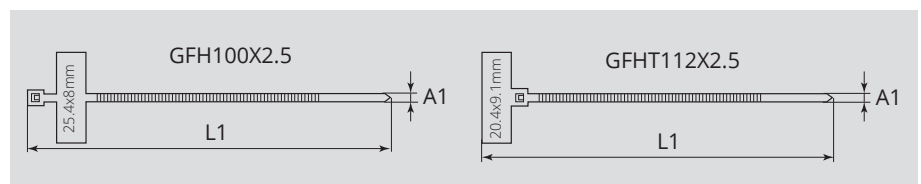


Series GFR, with label field, made of PA6.6 polyamide



The properties correspond to the cable ties of the G series and the cables can be bundled in one operation. The smooth surface enables direct marking with a fibre pen.

Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
Natural					
GFH100X2.5	100	2.5	18	8.1	100
GFHT112X2.5	112				



Cable tie

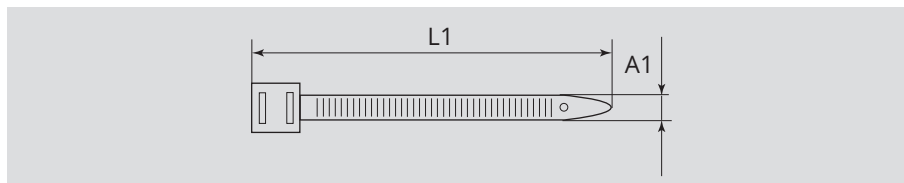
Halogen
free

1600
GX

1600 made of PA12 polyamide



Item number	Head type	L1 (mm)	A1 (mm)	Min. bundle Ø (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
Black							
1618.90	One-head	180	9	15	40	40	100
1626.90	Double head	260		30	60	55	
1636.90	Double head	360			93		
1651.90	Double head	510		70	140		
1676.90	Double head	760			220		



Material: PA12 Polyamide
self-extinguishing HB (UL94)

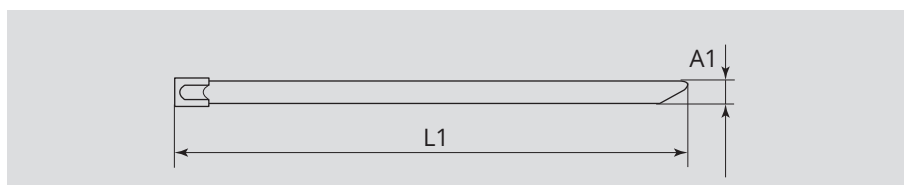
Operating temperatures:
-45 °C to +85 °C (permanent)
-45 °C to +120 °C (short-term)

Resistant to UV, salty atmospheres,
oils and oil products.

Stainless steel cable ties



Item number	L1 (mm)	A1 (mm)	Max. bundle Ø (mm)	Minimum holding weight (kg)	PU
GX200X4.5	200	4.5	50	46	100
GX300X4.5	300		76		
GX370X4.5	370		102		
GX520X4.5	520		156		
GX370X7.9	370	7.9	102	114	100
GX680X7.9	680		207		
GX1020X7.9	1020		312		

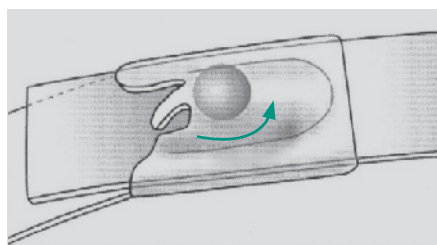


Material: Stainless steel AISI 304

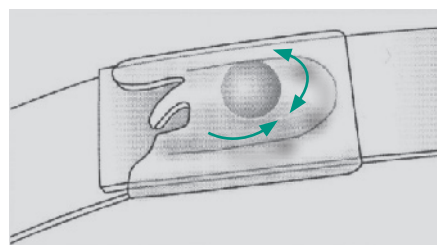
Operating temperature: -80 °C to
+500 °C

Simple, fast and safe installation due to
the special construction with a "ball".

High tensile strength. Non-flammable.
Resistant to alkalis, oils, oil products,
greases, corrosion, chlorate solvents.
Generally resistant to all environmen-
tal influences.



The cable tie is inserted into the locking
device. The ball moves freely along the
cable tie.



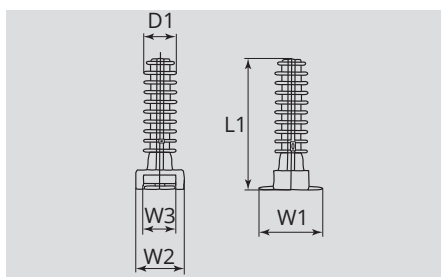
Once the cable tie has reached its end
position, press the ball into the pocket
with the appropriate tool and fix the
cable tie in the locking device.

Cable tie fastening made of PA6.6 polyamide

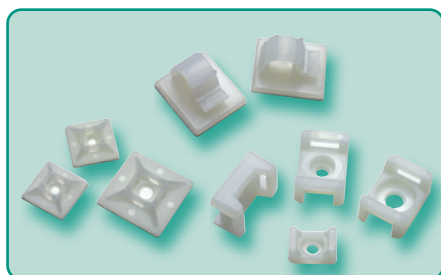


The properties correspond to the cable ties of the G series and are suitable for mounting in an 8 mm hole. The cable ties are inserted at the eyelet.

Item number	W1 (mm)	W2 (mm)	W3 (mm)	L1 (mm)	D1(Ø) hole (mm)	PU
Black						
GH8	20	15	10	40.5	8	100



Series G made of PA6.6 Polyamide



Material: PA6.6 Polyamide self-extinguishing V2 (UL94)

Moisture absorption: 2.5 % (at 50 % relative humidity)

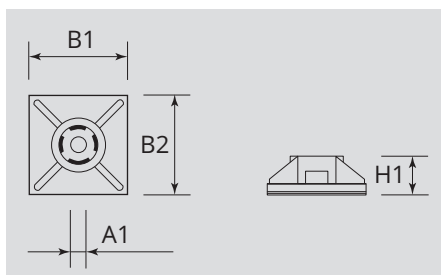
Operating temperatures:

–40 °C to +85 °C (permanent)

–40 °C to +120 °C (short-term)

Resistant to: Alkalies, oils, oil products, greases, chlorate solvents

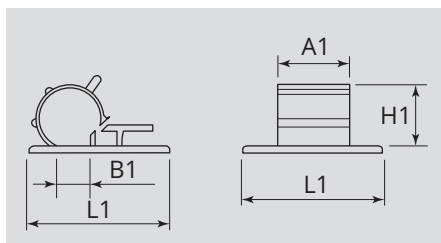
Colour: Natural



PA6.6 Adhesive socket for cable ties

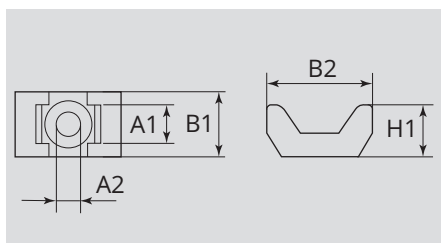
Item number	Max. width (mm)	B1 (mm)	B2 (mm)	A1 (mm)	H1 (mm)	Screw Ø (mm)	PU
AB13*	2.8	13.0	13.0	3.2	3.2	–	100
AB19*	3.6	19.0	19.0	4.0	4.4	3.1	100
AB28*	4.8	28.0	28.0	5.3	5.7	5.5	100

* Also available in black: Insert "N" after item number



PA6.6 Adhesive socket with cable clip

Item number	Cable Ø (mm)	A1 (mm)	H1 (mm)	B1 (mm)	L1 (mm)	PU
CC8.9	8-9	9.0	12.0	8.0	21.5	100
CC9.12	9-12	12.0	15.0	8.2	21.5	100

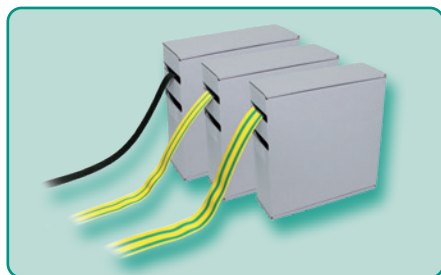


PA6.6 Screw socket for cable ties

Item number	Max. width (mm)	B1 (mm)	B2 (mm)	A2 (mm)	A1 (mm)	H1 (mm)	PU
SS4.8-3.7	4.8	9.5	15	3.7	5.0	7.2	100
SS4.8-4.5	4.8	9.5	15	4.5	5.0	7.2	100
SS9-4.5	9	16.0	22	4.5	9.2	9.7	100
SS9-5	9	16.0	22	5.0	9.2	9.7	100
SS9-6.4	9	16.0	22	6.4	9.2	9.7	100



Polyolefin, irradiated, 3:1, Dispenser box



The heat shrink tubing out of polyolefin is suitable for general use. They are characterised by high flexibility, rapid shrinkage, high strength, are flame retardant and self-extinguishing. The heat shrink tubing can be used for the insulation of electrical conductors, for the protection of electrical connections and terminations, as rust protection of round materials made metal and the labelling of different products.

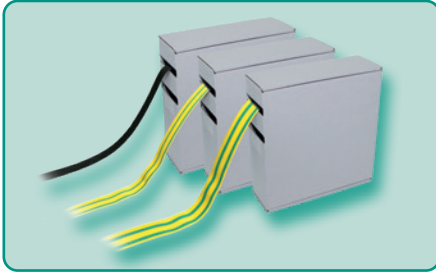
General information:

- Long-term temperature: -55°C to +125°C
- Minimum shrink temperature: 70°C
- Temperature to shrink completely: 110°C
- Standard: RoHS, UL224 E204071, CSA file no.1934614, Sony-SS-00259
- Colour: black, blue, grey, brown, yellow/green, other colors on request
- Packaging: Dispenser box

Item number	Colour		Internal Ø before shrinking (mm)	Internal Ø after shrinking (mm)	length (m)
HST15BK	Black	●	1.5	0.5	10
HST30BK			3.0	1.0	10
HST45BK			4.5	1.5	7
HST60BK			6.0	2.0	7
HST90BK			9.0	3.0	5
HST120BK			12.0	4.0	4
HST180BK			18.0	6.0	3
HST240BK			24.0	8.0	3
HST15BL	Blue	●	1.5	0.5	10
HST30BL			3.0	1.0	10
HST45BL			4.5	1.5	7
HST60BL			6.0	2.0	7
HST90BL			9.0	3.0	5
HST120BL			12.0	4.0	4
HST180BL			18.0	6.0	3
HST240BL			24.0	8.0	3
HST15GY	Grey	●	1.5	0.5	10
HST30GY			3.0	1.0	10
HST45GY			4.5	1.5	7
HST60GY			6.0	2.0	7
HST90GY			9.0	3.0	5
HST120GY			12.0	4.0	4
HST180GY			18.0	6.0	3
HST240GY			24.0	8.0	3
HST15BR	Brown	●	1.5	0.5	10
HST30BR			3.0	1.0	10
HST45BR			4.5	1.5	7
HST60BR			6.0	2.0	7
HST90BR			9.0	3.0	5
HST120BR			12.0	4.0	4
HST180BR			18.0	6.0	3
HST240BR			24.0	8.0	3
HST15RE	Red	●	1.5	0.5	10
HST30RE			3.0	1.0	10
HST45RE			4.5	1.5	7
HST60RE			6.0	2.0	7
HST90RE			9.0	3.0	5
HST120RE			12.0	4.0	4
HST180RE			18.0	6.0	3
HST240RE			24.0	8.0	3
HST15WH	White	○	1.5	0.5	10
HST30WH			3.0	1.0	10
HST45WH			4.5	1.5	7
HST60WH			6.0	2.0	7
HST90WH			9.0	3.0	5
HST120WH			12.0	4.0	4
HST180WH			18.0	6.0	3
HST240WH			24.0	8.0	3
HST30Y-G	Yellow green	●	3.0	1.0	10
HST45Y-G			4.5	1.5	7
HST60Y-G			6.0	2.0	7
HST90Y-G			9.0	3.0	5
HST120Y-G			12.0	4.0	5
HST180Y-G			18.0	6.0	3
HST240Y-G			24.0	8.0	3



Polyolefin, irradiated, 3:1, Dispenser box



The heat shrink tubing out of polyolefin is suitable for general use. They are characterised by high flexibility, rapid shrinkage, high strength, are flame retardant and self-extinguishing. The heat shrink tubing can be used for the insulation of electrical conductors, for the protection of electrical connections and terminations, as rust protection of round materials made metal and the labelling of different products.

General information:

- Long-term temperature: -55°C to +125°C
- Minimum shrink temperature: 70°C
- Temperature to shrink completely: 110°C
- Standard: RoHS, UL224 E204071, CSA file no.1934614, Sony-SS-00259
- Colour: black, blue, grey, brown, yellow/green, other colors on request
- Packaging: Dispenser box

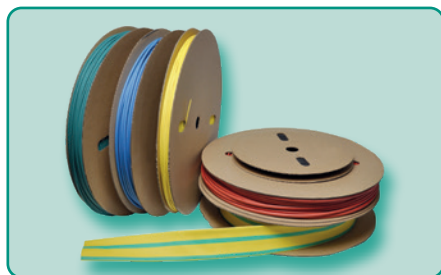
Item number	Colour		Internal Ø before shrinking (mm)	Internal Ø after shrinking (mm)	length (m)
HST15YE	Yellow	●	1.5	0.5	10
HST30YE			3.0	1.0	10
HST45YE			4.5	1.5	7
HST60YE			6.0	2.0	7
HST90YE			9.0	3.0	5
HST120YE			12.0	4.0	4
HST180YE			18.0	6.0	3
HST240YE			24.0	8.0	3
HST15GN	Green	●	1.5	0.5	10
HST30GN			3.0	1.0	10
HST45GN			4.5	1.5	7
HST60GN			6.0	2.0	7
HST90GN			9.0	3.0	5
HST120GN			12.0	4.0	4
HST180GN			18.0	6.0	3
HST240GN			24.0	8.0	3
HST15TR	Trans-parent	○	1.5	0.5	10
HST30TR			3.0	1.0	10
HST45TR			4.5	1.5	7
HST60TR			6.0	2.0	7
HST90TR			9.0	3.0	5
HST120TR			12.0	4.0	4
HST180TR			18.0	6.0	3
HST240TR			24.0	8.0	3

Heat Shrink Tubing Thin walled

HST



Polyolefin, irradiated, 3:1, Role



The heat shrink tubing out of polyolefin is suitable for general use. They are characterised by high flexibility, rapid shrinkage, high strength, are flame retardant and self-extinguishing. The heat shrink tubing can be used for the insulation of electrical conductors, for the protection of electrical connections and terminations, as rust protection of round materials made metal and the labelling of different products.

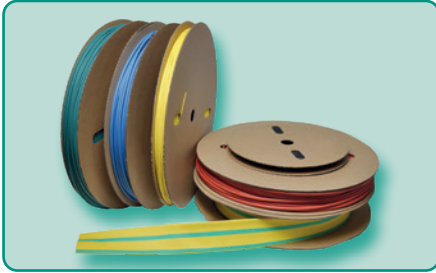
General information:

- Long-term temperature: -55°C to +125°C
- Minimum shrink temperature: 70°C
- Temperature to shrink completely: 110°C
- Standard: RoHS, UL224 E204071, CSA file no.1934614, Sony-SS-00259
- Colour: black, blue, grey, brown, yellow/green, other colors on request
- Packaging: Role

Item number	Colour		Internal Ø before shrinking (mm)	Internal Ø after shrinking (mm)	length (m)
HST15BK-RL	Black	●	1.5	0.5	150
HST30BK-RL			3.0	1.0	150
HST45BK-RL			4.5	1.5	75
HST60BK-RL			6.0	2.0	75
HST90BK-RL			9.0	3.0	75
HST120BK-RL			12.0	4.0	50
HST180BK-RL			18.0	6.0	30
HST240BK-RL			24.0	8.0	30
HST390BK			39.0	13.0	30
HST15BL-RL	Blue	●	1.5	0.5	150
HST30BL-RL			3.0	1.0	150
HST45BL-RL			4.5	1.5	75
HST60BL-RL			6.0	2.0	75
HST90BL-RL			9.0	3.0	75
HST120BL-RL			12.0	4.0	50
HST180BL-RL			18.0	6.0	30
HST240BL-RL			24.0	8.0	30
HST390BL			39.0	13.0	30
HST15GY-RL	Grey	●	1.5	0.5	150
HST30GY-RL			3.0	1.0	150
HST45GY-RL			4.5	1.5	75
HST60GY-RL			6.0	2.0	75
HST90GY-RL			9.0	3.0	75
HST120GY-RL			12.0	4.0	50
HST180GY-RL			18.0	6.0	30
HST240GY-RL			24.0	8.0	30
HST390GY			39.0	13.0	30
HST15BR-RL	Brown	●	1.5	0.5	150
HST30BR-RL			3.0	1.0	150
HST45BR-RL			4.5	1.5	75
HST60BR-RL			6.0	2.0	75
HST90BR-RL			9.0	3.0	75
HST120BR-RL			12.0	4.0	50
HST180BR-RL			18.0	6.0	30
HST240BR-RL			24.0	8.0	30
HST390BR			39.0	13.0	30
HST15RE-RL	Red	●	1.5	0.5	150
HST30RE-RL			3.0	1.0	150
HST45RE-RL			4.5	1.5	75
HST60RE-RL			6.0	2.0	75
HST90RE-RL			9.0	3.0	75
HST120RE-RL			12.0	4.0	50
HST180RE-RL			18.0	6.0	30
HST240RE-RL			24.0	8.0	30
HST390RE			39.0	13.0	30
HST15WH-RL	White	○	1.5	0.5	150
HST30WH-RL			3.0	1.0	150
HST45WH-RL			4.5	1.5	75
HST60WH-RL			6.0	2.0	75
HST90WH-RL			9.0	3.0	75
HST120WH-RL			12.0	4.0	50
HST180WH-RL			18.0	6.0	30
HST240WH-RL			24.0	8.0	30
HST390WH			39.0	13.0	30
HST30Y-G-RL	Yellow green	●	3.0	1.0	150
HST45Y-G-RL			4.5	1.5	75
HST60Y-G-RL			6.0	2.0	75
HST90Y-G-RL			9.0	3.0	75
HST120Y-G-RL			12.0	4.0	50
HST180Y-G-RL			18.0	6.0	30
HST240Y-G-RL			24.0	8.0	30
HST390Y-G			39.0	13.0	30



Polyolefin, irradiated, 3:1, Role



The heat shrink tubing out of polyolefin is suitable for general use. They are characterised by high flexibility, rapid shrinkage, high strength, are flame retardant and self-extinguishing. The heat shrink tubing can be used for the insulation of electrical conductors, for the protection of electrical connections and terminations, as rust protection of round materials made metal and the labelling of different products.

General information:

- Long-term temperature: -55°C to +125°C
- Minimum shrink temperature: 70°C
- Temperature to shrink completely: 110°C
- Standard: RoHS, UL224 E204071, CSA file no.1934614, Sony-SS-00259
- Colour: black, blue, grey, brown, yellow/green, other colors on request
- Packaging: Role

Item number	Colour		Internal Ø before shrinking (mm)	Internal Ø after shrinking (mm)	length (m)
HST15YE-RL	Yellow	●	1.5	0.5	150
HST30YE-RL			3.0	1.0	150
HST45YE-RL			4.5	1.5	75
HST60YE-RL			6.0	2.0	75
HST90YE-RL			9.0	3.0	75
HST120YE-RL			12.0	4.0	50
HST180YE-RL			18.0	6.0	30
HST240YE-RL			24.0	8.0	30
HST390YE			39.0	13.0	30
HST15GN-RL	Green	●	1.5	0.5	150
HST30GN-RL			3.0	1.0	150
HST45GN-RL			4.5	1.5	75
HST60GN-RL			6.0	2.0	75
HST90GN-RL			9.0	3.0	75
HST120GN-RL			12.0	4.0	50
HST180GN-RL			18.0	6.0	30
HST240GN-RL			24.0	8.0	30
HST390GN			39.0	13.0	30
HST180OG-RL	Orange	●	18.0	6.0	30
HST390TR	Trans-parent	○	39.0	13.0	30
HST15VI-RL	Purple	●	1.5	0.5	150
HST30VI-RL			3.0	1.0	150
HST45VI-RL			4.5	1.5	75
HST60VI-RL			6.0	2.0	75
HST90VI-RL			9.0	3.0	75
HST120VI-RL			12.0	4.0	50
HST180VI-RL			18.0	6.0	30
HST240VI-RL			24.0	8.0	30
HST390VI			39.0	13.0	30

Braided sleeving

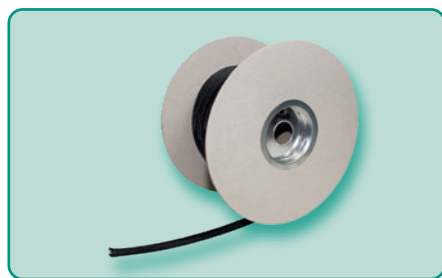
BS

Halogen-free

Polyester PET HB, Dispenser box and Role



Item number	Colour		DN (mm)	Bundle diameter (mm)	Length per Box (m)
BS5-S	Black	●	5.0	5.00 - 10.00	10
BS10-S			10.0	10.00 - 15.00	10
BS15-S			15.0	15.00 - 27.00	10
BS20-S			20.0	20.00 - 28.00	5
BS25-S			25.0	25.00 - 34.00	5
BS30-S			30.0	30.00 - 37.00	5



Item number	Colour		DN (mm)	Bundle diameter (mm)	Length per roll (m)
BS3-M	Black	●	3.0	3.00 - 7.00	100
BS4-M			4.0	4.00 - 10.00	100
BS5-M			5.0	5.00 - 10.00	100
BS8-M			8.0	8.00 - 11.00	100
BS10-M			10.0	10.00 - 15.00	100
BS12-M			12.0	12.00 - 19.00	50
BS15-M			15.0	15.00 - 27.00	50
BS20-M			20.0	20.00 - 28.00	50
BS25-M			25.0	25.00 - 34.00	50
BS30-M			30.0	30.00 - 37.00	50
BS40-M			40.0	40.00 - 45.00	50
BS50-M			50.0	50.00 - 65.00	50

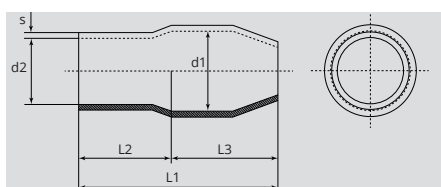


General information:

- Material: Polyester PET HB
- Temperature range: -50°C up to +150°C
- Melting temperature: +250°C
- Colour: black
- Packaging: Dispenser box or Role

Insulation grommets for non-insulated cable lugs

For non-insulated cable lugs



Insulation grommets out of PVC for insulating tubular cable lugs Type **A..-M..** and **HR..-M..**.

The material is non-combustible and has a good environmental sustainability. The insulation grommets are used for wiring and to protect electrical connections.

General information:

- Material: PVC
- Self-extinguishing as per [UL94]: VO
- Max. application temperature: 85°C
- Can be used with cable lugs of the series A..-M..
- Colours: red, yellow, blue, black, grey, brown.

