Cembre

Certified Quality Management System

Certified Enviromental Management System

Certified Occupational Health & Safety Management System

THORNE & DERRICK INTERNATIONAL

www.thorneandderrick.com

GENERAL CATALOGUE

QUALITY POLICY AND OBJECTIVES

This catalogue illustrates the range of our standard products. For each product family we indicate the principal features, and sometimes the most frequent applications and the necessary guidelines for a correct application. Our sales personnel are at your disposal to supply more detailed information and our design and development engineers are available to study new solutions to particular applications.

RoHS COMPLIANT 2011/65/EU

All Cembre products comply with Directive 2011/65/EU of the European Parliament and Council dated 8 June 2011 (and subsequent amendment).

On 14th December 1990 ***Cembre SpA Quality Management System*** *was certified by* ***Lloyd's Register of Quality Assurance*** *(LRQA) according to* ***ISO 9002-1987 EN 29002 - 1987 BS 5750: Part 2: 1987*** *for the manufacture of insulated and uninsulated copper crimping connectors.*
Then on 22nd December 1992 ***Cembre SpA*** *was certified* ***ISO 9001*** *for the design and manufacture of cable accessories, electrical connectors and associated tools.*
The activities of the main premises in Brescia, the Italian regional offices and the subsidiary companies in Great Britain, France, Spain, Germany and USA are governed by a single Quality System, ***assessed by Lloyd's Register of Quality as conforming to the ISO 9001:2008 norm, for the design, manufacture and sales of electrical connectors and associated tools, cable accessories, marking systems, tooling and products for railway applications. In house repair, refurbishment and calibration of tooling.***
This guarantees a homoge-neous and high quality level of the products and services that Cembre offers to its customers.

Cembre S.p.A. has recently recognised the need to align its Environmental Management System with the spirit and content of UNI EN ISO 14001: 2004 as fundamental to future development.
To this end the company undertook a wide-ranging review of all functions including development and design stages, material selection, usage and manufacturing processes.
The resulting definition of operational procedures in line with these aims and provisions has enabled Cembre S.p.A. to achieve Environmental Certification, further highlighting the companies sensitive and careful approach to environmental protection.

Cembre S.p.A. *has recently enhanced its business processes with* ***the certification by Lloyd's Register of Quality Assurance, of its Management System for the Health and Safety of Workers, in accordance with the standard OHSAS18001:2007 (Occupational Health and Safety Management System).***
The project, launched in early 2011, was strategically designed to facilitate the active participation of all employees at every level in the application of systems management, in order to optimise compliance of risk management capability with regard to laws and regulations concerning the health and safety of workers. All employees have received exhaustive training and are involved, by exercising their individual responsibility and competence, as key players in the identification of residual risk situations and the proposal of corrective solutions.
For Cembre then, this certification is not only the proper recognition of the quality of work performed, but also an incentive to maintain a determined competitive advantage in increasingly difficult and aggressive international markets.

Cembre S.p.A. *factory in Brescia (ITALY)*
covers an area of approximately 121.000 sqm

Cembre Ltd.
factory in Curdworth (Birmingham)

Production Units

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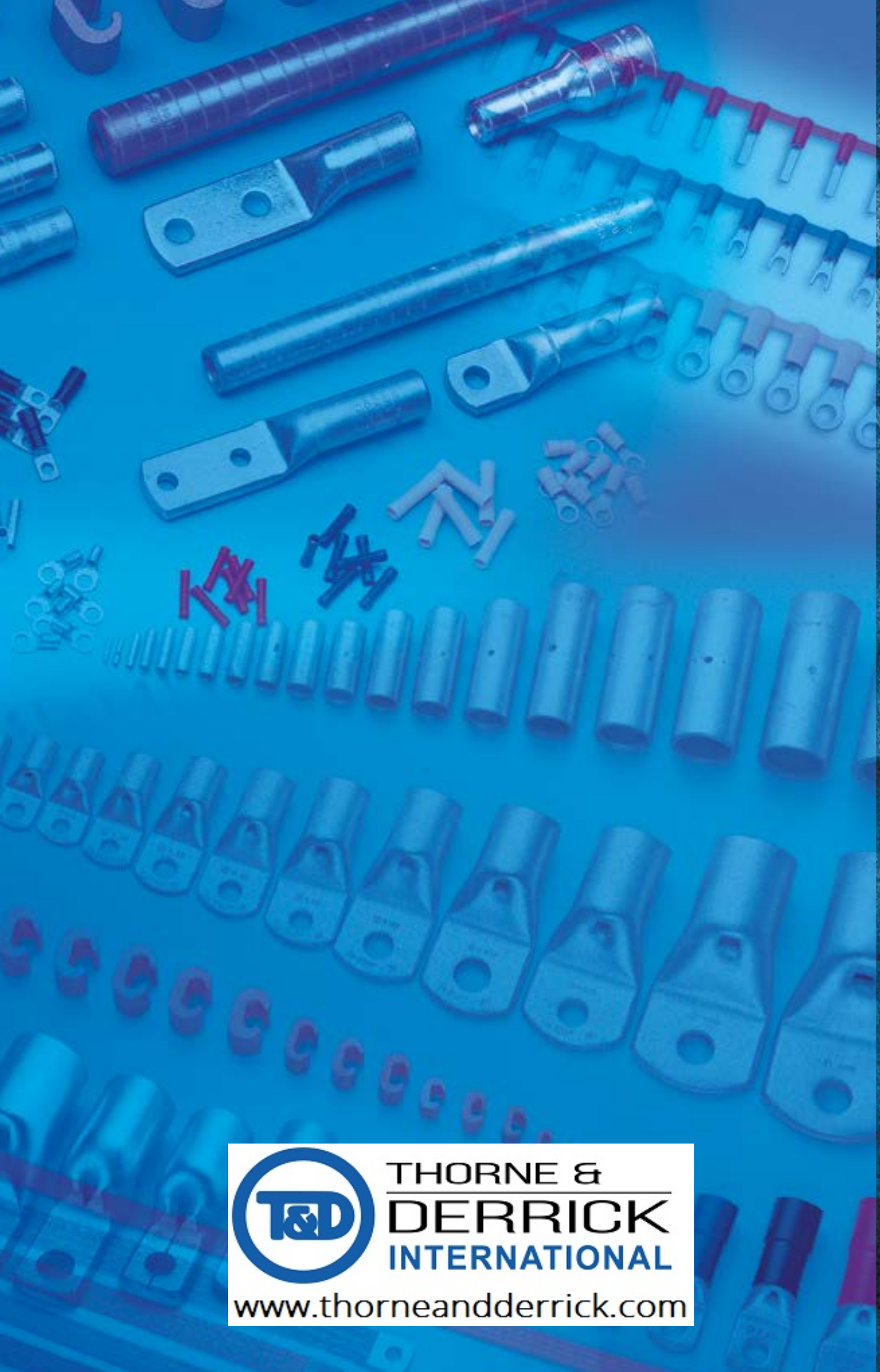