Type	Tubular cable lugs		d1 Ø	d2 Ø	L2 ± 1	L3 ± 1	L1 ± 2	s ± 0.2	PU
	H-R*	A-M*	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
ES03-...	-	A03	3.3	3.1	7.0	8.0	15.0	0.6	100
ES06-...	-	A06	4.5	3.7	8.0	8.0	16.0	0.7	100
ES1-...	-	A1	5.7	4.1	9.0	9.0	18.0	0.8	100
ES2-...	HR10	A2	7.2	6.2	11.0	10.0	21.0	1.0	100
ES3-...	HR16	A3	10.0	8.0	15.0	13.0	28.0	1.1	100
ES5-...	HR25	A5	12.0	9.5	15.0	14.0	29.0	1.2	100
ES10-...	HR35, HR50	A7, A9, A10	14.0	11.8	17.0	17.0	34.0	1.4	100
ES14-...	HR70	A12, A14	17.0	13.9	22.0	20.0	42.0	1.5	100
ES19-...	HR95	A17, A19	19.0	16.0	25.0	21.0	46.0	1.5	50
ES24-...	HR120	A20, A24	22.0	18.0	31.0	24.0	55.0	1.7	50
ES30-...	HR150	A29, A30	24.0	20.0	32.0	28.0	60.0	1.8	50
ES37-...	HR185	A35, A37	26.0	22.0	34.0	31.0	65.0	1.8	50
ES40-...	HR240	A40, A48**	32.2	24.0	38.0	31.0	69.0	2.0	50
ES48-...	-	A48**	36.5	27.2	42.0	33.0	75.0	2.0	50
ES80-...	-	A60, A80	36.7	30.0	42.0	33.0	75.0	2.0	50

When ordering, please add the desired colour to the type.

-BU blue, -GY grey, -BR brown, -BK black, -RE red, -YE yellow

* see tubular cable lugs H-R and A-M

** depending on the diameter of the insulated cable

Note: The tubular cable lugs listed here are recommendations. There may be deviations, as it much depends on the type of crimping and the insulation thickness of the cable.

Mechanical crimping tools



ME5

Matrices on request

Crimping type:   

For parallel connectors and non-insulated cable lugs and connectors

Crimping range 6 to 25 mm²

Dimensions: 311 x 85 x 36 mm



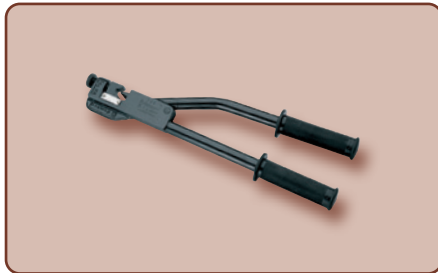
HP4-C10



Crimping type: 

For «C» branch joints of the type C6-C6 and C10-C10

Dimensions: 330 x 110 x 50 mm



TN70SE

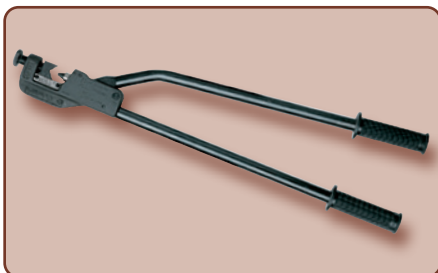


Crimping type: 

For non-insulated cable lugs and connectors

Crimping range 6 to 70 mm²

Dimensions: 450 x 127 mm



TN120SE



Crimping type: 

For non-insulated cable lugs and connectors

Crimping range 10 to 120 mm²

Dimensions: 700 x 170 mm

Mechanical crimping tools



PEW8-AEH10



Crimping type: □

For insulated and non-insulated wire end ferrules

Crimping range 0.08 to 10 mm²



PEW8-AEH16



Crimping type: □

For insulated and non-insulated wire end ferrules

Crimping range 0.08 to 16 mm²



JANUS10-RA



Crimping type: ▽

For insulated and non-insulated wire end ferrules

Crimping range 0.14 to 10 mm²

Dimensions: 180 x 65 x 25 mm



PROTEUS 10S



Crimping type: □

For insulated and non-insulated wire end ferrules

Crimping range 0.14 to 10 mm²

Dimensions: 176 x 62 x 26 mm



PROTEUS 10H



Crimping type: ◇

For insulated and non-insulated wire end ferrules

Crimping range 0.14 to 10 mm²

Dimensions: 176 x 62 x 26 mm

Mechanical crimping tools

Type **Crimpstar**®

Thanks to their unique mechanism, the new generation of crimping tool reduces the workload. The small, compact design with ergonomically shaped handles makes work easier and is a prerequisite for reliable crimping tools with guaranteed constant crimping.



HNKE50



Crimping type: ▽

For insulated and non-insulated wire end ferrules

Crimping range 25 - 35 - 50 mm²

Dimensions: 235 x 73 x 18 mm



GLW-CK29



Crimping type: ▽

For insulated and non-insulated wire end ferrules

Crimping range 50 to 95 mm²

Dimensions: 345 x 12 mm



HP1



Crimping type: ○

For insulated cable lugs and connectors

Crimping range 0.2 to 2.5 mm²

Dimensions: 235 x 73 x 18 mm



HP3



Crimping type: ○

For insulated cable lugs and connectors

Crimping range 0.25 to 6 mm²

Dimensions: 235 x 73 x 18 mm

Mechanical crimping tools

Type **Crimpstar**®



HNN3



Crimping type: ☺

For Nylon insulated cable lugs and connectors

Crimping range 1.5 to 10 mm²

Dimensions: 236 x 73 x 18 mm



HNN4



Crimping type: ☺

For Nylon insulated cable lugs and connectors

Crimping range 10 and 16 mm²

Dimensions: 236 x 73 x 18 mm



HPH1



Crimping type: ○

For heat-shrinkable crimp connectors

Crimping range 0.5 to 6 mm²

Dimensions: 235 x 73 x 18 mm



HN1



Crimping type: ☺

For non-insulated cable lugs and connectors made from copper

Crimping range 0.25 to 10 mm²

Dimensions: 235 x 73 x 18 mm



HN5



Crimping type: ☺

For non-insulated cable lugs and connectors made from copper

Crimping range 10 and 16 mm²

Dimensions: 235 x 73 x 18 mm



HF1



Crimping type: ☐

For non-insulated cable lugs and connectors

Crimping range 0.5 to 4 mm²

Dimensions: 235 x 73 x 18 mm



HF2



Crimping type: ☐

For non-insulated cable lugs and connectors

Crimping range 0.08 to 1.3 mm²

Dimensions: 235 x 73 x 18 mm



HN-A25



Crimping type: ☐

For cable lugs of the series **A-M** and connectors of the series **L-M** and **L-P**

Crimping range 10 to 25 mm²

Dimensions: 229 x 79 x 18 mm



HN-D25



Crimping type: ☐

For cable lugs of the series **DR** and connectors of the series **DSV**

Crimping range 10 to 25 mm²

Dimensions: 229 x 79 x 18 mm



HN-H25



Crimping type: ☐

For cable lugs of the series **HR** and connectors of the series **HSV**

Crimping range 10 to 25 mm²

Dimensions: 229 x 79 x 18 mm



HN-T25



Crimping type: ☐

For cable lugs of the series **T-M**, **T-L**, **TB-M** and connectors of the series **L-T**

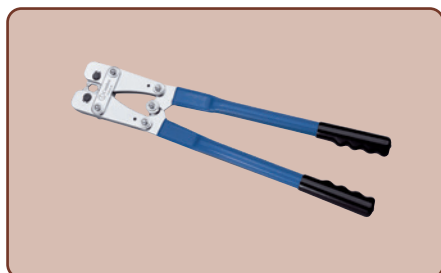
Crimping range 10 to 25 mm²

Dimensions: 229 x 79 x 18 mm

Mechanical crimping tools

TND

The mechanical crimping tools of the TND series have rotatable hexagonal crimp dies in accordance with DIN 48083 for connecting material according to DIN 46235 and DIN 46267 (e.g. page 26 - 27). The easy handling and the maintenance-free mechanism allow smooth working.



TND6-70



Crimping type: 

For non-insulated cable lugs and connectors according to DIN 46235/46267

Crimping range 6 to 70 mm²

Dimensions: 515 x 132 mm



TND10-120



Crimping type: 

For non-insulated cable lugs and connectors according to DIN 46235/46267

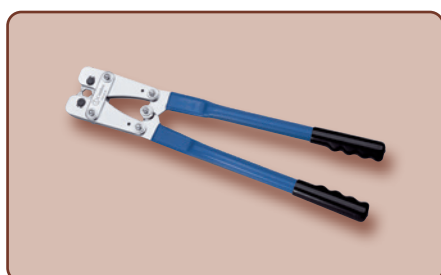
Crimping range 10 to 120 mm²

Dimensions: 665 x 162 mm

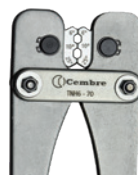
Mechanical crimping tools

TNH

The TNH series mechanical crimping tools have swivel hexagonal crimp dies for commercial tubular cable lugs and connectors (e.g., page 28 - 29). The easy handling and the maintenance-free mechanism allow smooth working.



TNH6-70

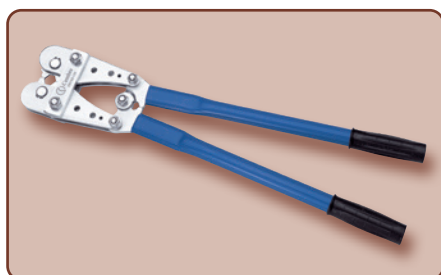


Crimping type: 

For commercial tubular cable lugs type **HR** and connector type **HSV**

Crimping range 6 to 70 mm²

Dimensions: 515 x 132 mm



TNH10-120



Crimping type: 

For commercial tubular cable lugs type **HR** and connector type **HSV**

Crimping range 10 to 120 mm²

Dimensions: 665 x 162 mm

Mechanical crimping tools

Type **Crimpstar**®



HX1



Crimping type: 

For coaxial connector. **HX1**
(e.g. RG58, RG59, RG62 and RG71)

Dimensions: 235 x 73 x 18 mm

Scissors



SC5X

High-quality scissors with blades made of resistant and durable steel. The pivot bolt with lock and the teeth on the blades, allow a perfect and consistent alignment of the blades for first-class cutting and stripping.

Due to the high degree of hardness of the blades (58 HRC) as well as their special recess, cables up to 50 mm² can be cut.

The scissors are delivered with a rotatable protective cover (with belt strap).



Wire strippers



HB6-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

0.02 to 10 mm² / 34 to 8 AWG

4320-0864, Interchangeable cartridges for PVC insulated cable



HB6-BLUE-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

0.1 to 4 mm² / 28 to 12 AWG

4320-0865, Interchangeable cartridges «V-shaped» for PTFE-insulated cable (Teflon)



HB6-RED-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

4 to 16 mm² / 10 to 5 AWG

4320-0866, Interchangeable cartridges for PVC-insulated cable



HB6-RA-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

0.02 to 10 mm² / 34 to 8 AWG

4320-0864, Interchangeable cartridges for PVC insulated cable



HB6-RA-BLUE-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

0.1 to 4 mm² / 28 to 12 AWG

4320-0865, Interchangeable cartridges «V-shaped» for PTFE-insulated cable (Teflon)



HB6-RA-RED-OS

Wire stripper with wire cutter and interchangeable cartridges for PVC-insulated cable from

4 to 16 mm² / 10 to 5 AWG

4320-0866, Interchangeable cartridges for PVC-insulated cable

Stripping tool



HB3

Cable stripping tool from
4.5 to 40 mm
Insulation thickness up to 4.5 mm

Mechanical cable cutters



KT1

Cutting tool
for cable up to max. Ø 15 mm



KT1-F

Cutting tool
for cable up to max. Ø 15 mm



KT2

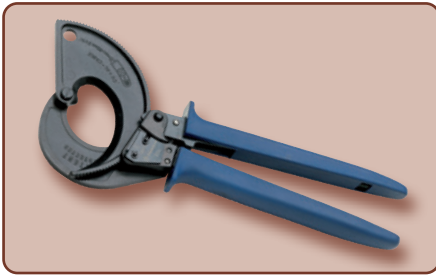
Cutting tool
for cable up to max. Ø 25 mm



KT3

Cutting tool
for cable up to Ø 32 mm
Weight: 0.6 kg Length: 255 mm

Mechanical cable cutters



KT4

Cutting tool
for cable up to Ø 52 mm
Weight: 0.9 kg Length: 310 mm



KT60

Cutting tool
for cable up to Ø 60 mm
Weight: 3.9 kg
Length: 610-810 mm



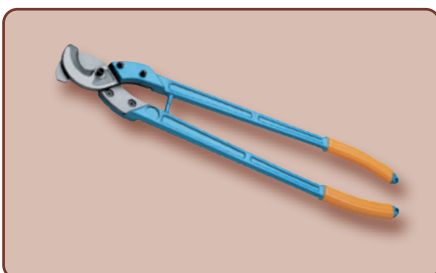
KT100

Cutting tool
for cable up to Ø 100 mm
Weight: 5 kg
Length: 660-860 mm



KS250

Cutting tool for cable
6 to 250 mm²
Weight: 1.5 kg Length: 600 mm



KS500

Cutting tool for cable
6 to 500 mm²
Weight: 3 kg Length: 800 mm

Tool for cable ties



CTG48-OS

Thanks to the TLC technology (Tension / Lock / Cut) of the **CTG48-OS**, the processing of cable ties is revolutionised by significantly reducing the force needed.

- Standard handle width (90 mm)
- Adjustable setting force
- For plastic cable ties up to 4.8 mm in width
- Cable ties are cut clean in the same operation



CTG106-OS

This tool the **CTG106-OS** offers clean, straight cuts of cable ties and offers a high level of setting forces.

- Standard handle width (110 mm)
- For cable ties up to 10.6 mm width
- Cable ties are cut clean in the same operation



CTG79S-OS

Type **CTG79-OS** for stainless steel cable ties up to a width of 7.9 mm with cutting function

Weight: 0.6 kg Length: 180 mm

Tool for cutting cable ducts



PEL60

Cutting length up to 60 mm



PEL110

Cutting length up to 110mm



PEL110-A

Cutting length up to 110 mm, with support for plates and ducts

- For burr-free cutting of plastic plates, baseboards and cable ducts
- Very good cutting effect also at the scissors tip
- Available in two versions with cut lengths of 60 mm and 110 mm
- Scissors with 110 mm cutting length with support for miter cuts available

Hydraulic punching tool

HT-FL75



Hydraulic punching tool for punching stainless steel, steel, fibreglass and plastic up to a thickness of up to 3.5 mm. Compact, lightweight and easy to use. The punch head can be rotated through 360° and tiltable through 180°.

The tool is supplied in a plastic case **VAL P28**.

The scope of delivery includes the tie bolt **TD11**, **TD19** and a drill bit 11.5 mm.

Max. punching dimension: Ø 140 mm

Length: 452 mm

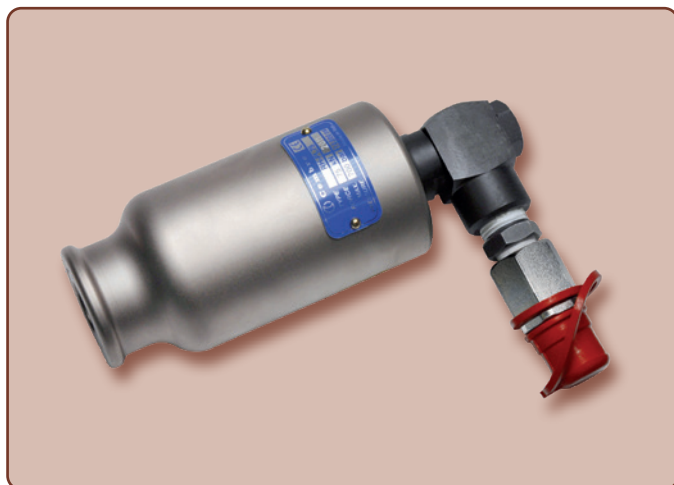
Width: 129 mm

Weight: 3.7 kg



Hydraulic punch head

RH-FL75



Hydraulic punch head for punching stainless steel, steel, fibreglass and plastic up to a thickness of up to 3.5 mm. Thanks to its compact design it is ideal for confined areas. Supplied in a plastic case **VAL P29**. The scope of delivery includes the tie bolt **TD11**, **TD19** and a drill bit 11.5 mm.

The hydraulic punch head is equipped with a quick coupler, allowing connection to a hydraulic pump with a max. operating pressure of 700 bar.

Max. punching dimension: Ø 140 mm

Max. operating pressure: 700 bar

Length: 163 mm

Width: 106 mm

Weight: 1.9 kg



Punching tool Rectangular

Punch dimensions		Item description			
Nominal		Max. material thickness		Borehole Ø	KIT
mm	inch	Stainless-steel	Soft-steel	[mm]	[Die + Punch] + Tie bolt
18.0x46.0	0.709x1.811	2.0		16.5	RD18x46
22.0x30.0	0.866x1.181				RD22x30
22.0x46.0	0.866x1.811				RD22x46
35.0x86.0	1.377x3.385				RD35x86
35.0x112.0	1.377x4.409				RD35x112
36.0x46.0	1.417x1.811			23.8	RD36x46
37.0x54.0	1.456x2.125	2.0		16.5	RD37x54
37.0x67.0	1.456x2.637				RD37x67
37.0x88.0	1.456x3.464				RD37x88
37.0x104.0	1.456x4.094				RD37x104
37.0x115.0	1.456x4.527	1.5		26.5	RD37x115
46.0x54.0	1.811x2.126				RD46x54
46.0x72.0	1.811x2.835				RD46x72
46.0x107.0	1.811x4.212				RD46x107
50.0x98.0	1.968x3.858				RD50x98
67.0x126.0	2.637x4.960			28.5	RD67x126

Stainless steel = Rm = 700 N/mm² - Soft steel = Rm = 510 N/mm²

Square punching tool

Punch dimensions				Item description	
Nominal		Max. material thickness		Bore-hole Ø	KIT
mm	inch	Stain-less-steel	Soft-steel	[mm]	[Die + Punch] + Tie bolt
21.0x21.0	0.827x0.827	2.5	3.5	12.0	RD21x21
46.0x46.0	1.811x1.811	2.0	3.0	22.5	RD46x46
68.0x68.0	2.677x2.677	1.5	2.0		RD68x68
92.0x92.0	3.622x3.622				RD92x92
126.0x126.0	4.960x4.960	1.0	1.5	28.5	RD126x126
138.0x138.0	5.433x5.433				RD138x138
220.0x220.0	8.661x8.661				RD220x220

Round punching tool									
Punch dimensions					Item description				
Nominal		PG	ISO	GAS	Max. material thickness		Borehole Ø [mm]	KIT [Die + Punch]	Tie bolt
Ø mm	Ø inch				Stainless-steel	Soft-steel			
15.5	0.610	PG 9	–	–	2.5 mm [0.1 in.] Rm = 700 N/mm²	3.5 mm [0.14 in.] Rm = 510 N/mm²	11.5	RD15.5SS	TD-11
16.2	0.638	–	ISO-1 6	–				RD16.2SS	
17.0	0.669	–	–	G3/8"				RD17SS	
17.5	0.689	–	–	–				RD17.5SS	
18.8	0.740	PG 11	–	–				RD18.8SS	
19.1	0.752	–	–	–				RD19.1SS	
20.5	0.807	PG 13.5	ISO-20	–				RD20.5SS	
21.5	0.846	–	–	G1/2"				RD21.5SS	
22.6	0.890	PG 16	–	–				RD22.6SS	
23.8	0.937	–	–	G5/8"				RD23.8SS	
25.4	1.000	–	ISO-25	–				RD25.4SS	
27.0	1.063	–	–	G3/4"				RD27SS	
28.5	1.122	PG 21	–	–				RD28.5SS	
30.5	1.201	–	–	G7/8"				RD30.5SS	
28.5	1.122	PG 21	–	–			20.0	RD28.5SS-19	TD-19
30.5	1.201	–	–	G7/8"				RD30.5SS-19	
31.8	1.252	–	–	–				RD31.8SS	
32.5	1.279	–	ISO-32	–				RD32.5SS	
34.0	1.338	–	–	G1"				RD34SS	
34.6	1.362	–	–	–				RD34.6SS	
37.2	1.464	PG 29	–	–				RD37.2SS	
38.1	1.500	–	–	–				RD38.1SS	
38.5	1.515	–	–	G1"1/8"				RD38.5SS	
40.5	1.594	–	ISO-40	–				RD40.5SS	
41.3	1.626	–	–	–				RD41.3SS	
42.5	1.673	–	–	G1"1/4"				RD42.5SS	
43.2	1.701	–	–	–				RD43.2SS	
44.5	1.752	–	–	–				RD44.5SS	
47.2	1.858	PG36	–	–				RD47.2SS	
48.5	1.909	–	–	G1"1/2"				RD48.5SS	
50.5	1.988	–	ISO-50	–				RD50.5SS	
51.4	2.023	–	–	–				RD51.4SS	
52.4	2.063	–	–	–				RD52.4SS	
54.2	2.134	PG42	–	G1"3/4"				RD54.2SS	
60.0	2.362	PG48	–	G2"				RD60SS	
60.5	2.381	–	–	–				RD60.5SS	
64.0	2.520	–	ISO-63	–				RD64SS	
65.0	2.559	–	–	–				RD65SS	
76.0	2.992	–	–	G2"1/2"		3		RD76SS	
76.5	3.011	–	–	–		3.5		RD76.5SS	
80.5	3.169	–	–	–		3		RD80.5SS	
89.0	3.503	–	–	G3"		3.5		RD89SS	
90.0	3.543	–	–	–	2	3		RD90SS	
100.0	3.937	–	–	–	2	3	29.0	RD100SS	TD-28.5*
102.0	4.015	–	–	–	2	3		RD102SS	
114.0	4.488	–	–	–	2	2.5		RD114SS	
120.0	4.724	–	–	–	1.5	2		RD120SS	
140.0	5.512	–	–	–	1.5	2		RD140SS	

Punching tools from other manufacturers

Item description	Tool type	Borehole Ø [mm]
KIT TRD-9.4C (*)	KLAUKE, GREENLEE 3/8" -24 UNF	9.7
KIT TRD-M11C (*)	IMB, BM, COSMEC [M11x1.5]	11.5
TD-M16C	IMB, BM, COSMEC [M16x1.5]	16.5 o KIT RD17.5SS
TD27	COSMEC [Ø105÷Ø140]	27.5
TD14x14-M14	COSMEC 46x46	18.8
TD120x20-M20	COSMEC 92x92	27.5
TD20x20-M20	BM, COSMEC 42x95	27.5
KIT TGD-13.5x13.5-M13	COSMEC 40x40; 45x45; 46x46	18.8
KIT TGD-10x10-M9	COSMEC 006505	13.8

(*) The supplied ring is pushed onto the tie bolt and positioned between the head and die. This ensures proper seating of the die.