ELECTRICAL CONNECTORS

THORNE & DERRICK INTERNATIONAL

www.thorneandderrick.com

HALOGEN FREE INSULATED TERMINALS

VP RP BP GP

P range funnel entry

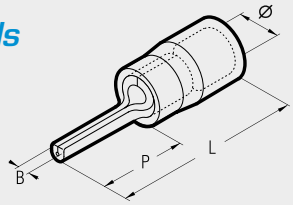
OPERATING TEMPERATURE UP TO 115° C

HALOGEN FREE

File no. E125401

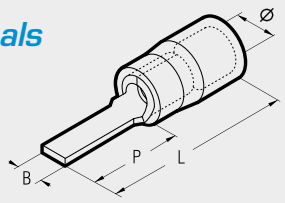
The "P" range of terminals has been designed, to meet the increasing demands for improved safety and reliability of electrical connectors. The Polycarbonate insulation, is a Halogen free, self extinguishing thermoplastic material class VO (UL 94). The unique funnel shaped entry of the insulation sleeve, guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection. The operating temperature range is – 20 to + 115°C (Surge + 130°C). Recommended crimping tools are shown on pages 96 to 115, 150.

pin terminals



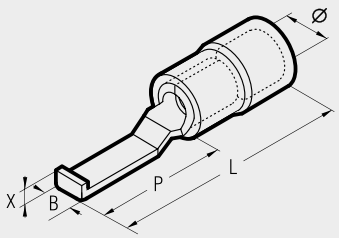
Cond. Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,2÷0,5 (24÷20)	VP-P 10	3,0	1,0	9,8	20,2	4.000/100
 0,25÷1,5 (22÷16)	RP-P 8	4,0	1,6	7,8	17,9	3.000/100
	RP-P 10	4,0	1,6	9,8	19,9	3.000/100
	RP-P 12	4,0	1,6	12,0	22,1	3.000/100
 1,5÷2,5 (16÷14)	BP-P 8	4,9	1,7	7,8	17,9	3.000/100
	BP-P 10	4,9	1,8	9,8	19,9	3.000/100
	BP-P 12	4,9	1,8	11,8	21,9	3.000/100
 4÷6 (12÷10)	GP-P 10	6,6	2,2	10,4	24,5	1.000/100
	GP-P 12	6,6	2,2	12,6	26,7	1.000/100
	GP-P 14	6,6	2,2	14,6	28,7	1.000/100

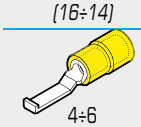
blade terminals



Cond. Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,2÷0,5 (24÷20)	VP-PP 12/19	3,0	1,9	12,4	22,4	4.000/100
 0,25÷1,5 (22÷16)	RP-PP 12	4,0	3,0	12,8	22,9	3.000/100
	RP-PP 12/1	4,0	3,0	11,3	21,4	3.000/100
	RP-PP 12/19	4,0	1,9	13,2	23,3	3.500/100
	RP-PP 12/23	4,0	2,3	13,2	23,3	2.500/100
	RP-PP 14	4,0	3,0	14,8	24,9	2.500/100
	RP-PP 16/23	4,0	2,3	17,2	27,3	2.500/100
 1,5÷2,5 (16÷14)	BP-PP 12	4,9	3,5	12,8	22,9	2.500/100
	BP-PP 12/25	4,9	2,5	13,3	23,4	2.000/100
	BP-PP 12/29	4,9	2,9	13,3	23,4	2.500/100
	BP-PP 16/25	4,9	2,5	17,2	27,3	2.500/100
 4÷6 (12÷10)	GP-PP 12	6,6	4,0	13,3	27,4	1.000/100
	GP-PP 17	6,6	2,9	19,1	33,2	1.000/100