Automatic trimming device

LC-100
LC-100SL2



Cutting cables to length with the **LC-100** offers considerable savings potential. The front flap is simply opened by pressing a button. After inserting the cable, the measuring and transport rollers are automatically adjusted to the diameter when closing the flap. Enter the desired length and quantity on the control panel and start production.

The supplied software enables the pre-planning of standard devices and switching cabinets on the PC. Recurring cutting jobs can be saved as projects on the **LC-100**. For cutting tube up to $\varnothing$ 8 mm, we recommend the tube cutter **LC-100SL2**. Its special tube guides ensure straight cut surfaces.

Technical specifications

Max. opening:	8 mm / 3.2 Inch
Cutting performance finely stranded:	0.08 – 10 mm ² / 28-8 AWG
Max. measuring length:	99999 mm / 999.9 Inch
Language selection:	D, GB, F, I, E
Measurement units:	mm - Inch
Feed rate:	max. 0.5 m/s
Power connection:	230V/50HZ (115V/60HZ)
Size (W x H x D):	194 x 295 x 227 mm
Weight:	11 kg

Automatic trimming device with external control unite

LC-100RB



The **LC-100RB** for cutting strands to length is equipped with an external control unite. This allows to interrupt the task and have an intermediate stop in order to carry out further work steps, such as the application of markers. The task can be paused completely, which can be helpful in larger projects. The transport speed can be easily adapted to the project as well the cutting function and the zero cut can be deactivated.

Technical specifications

Max. opening:	8 mm / 3.2 Inch
Cutting performance finely stranded:	0.08 – 10 mm ² / 28-8 AWG
Max. measuring length:	99999 mm / 999.9 Inch
Language selection:	D, GB, F, I, E
Measurement units:	mm - Inch
Feed rate:	max. 0.5 m/s
Power connection:	230V/50HZ (115V/60HZ)
Size (W x H x D):	194 x 295 x 227 mm
Weight:	11 kg

Wire stripping device

CS-60



The electrically operated **CS-60** stripping machine is compact and easy to use.

The clear graphic display shows the values entered. In just a few seconds, the settings of the cross-section and the stripping length are done, making the device ideal for small series. A short insertion length and the clearly visible working area support fast and fatigue-free working. The clamping force is set to the required automatic stripping force. This prevents pressure points on sensitive insulations. The carrying handle makes the **CS-60** mobile.

Technical specifications

Processing cross-section:	0.08 – 6 mm ² /AWG 32-10
Max. cable diameter:	6 mm
Stripping length:	3 – 20 mm
Partial withdrawal length:	2 – 20 mm
Insertion length + stripping length:	15 mm + X
Cycle time (full strip):	0.3 s
Stripping blades:	V-shape
Supply voltage:	AC 230 V (110 V)
Size (L x B x H):	363 x 141 x 221 mm
Weight:	9.5 kg

Stripping and crimping machine

MC-40-1
MC-40L



The electro-pneumatically controlled stripping and crimping machines **MC-40-1** and **MC-40L** are intended for the rational processing of loose wire end ferrules with plastic collars. The stripping and crimping is performed in one operation.

The **MC-40-1** is equipped with crimp tools that have cross-sections 0.5 / 0.75 / 1.0 / 1.5 mm² with 6 - 12 mm sleeve length. There are corresponding extension sets for processing the cross-sections of 0.25 / 0.34 / 2.5 and 4 mm².

Processing cross-section	0.5 – 1.5 mm ² /AWG 24-16
Crimp lengths	6 - 12 mm
Extension set 0.25	0.25 – 0.34 mm ²
Extension set 2.5	2.5 mm ²
Extension set 4.0	4 mm ² – (only 10 mm)

The **MC-40L** processes the cross-sections 4 / 6 / 10 mm².

Processing cross-section	4/6/10 mm ² /AWG 12/10/8
Tool kit 4-10/12	4 mm ² – 10/12 mm
Tool kit 6	6 mm ² – 12 mm
Tool kit 10	10 mm ² – 12 mm

Technical specifications

Cycle time:	1 s
Stripping blades:	V-shape
Supply voltage:	AC 230 V (110 V)
Compressed air connection:	5 bar
Size (L x B x H):	550x 250 x 412 mm
Weight:	29 kg

Stripping and crimping machine

MC25



Your rational helper in the processing of insulated wire end ferrules. The **MC25** processes wire end ferrules in strip form 0.25 - 2.5 mm² / standard length 8 mm. Thanks to its compact design, it can also be used conveniently for changing workplaces.

In a matter of seconds, without any aids, you can change the cross section. Simply snap in the change tool and the **MC25** is ready to use again.

All components that you need for retooling, are clearly arranged in the supplied case.

Technical specifications

Cross-section range:	(0.25) 0.5 – 2.5 mm ² / AWG 24-14
Crimp length:	8 mm
Cycle time:	1.5 s
Quantity counter:	LCD display
Power connection:	230 V / 50 Hz (115 V / 60 Hz)
Size (W x H x D):	165 x 270 x 320 mm
Weight:	12 kg

Pneumatic crimper

AC



Using the pneumatic crimper, wire end ferrules can be crimped quickly and without tiring.

The **AC-25**, **AC-40** and **AC-100** are light and easy to handle and are therefore ideally suited for switching cabinet construction.

The table models **AC-25T**, **AC-40T** and **AC-100T** are triggered with foot switches. Both hands are then free for placing wire end ferrules on the conductors. The devices are maintenance free. A pressure of 4 to 6 bar ensures secure crimping. Thanks to the sturdy polyamide housing, they can cope with any harsh industrial environment.

Item number	Conductor cross-section mm ² [AWG]	Dimensions (mm)	Weight (kg)
AC-25	0.14 – 2.5 [26-14]	Ø 44 x 200	0.4
AC-25T	0.14 – 2.5 [26-14]	Ø 140 x 200 x 70	1.0
AC-40	0.14 – 4 [26-12]	Ø 44 x 200	0.4
AC-40T	0.14 – 4 [26-12]	Ø 140 x 200 x 70	1.0
AC-100	4 – 10 [12-8]	Ø 44 x 200	0.4
AC-100T	4 – 10 [12-8]	Ø 140 x 200 x 70	1.0

Scope of delivery

AC-25, **AC-40** and **AC-100** incl. spiral connection tube 2 m.
AC-25T, **AC-40T** and **AC-100T** incl. spiral connection tube, foot switch and table clamp.

Electrical crimper Pneumatic crimper

EC-65

PC-65



The Electro/Pneumatic Crimper **EC-65/PC-65** can be used for crimping a variety of different contacts. The crimping process is triggered via a foot switch. This results in both hands being free to insert conductor and contact. An additional two-step operating mode allows the contact to be fixed before the crimping process. This simplifies the processing of complex crimp contacts and avoids bad crimps. The contact gap of the dies is adjustable in 5 steps. A die change is simple and is done quite easily.

We manufacture crimp dies for custom requirements according to customer requirements. For quality assurance, a cross-sectional image of the crimped contact is created on request.

Matching matrices under: www.schochag.ch

Technical specifications

Size (W x H x D):	140 x 220 x 320 mm
Weight EC-65:	10 kg
Weight of foot switch:	1.2 kg
Max. crimp force EC-65:	10 kN
Max. crimp force PC-65:	15 kN
Crimping time:	1 s
Quantity counter:	6-digit LCD-display
Power connection:	230 V/50 Hz (120 V/60 Hz)
Power consumption:	160 VA

Flexible expansion for the pneumatic crimper PC 65

TF-65



To process insulated stripping material, the **PC-65** can be extended with the **TF-65** feeding unit.

This is timesaving compared to manual crimping and assures a high process reliability in the process. Used together with Cembre material this, is a perfect combination for even more efficient work.

Matching contacts, dies and feeder units can be found at: www.schochag.ch

Technical specifications

Dimensions L x W x H (spool arm folded out):	387 x 422 x 418 mm
Weight:	2.6 kg
Cycle time:	< 2 s
Cross section range:	0.5 - 6 mm ²



Pneumatic table press with manual control and great versatility of use. Thanks to a large selection of interchangeable dies, suitable for insulated as well as uninsulated wire end ferrules, cross cable lugs, flat connectors as well as tubular cable lugs from 0.2 - 50mm². The **PNB-1** is also characterised by its small dimensions and low weight.

Technical specifications

Cross-section range: 0.2 - 50 mm²
 L x H x W: 180 x 320 x 700 mm
 Weight: 23 kg

Press inserts

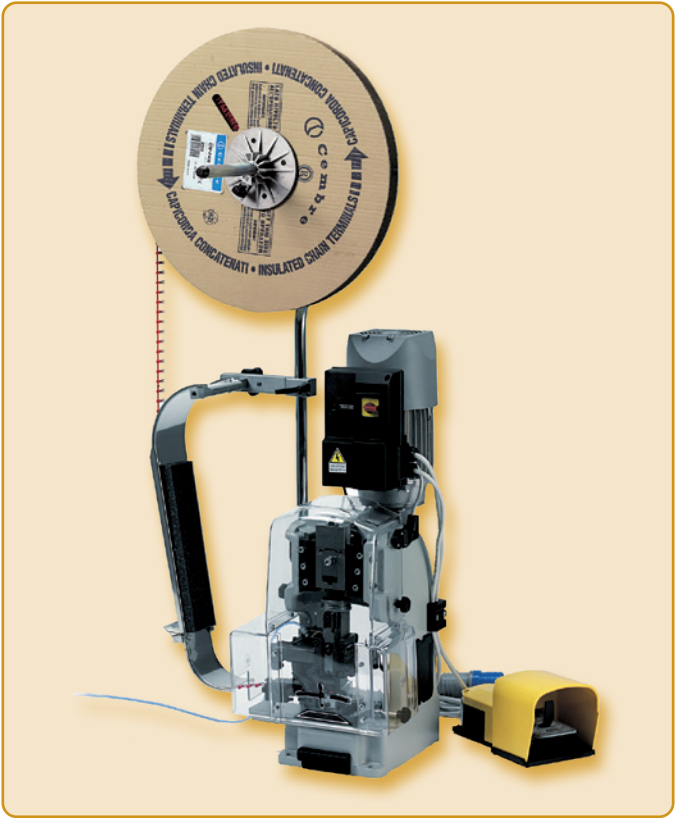
Type	Safety cover*	Connector		Conductor cross-section mm ²	
PV-1	PU-1	PVC and PC Insulated crimp terminals		 0,2÷0,5	
PR-1				 0,25÷1,5	
PB-1				 1,5÷2,5	
PG-1				 4÷6	
PH1-1	PH-1**	Heat-shrinkable crimp connector		0,25÷6	
		Butt connector NL-M and end connector NL-P		0,25÷6	
KE0.75-1	PK-1			0,3 - 0,5 - 0,75	
KE2.5-1				1 - 1,5 - 2,5	
KE10-1		Wire end ferrules	KE, PK...	4 - 6 - 10	
MTT16-50	ME-1			16	
MTT25-50				25	
N1-1	PU-1	A 03-M..	S 1.5-..	RN-..	0,25 - 1,5
		A 06-M..	S 2.5-..	BN-..	1,5 - 2,5
		A 1-M..	S 6-..	GN-..	4 - 6
ME1-50	PU-1			A1-M..	4 - 6
MH10-50	ME-1	Tubular cable lugs		HR10-..	10
MH16-50				HR16-..	16
MH25-50				HR25-..	25
MH35-50				HR35-..	35
MH50-50				HR50-..	50
MQ10-50	ME-1	Non-insulated crimp cable lugs DIN 46234		Q10-..	10
MQ16-50				Q16-..	16
MN2RF-50	MN RF-1	PA 6.6 insulated Tubular cable lugs		ANE2-M..	10
MN3RF-50				ANE3-M..	16
MN5RF-50				ANE5-M..	25
MN7RF-50				ANE7-M..	35
	ANE9-M..				
MK5-50	Cable lugs according to DIN 46235			DR6-..	6
MK6-50				DR10-..	10
MK8-50				DR16-..	16
MK10-50				DR25-..	25
MK12-50				DR35-..	35

* Delivered with the press.

** Delivered together with the press insert.

Bench crimp for connecting material from tape

ELB-3



Electro-mechanical bench press with foot pedal switch. Specific crimp dies are used, which enable a safe and fast crimping of the entire range of PC-insulated cable lugs and wire end ferrules on tape. The delivery takes place without applicators.

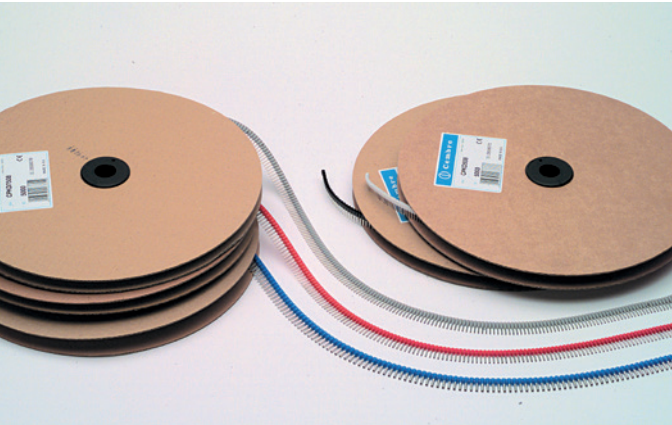
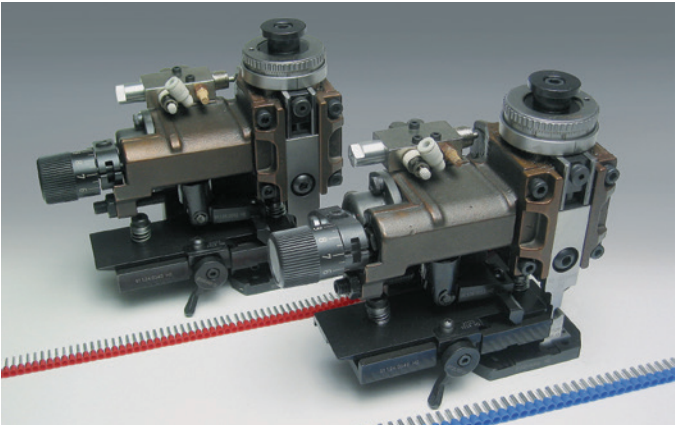
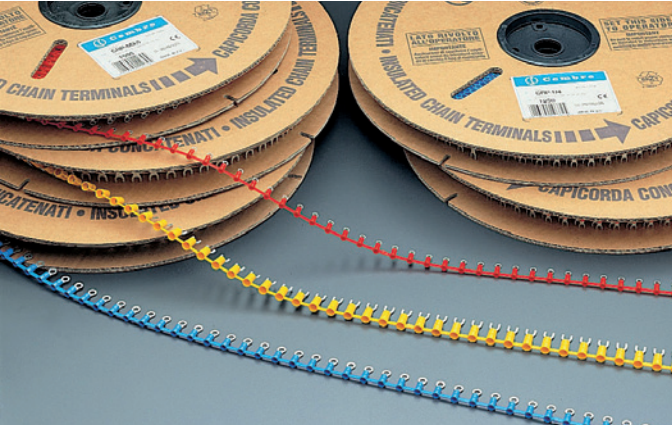
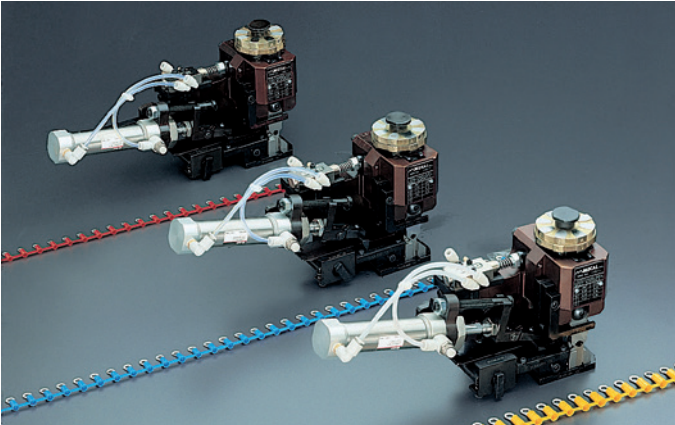
On request available with crimp force monitoring and stripping unit.

Technical specifications

Motor: AC 220V / 50 Hz
Motor 0.55 kW / 0.75 HP
Motor speed 2 800 RPM
W x D x H: 180 x 250 x 620 mm
Weight: 41 kg (without crimp die)

Type	Connector	Conductor cross-section mm ²
RA-3	PC insulated compressible cable lugs on tape	0.25 – 1.5
BA-3		1.5 – 2.5
GA-3		4 – 6
KE1A-3	Wire end ferrules on tape	0.5 – 1
KE2.5A-3		1 – 2.5

Other applicators are available on request.



Cable duct cutter

DC-125



For fast and accurate cutting of cable ducts to length. The **DC-125** cuts cable ducts with precision and burr-free. Re-working is not necessary.

The chip-free cutting ensures the workplace remains clean. The **DC-125** is emission-free and makes no noise. Thanks to the optimised cam drive, cable ducts can be cut with little effort. The 1 m measuring rail with length stop ensures millimetre-accurate cutting to length. A 2 m scale is also available as an option.

The hardened blade cuts ducts up to a width of 125 mm.

Technical specifications

Cutting width:	125 mm
Measuring length:	1000 mm
Measurement unit:	mm (inch on request)
Size (L x B x H):	1290 x 290 x 760 mm
Weight:	10.5 kg

Rail cutter

RC-300



For fast and accurate cutting of rails DIN EN 60715. The **RC-300** is used to cut DIN rails (top-hat rails) to size TH 35-15, TH 35-7.5 and TH 15-5.5. Without much effort, the **RC-300** cuts the desired lengths quickly and burr-free. With the 1 m long measuring rail, the mounting rails are cut to length with millimetre precision. The angles of the cut edges are accurate and require no reworking. The workplace remains clean and without shavings.

Technical specifications

Profile EN 60715:	TH 35-15 x 1.5 / TH 35-7.5 / TH 15-5.5
Max. measuring length:	1000 mm
Measurement unit:	mm (inch on request)
Cutting plates:	hardened HRC 54
Size (L x B x H):	1090 x 150 x 760 mm
Weight:	8.3 kg

Thermal Transfer Printer

MG3



The **MG3** is a desktop printer based on a thermal transfer printer, and can be used for the labelling of cables, terminals, push buttons and switching elements. It meets the requirements of industrial labelling in the electrical sector. Thanks to its compact size, low space requirements and low noise level, the **MG3** can be used like any other peripheral unit in the office.

Technical specifications

Print quality: 300 x 600 dpi
L x W x H: 382 x 230 x 221 mm
Weight: 7.4 kg

Scope of delivery

- Base plate for labelling carrier
- Base plate for signs and labels
- Base plate for terminals
- Mains cable
- USB cable
- Cover
- a roll of black printing tape
- Software GeniusPro



Thermal Transfer Printer

ROLLY3000



The **ROLLY3000** is an easy-to-use and powerful printer. The metal housing protects the printer against mechanical and electronic influences.

It is very quiet and therefore just as suitable for use in the office as in the workshop. Easy to handle, quiet and powerful, the **ROLLY3000** is ideal for printing heat shrink tubing onto base material. The printer is supplied with power and USB cable and can be easily integrated into a network.

Technical specifications

Print quality: 300 dpi
L x W x H: 460 x 252 x 288 mm
Weight: 10 kg

Scope of delivery

- Mains cable
- USB cable
- Cover
- A roll of black printing tape
- Software GeniusPro



Hydraulic crimp tool

HT51



The **HT51** hydraulic hand press is ideal for working in confined spaces. The new double-piston hydraulics make it possible to overcome the idle stroke very quickly, even with very small cross-sections. The 180 ° rotatable head allows easy handling.

The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
240	240	95/15	240

Technical specifications

Crimp force: 50 kN
L x W: 380 x 130 mm
Weight: 2.7 kg (tool)
1.2 kg (case)

Scope of delivery

Incl. plastic case **VAL-P1** (445 x 290 x 95 mm) for storage of tool and 20 pairs of crimp dies.
Delivered without crimp dies.



Hydraulic crimp die

RH50



The **RH50** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 132). An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
240	240	95/15	240

Technical specifications

Crimp force: 50 kN
L x W: 195 x 75 mm
Weight: 1.6 kg (tool)

Scope of delivery

incl. plastic case **VAL-P1** (445 x 290 x 95 mm) for storing tool and 20 pairs of crimp dies (crimp dies not included).



Hydraulic crimp tool

HT131-C



The **HT131-C** is a hydraulic hand press with double-piston hydraulics, which ensures fast working. The 180 ° rotatable head allows easy handling. The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 130 kN
L x W: 473 x 144 mm
Weight: 5.2 kg (tool)
2.5 kg (case)

Scope of delivery

Incl. plastic case **VAL-P3** (620 x 380 x 135 mm) for storing tool and 14 pairs of crimp dies.
(Crimp dies not included).

Hydraulic crimp dies



RHC131
RHM132



The **RHC131** and **RHM132** hydraulic crimp dies each are equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131). An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications RHC131

Crimp force: 130 kN
L x W: 232 x 124 mm
Weight: 3.8 kg (tool)
1.2 kg (case)

Technical specifications RHM132

Crimp force: 130 kN
L x W: 216 x 80 mm
Weight: 3.1 kg (tool)
1.2 kg (case)

Scope of delivery

Delivered without crimp dies. Plastic case **VAL-P26** (445 x 290 x 115 mm) for storing tool and 14 pairs of crimp dies upon request.



Hydraulic crimp tool

HT131LN-C



The **HT131LN-C** is a hydraulic hand press with double-piston hydraulics, which ensures fast working. With the **HT131LN-C** the die contact gap is 42 mm. It is particularly suitable for crimping larger cross-sections. The 180 ° rotatable head allows easy handling. The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available (page 140).

Maximum application range in mm² (Hexagonal crimping)

as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 130 kN
 L x W: 520 x 144 mm
 Weight: 6.2 kg (tool)
 2.5 kg (case)

Scope of delivery

Incl. plastic case VAL-P3 (620 x 380 x 135 mm) for storage of tool and 14 pairs of crimp dies (Crimp dies not included).



Hydraulic crimp die

RHC131LN



The **RHC131LN** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a max. operating pressure of 700 bar (see Hydraulic Pumps, page 131). An extensive range of crimp dies are available. With the **RHC131LN** the die contact gap is 42 mm. It is therefore particularly suitable for crimping larger cross-sections. An extensive range of crimp dies are available (page 140).

Maximum application range in mm² (Hexagonal crimping)

as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 130 kN
 L x W: 270 x 124 mm
 Weight: 4.8 kg (tool)
 1.2 kg (case)

Scope of delivery

Delivered without crimp dies. Plastic case **VAL-P26** (445 x 290 x 115 mm) for storing tool and 14 pairs of crimp dies upon request.

Hydraulic crimp tool

HT131-UC



The **HT131-UC** is a hydraulic hand press with double-piston hydraulics, which ensures fast working. The 180 ° rotatable head allows easy handling. The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 130 kN
L x W: 488 x 149 mm
Weight: 5.4 kg (tool)
2.5 kg (case)

Scope of delivery

Incl. plastic case **VAL-P3** (620 x 380 x 135 mm) for the storage of tool and 14 pairs of crimp dies.
Delivered without crimp dies.



Hydraulic crimp die

RHU131-C



The **RHU131-C** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a max. operating pressure of 700 bar (see Hydraulic Pumps, page 131). An extensive range of crimp dies are available (page 140).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 130 kN
L x W: 245 x 89 mm
Weight: 3.7 kg (tool)
1.2 kg (case)

Scope of delivery

Delivered without crimp dies. Plastic case **VAL-P8** (445 x 290 x 115 mm) for storing tool and 14 pairs of crimp dies upon request.

Hydraulic crimp dies



ECW-H3D RHU300-3D



The **ECW-H3D** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131). The crimp dies correspond to the size 3 as per DIN 48083. With the adapter **AU230-130D** all crimp dies of the 130 kN tools can be used.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
630	500	380/50	630

ECW-H3D special dies

WT2-3D for Cu-, Al-, Al/St- and steel cables up to Ø 20 mm
WT3-3D for Cu-, Al-, Al/St- and steel cables up to Ø 25 mm

Technical specifications

Crimp force: 230 kN
L x W: 290 x 120 mm
Weight: 5.5 kg (tool)
4.2 kg (case)

Scope of delivery

Incl. metal case **VAL-ECW-H3D** (345 x 305 x 90 mm)
for the storage of tool and 10 pairs of crimp dies.
Delivered without crimp dies (page 140)



The **RHU300-3D** hydraulic crimp die is suitable for crimping catenaries, cable lugs and connectors from 10 to 630 mm². The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 850 bar (see Hydraulic Pumps, page 131). Crimp dies of size 3 according to DIN 48083 Part 3 can be used.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
630	500	380/50	630

Technical specifications

Crimp force: 300 kN
L x W: 297 x 171 mm
Weight: 7.2 kg

Scope of delivery

Incl. metal case **VAL-300-3D** (345 x 305 x 90 mm)
for the storage of tool and 10 pairs of crimp dies.
Delivered without crimp dies (page 140)





The **RHU450** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131). With the adapter (type **AU 450130 D**), the crimp dies of the 130 kN tools from Cembre can also be used with the **RHU450**.

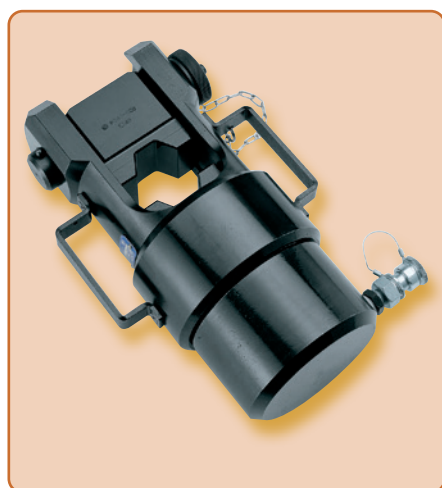
Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
1000	1000	480/85	630

Technical specifications

Crimp force: 450 kN
L x W: 260 x 120 mm
Weight: 10.3 kg (tool)

Scope of delivery

Delivered without crimp dies.



The **RHU520** hydraulic crimp die is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131). With the adapter (type **AU 520-130C**), the crimp dies of the 130 kN tools from Cembre can also be used with the **RHU520**.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
1000	1000	480/85	630

Technical specifications

Crimp force: 520 kN
L x W: 306 x 200 mm
Weight: 18.0 kg (tool)
3.2 kg (case for tool)
5.1 kg (case for crimp dies)

Scope of delivery

Delivered without crimp dies. Metal case **VAL-520** (384 x 231 x 145 mm) for the storage of the tool and the metal case **VAL-MAT520** (500 x 310 x 38 mm) for the storage of 10 pairs of crimp dies upon request.

Hydraulic cutting tool

HT-TC026



The hydraulic hand cable cutter **HT-TC026** is suitable for cutting solid or very hard materials up to a maximum diameter of 25 mm (see table). The cutting blades are therefore made of particularly high-quality material. The 180 ° rotatable head and the practical snap closure allow for easy handling. The tool has a double piston hydraulic quick-feed. The integrated pressure relief system can be operated easily at any time. Due to its characteristics, this tool is often used for overhead lines.

Technical specifications

Max. Ø: 25 mm
L x W: 382 x 129 mm
Weight: 3.2 kg (tool)
0.15 kg (pouch)

Scope of delivery

Incl. canvas bag **001** (430 x 155 mm)



Application range		
Material	Tensile strength (daN/mm ²)	Max. Cutting diameter
Copper	41	25
Aluminium	20	25
Aluminium alloy	34	25
Wire cables and conductors	Steel	180 Some important examples: 7 x 3.0: Ø est. = 9.0 mm 19 x 2.1: Ø est. = 10.5 mm 19 x 2.3: Ø est. = 11.5 mm
	Stranded steel (stands QTY 200)	180 18
	Aluminium / steel	180 25 Some important examples: 26 x 2.50 + 7 x 1.95: Ø est. = 15.85 26 x 3.06 + 7 x 2.38: Ø est. = 19.38 26 x 3.60 + 7 x 2.80: Ø est. = 22.80
Rods	Steel	60 42 13 16
	Copper	30 25 20 23
	Aluminium	16 25

Hydraulic cutting head

TC025



The hydraulic cutting head **TC025** is suitable for cutting solid or very hard materials up to a maximum diameter of 25 mm. The cutting blades are therefore made of particularly high-quality material. The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 25 mm
L x W: 213 x 82 mm
Weight: 2.0 kg (tool)
0.13 kg (pouch)

Scope of delivery

Incl. canvas bag **007** (350 x 105 mm)



Hydraulic cutting tool



HT-TC041N



Technical specifications

Max. Ø: 45 mm
L x W: 550 x 144 mm
Weight: 5.8 kg (tool)
1.3 kg (case)

Scope of delivery

Incl. plastic case VAL-P7 (727 x 202 x 115 mm)



The hydraulic hand cable cutter **HT-TC041N** is suitable for cutting solid or very hard materials up to a maximum diameter of 45 mm (see table). The cutting blades are therefore made of particularly high-quality material. The 90° rotatable head and the practical snap closure allow for easy handling. The tool has a double piston hydraulic quick-feed. The integrated pressure relief system can be operated easily at any time. Due to its characteristics, this tool is often used for overhead lines.

Application range		
Material	Tensile strength (daN/mm ²)	Max. Cutting diameter
Wire cables and conductors	Copper	41
	Aluminium	20
	Aluminium alloy	34
	Steel	180
	Stranded steel (stands QTY 200)	180
	Aluminium / steel	180
Rods	Steel	60
	Copper	30
	Aluminium	16
		42
		25
		16

Hydraulic cutting head



TC04N



The hydraulic cutting head **TC04N** is suitable for cutting solid or very hard materials up to a maximum diameter of 45 mm. The cutting blades are therefore made of particularly high-quality material. The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 45 mm
L x W: 311 x 100 mm
Weight: 4.0 kg (tool)
2.0 kg (case)

Scope of delivery

Incl. metal case VAL-04 (350 x 125 x 68 mm)



Hydraulic cutting tool

HT-TC055



The hydraulic hand cable cutter **HT-TC055** is suitable for cutting solid or very hard materials up to a maximum diameter of 55 mm (see table). The special cut and the special geometry of the cutting blades ensure a «straight cut». The 330° rotatable head and the practical snap closure allow for easy handling. The tool has a double piston hydraulic quick-feed. The integrated pressure relief system can be operated easily at any time.

Technical specifications

Max. Ø: 55 mm
L x W: 595 x 144 mm
Weight: 8.3 kg (tool)
1.3 kg (case)



Scope of delivery

Incl. plastic case **VAL-P7** (727 x 202 x 115 mm)

Application range		
Material	Tensile strength (daN/mm ²)	Max. Cutting diameter
Copper	41	55
Aluminium	20	55
Aluminium alloy	34	5
Wire cables and conductors	Steel	180 Some important examples: 7 x 3.0: Ø est. = 9.0 mm 19 x 2.1: Ø est. = 10.5 mm 19 x 2.3: Ø est. = 11.5 mm
	Stranded steel (stands QTY 200)	180 22
	Aluminium / steel	180 50 Some important examples: 26 x 2.50 + 7 x 1.95 : Ø est. = 15.85 26 x 3.06 + 7 x 2.38 : Ø est. = 19.38 26 x 3.60 + 7 x 2.80 : Ø est. = 22.80 26 x 4.44 + 7 x 3.45 : Ø est. = 28.14 54 x 3.50 + 19 x 2.10 : Ø est. = 31.50 54 x 4.36 + 19 x 2.62 : Ø est. = 39.20 83 x 4.60 + 16 x 2.80 : Ø est. = 50.00
	Guy Wire (GW 15 – 9 / 16 – 188)	Extra high strength grade 7 x 4.77: Ø est. = 14.30 mm
Rods	Steel	60 20
		42 22
	Copper	30 32
		25 38.5
	Aluminium	16 50

Hydraulic cutting head

TC055



The **HT-TC055** hydraulic cutting head is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131). The cutting properties correspond to the **HT-TC055**.

Technical specifications

Max. Ø: 55 mm
L x W: 357 x 134 mm
Weight: 6.6 kg (tool)
3.7 kg (case)

Scope of delivery

Incl. metal case **VAL-TC055** (384 x 231 x 145 mm)



Hydraulic cutting tool



HT-TC051



The **HT-TC051** hand cable cutter is suitable for cutting cables up to a maximum diameter of 50 mm (e.g. 4 x 150 mm² NYY-0). The special cut and the special geometry of the cutting blades ensure a «straight cut». The 90° rotatable head and the practical snap closure allow for easy handling. The tool has a double piston hydraulic quick-feed. The integrated pressure relief system can be operated easily at any time.

Technical specifications

Max. Ø: 50 mm
L x W: 497 x 129 mm
Weight: 4.38 kg (tool)
0.2 kg (pouch)



Scope of delivery

Incl. canvas bag **010** (545 x 160 mm)

Hydraulic cutting head



TC050



The **TC050** hydraulic cutting head is suitable for cutting cables up to a maximum diameter of 50 mm (e.g. 4 x 150 mm² NYY-0). The special cut and the special geometry of the cutting blades ensure a «straight cut». The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 50 mm
L x W: 325 x 112 mm
Weight: 3.2 kg (tool)
0.1 kg (pouch)

Scope of delivery

Incl. canvas bag **011** (360 x 137 mm)





The hydraulic hand cable cutter **HT-TC065** was developed for cutting copper, aluminium and telephone cables up to a maximum diameter of 65 mm.

The special cut and the special geometry of the cutting blades ensure a «straight cut». The 320° rotatable head and the practical snap closure allow for easy handling.

The tool has a double piston hydraulic quick-feed. The integrated pressure relief system can be operated easily at any time.

Technical specifications

Max. Ø: 65 mm
L x W: 523 x 129 mm
Weight: 5.3 kg (tool)
0.1 kg (pouch)



Scope of delivery

Incl. canvas bag **010** (545 x 160 mm)

Hydraulic cutting tool



HT-TC0851



The **HT-TC0851** hydraulic hand cable cutter is suitable for cutting cables up to a maximum diameter of 85 mm (e.g. 4 x 240 mm² NYY-0). The special cut and the special geometry of the cutting blades ensure a «straight cut». The 180 ° rotatable head and the practical snap closure allow for easy handling. The tool has a double piston hydraulic quick-feed and is equipped with a pressure relief valve that reacts when the maximum pressure of 700 bar is reached. The integrated pressure relief system can be operated easily at any time.

Technical specifications

Max. Ø: 85 mm
L x W: 652.5 x 175 mm
Weight: 6.6 kg (tool)
1.3 kg (case)



Scope of delivery

Incl. plastic case **VAL-P7** (727 x 202 x 115 mm)

Hydraulic cutting head



TC085



The **TC085** hydraulic cutting head is suitable for cutting cables up to a maximum diameter of 85 mm (e.g. 4 x 240 mm² NYY-0). The special cut and the special geometry of the cutting blades ensure a «straight cut». The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 85 mm
L x W: 325 x 112 mm
Weight: 4.9 kg (tool)
2.4 kg (case)

Scope of delivery

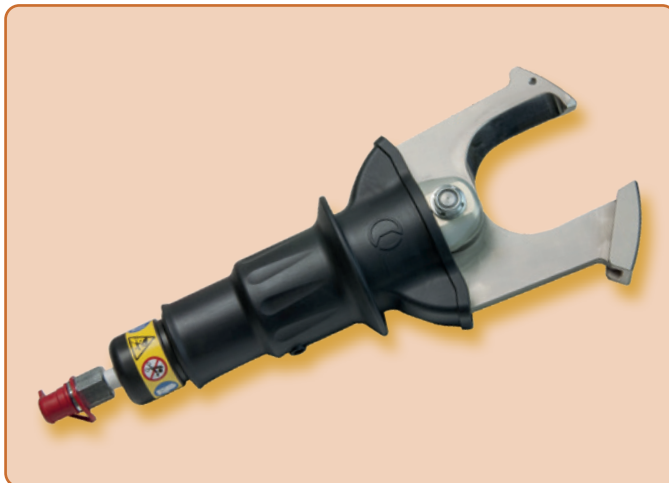
Incl. metal case **VAL-TC085** (465 x 115 x 65 mm)



Hydraulic cutting head



TC065-SC TC096 TC120



The hydraulic cutting head **TC065-SC** is suitable for cutting copper, aluminium and telephone cables up to a maximum diameter of 65 mm. The cutting blades are therefore made of particularly high-quality steel and heat treated to ensure a long service life. The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 65 mm
L x W: 426 x 105 mm
Weight: 6.3 kg (tool)
4.9 kg (case)



Scope of delivery

Incl. case **VAL-TC065-SC** (459 x 231 x 122 mm)



The **TC096** hydraulic cutting head is suitable for cutting cables up to a maximum diameter of 95 mm. With this open cutting head design, a blade guide prevents jamming and tilting of the materials that are to be cut. The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 95 mm
L x W: 397 x 249 mm
Weight: 7.9 kg (tool)
4.2 kg (case)



Scope of delivery

Incl. case **VAL-096** (430 x 265 x 145 mm)



The hydraulic cutting head **TC120** is suitable for cutting cables up to a maximum diameter of 120 mm. The practical snap closure allows for easy handling. The special cut and the special geometry of the cutting blades ensure a «straight cut». The tool is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. Ø: 120 mm
L x W: 536 x 175 mm
Weight: 9.5 kg (tool)
4.9 kg (case)



Scope of delivery

Incl. case **VAL-TC096** (590 x 209 x 84 mm)



Hydraulic hole-punching head for punching holes from 15.5 to 47.2 mm in diameter without having to drill into the side walls of cable ducts. The tool is very light and balanced and can be operated with one hand.

The **RH-FC48N** hydraulic hole-punching head is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. clearance to the hole centre: 53.5 mm

Max. hole Ø: 47.2 mm

L x W: 255 x 118 mm

Weight: 3.7 kg (tool)

0.93 kg (case)

Scope of delivery

Incl. case **VAL-P30** (315 x 300 x 95 mm)



The table shows the available punches and opposing-dies for soft iron, glass fibre and plastic up to 2 mm.

Ø mm	Ø inch	PG	ISO	Inch	Material thickness	Punch dies
15.5	0.610	PG 9	–	–	2 mm	RD15.5SS-FC
16.2	0.638	–	ISO-16	–		RD16.2SS-FC
17.5	0.689	–	–	–		RD17.5SS-FC
18.8	0.740	PG 11	–	–		RD18.8SS-FC
19.1	0.752	–	–	–		RD19.1SS
20.5	0.807	PG 13.5	ISO-20	–		RD20.5SS
22.6	0.890	PG 16	–	–		RD22.6SS
23.8	0.937	–	–	5/8"		RD23.8SS
25.4	1.000	–	ISO-25	–		RD25.4SS
27.0	1.063	–	–	3/4"		RD27.0SS
28.5	1.122	PG 21	–	–		RD28.5SS
30.5	1.201	–	–	7/8"		RD30.5SS
31.8	1.252	–	–	–		RD31.8SS
32.5	1.279	–	ISO-32	–		RD32.5SS
34.6	1.362	–	–	–		RD34.6SS
37.2	1.464	PG 29	–	–		RD37.2SS
38.1	1.500	–	–	–		RD38.1SS
40.5	1.594	–	ISO-40	–		RD40.5SS-FC
41.3	1.626	–	–	–		RD41.3SS-FC
42.5	1.673	–	–	1 1/4"		RD42.5SS-FC
43.2	1.701	–	–	–		RD43.2SS-FC
44.5	1.752	–	–	–		RD44.5SS-FC
47.2	1.858	PG 36	–	–		RD47.2SS-FC

Hydraulic hole-punching heads



RHT160
RHT160-60N



Using the **RHT160** hydraulic hole-punching head, materials such as copper, aluminium or steel can be processed quickly and precisely up to a wall thickness of 10 mm.

The hydraulic hole-punching heads are equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. clearance to
the hole centre: 30 mm
Max. hole Ø: 21 mm
L x W: 240 x 153 mm
Weight: 6.5 kg (tool)
2.3 kg (case)

Scope of delivery

Incl. case **VAL-160** (283 x 180 x 100 mm)



Using the **RHT160-60N** hydraulic hole-punching head, materials such as copper, aluminium or steel can be processed quickly and precisely up to a wall thickness of 10 mm.

The hydraulic hole-punching heads are equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

Technical specifications

Max. clearance to
the hole centre: 60 mm
Max. hole Ø: 21 mm
L x W: 240 x 181 mm
Weight: 9.2 kg (tool)
2.3 kg (case)

Scope of delivery

Incl. case **VAL-160** (283 x 180 x 100 mm)

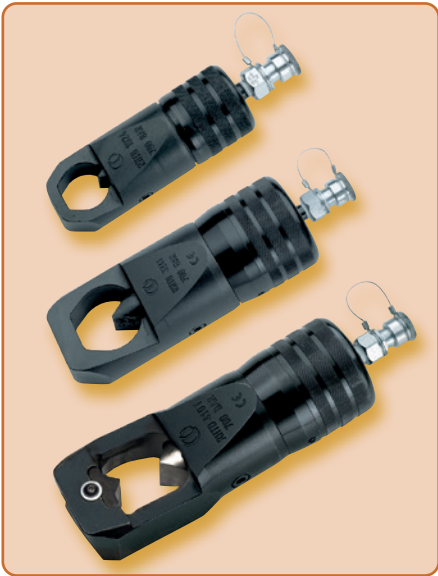


Punch diameter

Punch insert Die-punch	RT6.5	RT8.5	RT9	RT10.5	RT11	RT13	RT13.5	RT14	RT15	RT17	RT19	RT21
Hole-Ø [mm]	6.5	8.5	9	10.5	11	13	13.5	14	15	17	19	21
Max. Material thickness [Copper]	10	10	10	10	10	10	10	10	10	10	8	8
Max. Material thickness [Steel]	10	10	10	10	10	9	9	9	8	7	6	4

Hydraulic nut splitter

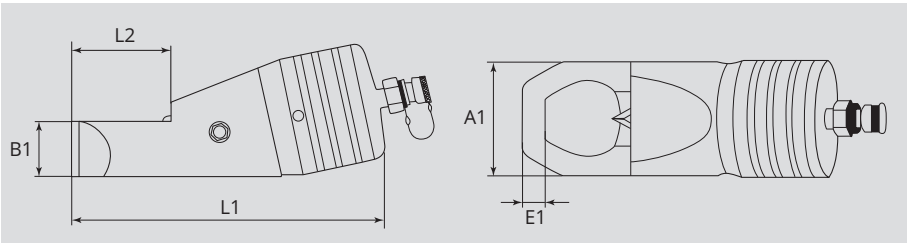
RHTD



These tools are suitable for loosening square and hexagon nuts as well as fastening bushings (see table). Time-consuming and spark-causing work such as grinding or cutting is not necessary. The hydraulic nut splitter is equipped with a quick-release, oil-loss-free coupling that allows it to be connected to a hydraulic pump with a maximum operating pressure of 700 bar (see Hydraulic Pumps, page 131).

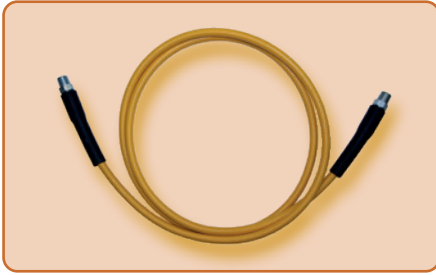
Item number	Wrench size	Dimensions in mm					Weight kg
		L2	B1	L1	A1	E1	
RHTD1724	17 – 24 mm (M12 – M16)	40.5	25	105.5	54	7.5	1.76
RHTD3241	27 – 41 mm (M18 – M27)	66	36	208	75.5	16	4.6
RHTD410T	27 – 41 mm (M18 – M27)	83	41	231	76	37	5.1

Scope of delivery
Incl. case **VAL-P4**
(315 x 300 x 95 mm, 0.9 kg)



Double knife			Simple knife	
Hexagon nut movable + fixed blade B	Square nuts movable + fixed blade B	Fastening bushings movable + fixed blade A	Hexagon nut movable blade B, plate C	Square nuts movable blade B, plate C
27 M 18	27 M18	1/2" 0.807"	32 M 22	32 M 22
30 M 20	30 M 20	5/8" 1.010"	34 M 22	36 M 24
32 M 22	32 M 22	3/4" 1.200"	36 M 24	41 M 27
34 M 22	36 M 24	7/8" 1.375"	41 M 27	
36 M 24	41 M 27	1" 1.575"		
41 M 27		1 1/8" 1.770"		

High-pressure hose



The following high-pressure hoses are available:

TF-250-I (2.5 metre hose)

TF-300-I (3 metre hose)

TF-500-I (5 metre hose)

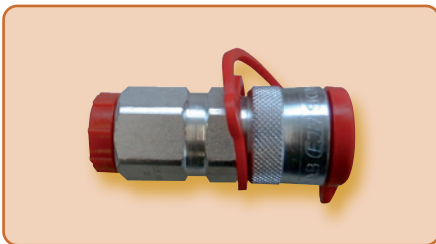


Hydraulic hose, designed for an operating pressure of maximum 700 bar:

HS700-2.5 (2.5 metre hose)

HS700-10 (10 metre hose)

Hydraulic accessories



10-115-1404 quick coupling female NPT 3/8"



10-115-6404 nipple male to quick coupling NPT 3/8"



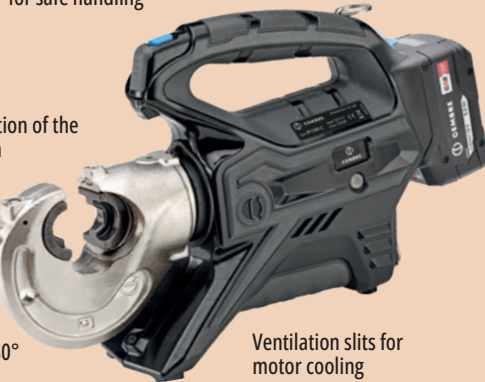
2083-6-6 adapter nipple to quick coupling 3/8" - 3/8"



HYD-EPVI300K2L hydraulic oil in a 2 litre canister

General properties of **18 V** battery tools

Optimum centre-of-gravity distribution
for safe handling



LED illumination of the
working area

Crimp die 180°
Rotatable

Ventilation slits for
motor cooling

Multi-functional OLED display with touch
button



LED illuminated ON
and OFF switch

Number of working cycles
executed and still possible until
the next maintenance

Battery Indicator

Pressure monitoring

Check that the
crimp force is
reached

Start button with sa-
fety catch to prevent
accidental actuation

Pressure drain head

High-performance
battery Li-Ion
18V 5.2 Ah

Anatomical shape for
comfort



Plastic half shells
made out of two
different materials

Automatic sy-
snap-in the b

Properties

All hydraulic battery-operated tools of the new generation are characterised by much improved functionality. The new hydraulic system with two speeds ensure higher crimp speed and more force: The first speed level is higher and is used for the rapid approach. As soon as the actual crimping of the connector starts it automatically switches-over the second speed, this is lower to allow slower crimping and an optimal use of the available energy.