hooked blade terminals



Cond. Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RP-PPL 30◆	4,0	3,0	17,5	28,3	1,7	3.000/100
	RP-PPL 46◆	4,0	4,6	17,5	28,3	1,7	3.000/100
 1,5÷2,5 (16÷14)	BP-PPL 30◆	4,9	3,0	17,5	28,3	1,7	2.500/100
	BP-PPL 46◆	4,9	4,6	17,5	28,8	1,7	2.500/100
 4÷6 (12÷10)	GP-PPL 46◆	6,6	4,6	17,5	32,6	1,9	1.000/100

◆*Not UL approved*

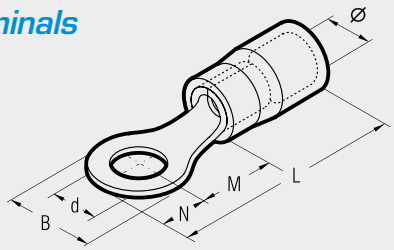
HALOGEN FREE INSULATED TERMINALS

P range funnel entry

VP RP BP GP

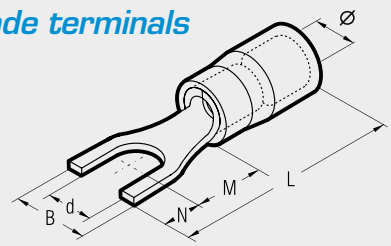
File no. E125401

ring terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag
	2	*VP-M 2	3,0	5,6	4,5	2,8	17,5	2,2	4.000/100
	3	VP-M 3	3,0	5,6	4,5	2,8	17,5	3,2	4.000/100
	3,5	VP-M 3.5	3,0	5,6	4,5	2,8	17,5	3,7	4.000/100
	4	VP-M 4	3,0	7,0	6,5	3,5	20,2	4,3	4.000/100
	5	VP-M 5	3,0	7,8	7,1	3,9	21,2	5,3	4.000/100
0,2÷0,5 (24÷20)	6	*VP-M 6	3,0	9,4	8,1	4,7	23,0	6,4	4.000/100
	2	*RP-M 2	4,0	5,6	4,5	2,8	17,4	2,2	3.000/100
	3	RP-M 3	4,0	5,6	4,5	2,8	17,4	3,2	3.000/100
	3,5	RP-M 3.5	4,0	5,6	4,5	2,8	17,4	3,7	3.000/100
	3,5	RP-M 3.5/1	4,0	6,2	7,1	3,1	20,2	3,7	3.000/100
	4	RP-M 4	4,0	7,0	6,5	3,5	20,1	4,3	3.000/100
	4	RP-M 4/3	4,0	7,8	7,1	3,9	21,1	4,3	3.000/100
	5	RP-M 5	4,0	7,8	7,1	3,9	21,1	5,3	3.000/100
	6	RP-M 6	4,0	9,4	8,1	4,7	22,9	6,4	2.500/100
	6	RP-M 6/1	4,0	12,0	10,3	6,0	26,4	6,4	2.000/100
	7	RP-M 7	4,0	9,4	8,1	4,7	22,9	7,2	2.500/100
	8	RP-M 8	4,0	12,0	10,3	6,0	26,4	8,4	2.500/100
0,25÷1,5 (22÷16)	10	RP-M 10	4,0	15,5	13,0	7,7	30,9	10,5	2.000/100
	12	RP-M 12	4,0	18,0	15,5	9,0	34,6	13,0	2.000/100
	2	*BP-M 2	4,9	5,6	5,0	2,8	17,9	2,2	2.500/100
	3	BP-M 3	4,9	5,6	5,0	2,8	17,9	3,2	2.500/100
	3,5	BP-M 3.5	4,9	5,6	5,0	2,8	17,9	3,7	3.000/100
	3,5	BP-M 3.5/1	4,9	6,2	6,5	3,1	19,7	3,7	2.500/100
	4	BP-M 4	4,9	8,0	6,5	4,0	20,6	4,3	2.500/100
	5	BP-M 5	4,9	8,0	7,5	4,0	21,6	5,3	2.500/100
	6	BP-M 6	4,9	9,4	8,6	4,7	23,4	6,4	2.500/100
	6	BP-M 6/1	4,9	12,0	10,3	6,0	26,4	6,4	2.500/100
	6	*BP-M 6/2	4,9	8,4	5,4	4,2	19,7	6,4	2.500/100
	7	BP-M 7	4,9	10,0	7,8	5,0	22,9	7,2	2.500/100
	8	BP-M 8	4,9	12,0	10,3	6,0	26,4	8,4	1.500/100
1,5÷2,5 (16÷14)	10	BP-M 10	4,9	15,5	13,0	7,7	30,9	10,5	1.500/100
	12	BP-M 12	4,9	18,0	15,5	9,0	34,6	13,0	1.500/100
	3	GP-M 3	6,6	8,0	8,1	4,0	26,2	3,2	1.000/100
	3,5	GP-M 3.5	6,6	8,0	8,1	4,0	26,2	3,7	1.500/100
	4	GP-M 4	6,6	9,0	8,1	4,5	26,7	4,3	1.000/100
	5	GP-M 5	6,6	9,0	8,1	4,5	26,7	5,3	1.000/100
	6	GP-M 6	6,6	11,0	11,1	5,5	30,7	6,4	1.000/100
	6	GP-M 6/1	6,6	11,0	8,1	5,5	27,7	6,4	1.000/100
	7	GP-M 7	6,6	11,0	11,1	5,5	30,7	7,2	1.000/100
	8	GP-M 8	6,6	13,6	12,1	6,8	33,0	8,4	1.000/100
	8	*GP-M 8/1	6,6	11,0	8,1	5,5	27,7	8,4	1.000/100
	10	GP-M 10	6,6	13,6	12,1	6,8	33,0	10,5	1.000/100
	10	GP-M 10/1	6,6	15,5	13,8	7,7	35,7	10,5	1.000/100
	12	GP-M 12	6,6	19,0	15,1	9,5	38,7	13,0	500/100
4÷6 (12÷10)	14	GP-M 14	6,6	21,0	16,1	10,5	40,7	15,0	500/100
	16	GP-M 16	6,6	24,0	17,1	12,0	43,2	17,0	500/100

fork/spade terminals



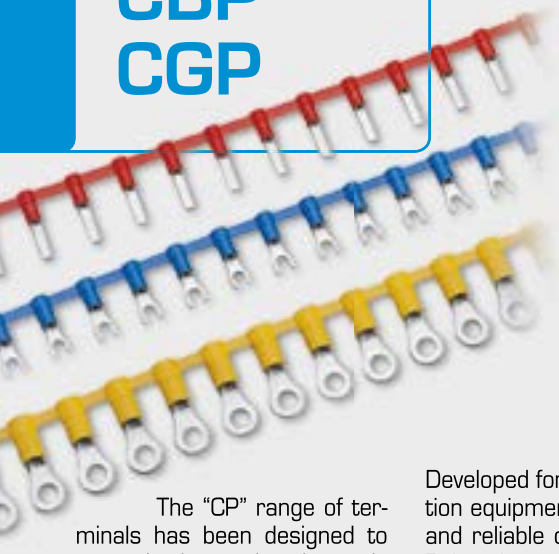
Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag
	3	VP-U 3	3,0	5,5	5,5	4,0	18,7	3,2	4.000/100
	3,5	VP-U 3.5	3,0	6,0	6,5	3,8	19,5	3,7	4.000/100
0,2÷0,5 (24÷20)	4	VP-U 4	3,0	6,5	7,5	3,7	20,4	4,3	4.000/100
	3	RP-U 3	4,0	5,5	5,5	4,0	19,6	3,2	3.000/100
	3,5	RP-U 3.5	4,0	6,0	6,5	3,8	20,4	3,7	3.000/100
	3,5	RP-U 3.5/2	4,0	6,4	6,5	3,8	20,4	3,7	3.000/100
	4	RP-U 4	4,0	6,5	7,5	3,7	21,3	4,3	3.000/100
	4	RP-U 4/1	4,0	8,5	7,5	3,7	21,3	4,3	3.500/100
	4	RP-U 4/2	4,0	7,5	7,5	3,7	21,3	4,3	3.500/100
	5	RP-U 5	4,0	8,5	7,5	3,7	21,3	5,3	3.000/100
	5	*RP-U 5/1	4,0	9,4	7,5	3,7	21,3	5,3	3.000/100
	6	RP-U 6	4,0	9,4	8,1	4,7	22,9	6,4	2.000/100
	6	RP-U 6/1	4,0	12,0	9,2	7,1	26,4	6,4	2.000/100
	8	RP-U 8	4,0	14,0	10,0	6,3	26,4	8,4	2.500/100
0,25÷1,5 (22÷16)	10	RP-U 10	4,0	17,5	13,0	7,7	30,9	10,5	1.500/100
	12	RP-U 12	4,0	20,0	15,5	9,0	34,6	13,0	1.500/100
	3	BP-U 3	4,9	5,5	5,5	4,0	19,6	3,2	2.500/100
	3,5	BP-U 3.5	4,9	6,4	6,5	3,8	20,4	3,7	2.500/100
	3,5	*BP-U 3.5/1	4,9	7,2	6,5	3,8	20,4	3,7	2.500/100
	4	BP-U 4	4,9	6,5	7,5	3,7	21,3	4,3	2.500/100
	4	BP-U 4/1	4,9	8,5	7,5	3,7	21,3	4,3	3.000/100
	4	BP-U 4/2	4,9	7,5	7,5	3,7	21,3	4,3	2.000/100
	5	BP-U 5	4,9	8,5	7,5	3,7	21,3	5,3	2.000/100
	6	BP-U 6	4,9	9,4	8,1	4,7	22,9	6,4	2.000/100
	6	BP-U 6/1	4,9	12,0	9,2	7,1	26,4	6,4	2.000/100
	8	BP-U 8	4,9	14,0	10,0	6,3	26,4	8,4	1.500/100
1,5÷2,5 (16÷14)	10	BP-U 10	4,9	17,5	13,0	7,7	30,9	10,5	2.000/100
	12	BP-U 12	4,9	20	15,5	9,0	34,6	13,0	1.500/100
	3,5	GP-U 3.5	6,6	7,5	8,5	3,9	26,5	3,7	1.500/100
	4	GP-U 4	6,6	7,5	8,0	4,4	26,5	4,3	1.000/100
	5	GP-U 5	6,6	9,5	8,0	4,4	26,5	5,3	1.000/100
	6	GP-U 6	6,6	10,0	11,0	5,5	30,6	6,4	1.000/100
	8	GP-U 8	6,6	13,5	12,0	8,0	34,1	8,4	1.000/100
	10	GP-U 10	6,6	15,5	13,0	8,0	35,1	10,5	1.000/100
	10	GP-U 10/1	6,6	17,5	13,8	7,7	35,7	10,5	1.000/100
	12	GP-U 12	6,6	21,0	15,1	9,5	38,7	13,0	500/100
	14	GP-U 14	6,6	23,0	16,1	10,5	40,7	15,0	500/100
4÷6 (12÷10)	16	GP-U 16	6,6	26,0	17,1	11,5	42,7	17,0	500/100