The tool is fitted with a over-pressure sensor and a safety valve: The sensor ensures greater repeatability when applying pressure, the valve provides protection for the user.

Various parameters can be displayed via the OLED display:

- Crimp force during crimping to ensure correct execution
- Battery Indicator
- General operating information
- Number of working cycles executed and still possible until the next maintenance.

New design, low weight and ideal centre-of-gravity ensure a more comfortable handling during use. The two plastic half shells made out of two different materials have robust structural elements which guarantee appropriate mechanical protection under all operating conditions, their rubber inserts ensure greater safety and more comfortable handling. The low-noise operation, LED illumination of the work area makes the tool even more comfortable to use.

The parameters for the executed work cycles (200,000) are stored on the memory card and can be transferred to a computer via a USB interface.

Double-piston hydraulic



Double-piston hydraulic: Until the pressure builds up, the crimp die or cutter moves forward very quickly, after which it switches-over to normal working speed.



New high-performance battery Li-Ion 18V-5.2Ah
- delivery energy at -15 to +50°C 100%
- longer service life and rapid charging using AIR COOLED technology



Cordless Alliance System (CAS)
the multi-vendor battery system

Scope of delivery

- 1 **CB1852L**, battery Li-Ion 18V 5.2 Ah (2 units)
 - 2 **ASC30-36**, battery charger
 - 3 Carrying strap
- Transport case (included in the scope of delivery)



General properties of **18 V** battery tools

or optimal

5

stem to
battery

Exchangeable
inserts

Ergonomic shape
for easy handling

LED display for
battery charge state

180 ° rotatable head

Start button with protection
against accidental pressing

Rechargeable Li-Ion 18V 2.0 Ah battery

Properties

The portable hydraulic battery-operated tool of the new generation are characterised through: New thin Li-Ion 18V 2.0 Ah battery. These offer a higher capacity than the previous Ni-MH 9.6 V 2.0 Ah. Thanks to the balancing of the weight, they are comfortable to hold and are extremely versatile and easy to handle. The rotating head, makes it easier to work in confined spaces. The battery is equipped with an LED display that lets you know how much power you have left by pressing the button. The tools are extremely easy to use, thanks to being quieter and having low-vibration operation. The plastic body provides an adequate level of protection in all operating situations.

Scope of delivery

- 1 **CB1820L**, battery Li-Ion 18 V 2.0 Ah (2 units)
- 2 **ASC30-36**, battery charger
- Transport case (included in the scope of delivery)



1



2

**18 V
2.0 Ah
Li-Ion**

New high-performance battery Li-Ion 18V - 2.0 Ah
- delivery energy at -15 to +50°C 100%
- longer service life and rapid charging
using AIR COOLED technology

Rod-battery-crimper, 18V

B500ND



The **B500ND** is the first in a new generation of portable battery-operated tools. It is equipped with an intelligent automatic return at the end of the cycle (Smart Release). It is suitable for crimping cable lugs and connectors up to 300 mm². For this purpose, an extensive range of crimp dies are available. A new Li-Ion 18V 2.0 Ah high performance battery, allows a longer independent working. The tool is also equipped with a over-pressure sensor and a safety valve. The EPS guarantees the precision, checks the current pressure value and informs the user about any possible errors (EPS).

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	240	95/15	300

Technical specifications

Crimp force: 60 kN
L x H x W: 396 x 135 x 81 mm
Weight: 3.0 kg (tool)
1.5 kg (case)

Scope of delivery

Incl. case **VAL-P22** (465 x 315 x 116 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



Hydraulic battery crimp



18 V
5.2 Ah
Li-Ion



B500

B600



The hydraulic crimp **B500** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. All crimp dies as per DIN 48083 can be used, in particular those of the 63 kN tools. Suitable crimp dies on page 140.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	240/300	95/15	300

Technical specifications

Crimp force: 63 kN
L x H x W: 300 x 343 x 83 mm
Weight: 4.2 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P38** (520 x 432 x 126 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



The hydraulic crimp **B600** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. All crimp dies as per DIN 48083 can be used, in particular those of the 68 kN tools (opening spring required). Pin crimp dies size 1 from other manufacturers can also be used. Suitable crimp dies on page 140.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
240	185	120/20	240

Technical specifications

Crimp force: 68 kN
L x H x W: 347 x 344 x 83 mm
Weight: 5.1 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P40** (520x 432 x 126 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



Hydraulic battery crimp



B1350-C
B1350L-C



The hydraulic crimp **B1350-C** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 338 x 344 x 83 mm
Weight: 6.5 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P39** (520 x 432 x 126 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



The hydraulic crimp **B1350L-C** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. The contact gap of the head is 42 mm and is especially suitable for crimping large cross-sections. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 395 x 372 x 83 mm
Weight: 8.1 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P39** (520 x 432 x 126 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



Hydraulic battery crimp



18 V
5.2 Ah
Li-Ion



B1350-UC
B1300-C



The hydraulic crimp **B1350-UC** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)

as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 351 x 369 x 83 mm
Weight: 5.9 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P39** (520 x 432 x 126 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



The hydraulic crimp **B1300-C** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. A chip controls the operation and automatically shuts off the motor as soon as the crimping has completed. This saves energy and increases the service life of the battery. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)

as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 406 x 239 x 102.5 mm
Weight: 6.5 kg (tool)
3.7 kg (case)

Scope of delivery

Incl. case **VAL-P44** (680 x 473 x 151 mm)
Colour and shape may differ from the illustration. Without crimp dies.
Accessories, see page 139



Hydraulic battery crimp



B1300L-C B1300-UC



The hydraulic crimp **B1300L-C** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. The contact gap of the head is 42 mm and is especially suitable for crimping large cross-sections. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 471 x 239 x 102.5 mm
Weight: 8.0 kg (tool)
3.7 kg (case)



Scope of delivery

Incl. case **VAL-P44** (680 x 473 x 151 mm)
Colour and shape may differ from the illustration. Without crimp dies, accessories see page 139



The hydraulic crimp **B1300-UC** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. A chip controls the operation and automatically shuts off the motor as soon as the crimping has completed. This saves energy and increases the service life of the battery. Suitable crimp dies on page 140.

Maximum application range in mm² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	240/40	400

Technical specifications

Crimp force: 132 kN
L x H x W: 423 x 239 x 102.5 mm
Weight: 6.5 kg (tool)
3.7 kg (case)



Scope of delivery

Incl. case **VAL-P44** (680 x 473 x 151 mm)
Colour and shape may differ from the illustration. Without crimp dies, accessories see page 139

Hydraulic battery-operated cutter

B-TC250ND
B-TC250



18 V
2.0 Ah
Li-Ion

18 V
5.2 Ah
Li-Ion



The rod-battery-operated cutter **B-TC250ND** is well balanced when holding. The tool operates quietly and with little vibration. It is suitable for cutting solid or very hard materials up to a maximum diameter of 25 mm (see table page 109). The cutting blades are therefore made of particularly high-quality material. The 180 ° rotatable head and the practical snap closure allow easy handling.

Technical specifications

Max. Ø: 25 mm
L x H x W: 401 x 136 x 81 mm
Weight: 3.5 kg (tool)
1.5 kg (case)

Scope of delivery

Incl. case **VAL-P22** (465 x 315 x 116 mm)
Colour and shape may differ from the illustration. Accessories, see page 139



The hydraulic battery-operated cutter **B-TC250** is suitable for cutting solid or very hard materials up to a maximum diameter of 25 mm (see table page 109). The cutting blades are therefore made of particularly high-quality material. The 180 ° rotatable head and the practical snap closure allow easy handling. The tool has a double piston hydraulic quick-feed. Due to its characteristics, this tool is often used for overhead lines.

Technical specifications

Max. Ø: 25 mm
L x H x W: 300 x 337 x 83 mm
Weight: 4.65 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P40** (520 x 432 x 126 mm)
Colour and shape may differ from the illustration. Accessories, see page 139



Hydraulic battery-operated cutter



18 V
2.0 Ah
Li-Ion



B-TC320NDF B-TC500ND-SC



The hydraulic battery-operated cutter **B-TC320NDF** with double piston hydraulic is especially suitable for cutting Copper, Aluminium and telecommunication cable having a max overall diameter of 32 mm. The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Technical specifications

Max. Ø: 32 mm
L x H x W: 81 x 444 x 136 mm
Weight: 4.0 kg (tool)
2.4 kg (case)

Scope of delivery

Incl. case **VAL-P48** (620 x 360 x 138 mm)
Colour and shape may differ from the illustration. Accessories, see page 139



The hydraulic battery-operated cutter **B-TC500ND-SC** is especially suitable for cutting Copper, Aluminum and telecommunication cable up to a maximum diameter of 52.5 mm. The head can rotate through 180 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Technical specifications

Max. Ø: 52.5 mm
L x H x W: 526 x 152 x 81 mm
Weight: 3.91 kg (tool)
2.4 kg (case)

Scope of delivery

Incl. case **VAL-P48** (620 x 360 x 138 mm)
Colour and shape may differ from the illustration. Accessories, see page 139



Hydraulic battery-operated cutter



B-TC500

B-TC650



The hydraulic battery-operated cutter **B-TC500** with double piston hydraulic was developed for cutting copper, aluminium and telephone cables up to a maximum diameter of 50 mm (e.g. 4 x 150 mm² NYY-0). The special cut and the special geometry of the cutting blades guarantee a «straight cut». Because of the snap closure on the head, the tool can also be used to cut endless material. The good handling is optimally guaranteed by the 90° rotatable head.

Technical specifications

Max. Ø: 50 mm
L x H x W: 405 x 398 x 83 mm
Weight: 5.8 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P40**

(520 x 432 x 126 mm), colour and shape may differ from the illustration. Accessories, see page 139



The hydraulic battery-operated cutter **B-TC650** with double piston hydraulic was developed for cutting copper, aluminium and telephone cables up to a maximum diameter of 65 mm. Because of the snap closure on the head, the tool can also be used to cut endless material. The good handling is guaranteed by the 335° rotatable head.

Technical specifications

Max. Ø: 65 mm
L x H x W: 429 x 415 x 83 mm
Weight: 6.4 kg (tool)
2.6 kg (case)

Scope of delivery

Incl. case **VAL-P40**

(520 x 432 x 126 mm), Colour and shape may differ from the illustration. Accessories, see page 139



Hydraulic battery-operated cutter



18 V
5.2 Ah
Li-Ion



B-TC650-SC
B-TC950



The hydraulic battery-operated cutter **B-TC650-SC** with double piston hydraulic was developed for cutting copper, aluminium and telephone cables up to a maximum diameter of 65 mm. The cutting blades are therefore made of particularly high-quality steel and heat treated to ensure a long service life. With this open cutting head design, a blade guide prevents jamming and tilting of the materials that are to be cut. The good handling is guaranteed by the 335° rotatable head.

Technical specifications

Max. Ø: 65 mm
L x H x W: 503 x 464 x 105 mm
Weight: 7.7 kg (tool)
6.7 kg (case)

Scope of delivery

Incl. case **VAL-B-TC950**
(565 x 410 x 132 mm),
Accessories, see page 139



The hydraulic battery-operated cutter **B-TC950** with double piston hydraulic was developed for cutting copper-aluminium-cables up to a maximum diameter of 95 mm. Because of the snap closure on the head, the tool can also be used to cut endless material. The good handling is optimally guaranteed by the 335° rotatable head.

Technical specifications

Max. Ø: 95 mm
L x H x W: 527 x 305 x 94 mm
Weight: 7.1 kg (tool)
6.7 kg (case)

Scope of delivery

Incl. case **VAL-B-TC950**
(565 x 410 x 132 mm),
Accessories, see page 139



Hydraulic foot pumps



PO7000

PO8500



Hydraulic double piston foot pump **PO7000** with a maximum operating pressure of 700 bar. The pump is delivered complete with a 3 m high-pressure hose and a 3/8 " NPT oil-loss-free quick coupler. The pressure is released through an easy-to-operate pedal, which is attached to the rear of the pump.

Pump **PO8500**

Version with 850 bar available on request.

Technical specifications

L x H x W: 489 x 200 x 167 mm
Weight: 9.8 kg (pump)
6.74 kg (plastic case **VAL-P21**)
7.0 kg (metal case **VAL-P22**)

Scope of delivery

PO7000 : Pump incl. plastic case **VAL-P21**
(820 x 430 x 290 mm)

PO8500 : Pump incl. metal case **VAL-P22**
(713 x 283 x 227 mm)

Electrical hydraulic pumps



CPE-1

CPE-1-110



The 220V electric hydraulic pump **CPE-1** operates with a single-phase motor and a maximum operating pressure of 700 bar. The pump is controlled via a hand-held remote control. By pressing a certain button on the pump at any time the pressure can be reduced. There is also a version for 110V available. Both versions have protection rating of IP55.

Technical specifications

L x W x H: 372 x 223 x 482 mm
Weight: 21 kg

Scope of delivery

3-meter high-pressure hose with an oil-loss-free quick coupling, hand held remote control and power cable

Accessories

- Foot switch type **RCP-B70**
- Transport cart type **CS-CPE-1**
- Hand held remote control **ERCH-WH** permanently fixed to the high-pressure hose



Hydraulic battery-operated pump

B68M-P18



The new **B68M-P18** hydraulic battery pump is very light and compact in construction, making it ideal for use with various tools where no mains power is available. In conjunction with the powerful 18 V - 5.2 Ah Li-Ion battery and the new hydraulic system, this results in a higher working speed of the tool.

The new hand held remote control is equipped with LED lights and an OLED display showing important operating parameters. Thanks to the Smart mode, when the motor is automatically switched off and the start button is released, the oil returns to the pump tank automatically. The tool piston then returns automatically.

Technical specifications

Operating pressure: 729 bar
L x H x W: 364 x 236 x 186 mm
Weight: 5.6 kg (without accessories)

Scope of delivery

- Hand held remote control, equipped with LED illumination and OLED display
- 2 m high-pressure hose, with rotatable Q14-F connection on the pump and oil-loss-free 3/8" NPT quick couplings
- 2 x 18 V - 5.2 Ah Li-Ion batteries
- Canvas bag, suitable for the storage of the tool and accessories
- Battery charger

Accessories, see page 139



Hydraulic battery-operated pump

B70M-P36



The hydraulic battery pump **B70M-P36** has a 36V - 6.2 Ah battery and operates with an operating pressure of 700 bar. The pump can be operated with a hand or foot pedal remote control. With just one battery charge up to 90 cuts AE-KEBY 3 x 150 mm² can be performed.

Technical specifications

Operating pressure: 700 bar
L x H x W: 527 x 305 x 94 mm
Weight: 9.2 kg (without accessories)

Scope of delivery

- Pump
- 3 m hydraulic high-pressure hydraulic hose
- Remote control unit
- Battery charger
- Canvas bag, suitable for the storage of the tool and accessories
- Operating batteries 36 V - 6.2 Ah

Accessories, see page 139

Battery Lamps

ME-601505850 CBL04-W CBL07



The compact battery-powered construction spotlight **ME-601505850** with 4000 lumens provides large-area and uniform working light with reduced shadows. The lamp head can be rotated horizontally by 270° for almost unlimited lighting positions. The infinitely variable dimming function provides optimum light with maximum battery life. It is dust and splash-proof for demanding construction site use (IP 54). Battery and charger must be purchased separately, see page 139.

Technical specifications

Max. luminous flux: 4000 lm
Weight: 1.9 kg (without battery)



The compact **CBL04-W** rod lamp is an ideal lighting solution thanks to its two-part illumination, the 2 dimmable light intensities and the rotatable and foldable rod. Thanks to its compact design and integrated magnets, it is an excellent solution for inspecting areas that are difficult to access.

Technical specifications

Luminous flux: 100-600 lm
Weight: 246 g

Scope of delivery

- USB charging cable - USB type C
- Battery charger: 100 - 240 V 50/60 Hz



The light emitted by the **CBL07** spotlight makes it possible to illuminate large areas. The lightweight, practical and robust spotlight is a versatile solution for a quick-to-install light point. The powerbank function allows small devices to be charged via the USB output, which can be useful in emergencies.

Technical specifications

Max. luminous flux: 3000 lm
Weight: 1.4 kg

Scope of delivery

- Battery charger: 100 - 240 V 50/60 Hz

Accessories for B70M-P36



RCP-B70
Foot switch



ERCH-WH
Hand held remote control permanently fixed to the high-pressure hose

Insulated hand crimp



ME5-KV HT51-KV HT120-KV



The insulated mechanical hand pliers **ME5-KV** allows non-insulated parallel connectors and cable lugs to be crimped together with force as per Din standard. Once the crimp force is reached the pliers lock, which means the crimping is correctly completed. The pliers have to be unlocked for the next crimping action.

Technical specifications

Crimping type:   

For parallel connectors and non-insulated cable lugs and connectors

Crimping range 6 to 25 mm²

Dimensions: 311 x 90 x 40 mm



The **HT51-KV** insulated hydraulic hand press is ideal for working in confined spaces. The new double-piston hydraulics make it possible to overcome the idle stroke very quickly, even with very small cross-sections. The 180 ° rotatable head allows easy handling.

The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available (page 140).

Technical specifications

Crimp force: 50 kN

LxH: 373 x 130 mm

Weight: 2.6 kg



The **HT120-KV** is an insulated hydraulic hand press. The 180° rotatable head allows easy handling. The integrated pressure relief system can be operated easily at any time. An extensive range of crimp dies are available. (page 140).

Technical specifications

Crimp force: 120 kN

LxH: 488 x 138 mm

Weight: 5.7 kg

Insulated battery-operated tools



18 V
5.2 Ah
Li-Ion



B500-KV
B1300-C-KV



The insulated hydraulic crimp **B500-KV** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. All crimp dies as per DIN 48083 can be used, in particular those of the 63 kN tools. Suitable crimp dies on page 140

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
240	240	95/15	240

Technical specifications

Crimp force: 63 kN
L x H x W: 300 x 343 x 83 mm
Weight: 4.2 kg (tool)
3.1 kg (case)

Scope of delivery

Incl. case **VAL-P35** (500 x 480 x 128 mm)
Without crimp dies,
Accessories, see page 139



The insulated hydraulic crimp **B1300-C-KV** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. A chip controls the operation and automatically shuts off the motor as soon as the crimping has completed. This saves energy and increases the service life of the battery.

Suitable crimp dies on page 140.

The same tool is also available as a **B1300L-C-KV** with a head contact gap of 42 mm. It is particularly suitable for crimping larger cross-sections.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 132 kN
L x H x W: 406 x 239 x 102.5 mm
Weight: 6.5 kg (tool)
4.0 kg (case)

Scope of delivery

Incl. case **VAL-P41** (691 x 456 x 176 mm)
Without crimp dies,
Accessories, see page 139

Insulated battery-operated tools

B1350-C-KV



The insulated hydraulic crimp **B1350-C-KV** is equipped with a double piston hydraulic. The crimp die can be rotated through 180°, which makes it possible to use possible in a confined space. Suitable crimp dies on page 140.

The same tool is also available as a **B1350L-C-KV** with a head contact gap of 42 mm. It is particularly suitable for crimping larger cross-sections.

Maximum application range in mm ² (Hexagonal crimping)			
as per DIN 48083			Commercial design
Cu	Al	Al/St	Cu
300	300	120/20	400

Technical specifications

Crimp force: 132 kN
 L x H x W: 338 x 344 x 83 mm
 Weight: 6.4 kg (tool)
 3.1 kg (case)

Scope of delivery

Incl. case **VAL-P36** (500 x 480 x 128 mm)
 Without crimp dies,
 Accessories, see page 139

Hydraulic battery-operated pump

B70M-P24-KV



The insulated hydraulic battery pump **B70M-P24-KV** is filled with insulating hydraulic oil and has a 24V - 3.1 Ah battery and operates with an operating pressure of 700 bar. The pump can be operated with a hand held remote control.

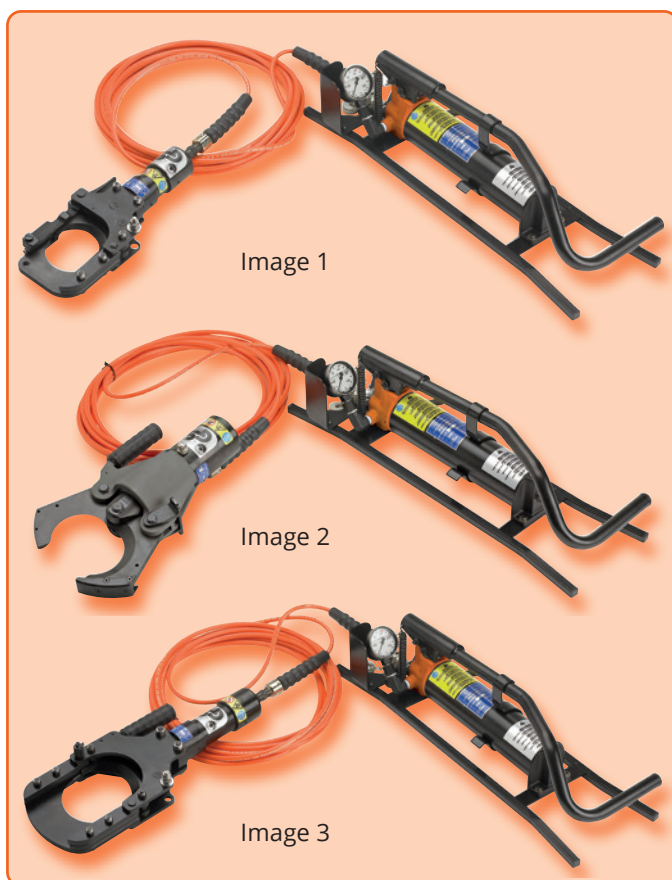
Technical specifications

Operating pressure: 700 bar
 L x H x W: 527 x 305 x 94 mm
 Weight: 9.2 kg (without accessories)

Scope of delivery

- Pump
- 3 m insulated special hydraulic high pressure hose
- Remote control unit
- Battery charger
- Canvas bag for accessories
- Operating batteries 24 V - 3.1 Ah

Accessories, see page 139



It is not always possible to identify a cable to be worked on with absolute certainty. The certain identification of not being electrically live therefore creates considerable difficulties. To protect the worker from danger, work should be performed with safety cutting devices, which assist in the identification of electrically live parts as per DIN VDE 0105 T.1, Paragraph 9.6.4 (07.83).

These portable cable cutting tools are used for the safe cutting of cables with rated voltages up to 60 kV, where it cannot be clearly determined whether they are not electrically live. Accordingly, these systems are completely filled with non-conductive oil and consist of a foot pump, a 10 m long, non-conductive high-pressure hose and a cutting head.

The three different devices differ basically in the contact gap and in the construction of the cutting head. A robust case is used for storage or transport and is an integral part of the complete safety cutting device.

Item number	Max. cable Ø	Pump mm	Cutting head mm	Weight kg	Image
CP1086-W-1000-KV	85	680 x 200 x 163	405 x 143	16.6	1
CP1096-W-1000-KV	95	680 x 200 x 163	407 x 245	19.0	2
CP1120-W-1000-KV	120	680 x 200 x 163	556 x 185	20.2	3

Accessories upon request:

- EK 100 ground conductor for pump (length 1 m)



Scope of delivery:

- Cutting head
- Double piston foot pump with safety valve
- High pressure hose 10 m Long
- Connection possibility for a grounding device
- Transport case (VAL-CP096-W, 785 x 430 x 175 mm)



Image 1

Image 2

Image 3

The new **B68M-P18-KV-RC3** hydraulic battery pump is very light and compact in construction, making it ideal for use where no mains power is available. The remote control allows the user to operate the device from a safe distance. In conjunction with the powerful 18.0V - 5.2 Ah Li-Ion battery and the new hydraulic system, this results in a higher working speed of the tool.

The new radio remote control is equipped with LED lights and a buzzer, which signals the operator that the cutting process has successfully completed.

Thanks to the Smart mode, when the motor is automatically switched off and the start button is released, the oil returns to the pump tank automatically. The tool piston then returns automatically.

Available in the following designs	Max. cable Ø	L x H x W mm	Weight kg	Image
B68RC3-85	85	364x236x186 408x150x234	5.6 6.0	1
B68RC3-96	95	364x236x186 500x241x145	5.6 9.5	2
B68RC3-120	120	364x236x186 536x180x140	5.6 10.75	3

Technical specifications

Operating pressure: 729 bar
L x H x W: 364 x 236 x 186 mm
Weight: 5.6 kg (without accessories)

Scope of delivery:

- Radio remote control
- 10m high-pressure hose, with rotatable Q14-F connection on the pump and oil-loss-free 3/8" NPT quick couplings
- 2 x 18.0 V - 5.2 Ah Li-Ion batteries
- Case, suitable for the storage of the tool and accessories
- Battery charger

Accessories for battery hydraulic tools



ME-625344000 / CB3662L
Battery Li-Ion 36V 6.2 Ah



ME-625028000 / CB1852L
Battery Li-Ion 18V 5.2 Ah



ME-625596000 / CB1820L
Battery Li-Ion 18V 2.0 Ah



ME-627044000 / ASC30-36
ASC30 Battery charger
(14.4-36V Air Cooled)



ME-627265000 / ASC Ultra
ASC ULTRA Quick battery charger
(14.4-36V Air Cooled)



ME-627048000 / ASC Ultra
ASC ULTRA Quick battery charger
(14.4-36V Air Cooled)



CB1430L
Battery Li-Ion 14.4V 3.0 Ah



CB9620H
Rechargeable Ni-MH 9.6V 2.0
Ah battery



CFC230N
Battery charger



CBA96-144
Adapter



ESC600
6 m connection cable for an external 12 - 14.4V DC
power source, (only available for tools with existing
12V DC connection)



CFC12-24ICN
12V / 24V car charger for charging the batteries
via the cigarette lighter (input 12 - 24V DC, output
9.6 - 14.4V DC)



BPS230.14
Switching power supply
Technical specifications: Input: 230V; 50 - 60 Hz; Output: 14.4V;
Thermal protection with short circuit; Max. current: up to 5A with
uniform use; 23A for 50 seconds; 30A for 8 seconds

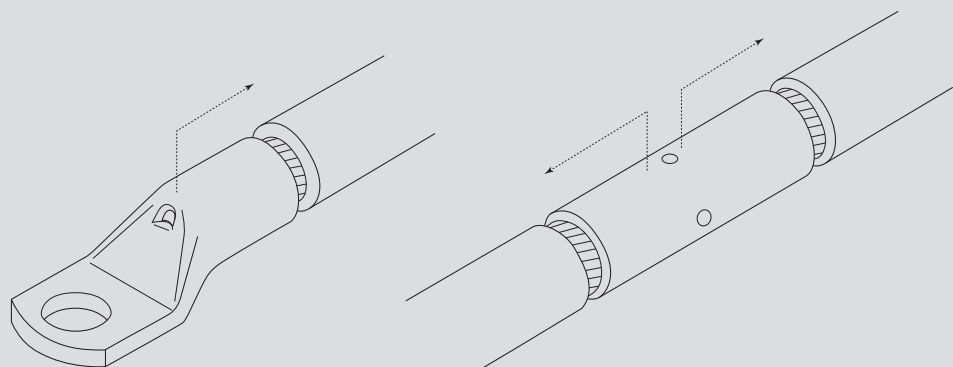


BPS230.96
Switching power supply
Technical specifications: Input: 230V; 50 - 60 Hz; Output: 9.6V;
Thermal protection with short circuit; Max. current: up to 8A with
uniform use; 25A for 50 seconds; 30A for 8 seconds

Crimp insert table

Crimping	Crimping lugs- Crimping through connector Cu/ Al	Crimp cable lugs DIN 46234	Tube cable lugs and connectors similar to DIN	C terminals	Nylon-insulated tube cable lugs	Wire end ferrules
Hexagonal crimping MK for crimping crimped cable lugs and connectors made of copper and aluminium according to DIN 46235, DIN 46267 and DIN 48085; application range 6 to 2500 mm ² 	DR DSV CAAD					
Indent crimping MQ for crimping mechanical compression lugs DIN 46234; application range 6 to 240 mm ² 		Q				
Hexagonal crimping MH Hexagonal crimping MH and ME for crimping standard tube cable lugs and connectors; application range 4 to 1000 mm ² 			HK HSV A-M L-M L-P A-P			
Indent crimping MA/PA for crimping standard tube cable lugs and connectors; application range 0.25 to 1000 mm ² 						
Half-oval crimping MC for crimping C branch terminals; application range 1.5 to 240 mm ² 				C		
Oval crimping MN...RF for crimping insulated tube cable lugs; application range 10 to 300 mm ² 					AN-M ANE-P	
Indent crimping MN/PN for crimping insulated tube cable lugs; application range 10 to 300 mm ² 						
Trapezoidal crimping MTT for crimping of wire end ferrules and twin wire end ferrules. Application range 0.30 to 120 mm ² 						PK KE
Square crimping hand pliers for crimping of wire end ferrules and twin wire end ferrules. Application range 0.08 to 10 mm ² 						

Sequence of crimping with
cable lugs and connectors



Crimp insert table for ME5, ME5-KV, H240K, H500K

Material					Crimping tool			
Application			Material (key figure)		Cross-section mm ²		ME5, ME5-KV	
							Die	Punch
 DR	 DSV	5		6	MK5-ME5 			
		6		10	MK6-ME5 			
		8		16	MK8-ME5 			
 A-M	 L-M	A1-	L1	4 – 6	B1W-ME5 	BS1-5-ME5		
		A2-	L2	10	B2W-ME5 			
		A3-	L3	16	B3W-ME5 			
		A5-	L5	25	B5W-ME5 			
 C connector	C06		2.5 – 1	2.5 – 1	B06C-ME5 			
	C6-C6		6 – 2.5	6 – 1.5	B6C-ME5 			
	C10-C10		10	10 – 1.5	B10C-ME5 			
	C16-C16		16	16 – 1.5	B25C-ME5 			
	C25-C10		25 – 16	10 – 1.5				
	C25-C25		25	25 – 16				

DIN 46235, DIN 46267

Key figure	Connecting material						Hydraulic crimping tools		
	Cu		Al		Al / St		B35-50MD		
	strain-relieved	strain-resistant	strain-relieved	strain-resistant	Al sleeve	St sleeve			
	Conductor cross-section (mm²)		Conductor cross-section (mm²)		Conductor cross-section (mm²)		6-edge crimp insert	Crimp width	
5	6	6					MK-5-50	5.0	
6	10					16/2.5 25/4 35/6	MK-6-50	5.0	
7						50/8 *	MK-7-50	5.0	
8	16	10 – 16					MK-8-50	5.0	
9						70/12 95/15 *	MK-9-50	5.0	
10	25	25					MK-10-50	5.0	
12	35	35					MK-12-50	5.0	
			16 – 25	16 – 25	16/2.5 25/4		MK-12B-50	7.0	
13						120/20 150/25 *			
14	50	50					MK-14-50	5.0	
			35	35	35/6		MK-14B-50	7.0	
15						44/32 50/30 120/30 170/40 185/30 210/35 230/30 140/40 265/35 305/40 340/30 385/35 450/40 570/40			
16	70	70					MK-16-50	5.0	
			50	50	50/8 *		MK-16B-50	7.0	
17						210/50 300/50 * 380/50 560/50 650/45			
18	95						MK-18-50	5.0	
			70	70	70/12 *		MK-18B-50	7.0	
19						95/55 435/55 *			
20	120	95					MK-20-50	5.0	
21						105/75 120/70 490/65 550/70 *			
22	150	120					MK-22L-50	3.0	
			95 – 120	95	95/15 *		MK-22B-50	7.0	
23						680/85 *			
25	185	150							
			150	120	44/32 50/30 120/20				
28	240								
			185	150 – 185	125/30 150/25				
30		185							
					95/55 170/40 185/30				
32	300								
			240						
34		240							
			300	240	105/75 120/70 210/35 210/50 230/30 240/40				
38	400		400	300					
42	500				340/30 380/50 385/35				
44	625		500						
46		500							
50		625			490/65				
52	800		625		550/70 560/50 570/40				
58	1000		800						
60			1000						

* not suitable for B35-45MD and B35-50MD.

Hydraulic crimping tools										
	HT51, RH50, B500, B500ND		B600 ¹		B1350, B1300, HT131, RH..131/132		ECW-H3D RHU-300-3D		RHU450, RHU520	
	6-edge crimp insert	Crimp width	6-edge crimp insert	Crimp width	6-edge crimp insert	Crimp width	6-edge crimp insert	Crimp width	6-edge crimp insert	Crimp width
	MK-5-50	5.0	MK-5-50	5.0			With adapter AU 230-130D + inserts MK..-C			
	MK-6-50	5.0	MK-6-50	5.0	MK-6-C	5.0				
	MK-7-50	5.0	MK-7-50	5.0	MK-7-C	5.0				
	MK-8-50	5.0	MK-8-50	5.0	MK-8-C	14.0				
	MK-9-50	5.0	MK-9-50	5.0	MK-9-C	5.0				
	MK-10-50	5.0	MK-10-50	5.0	MK-10-C	14.0				
	MK-12-50	5.0	MK-12-50	5.0	MK-12-C	14.0				
	MK-12B-50	7.0	MK-12B-50	7.0						
					MK-13L-C	8.0				
	MK-14-50	5.0	MK-14-50	5.0	MK-14-C	14.0				
	MK-14B-50	7.0	MK-14B-50	7.0						
					MK-15-C	12.0				
	MK-16-50	5.0	MK-16-50	5.0	MK-16-C	14.0				
	MK-16B-50	7.0	MK-16B-50	7.0						
					MK-17-C	12.0				
	MK-18-50	5.0	MK-18-50	5.0	MK-18-C	14.0	MK-18-3D	12.0		
	MK-18B-50	7.0	MK-18B-50	7.0						
					MK-19-C	12.0				
	MK-20-50	5.0	MK-20-50	5.0	MK-20-C	14.0	MK-20-3D	12.0		
					MK-21-C	14.0				
	MK-22-50	5.0	MK-22-50	5.0	MK-22-C	14.0	MK-22-3D	14.0		
	MK-22B-50	7.0	MK-22B-50	7.0						
					MK-23-C	14.0				
	MK-25-50	5.0	MK-25-50	5.0	MK-25-C	14.0	MK-25-3D	14.0	With adapter AU450-130D AU520-130C + inserts MK..-C	
	MK-25B-50	7.0	MK-25B-50	7.0						
	MK-28-50	4.0	MK-28-60	5.0	MK-28-C	7.0	MK-28-3D	14.0		
	MK-28B-50	7.0	MK-28B-50	7.0	MK-28L-C	14.0				
					MK-30-C	7.0	MK-30-3D	17.0		
					MK-30L-C	14.0				
	MK-32-50	4.0			MK-32-C	7.0	MK-32-3D	17.0		
	MK-32B-50	5.0			MK-32L-C	17.0				
					MK-34-C	7.0	MK-34-3D	17.0		
					MK-34L-C	17.0				
							MK-38-3D	17.0	MK-38-450/520	17.0
							MK-42-3D	17.0	MK-42-450/520	17.0
							MK-44-3D	17.0	MK-44-450/520	17.0
							MK-46-3D	25.0	MK-46-450/520	25.0
									MK-50-450/520	25.0
									MK-52-450/520	25.0
									MK-58-450/520	25.0
									MK-60-450/520	25.0

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Connecting material				Hydraulic crimping tools	
Cu		Al		B35-50MD	
DIN 46234, DIN 46341	Conductor cross-section (mm²)			Counter-holder + indent crimping die	
	6 – 10			MQ-10-50	
	10 – 16			MQ-16-50	
	16 – 25			MQ-25-50	
	25 – 35			MQ-35-50	
	35 – 50			MQ-50-50	
	50 – 70			MQ-70-50	
	70 – 95				
	95 – 120				
	120 – 150				
	150 – 185				
	185 – 240				
Round crimp inserts	sm	se	sm	Insert	
	25	35	25	UP-6.3-50	
	35	50	35	UP-7.5-50	
	50	70	50	UP-9.0-50	
	70	95	70	UP-10.5-50	
	95	120	95	UP-12.5-50	
	120	150	120	UP-14.0-50	
	150	185	150	UP-15.7-50	
	185	240	185		
	240	300	240		
	300		300		
	400		400		
	500		500		
	630		630		

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Connecting material			Hydraulic crimping tools	
Cu	Al	St	B35-50MD	
Oval crimp inserts	H terminals cross-section (mm ²)		Crimp insert	Crimp width
	16RE-10RM		MO-10-50	5
	16		MO-16-50	5
	25		MO-18-50	5
	35		MO-21-50	5
	50		MR-22-50	5
	70			
	95			
	120			
	Double crimping lug cross-section (mm ²)			
	70			
	95			
	120			
	Crimp collars cross-section (mm ²)		Crimp insert	Crimp width
	10 RM/16 RE		MO-10-50	5
	16	16	MO-12-50	5
	25	25	MO-16-50	5
	35	35	MO-18-50	5
	50	50	MO-20-50	5
	70	70	MO-22-50	5
	95	95	MO-24-50	5
		95		
	120	120		

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Hydraulic crimping tools							
	HT51, RH50, B500, B500ND	B600 ¹	B1350, B1300, HT131, RH..131/132		ECW-H3D, RHU-300-3D		
	Counter-holder + indent crimping die	Counter-holder + indent crimping die	Counter-holder	Indent crimping die	Counter-holder	Indent crimping die	
	MQ-10-50	MQ-10-50	MQM-10-C	MQS-16-C	With adapter AU230-130D + inserts MQ...		
	MQ-16-50	MQ-16-50	MQM-16-C				
	MQ-25-50	MQ-25-50	MQM-25-C				
	MQ-35-50	MQ-35-50	MQM-35-C	MQS-35-C			
	MQ-50-50	MQ-50-50	MQM-50-C				
	MQ-70-50	MQ-70-50	MQM-70-C	MQS-70-C			
			MQM-95-C				
			MQM-120-C				
			MQM-150-C	MQS-150-C			
			MQM-185-C				
			MQM-240-C				
				MQS-240-C	MQM 185-3D*	MQS 240-3D*	
					MQM 240-3D*		
	Insert	Insert	Insert		Insert		
	UP-6.3-50	UP-6.3-50	UP-130-6.3-C		UP-25-3D		
	UP-7.5-50	UP-7.5-50	UP-130-7.5-C		UP-35-3D		
	UP-9.0-50	UP-9.0-50	UP-130-9.0-C		UP-50-3D		
	UP-10.5-50	UP-10.5-50	UP-130-10.5-C		UP-70-3D		
	UP-12.5-50	UP-12.5-50	UP-130-12.5-C		UP-95-3D		
	UP-14.0-50	UP-14.0-50	UP-130-14.0-C		UP-120-3D		
	UP-15.7-50	UP-15.7-50	UP-130-15.7-C		UP-150-3D		
	UP-17.5-50	UP-17.5-50	UP-130-17.5-C		UP-185-3D		
	UP-20.2-50	UP-20.2-50	UP-130-20.2-C		UP-240-3D		
			UP-130-22.5-C		UP-300-3D		
					UP-400-3D		
					UP-500-3D		
					UP-630-3D		

* ab 185 mm² only possible with ECW-H3D and AU 230-1300

Hydraulic crimping tools						
	HT51, RH50, B500, B500ND, B600 ¹		B1350, B1300, HT131, RH..131/132		ECW-H3D, RHU-300-3D	RHU520
	Crimp insert	Crimp width	Crimp insert	Crimp width	Crimp insert	Crimp insert
	MO-10-50	5				
	MO-16-50	5				
	MO-18-50	5				
	MO-21-50	5				
	MRH-22-50	5				
	MR-26-50	5	MRH-26-C	35	With adapter AU230-130D with crimp insert MC...-C	With adapter AU230-130D with crimp insert MC...-C
			MRH-30-C	35		
			MRH-32-2X5-C*	2 x 5		
			Crimp insert	Crimp width	Crimp insert	Crimp insert
			MHR-24-C	35	With adapter AU230-130D with crimp insert MC...-C	With adapter AU230-130D with crimp insert MC...-C
			MHR-29-C	35		
			MHR-32-C	35		
	Crimp insert	Crimp width	Crimp insert	Crimp width	Crimp insert	Crimp insert
	MO-10-50	5				
	MO-12-50	5	MO-12-C	5	With adapter AU230-130D with crimp insert MO...-C	With adapter AU230-130D with crimp insert MO...-C
	MO-16-50	5	MO-16-C	5		
	MO-18-50	5	MO-18-C	5		
	MO-20-50	5	MO-20-C	5		
	MO-22-50	5	MO-22-C	5		
	MO-24-50	5	MO-24-C	5		
			MO-25-C	5		
	MO-26-50	5	MO-26-C	5		

*can only be used with HT131L-C, RHC131L, B1300L-C and B1350L-C

Application	Conductor cross-section (mm ²)		Material		Hydraulic crimping tools						
					B35-50MD			HT51, RHM50, B500, B500ND			
	md	fd	Cable lug	Connector	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	
Copper cable lugs and connectors		0.25 – 2.5	A 03-M.. A 06-M..	L 03-.. L 06-..							
		4 – 6	A 1-..	L 1-..	MA-1-50 ①	PA-1-50	ME-1-50 ①	MA-1-50 ①	PA-1-50	ME-1-50 ①	
		10	A 2-..	L 2-..	MA-2,3-50 ①	PA-5-50	ME-2-50 ①	MA-2,3-50 ①	PA-5-50	ME-2-50 ①	
		16	A 3-...	L 3-..			ME-3-50 ①			ME-3-50 ①	
		25	A 5-..	L 5-..			ME-5-50 ①			ME-5-50 ①	
		35	25* 35	A 7-..	MA-7-50 ①	PA-10-50	ME-7-50 ①	MA-7-50 ①	PA-10-50	ME-7-50 ①	
		50	35* 50	A 10-..	MA-10-50 ①		ME-10-50 ②	MA-10-50 ①		ME-10-50 ②	
		70	50* 70	A 14-..	MA-14-50 ①	PA-19-50	ME-14-50 ②	MA-14-50 ①	PA-19-50	ME-14-50 ②	
		95	70* 95	A 19-..	MA-19-50 ①		ME-19-50 ②	MA-19-50 ①		ME-19-50 ②	
		120	95* 120	A 24-..	MA-24-50 ①	PA-24-50	ME-24L-50 ②	MA-24-50 ①	PA-24-50	ME-24-50 ②	
		150	120* 150	A 30-..			ME-30L-50 ③			ME-30-50 ③	
		185	150* 185	A 37-..						ME-37-50 ③	
		240	185* 240	A 48-..						ME-48-50 ③	
		300	240 300	A 60-..						ME-60-50 ③	
		400	300 400	A 80-..							
		500	400 500	A 100-..							
		630	500 630	A 120-..							
		800	630	A 160-..							
		1000	800	A 200-..							
Cable lugs for fine strands		35	A 9-M..		MA-9-50 ①	PA-10-50	ME-9-50 ①	MA-9-50 ①	PA-10-50	ME-9-50 ①	
		50	A 12-M..		MA-12-50 ①	PA-19-50	ME-12-50 ②	MA-12-50 ①	PA-19-50	ME-12-50 ②	
		70	A 17-M..		MA-17-50 ①		ME-17-50 ②	MA-17-50 ①		ME-17-50 ②	
		95	A 20-M..		MA-20-50 ①		ME-20-50 ②	MA-20-50 ①		ME-20-50 ②	
		120	A 29-M..				ME-29-50 ③			ME-29-50 ③	
		150	A 35-M..							ME-35-50 ③	
		185	A 40-M..							ME-40-50 ③	

Note: The number in the crimping symbol refers to the number of presses for the types A-M. The number of cable lugs and connectors may vary with the others.