*Made to order

INSULATED CHAIN TERMINALS

CP range with easy entry

CRP
CBP
CGP



HALOGEN FREE

OPERATING TEMPERATURE UP TO 115° C

The "CP" range of terminals has been designed to meet the increasing demands for improved safety and reliability of electrical connectors.

Developed for use with production equipment, to give a quick and reliable crimped joint, the Polycarbonate insulation is a Halogen free, self extinguishing thermoplastic material class V0 (UL 94).

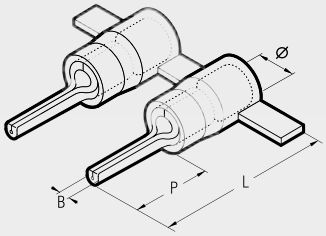
The unique funnel shaped entry of the insulation sleeve guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection.

The operating temperature range is – 20 to + 115°C (Surge + 130°C).

pin terminals

c UL us

File no. E125401

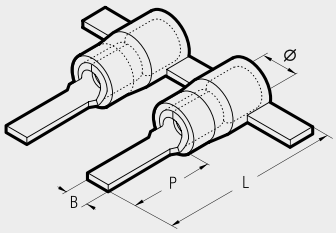


Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity
0,25÷1,5 (22÷16)	CRP-P 8	4,0	1,6	8,0	17,9	2.000
	CRP-P 10	4,0	1,6	10,0	19,9	2.000
	CRP-P 12	4,0	1,6	12,0	22,1	2.000
1,5÷2,5 (16÷14)	CBP-P 8	4,9	1,8	8,0	17,9	1.750
	CBP-P 10	4,9	1,8	10,0	19,9	1.750
	CBP-P 12	4,9	1,8	12,0	21,9	1.750
4÷6 (12÷10)	CGP-P 10	6,6	2,2	10,0	24,5	1.250
	CGP-P 12	6,6	2,2	12,0	26,7	1.250
	CGP-P 14	6,6	2,2	14,0	28,7	1.250

blade terminals

c UL us

File no. E125401

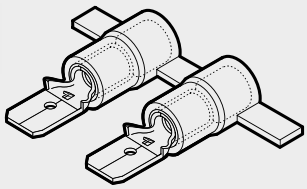


Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity
0,25÷1,5 (22÷16)	CRP-PP 12	4,0	3,0	12,8	22,9	2.000
	*CRP-PP 12/1	4,0	3,0	11,3	21,4	2.000
	*CRP-PP 12/23	4,0	2,3	13,2	23,3	2.000
	CRP-PP 14	4,0	3,0	14,8	24,9	2.000
1,5÷2,5 (16÷14)	CBP-PP 12	4,9	3,5	12,8	22,9	1.750
	*CBP-PP 12/25	4,9	2,5	13,3	23,4	1.750
4÷6 (12÷10)	CGP-PP 12	6,6	4,0	13,3	27,4	1.250
	*CGP-PP 17	6,6	2,9	19,1	33,2	1.250

male disconnect terminals

c UL us

File no. E212000

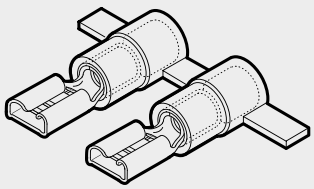


Conductor Size sqmm (AWG)	Ref.	Tab mm	Quantity
0,25÷1,5 (22÷16)	CRP-M 608	6,35 x 0,8	2.000
1,5÷2,5 (16÷14)	CBP-M 608	6,35 x 0,8	1.750
4÷6 (12÷10)	CGP-M 608	6,35 x 0,8	1.250

female disconnect terminals

c UL us

File no. E212000

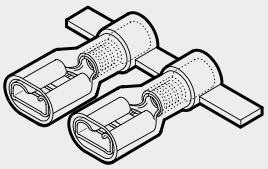


Conductor Size sqmm (AWG)	Ref.	Tab mm	Quantity
0,25÷1,5 (22÷16)	CRP-F 305	2,8 x 0,5	2.000
	CRP-F 308	2,8 x 0,8	2.000
	CRP-F 405	4,8 x 0,5	2.000
	CRP-F 408	4,8 x 0,8	2.000
	CRP-F 608	6,35 x 0,8	2.000
1,5÷2,5 (16÷14)	CBP-F 405	4,8 x 0,5	1.750
	CBP-F 408	4,8 x 0,8	1.750
	CBP-F 608	6,35 x 0,8	1.750
4÷6 (12÷10)	CGP-F 608	6,35 x 0,8	1.250

female disconnect terminals fully insulated

c UL us

File no. E212000



Conductor Size sqmm (AWG)	Ref.	Tab mm	Quantity
0,25÷1,5 (22÷16)	CRP-F 405P◆	4,8 x 0,5	2.000
	CRP-F 408P◆	4,8 x 0,8	2.000
	CRP-F 608P	6,35 x 0,8	1.500
1,5÷2,5 (16÷14)	CBP-F 408P◆	4,8 x 0,8	1.500
	CBP-F 608P	6,35 x 0,8	1.500
4÷6 (12÷10)	CGP-F 608P	6,35 x 0,8	1.250

◆Not UL approved

*Made to order

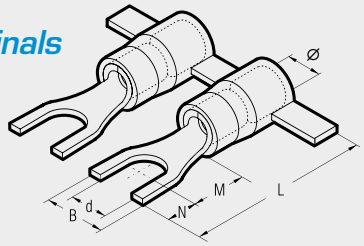
INSULATED CHAIN TERMINALS

CP range with easy entry

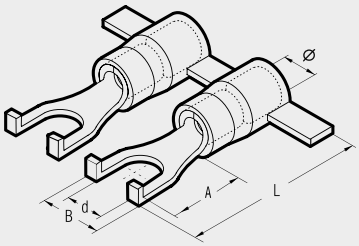
CRP
CBP
CGP

fork/spade terminals

File no. E125401



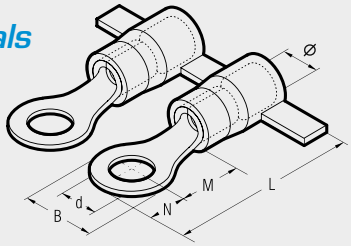
Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity
0,25÷1,5 (22÷16)	3	CRP-U 3	4,0	5,5	5,5	4,0	19,6	3,2	2.000
	3,5	CRP-U 3.5	4,0	6,0	6,5	3,8	20,4	3,7	2.000
	3,5	*CRP-U 3.5/2	4,0	6,4	6,5	3,8	20,4	3,7	2.000
	4	CRP-U 4	4,0	6,5	7,5	3,7	21,3	4,3	2.000
	4	*CRP-U 4/1	4,0	8,5	7,5	3,7	21,3	4,3	2.000
	4	*CRP-U 4/2	4,0	7,5	7,5	3,7	21,3	4,3	2.000
	5	CRP-U 5	4,0	8,5	7,5	3,7	21,3	5,3	2.000
	6	CRP-U 6	4,0	9,4	8,1	4,7	22,9	6,4	2.000
	6	*CRP-U 6/1	4,0	12,0	9,2	7,1	26,4	6,4	2.000
	8	*CRP-U 8	4,0	14,0	10,0	6,3	26,4	8,4	2.000
1,5÷2,5 (16÷14)	3	CBP-U 3	4,9	5,5	5,5	4,0	19,6	3,2	1.750
	3,5	CBP-U 3.5	4,9	6,4	6,5	3,8	20,4	3,7	1.750
	4	CBP-U 4	4,9	6,5	7,5	3,7	21,3	4,3	1.750
	4	*CBP-U 4/1	4,9	8,5	7,5	3,7	21,3	4,3	1.750
	4	*CBP-U 4/2	4,9	7,5	7,5	3,7	21,3	4,3	1.750
	5	CBP-U 5	4,9	8,5	7,5	3,7	21,3	5,3	1.750
	6	CBP-U 6	4,9	9,4	8,1	4,7	22,9	6,4	1.750
4÷6 (12÷10)	3,5	*CGP-U 3.5	6,6	7,5	8,5	3,9	26,5	3,7	1.250
	4	*CGP-U 4	6,6	7,5	8,0	4,4	26,5	4,3	1.250
	5	CGP-U 5	6,6	9,5	8,0	4,4	26,5	5,3	1.250
	6	CGP-U 6	6,6	10,0	11,0	5,5	30,6	6,4	1.250



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	A	L	d	Quantity
1,5÷2,5 (16÷14)	4	CBP-U 4/3L◆	4,9	6,5	9,5	14,5	4,3	1.750