- ① = Hexagonal crimping
- ② = Indent crimping
- ③ = Hexagonal crimping with Pin

Hydraulic crimping tools

Hydraulic crimping tools												
B600 ¹			B1350, B1300, HT131, RH..131/132			ECW-H3D, RHU-300-3D			RHU520			
Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	
MA-2-3-50 ①	PA-5-50	ME-2-50 ①	MA-2-C ①	PA-10-C	ME-2-C ①	Adapter AU230-130D with counter-holder MA..-C and indent crimping die PA..-C			Adapter AU230-130D Press-insert ME..-C	Adapter AU520-130C with counter-holder MA..-C and indent crimping die PA..-C		Adapter AU520-130C Press-insert ME..-C
		ME-3-50 ①	MA-3-C ①		ME-3-C ①							
MA-5-50 ①		ME-5-50 ①	MA-5-C ①		ME-5-C ①							
MA-7-50 ①	PA-10-50	ME-7-50 ①	MA-7-C ①		ME-7-C ①							
MA-10-50 ①		ME-10-50 ②	MA-10-C ①		ME-10-C ①							
MA-14-50 ①	PA-19-50	ME-14-50 ②	MA-14-C ①	PA-24-C	ME-14-C ①							
MA-19-50 ①		ME-19-50 ②	MA-19-C ①		ME-19-C ①							
MA-24-50 ①	PA-24-50	ME-24-50 ②	MA-24-C ①		ME-24-C ①							
		ME-30-50 ②	MA-30-C ①	PA-48-C	ME-30-C ①							
		ME-37-50 ②	MA-37-C ①		ME-37-C ①							
		ME-48-50 ③	MA-48-C ①		ME-48-C ②							
		ME-60-50 ③	MA-60-C ①	PA-60-C	ME-60-C ③							
					ME-80-C ③	MA-80-3D ①	PA-100-3D	ME-80-3D ②	MA-80-520 ①	PA-120-520	ME-80-520 ②	
						MA-100-3D ①		ME-100-3D ②	MA-100-520 ①		ME-100-520 ②	
						MA-120-3D ①		ME-120-3D ②	MA-120-520 ①		ME-120-520 ②	
									MA-160-520 ①	PA-200-520	ME-160-520 ②	
									MA-200-520 ①		ME-200-520 ②	
		ME-9-50 ①	MA-9-C ①	PA-10-C	ME-9-C ①	Adapter AU230-130D with counter-holder MA..-C and indent crimping die PA..-C			Adapter AU230-130D Press-insert ME..-C	Adapter AU520-130C with counter-holder MA..-C and indent crimping die PA..-C		Adapter AU520-130C Press-insert ME..-C
		ME-12-50 ②	MA-12-C ①	PA-24-C	ME-12-C ①							
		ME-17-50 ②	MA-17-C ①		ME-17-C ①							
		ME-20-50 ②	MA-20-C ①		ME-20-C ①							
		ME-29-50 ③	MA-29-C ①	PA-48-C	ME-29-C ①							
		ME-35-50 ③	MA-35-C ①		ME-35-C ①							
		ME-40-50 ③	MA-40-C ①		ME-40-C ①							

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Application	Conductor cross-section (mm ²)	Material		Hydraulic crimping tools			
				B35-50MD			
		md	Cable lug	Connector	Counter-holder	Indent crimping die	Crimp insert
Copper cable lugs and connectors  T..-M..  L..-T	4 – 6	T 6-M.. T 6-L..	L 6-T..	MA-1-50 ①	PA-1-50	MS-6-50 ①	
	10	T 10-M.. T 10-L..	L 10-T..	MA-2.3-50 ①	PA-5-50	MS-10-50 ①	
	16	T 16-M.. T 16-L..	L 16-T..			MS-16-50 ①	
	25	T 25-M.. T 25-L..	L 25-T..			MS-25-50 ①	
	35	T 35-M.. T 35-L..	L 35-T..	MA-7-50 ①	PA-10-50	MS-35-50 ②	
	50	T 50-M.. T 50-L..	L 50-T..	MA-10-50 ①		MS-50-50 ②	
	70	T 70-M.. T 70-L..	L 70-T..	MA-14-50 ①	PA-19-50	MS-70-50 ②	
	95	T 95-M.. T 95-L..	L 95-T..			MS-95-50 ②	
	120	T 120-M.. T 120-L..	L 120-T..			MS-120-50 ②	
	150	T 150-M.. T 150-L..	L 150-T..			MS-150L-50 ③	
	185	T 185-M..	L 185-T..				
	240	T 240-M..	L 240-T..				
	300	T 300-M..	L 300-T..				
	400	T 400-M..	L 400-T..				

Note:  = Hexagonal crimping
 = Indent crimping

Application	Conductor cross-section (mm ²)		Material (Al)		Hydraulic crimping tools	
					B35-50MD	
	rm/sm	re/se	Cable lug	Connector	Crimp insert	
Aluminium cable lugs and connectors  AAD...-..  DSV...	16	25	AAD16-M..	DSVA16	MK-12B-50	○
	25	35	AAD25-M..	DSVA25	MK-12B-50	○
	35	50	AAD35-M..	DSVA35	MK-14B-50	○
	50	70	AAD50-M..	DSVA50	MK-16B-50	○
	70	95	AAD70-M..	DSVA70	MK-18B-50	○
	95	120	AAD95-M..	DSVA95	MK-22B-50	○
	120	150	AAD120-M..	DSVA120	MK-22B-50	○
	150	185	AAD150-M..	DSVA150	MK-25B-50	○
	185	240	AAD185-M..	DSVA185		
	240	300	AAD240-M..	DSVA240		
	300		AAD300-M..	DSVA300		
	400		AAD400-M..	DSVA400 / DSVA401		
	500		AAD500-M..	DSVA500 / DSVA501		
	600			DSVA625		
	800			DSVA800		
	1000			DSVA1000		

Note:  = Hexagonal crimping

Hydraulic crimping tools																					
	HT51, RHM50, B500, B500ND			B600 ¹			B1350, B1300, HT131, RH..131/132			ECW-H3D, RHU-300-3D			RHU520								
	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die	Crimp insert						
	MA-1-50 ①	PA-1-50	MS-6-50 ①	MA-1-50 ①	PA-1-50	MS-6-50 ①			MS-6-C ①												
	MA-2.3-50 ①	PA-5-50	MS-10-50 ①	MA-2.3-60 ①	PA-5-50	MS-10-50 ①	MA-2-C ①	PA 10-C	MS-10-C ①	Adapter AU230-130D with counter-holder MA..-C and indent crimping die PA..-C	Adapter AU230-130D Press- insert MS..-C	Adapter AU520-130C with counter-holder MA..-C and indent crimping die PA..-C	Adapter AU520-130C Press- insert MS..-C								
			MS-16-50 ①			MS-16-50 ①	MA-3-C ①		MS-16-C ①												
			MS-25-50 ①			MS-25-50 ①	MA-5-C ①		MS-25-C ①												
	MA-5-50 ①	MS-35-50 ②	MA-7-50 ①	MS-35-50 ②	MA-7-C ①	MS-35-C ①															
	MA-7-50 ①	PA-10-50	MS-50-50 ②	MA-10-50 ①	MS-50-50 ②	MA-10-C ①	MS-50-C ①														
	MA-10-50 ①		MS-70-50 ②	MA-14-50 ①	MS-70-50 ②	MA-14-C ①	MS-70-C ①														
	MA-14-50 ①	PA-19-50	MS-95-50 ②	MA-19-50 ①	MS-95-50 ②	MA-19-C ①	PA 24-C	MS-95-C ①													
	MA-19-50 ①		MS-120-50 ②	MA-24-50 ①	MS-120-50 ②	MA-24-C ①		MS-120-C ①													
	MA-24-50 ①	PA-24-50	MS-150-5 ③		PA-24-50	MS-150-50 ③	MA-30-C ①	PA 48-C	MS-150-C ②												
			MS-185-50 ③			MS-185-50 ③	MA-37-C ①		MS-185-C ②												
			MS-240-50 ④			MS-240-50 ④	MA-48-C ①		MS-240-C ②												
			MS-300-50 ④				MA-60-C ①		PA-60-C	MS-300-C ③											
									MS-400-C ③												

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Hydraulic crimping tools						
	HT51, RH50, B500, B500ND	B600 ¹	B1350, B1300, HT131, RH..131/132	ECW-H3D, RHU-300-3D	RHU-450	RHU-520
	Crimp insert	Crimp insert	Crimp insert	Crimp insert		
	MK-12B-50 ☐	MK-12-50 ☐	MK-12-C ☐	Adapter AU230-130D + Crimp insert MK....-C	Adapter AU450-130D + Crimp insert MK....-C	Adapter AU520-130D + Crimp insert MK....-C
	MK-12B-50 ☐	MK-12-50 ☐	MK-12-C ☐			
	MK-14B-50 ☐	MK-14-50 ☐	MK-14-C ☐			
	MK-16B-50 ☐	MK-16-50 ☐	MK-16-C ☐			
	MK-18B-50 ☐	MK-18-50 ☐	MK-18-C ☐			
	MK-22B-50 ☐	MK-22-50 ☐	MK-22-C ☐			
	MK-22B-50 ☐	MK-22-50 ☐	MK-22-C ☐			
	MK-25B-50 ☐	MK-25-50 ☐	MK-25-C ☐			
	MK-28B-50 ☐	MK-28B-50 ☐	MK-28L-C ☐			
	MK-32B-50 ☐		MK-32L-C ☐			
			MK-34L-C ☐			
				MK-38-3D ☐	MK-38-450 ☐	MK-38-520 ☐
				MK-44-3D ☐	MK-44-450 ☐	MK-44-520 ☐
					MK-52-450 ☐	MK-52-520 ☐
					MK-58-450 ☐	MK-58-520 ☐
					MK-60-450 ☐	MK-60-520 ☐

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Application		Connecting material						Hydraulic crimping tools	
		Conductor cross-section (mm²)	Material					B35-50MD	
								Crimp insert	
 ANE...-M..  ANE...-P..  ANE...-U..  AN...-M.. IN...-M.. EN...-M..	10	ANE 2-M..	ANE 2-P..	ANE 2-U..	AN 2-M..	IN 2-M..	EN 2-M.. ENR 3-M..	MN-2RF-50 ○	
	16	ANE 3-M..	ANE 3-P..	ANE 3-U..	AN 3-M..	IN 3-M..	EN 3-M..	MN-3RF-50 ○	
	25	ANE 5-M..	ANE 5-P..		AN 5-M..			MN-5RF-50 ○	
	35	ANE 7-M..	ANE 7-P..		AN 7-M..	IN 7-M..	EN 7-M..	MN-7RF-50 ○	
	50	ANE 10-M..			AN 10-M..	IN 10-M..	EN 10-M.. ENR 10-M..	MN-10RF-50 ○	
	70	ANE 14-M..			AN 14-M..	IN 14-M..	EN 14-M..		
	95	ANE 19-M..			AN 19-M..	IN 19-M..	EN 19-M..		
	120	ANE 24-M..			AN 24-M..	IN 24-M..	EN 24-M..		
	150	ANE 30-M..			AN 30-M..	IN 30-M..	EN 30-M..		
	150					IN 37-M..	EN 37-M..		
	185					IN 48-M..	EN 48-M..		
	240					IN 60-M..	EN 60-M..		
	300					IN 80-M..	EN 80-M..		
 ANE...-M..	35	ANE 9-M..						MN-7RF-50 ○	
	50	ANE 12-M..						MN-12F-50 ○	
	70	ANE 17-M..							
	95	ANE 20-M..							
	120	ANE 29-M..							
	150	ANE 35-M..							
 AH..	0.3 – 4	Mechanical hand pliers see page 83							
	4 – 16								
	16							MTT-16-50 ▽	
	25							MTT-25-50 ▽	
	35							MTT-35-50 ▽	
	50							MTT-50-50 ▽	
	70							MTT-70-50 ▽	
	95							MTT-95-50 ▽	
	120							MTT-120-50 ▽	
	150								
	185								
	240								

Note: ○ = Oval crimping
○ = Indent crimping
▽ = Trapezoidal crimping

Hydraulic tools							
	HT51, RH50, B500, B500ND	B600	B1350, B1300, HT131, RH..131/132			ECW-H3D, RHU-300-3D	
	Crimp insert	Crimp insert	Counter-holder	Indent crimping die	Crimp insert	Counter-holder	Indent crimping die
	MN-2RF-50 ○	MN-2RF-50 ○	MN-2-C ☺	PN-7-C	MN-2RF-C ○	Adapter AU230-130D with counter-holder MN...-C and mandrel PN ...-C or with crimp insert MN...-RF-C and Crimp insert MN...F-C	
	MN-3RF-50 ○	MN-3RF-50 ○	MN-3-C ☺		MN-3RF-C ○		
	MN-5RF-50 ○	MN-5RF-50 ○	MN-5-C ☺		MN-5RF-C ○		
	MN-7RF-50 ○	MN-7RF-50 ○	MN-7-C ☺		MN-7RF-C ○		
	MN-10RF-50 ○	MN-10RF-50 ○	MN-10-C ☺	PN-14-C	MN-10RF-C ○		
	MN-14RF-50 ○	MN-14RF-50 ○	MN-14-C ☺		MN-14RF-C ○		
	MN-19RF-50 ○	MN-19RF-50 ○	MN-19-C ☺	PN-24-C	MN-19RF-C ○		
	MN-24RF-50 ○	MN-24RF-50 ○	MN-24-C ☺		MN-24RF-C ○		
			MN-30-C ☺	PN-37-C	MN-30RF-C ○		
			MN-37-C ☺		MN-37RF-C ○		
			MN-48-C ☺	PN-48-C	MN-48RF-C ○		
			MN-60-C ☺	PN-60-C			
						MN-80-3D	PN-80-3D
	MN-7RF-50 ○	MN-7RF-50 ○	MN-9-C ☺	PN-14-C	MN-7RF-C ○	Adapter AU230-130D with counter-holder MN...-C und mandrel PN ...-C or with crimp insert MN...-RF-C and Crimp insert MN...F-C	
	MN-12F-50 ○	MN-12F-50 ○	MN-12-C ☺		MN-12F-C ○		
	MN-17F-50 ○	MN-17F-50 ○	MN-17-C ☺	PN-24-C	MN-17F-C ○		
	MN-20F-50 ○	MN-20F-50 ○	MN-20-C ☺		MN-20F-C ○		
			MN-29-C ☺	PN-37-C	MN-29 F-C ○		
			MN-35-C ☺		MN-35 F-C ○		
	MTT-16-50 ▽				MTT-16-C ▽		
	MTT-25-50 ▽				MTT-25-C ▽		
	MTT-35-50 ▽				MTT-35-C ▽		
	MTT-50-50 ▽				MTT-50-C ▽		
	MTT-70-50 ▽				MTT-70-C ▽		
	MTT-95-50 ▽				MTT-95-C ▽		
	MTT-120-50 ▽				MTT-120-C ▽		
					MTT-150-C ▽		
					MTT-185-C ▽		
					MTT-240-C ▽		

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

DIN cable lug

Connecting material				Hydraulic crimping tools	
Application	Conductor cross-section (mm ²)	Material		B35-50MD	
		Cable lug	Connector	Crimp insert	
 Q..	6 – 10	Q10-..		MQ-10-50 ①	
	10 – 16	Q16-..		MQ-16-50 ①	
	16 – 25	Q25-..		MQ-25-50 ①	
	25 – 35	Q35-..		MQ-35-50 ②	
	35 – 50	Q50-..		MQ-50-50 ②	
	50 – 70	Q70-..		MQ-70-50 ②	
	70 – 95	Q95-..			
	95 – 120	Q120-..			
	120 – 150	Q150-..			
	150 – 185	Q185-..			
	185 – 240	Q240-..			
 DR..  DSV..	6	DR6-..	DSV6	MK-5-50 ①	
	10	DR10-..	DSV10	MK-6-50 ①	
	16	DR16-..	DSV16	MK-8-50 ②	
	25	DR25-..	DSV25	MK-10-50 ②	
	35	DR35-..	DSV35	MK-12-50 ②	
	50	DR50-..	DSV50	MK-14-50 ③	
	70	DR70-..	DSV70	MK-16-50 ③	
	95	DR95-..	DSV95	MK-18-50 ④	
	120	DR120-..	DSV120	MK-20-50 ④	
	150	DR150-..	DSV150	MK-22L-50 ④	
	185	DR185-..	DSV185		
	240	DR240-..	DSV240		
	300	DR300-..	DSV300		
	400	DR400-..	DSV400		
	500	DR500-..	DSV500		
	625	DR625-..	DSV625		
 HK..  HSV..	10	HK10-..	HSV10	MH-10-50 ①	
	16	HK16-..	HSV16	MH-16-50 ①	
	25	HK25-..	HSV25	MH-25-50 ①	
	35	HK35-..	HSV35	MH-35-50 ①	
	50	HK50-..	HSV50	MH-50-50 ②	
	70	HK70-..	HSV70	MH-70-50 ②	
	95	HK95-..	HSV95	MH-95-50 ③	
	120	HK120-..	HSV120	MH-120L-50 ③	
	150	HK150-..	HSV150	MH-150L-50 ④	
	185	HK185-..	HSV185		
	240	HK240-..	HSV240		
	300				
	400				
	500				
	630				

	Hydraulic crimping tools					
	HT51, RH50, B500, B500ND	B600 ¹	B1350, B1300, HT131, RH..131/132		ECW-H3D, RHU-300-3D	
	Crimp insert	Crimp insert	Counter-holder	Indent crimping die	Counter-holder	Indent crimping die
	MQ-10-50 ②	MQ-10-50 ②	MQM-10-C ②	MQS-16-C	AU230-130D + inserts MQ..	
	MQ-16-50 ②	MQ-16-50 ②	MQM-16-C ②			
	MQ-25-50 ②	MQ-25-50 ②	MQM-25-C ②	MQS-35-C		
	MQ-35-50 ②	MQ-35-50 ②	MQM-35-C ②			
	MQ-50-50 ②	MQ-50-50 ②	MQM-50-C ②	MQS-70-C		
	MQ-70-50 ②	MQ-70-50 ②	MQM-70-C ②			
			MQM-95-C ②	MQS-150-C		
			MQM-120-C ②			
			MQM-150-C ②			
					MQM-185-3D	MQS-240-3D
					MQM-240-3D	
	MK-5-50 ①	MK-5-50 ①	MK-5-C ①		With adapter AU230-130D + inserts MK..-C	
	MK-6-50 ①	MK-6-50 ①	MK-6-C ①			
	MK-8-50 ②	MK-8-50 ②	MK-8-C ①			
	MK-10-50 ②	MK-10-50 ②	MK-10-C ①			
	MK-12-50 ②	MK-12-50 ②	MK-12-C ①			
	MK-14-50 ③	MK-14-50 ③	MK-14-C ②		MK-14-3D ②	
	MK-16-50 ③	MK-16-50 ③	MK-16-C ②		MK-16-3D ②	
	MK-18-50 ④	MK-18-50 ④	MK-18-C ②		MK-18-3D ②	
	MK-20-50 ④	MK-20-50 ④	MK-20-C ②		MK-20-3D ②	
	MK-22-50 ④	MK-22-50 ④	MK-22-C ②		MK-22-3D ②	
	MK-25-50 ⑤	MK-25-50 ⑤	MK-25-C ②		MK-25-3D ②	
	MK-28-50 ⑤	MK-28-50 ⑤	MK-28-C ④		MK-28-3D ②	
			MK-32-C ④		MK-32-3D ②	
					MK-38-3D ③	
					MK-42-3D ③	
					MK-44-3D ③	
	MH-10-50 ①	MH-10-50 ①	MH-10-C ①		AU230-130D + inserts MH..-C	
	MH-16-50 ①	MH-16-50 ①	MH-16-C ①			
	MH-25-50 ①	MH-25-50 ①	MH-25-C ①			
	MH-35-50 ①	MH-35-50 ①	MH-35-C ①			
	MH-50-50 ②	MH-50-50 ②	MH-50-C ①		MH-50-3D ①	
	MH-70-50 ②	MH-70-50 ②	MH-70-C ①		MH-70-3D ①	
	MH-95-50 ②	MH-95-50 ②	MH-95-C ①		MH-95-3D ①	
	MH-120-50 ②	MH-120-50 ②	MH-120-C ①		MH-120-3D ①	
	MH-150-50 ③	MH-150-50 ③	MH-150-C ①		MH-150-3D ①	
	MH-185-50 ③	MH-185-50 ③	MH-185-C ①		MH-185-3D ②	
	MH-240-50 ③	MH-240-50 ③	MH-240-C ②		MH-240-3C ②	
	MH-300-50 ③		MH-300-C ③		MH-300-3D ②	
			MH-400-C ③		MH-400-3D ②	
					MH-500-3D ②	
					MH-630-3D ②	

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

C-clamps and bimetal cable lugs

Material					Hydraulic crimping tools		
Application		Conductor cross-section (mm²)		C branch terminal tinned	C branch terminal blank	B35-50MD	
		Main conductor	Branch conductor			Crimp insert	
C branch terminals	 C...-C..  C...-C...ST	6 – 2.5	6 – 1.5	C6-C6ST	C6-C6	MC-6-50 ①	
		10	10 – 1.5	C10-C10ST	C10-C10	MC-10-50 ①	
		16	16 – 1.5	C16-C16ST	C16-C16	MC-25-50 ②	
		25 – 16	10 – 1.5	C25-C10ST	C25-C10		
		25	25 – 16	C25-C25ST	C25-C25		
		40 – 35	16 – 1.5	C35-C16ST	C35-C16		
		40 – 35	40 – 25	C35-C35ST	C35-C35	MC-35-50 ②	
		50	25 – 10				
		70 – 63	25 – 1.5	C70-C25NST	C70-C25N		
		50	25 – 4	C50-C25ST	C50-C25		
		*50	50 – 35	C50-C50ST	C50-C50		
	*70 – 50	40 – 4	C70-C35ST	C70-C35			
	*70 – 50	70 – 35	C70-C70ST	C70-C70			
	100 – 95	40 – 4	C95-C35ST	C95-C35			
	100 – 95	70 – 40	C95-C70ST	C95-C70			
	100 – 95	100 – 63	C95-C95ST	C95-C95			
	125 – 110	125 – 25	C120-C120ST	C120-C120			
	160 – 150	125 – 25	C150-C120ST	C150-C120			
	150	150 – 63	C150-C150ST	C150-C150			
	185	100 – 16	C185-C95ST	C185-C95			
	185 – 120	185 – 120	C185-C185ST	C185-C185			
	240 – 150	120 – 95	C 40-C120ST	C240-C120			

Note: ○ = Oval crimping

Connecting material				Hydraulic crimping tools	
Application	Conductor cross-section (mm ²)		Bimetallic cable lugs	B35-50MD	
	rm/sm	re/se		Crimp insert	
Bimetallic cable lugs  CAAD...-M..	16	25	CAAD16-M..	MK-12B-50 ○	
	25	35	CAAD25-M..	MK-12B-50 ○	
	35	50	CAAD35-M..	MK-14B-50 ○	
	50	70	CAAD50-M..	MK-16B-50 ○	
	70	95	CAAD70-M..	MK-18B-50 ○	
	95	120	CAAD95-M..	MK-22B-50 ○	
	120	150	CAAD120-M..	MK-22B-50 ○	
	150	185	CAAD150-M..	MK-25B-50 ○	
	185	240	CAAD185-M..		
	240	300	CAAD240-M..		

Note: ○ = Hexagonal crimping

Hydraulic crimping tools					
	HT51, RH50, B500, B500ND	B600 ¹	B1350, B1300, HT131, RH..131/132	ECW-H3D, RHU-300-3D	RHU520
	Crimp insert	Crimp insert	Crimp insert	Crimp insert	Crimp insert
	MC-6-50 ①	MC-6-50 ①			
	MC-10-50 ①	MC-10-50 ①	MC-10-C ①	Adapter AU230-130D with Crimp insert MC...-C	Adapter AU520-130C with Crimp insert MC...-C
	MC-25-50 ②	MC-25-50 ②	MC-25-C ①		
	MC-35-50 ②	MC-35-50 ②	MC-35-C ①		
	MC-70-50 ③ *	MC-70-50 ③ *	MC-70-C ③	MC-70-3 D ①	
			MC-95-C ③	MC-95-3D ①	
				MC-185-3D ①	
			MC-185-C ③		
				MC-240-3D ①	

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

* When using the terminals, the conductor should not be hardened.