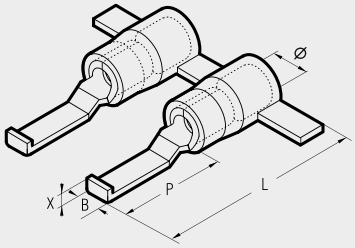
ring terminals

File no. E125401



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity
0,25÷1,5 (22÷16)	3	CRP-M 3	4,0	5,6	4,5	2,8	17,4	3,2	2.000
	3,5	CRP-M 3.5	4,0	5,6	4,5	2,8	17,4	3,7	2.000
	3,5	*CRP-M 3.5/1	4,0	6,2	7,1	3,1	20,2	3,7	2.000
	4	CRP-M 4	4,0	7,0	6,5	3,5	20,1	4,3	2.000
	4	*CRP-M 4/3	4,0	7,8	7,1	3,9	21,1	4,3	2.000
	5	CRP-M 5	4,0	7,8	7,1	3,9	21,1	5,3	2.000
	6	CRP-M 6	4,0	9,4	8,1	4,7	22,9	6,4	2.000
	6	*CRP-M 6/1	4,0	12,0	10,3	6,0	26,4	6,4	2.000
	7	CRP-M 7	4,0	9,4	8,1	4,7	22,9	7,2	2.000
	8	CRP-M 8	4,0	12,0	10,3	6,0	26,4	8,4	2.000
1,5÷2,5 (16÷14)	3	CBP-M 3	4,9	5,6	5,0	2,8	17,9	3,2	1.750
	3,5	CBP-M 3.5	4,9	5,6	5,0	2,8	17,9	3,7	1.750
	3,5	*CBP-M 3.5/1	4,9	6,2	6,5	3,1	19,6	3,7	1.750
	4	CBP-M 4	4,9	8,0	6,5	4,0	20,6	4,3	1.750
	5	CBP-M 5	4,9	8,0	7,5	4,0	21,6	5,3	1.750
	6	CBP-M 6	4,9	9,4	8,6	4,7	23,4	6,4	1.750
	6	*CBP-M 6/1	4,9	12,0	10,3	6,0	26,4	6,4	1.750
	7	CBP-M 7	4,9	10,0	7,8	5,0	22,9	7,2	1.750
	8	CBP-M 8	4,9	12,0	10,3	6,0	26,4	8,4	1.750
4÷6 (12÷10)	3	CGP-M 3	6,6	8,0	8,1	4,0	26,2	3,2	1.250
	3,5	CGP-M 3.5	6,6	8,0	8,1	4,0	26,2	3,7	1.250
	4	CGP-M 4	6,6	9,0	8,1	4,5	26,7	4,3	1.250
	5	CGP-M 5	6,6	9,0	8,1	4,5	26,7	5,3	1.250
	6	CGP-M 6	6,6	11,0	11,1	5,5	30,7	6,4	1.250
	6	*CGP-M 6/1	6,6	11,0	8,1	5,5	27,7	6,4	1.250
	7	CGP-M 7	6,6	11,0	11,1	5,5	30,7	7,2	1.000
	8	CGP-M 8	6,6	13,6	12,1	6,8	33,0	8,4	1.250
	8	*CGP-M 8/1	6,6	11,0	8,1	5,5	27,7	8,4	1.250

hooked blade terminals



Cond. Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity
0,25÷1,5 (22÷16)	CRP-PPL30◆	4,0	3,0	17,5	28,8	1,7	2.000
1,5÷2,5 (16÷14)	CBP-PPL30◆	4,9	3,0	17,5	28,8	1,7	1.750

◆*Not UL approved* **Made to order*

Interchangeable application heads are available for crimping these terminals with the bench press ELB-3 (see page 118).

PVC INSULATED CRIMP TERMINALS

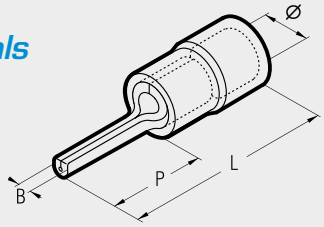
RF BF GF

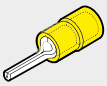
F range funnel entry

File no. E125401

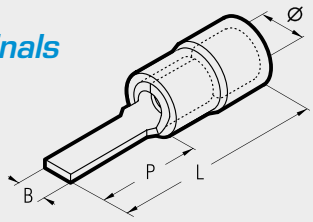
The unique funnel shaped PVC sleeve guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection.
The internal surface of the barrel is rifled to improve contact with conductor strands when crimped and to increase tensile strength.
The "F" range of terminals offers a wide selection of rings, forks, pins and blades, designed to meet the ever changing end user requirements.
The operating temperature range is – 20 to + 80°C (Surge + 90°C).
Recommended crimping tools are shown on pages 96 to 115, 150.