Hydraulic crimping tools					
	HT51, RH50, B500, B500ND	B600 ¹	B1350, B1300, HT131, RH..131/132	ECW-H3D, RHU-300-3D	
	Crimp insert	Crimp insert	Crimp insert	Crimp insert	
	MK-12B-50 ○	MK-12-50 ○	MK-12-C ○	Adapter AU230-130D + Crimp insert MK...-C	
	MK-12B-50 ○	MK-12-50 ○	MK-12-C ○		
	MK-14B-50 ○	MK-14-50 ○	MK-14-C ○		
	MK-16B-50 ○	MK-16-50 ○	MK-16-C ○		
	MK-18B-50 ○	MK-18-50 ○	MK-18-C ○		MK-18-3D*
	MK-22B-50 ○	MK-22-50 ○	MK-22-C ○		MK-22-3D*
	MK-22B-50 ○	MK-22-50 ○	MK-22-C ○		MK-22-3D*
	MK-25B-50 ○	MK-25-50 ○	MK-25-C ○		MK-25-3D*
	MK-28B-50 ○	MK-28B-50 ○	MK-28L-C ○		MK-28L-3D*
	MK-32B-50 ○		MK-32L-C ○		MK-32-3D*

¹ The tool type B600 uses the same crimp inserts as the HT51 with an additional crimp insert spring type 6522051.

Appendix

UL- and VDE-approvals for cable glands **MAXIblock®** and **spiralblock®**

item ¹	Size	Clamping range Ø conductor (min. – max.)				Impact category ²	Marking
		Nominal value (mm)	UL 514B (mm)	UL 514B (inches)	EN 50262 (mm)		
1900.M12	M12x1.5	3.5 – 7	3.5	0.14	3.5 – 7	1	USR-CNR / VDE
1900.M16	M16x1.5	5 – 10	7	0.28	7 – 10	1	USR-CNR / VDE
1900.M20	M20x1.5	7 – 13	13	0.51	7 – 13	3	USL-CNL / VDE
1900.M25	M25x1.5	10 – 17	17	0.67	10 – 17	3	USL-CNL / VDE
1900.M32	M32x1.5	13 – 21	15 – 21	0.60 – 0.83	13 – 21	3	USL-CNL / VDE
1900.M40	M40x1.5	19 – 28	21 – 28	0.83 – 1.10	19 – 28	3	USL-CNL / VDE
1900.M50	M50x1.5	27 – 35	27 – 34	1.06 – 1.34	27 – 35	3	USL-CNL / VDE
1900.M63	M63x1.5	34 – 45	35 – 45	1.38 – 1.77	34 – 45	3	USL-CNL / VDE
1910.M12	M12x1.5	2 – 5	2 – 5	0.08 – 0.20	2 – 5	1	USR-CNR / VDE
1910.M16	M16x1.5	3 – 7	4 – 7	0.16 – 0.28	4 – 7	1	USR-CNR / VDE
1910.M20	M20x1.5	5 – 10	5 – 10	0.20 – 0.40	5 – 10	3	USR-CNR / VDE
1910.M25	M25x1.5	7 – 13	7 – 13	0.28 – 0.51	7 – 13	3	USR-CNR / VDE
1910.M32	M32x1.5	8 – 14	8 – 14	0.31 – 0.55	8 – 14	3	USR-CNR / VDE
1910.M40	M40x1.5	15 – 23	15 – 23	0.59 – 0.91	15 – 23	3	USL-CNL / VDE
1910.M50	M50x1.5	21 – 29	21 – 29	0.83 – 1.14	21 – 29	3	USL-CNL / VDE
1910.M63	M63x1.5	27 – 39	28 – 39	1.1 – 1.54	27 – 39	3	USL-CNL / VDE
1901.M12	M12x1.5	3.5 – 7	3.5	0.14	3.5 – 7	1	USR-CNR / VDE
1901.M16	M16x1.5	5 – 10	7	0.28	7 – 10	1	USR-CNR / VDE
1901.M20	M20x1.5	7 – 13	13	0.51	7 – 13	3	USL-CNL / VDE
1901.M25	M25x1.5	10 – 17	17	0.67	10 – 17	3	USL-CNL / VDE
1901.M32	M32x1.5	13 – 21	15 – 21	0.60 – 0.83	13 – 21	3	USL-CNL / VDE
1901.M40	M40x1.5	19 – 28	21 – 28	0.83 – 1.10	19 – 28	3	USL-CNL / VDE
1901.M50	M50x1.5	27 – 35	27 – 34	1.06 – 1.34	27 – 35	3	USL-CNL / VDE
1901.M63	M63x1.5	34 – 45	35 – 45	1.38 – 1.77	34 – 45	3	USL-CNL / VDE
1500.M12	M12x1.5	3.5 – 7	3.5	0.14	3.5 – 7	1	USR-CNR / VDE
1500.M16	M16x1.5	5 – 10	7	0.28	7 – 10	1	USR-CNR / VDE
1500.M20	M20x1.5	7 – 13	13	0.51	7 – 13	3	USL-CNL / VDE
1500.M25	M25x1.5	10 – 17	17	0.67	10 – 17	3	USL-CNL / VDE
1500.M32	M32x1.5	13 – 21	15 – 21	0.60 – 0.83	13 – 21	3	USL-CNL / VDE

¹ Valid also for black (with suffix "N") and grey (with suffix "G") article

² EN 50262 § 9.4

Item	Size	Clamping range Ø conductor (min. – max.)			Marking
		Nominal value (mm)	UL 514B (mm)	UL 514B (inches)	
1900.07	PG 7	3.5 – 7	4.5 – 6.5	0.18 – 0.25	USR-CNR
1900.09	PG 9	5 – 8	5.5 – 8	0.22 – 0.31	USR-CNR
1900.11	PG 11	5 – 10	6.5 – 9.5	0.26 – 0.37	USR-CNR
1900.13	PG 13.5	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1900.16	PG 16	10 – 14	10.5 – 14	0.41 – 0.55	USL-CNL
1900.21	PG 21	13 – 18	13 – 18	0.51 – 0.71	USL-CNL
1900.29	PG 29	18 – 25	18.5 – 25	0.73 – 0.98	USL-CNL
1900.36	PG 36	20 – 32	21.5 – 32	0.85 – 1.26	USL-CNL
1900.42	PG 42	28 – 38	28 – 38	1.10 – 1.49	USL-CNL
1900.48	PG 48	37 – 45	40 – 44	1.57 – 1.73	USL-CNL
1901.09	PG 9	5 – 8	5.5 – 8	0.22 – 0.31	USR-CNR
1901.11	PG 11	5 – 10	6.5 – 9.5	0.26 – 0.37	USR-CNR
1901.13	PG 13.5	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1901.16	PG 16	10 – 14	10.5 – 14	0.41 – 0.55	USL-CNL
1901.21	PG 21	13 – 18	13 – 18	0.51 – 0.71	USL-CNL
1901.29	PG 29	18 – 25	18.5 – 25	0.73 – 0.98	USL-CNL
1901.36	PG 36	20 – 32	21.5 – 32	0.85 – 1.26	USL-CNL
1500.07	PG 7	3.5 – 7	4.5 – 6.5	0.18 – 0.25	USR-CNR
1500.09	PG 9	5 – 8	5.5 – 8	0.22 – 0.31	USR-CNR
1500.11	PG 11	5 – 10	6.5 – 9.5	0.26 – 0.37	USR-CNR
1500.13	PG 13.5	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1500.16	PG 16	10 – 14	10.5 – 14	0.41 – 0.55	USL-CNL
1500.21	PG 21	13 – 18	13 – 18	0.51 – 0.71	USL-CNL

Item	Size	Clamping range Ø conductor (min. – max.)			Marking
		Nominal value (mm)	UL 514B (mm)	UL 514B (inches)	
1900.14	G1/4"	3 – 6.5	4.5 – 6.5	0.18 – 0.25	USR-CNR
1900.38	G3/8"	4 – 8	5.5 – 8	0.22 – 0.31	USR-CNR
1900.12	G1/2"	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1900.34	G3/4"	13 – 18	13 – 18	0.51 – 0.71	USL-CNL
1901.12	G1/2"	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1500.14	G1/4"	3 – 6.5	4.5 – 6.5	0.18 – 0.25	USR-CNR
1500.38	G3/8"	4 – 8	5.5 – 8	0.22 – 0.31	USR-CNR
1500.12	G1/2"	7 – 12	8 – 11.5	0.31 – 0.45	USL-CNL
1500.34	G3/4"	13 – 18	13 – 18	0.51 – 0.71	USL-CNL

VDE: VDE approval no. 40008472, 40008474, 40008475 and 40008476

USL-CNL: UL LISTING approval for USA and Canada File No. E220310; control No 48SB

USR-CNR: UL RECOGNITION approval valid for USA and Canada File No. E220310 (with reduction of the strain)

Appendix

UL- and VDE-approvals for cable glands **MAXIbrass®**

item ¹	Size	Clamping range Ø conductor (min. – max.)				Impact category ²	Marking
		Nominal value (mm)	UL 514B (mm)	UL 514B (inches)	EN 50262 (mm)		
2900.M12N	M12x1.5	3 – 7	3 – 7	0.12 – 0.28	3 – 7	5	USR-CNR / VDE
2900.M16N	M16x1.5	4.5 – 10	4.5 – 10	0.18 – 0.39	4.5 – 10	6	USL-CNL / VDE
2900.M20N	M20x1.5	7 – 13	8 – 13	0.31 – 0.51	7 – 13	6	USL-CNL / VDE
2900.M25N	M25x1.5	10 – 17	10 – 17	0.39 – 0.67	10 – 17	6	USL-CNL / VDE
2900.M32N	M32x1.5	11 – 21	11 – 21	0.43 – 0.83	11 – 21	6	USL-CNL / VDE
2900.M40N	M40x1.5	19 – 28	19 – 28	0.75 – 1.10	19 – 28	6	USL-CNL / VDE
2900.M50N	M50x1.5	26 – 35	27 – 35	1.06 – 1.38	26 – 35	6	USL-CNL / VDE
2900.M63N	M63x1.5	34 – 45	34 – 45	1.33 – 1.77	34 – 45	6	USL-CNL / VDE
2910.M12N	M12x1.5	1 – 5	2 – 5	0.08 – 0.20	1 – 5	5	USR-CNR / VDE
2910.M16N	M16x1.5	2.5 – 7	3.5 – 7	0.14 – 0.28	2.5 – 7	6	USR-CNR / VDE
2910.M20N	M20x1.5	5 – 10	5 – 10	0.20 – 0.39	5 – 10	6	USR-CNR / VDE
2910.M25N	M25x1.5	6 – 13	6 – 13	0.24 – 0.51	6 – 13	6	USR-CNR / VDE
2910.M32N	M32x1.5	7 – 14	7 – 14	0.28 – 0.55	7 – 14	6	USR-CNR / VDE
2910.M40N	M40x1.5	13 – 23	15 – 23	0.59 – 0.90	17 – 23	6	USL-CNL / VDE
2910.M50N	M50x1.5	20 – 29	20 – 29	0.79 – 1.14	22 – 29	6	USL-CNL / VDE
2910.M63N	M63x1.5	27 – 39	28 – 39	1.10 – 1.54	31 – 39	6	USL-CNL / VDE
2901.M12N	M12x1.5	3 – 7	3 – 7	0.12 – 0.28	3 – 7	5	USR-CNR/VDE
2901.M16N	M16x1.5	4.5 – 10	4.5 – 10	0.18 – 0.39	4.5 – 10	6	USL-CNL / VDE
2901.M20N	M20x1.5	7 – 13	8 – 13	0.31 – 0.51	7 – 13	6	USL-CNL / VDE
2901.M25N	M25x1.5	10 – 17	10 – 17	0.39 – 0.67	10 – 17	6	USL-CNL / VDE
2901.M32N	M32x1.5	11 – 21	11 – 21	0.43 – 0.83	11 – 21	6	USL-CNL / VDE
2901.M40N	M40x1.5	19 – 28	19 – 28	0.75 – 1.10	19 – 28	6	USL-CNL / VDE
2901.M50N	M50x1.5	26 – 35	27 – 35	1.06 – 1.38	26 – 35	6	USL-CNL / VDE
2911.M12N	M12x1.5	1 – 5	2 – 5	0.08 – 0.20	1 – 5	5	USR-CNR/VDE
2911.M16N	M16x1.5	2.5 – 7	3.5 – 7	0.14 – 0.28	2.5 – 7	6	USR-CNR / VDE
2911.M20N	M20x1.5	5 – 10	5 – 10	0.20 – 0.39	5 – 10	6	USR-CNR / VDE
2911.M25N	M25x1.5	6 – 13	6 – 13	0.24 – 0.51	6 – 13	6	USR-CNR / VDE
2911.M32N	M32x1.5	7 – 14	7 – 14	0.28 – 0.55	7 – 14	6	USR-CNR/VDE
2911.M40N	M40x1.5	13 – 23	15 – 23	0.59 – 0.90	13 – 23	6	USL-CNL / VDE
2911.M50N	M50x1.5	20 – 29	20 – 29	0.79 – 1.14	22 – 29	6	USL-CNL / VDE

¹ Valid also for black (with suffix "N") and grey (with suffix "G") article

² EN 50262 § 9.4

Item	Size	Clamping range Ø conductor (min. – max.)			Marking
		Nominal value (mm)	UL 514B (mm)	UL 514B (inches)	
2900.09N	PG 9	4 – 8	4 – 8	0.16 – 0.31	USR-CNR
2900.11N	PG 11	4.5 – 10	4.5 – 10	0.18 – 0.39	USR-CNR
2900.13N	PG 13.5	5 – 12	9 – 12	0.35 – 0.47	USL-CNL
2900.16N	PG 16	7 – 13	10 – 13	0.39 – 0.51	USL-CNL
2900.21N	PG 21	10 – 17	12 – 17	0.47 – 0.67	USL-CNL
2910.09N	PG 9	2 – 6	3 – 6	0.12 – 0.24	USR-CNR
2910.11N	PG 11	2.5 – 7	3.5 – 7	0.14 – 0.28	USR-CNR
2910.13N	PG13.5	4 – 10	5.5 – 10	0.22 – 0.39	USR-CNR
2910.16N	PG 16	5 – 10	6 – 10	0.24 – 0.39	USR-CNR
2910.21N	PG 21	6 – 13	7 – 13	0.28 – 0.51	USR-CNR

VDE: VDE approval no. 40008472, 40008474, 40008475 and 40008476

USL-CNL: UL LISTING approval for USA and Canada
File No. E220310; control No 48SB

USR-CNR: UL RECOGNITION approval valid for USA and Canada
File No. E220310 (with reduction of the strain)

Signs and symbols / Disclaimer



CE marking is a prerequisite for the first placing on the market (or putting into service) of products for which CE marking is required in accordance with the following EU directives, namely in all participating states of the European Economic Area (EEA). The EEA comprises the EU Member States and the EFTA States with the exception of Switzerland. This means that CE marking is not required when the product is placed on the market in Switzerland. There are many special conformity markings, but the CE marking according to the EU directives is recognised.



Halogen-free fire-protected products are exclusively equipped without halogen-containing flame retardants.



The Seal of Approved Safety (GS mark) certifies that a product meets the requirements of the German Equipment and Product Safety Act (GPSG), which are specified, for example, in the accident regulations of the employers' liability insurance associations, DIN standards and European standards or other generally recognised rules of technology. The GS mark and the CE marking are the only legally regulated test marks in Europe for product safety.



The ATEX Product Directive 94/9/EC (also unofficially referred to as "ATEX 95", due to the relevant Art. 95 of the EC Treaty on the Free Movement of Goods) of the European Parliament and the Council on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres lays down the rules for the placing on the market of products used in potentially explosive atmospheres. With this directive, non-electrical equipment was also included for the first time. For example, rotating couplings can lead to ignition hazards due to inadmissible excessive heating. The purpose of the Directive is to protect persons working in potentially explosive atmospheres. Annex II of the Directive contains the essential health and safety requirements which must be observed by the manufacturer and demonstrated by appropriate conformity assessment procedures. Since 30 June 2003, only equipment, components and protective systems that comply with ATEX product directive 94/9/EC may be placed on the market.



For UL certification of a product, a manufacturer must demonstrate that it meets the specified safety requirements, most of which were developed by UL themselves. At the same time, a manufacturer must use an appropriate system to ensure that every copy of his product also meets the specified safety requirements. In order to ensure that a manufacturer complies with the specifications on a permanent basis, UL inspects the production facilities at irregular intervals without prior notice. If a manufacturer modifies its product design, UL must test the new version before the product may carry a UL Mark.



The VDE mark documents the safety and standard conformity of an electrotechnical product with regard to electrical, mechanical, thermal, toxic and other hazards. It is awarded exclusively by the VDE Testing and Certification Institute. A manufacturer may only mark their products with the VDE symbol after they have been inspected and issued with a corresponding certificate.

General terms & conditions of sale

Deliveries, services and quotations provided by OTTO SCHOCH AG are made exclusively on the basis of these terms & conditions, even if they are not again explicitly agreed. These terms & conditions will be deemed to have been accepted when goods or services are ordered. We herewith reject any terms and conditions of purchase of the customer. Any deviations from these terms & conditions will not be valid unless confirmed by us in writing.

We reserve the right to supply up to 10% more or less of an order when products are made to the customer's specifications.

General

The information in our sales material (drawings, diagrams, dimensions, weights and other features) are intended as approximate values and do not constitute any assurance of properties unless they are explicitly designated as binding in writing.

Offer and conclusion of contract

Unless agreed otherwise, our offers are binding for 1 month. We reserve the right to change prices in exceptional circumstances (raw materials). Orders will only be binding on OTTO SCHOCH AG after written confirmation is issued.

Prices / packaging / terms of payment / supplements

The prices listed in our order confirmation are definitive. Unless otherwise agreed, prices are quoted in Swiss francs (CHF) and are subject to transport and packing costs in accordance, with INCOTERMS 2010, FCA Geroldswil, and do not include statutory VAT.

Transport costs do not apply for orders exceeding CHF 200.00 within Switzerland. Exceptions are express and special forms of transport.

As a general principle, we deliver in standard packaging units and we reserve the right to adjust the quantity in the event of a deviation. We charge a supplement of CHF 10.00 per line item for part packaging units.

We will charge a lump sum of CHF 20.00 on orders with a value below CHF 100.00 to cover general costs of the order. This does not apply to orders placed directly via our e-shop.

Invoices are payable net within 30 days of the date of invoice unless otherwise agreed. As a general principle, delivery is effected at the customer's expense by parcel post, shipping company or our vehicle unless explicitly agreed otherwise. Payment is only deemed to have been made when we have the due invoice amount at our disposal.

If the customer is in default, we will be entitled to charge interest of 5 % from the date in question. In addition, during the period of default OTTO SCHOCH AG will be entitled to terminate the contract at any time, to demand the return of the goods supplied and to claim damages for the void contract. All outstanding claims will become due immediately if the customer is in default of payment, culpably fails to meet essential obligations arising from the contract or cir-

cumstances become known to us that are likely to diminish the customer's credit standing, in particular suspension of payment, or if insolvency or bankruptcy proceedings are instituted. In such cases, we will be entitled to withhold outstanding deliveries or to execute them only against prepayment or other security.

Transfer of benefit and risk, shipment and insurance

In accordance with Incoterms 2010, FCA Geroldswil, unless agreed otherwise.

Delivery periods / delivery date

The delivery periods quoted in our offers apply from receipt of the order. The delivery period will be deemed to have been met if the shipment has been made available for dispatch in our factory when the period expires.

Any possible overrun of the delivery deadlines indicated does not justify claims for damages or a cancellation of the order in question. Shortages of raw materials, damage to tools, transport difficulties and similar causes of disruption that make delivery impossible, or make it disproportionately more difficult or more expensive, release us from our delivery obligations without compensation. Notification of identifiable delays will, wherever possible, be given immediately.

Framework agreements will only be accepted with call-off periods. If the call-off period is not precisely defined, it will end 12 months after conclusion of the agreement. In this case, the call-off quantity specified in the agreement must be accepted. If acceptance does not take place within the agreed period, OTTO SCHOCH AG will be entitled to deliver finished shipments without any further notification.

Documents / samples

Our catalogues, drawings, sketches etc. are our intellectual property and may not be modified or used for other purposes without our written consent. Samples are only provided against payment.

Inspection and acceptance of delivery

Any apparent defects detected must be reported to OTTO SCHOCH AG within 10 days. If the customer fails to do so, the delivery will be deemed to have been accepted.

Any further inspections of the goods prior to shipment and/or certificates (e.g. acceptance inspections, factory test certificates etc.) must be agreed beforehand in writing and specified on the order. Any costs incurred will be invoiced. Any return of goods by the customer requires the prior consent of OTTO SCHOCH AG and must be effected in accordance with the guidelines for the return of articles.

Retention of title

Goods supplied will remain our property until complete payment has been effected. The customer assures that it will cooperate in any measures required to protect our property.

General terms & conditions of sale

Cancellation / returns in accordance with the guidelines for the return of goods

Any return of goods by the customer requires the prior consent of OTTO SCHOCH AG and must be effected in accordance with the guidelines for the return of articles.

The cancellation of orders requires our prior written consent. Any parts that have already been produced will be invoiced. If customer-specific raw materials were purchased, they will also be invoiced. OTTO SCHOCH AG is entitled to withdraw from delivery obligations if the customer's financial situation deteriorates substantially or turns out to be different to what was presented to us.

Guarantee / warranty

OTTO SCHOCH AG undertakes, on receipt of written notification from the customer within the warranty period and at its discretion, to replace or repair all parts that are defective or unusable as a result of design, material or production faults as rapidly as possible. The warranty period is 12 months from receipt of delivery unless other legal provisions apply. The warranty does not cover damage resulting from improper storage, normal wear and tear, faulty processing and failure to comply with regulations.

Any modifications or repairs performed without our written consent and failure to comply with our operating instructions will release us from the guarantee obligation. Our liability is limited to the replacement of the faulty objects or the reimbursement of the value of the invoice.

No new warranty periods apply as a result of the replacement of parts, assemblies or entire devices. Warranty is limited exclusively to the repair or exchange of the damaged objects that were delivered.

Exclusion of further liability

These "General terms & conditions of sale" govern the customer's rights to assert a claim in their entirety. All claims for compensation, reduction, rescission of or withdrawal from the contract are excluded.

Data privacy

Your acceptance of these terms & conditions also constitutes your acceptance of the data privacy policy of OTTO SCHOCH AG.

Jurisdiction

Zurich is the sole place of jurisdiction for all disputes arising directly or indirectly in connection with this contractual relationship. The contractual relationship is subject to **Swiss law**. The general terms & conditions valid at the time of the conclusion of the contract will apply. You can view these on the Internet at www.schochag.ch.

Final provisions

The general terms & conditions of sale were modified with effect from March 1st 2022 and replace all previous versions. They are an integral part of all offers and/or order confirmation documents. This version replaces all previous terms & conditions. If there are any difference between a foreign-language version and the German text, the German text will be definitive.

Geroldswil, March 2022



OTTO SCHOCH AG
+41 44 749 30 80
info@schochag.ch
www.schochag.ch



Otto Schoch AG | Chrummacherstrasse 3 | 8954 Geroldswil | Switzerland