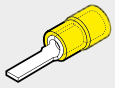
pin terminals



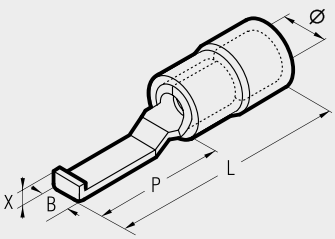
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RF-P 8	3,9	1,6	8,0	17,9	3.000/100
	RF-P 10	3,9	1,6	10,0	19,9	3.000/100
	RF-P 12	3,9	1,6	12,0	22,1	3.000/100
 1,5÷2,5 (16÷14)	BF-P 8	4,9	1,7	8,0	17,9	3.000/100
	BF-P 10	4,9	1,8	10,0	19,9	2.500/100
	BF-P 12	4,9	1,8	12,0	21,9	2.500/100
 4÷6 (12÷10)	GF-P 10	6,7	2,2	10,0	24,6	1.000/100
	GF-P 12	6,7	2,2	12,0	26,8	1.000/100
	GF-P 14	6,7	2,2	14,0	28,8	1.000/100

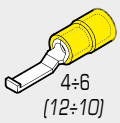
blade terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RF-PP 12	3,9	3,0	12,8	22,9	3.000/100
	RF-PP 12/1	3,9	3,0	11,3	21,4	3.000/100
	RF-PP 12/19	3,9	1,9	13,2	23,3	3.000/100
	RF-PP 12/23	3,9	2,3	13,2	23,3	2.500/100
	RF-PP 14	3,9	3,0	14,8	24,9	2.500/100
	RF-PP 16/23	3,9	2,3	17,2	27,3	2.500/100
 1,5÷2,5 (16÷14)	BF-PP 12	4,9	3,5	12,8	22,9	2.500/100
	BF-PP 12/25	4,9	2,5	13,3	23,4	2.000/100
	BF-PP 12/29◆	4,9	2,9	13,3	23,4	2.500/100
	BF-PP 16/25	4,9	2,5	17,2	27,3	2.500/100
 4÷6 (12÷10)	GF-PP 12	6,7	4,0	13,3	27,5	1.000/100
	GF-PP 17	6,7	2,9	19,2	33,4	1.000/100

hooked blade terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RF-PPL 30◆	3,9	3,0	17,5	28,4	1,7	2.500/100
	RF-PPL 46◆	3,9	4,6	17,5	28,4	1,7	2.500/100
 1,5÷2,5 (16÷14)	BF-PPL 30◆	4,9	3,0	17,5	28,4	1,7	2.000/100
	BF-PPL 46◆	4,9	4,6	17,5	28,4	1,7	2.000/100
 4÷6 (12÷10)	GF-PPL 46◆	6,7	4,6	17,5	32,7	1,9	1.000/100

◆*Not UL approved*

PVC INSULATED CRIMP TERMINALS

F range funnel entry

RF BF GF

File no. E125401

VALSTAR V3-F

Robust plastic case with compartments, containing:

- *An assortment of PVC insulated crimp terminals for conductor sizes 0,25 to 6 mm² (22÷10 AWG).*
- *Tool Crimpstar® HP 3.*

Connectors included:

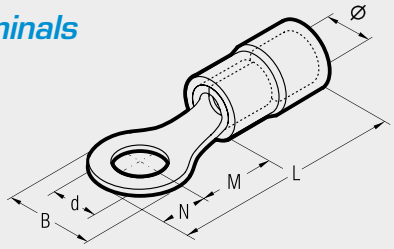
Qty 50 terminals RF-U4
Qty 50 terminals RF-U5
Qty 50 terminals RF-P10

Qty 50 terminals BF-U4
Qty 50 terminals BF-U5
Qty 50 terminals BF-P10

Qty 25 terminals GF-U5
Qty 25 terminals GF-U6
Qty 25 terminals GF-P12

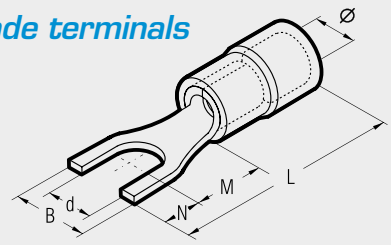
Qty 25 connectors PL06-M
Qty 25 connectors PL1-M

ring terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag
0,25÷1,5 (22÷16)	2	*RF-M 2◆	3,9	5,6	4,5	2,8	17,4	2,2	3.000/100
	3	RF-M 3	3,9	5,6	4,5	2,8	17,4	3,2	3.000/100
	3,5	RF-M 3.5	3,9	5,6	4,5	2,8	17,4	3,7	3.000/100
	3,5	RF-M 3.5/1	3,9	6,2	7,1	3,1	20,3	3,7	3.000/100
	4	RF-M 4	3,9	7,0	6,5	3,5	20,1	4,3	3.000/100
	4	RF-M 4/3◆	3,9	7,8	7,1	3,9	21,1	4,3	3.000/100
	5	RF-M 5	3,9	7,8	7,1	3,9	21,1	5,3	2.500/100
	6	RF-M 6	3,9	9,4	8,1	4,7	22,9	6,4	2.500/100
	6	RF-M 6/1	3,9	12,0	10,3	6,0	26,4	6,4	2.000/100
	7	RF-M 7	3,9	9,4	8,1	4,7	22,9	7,2	2.500/100
	8	RF-M 8	3,9	12,0	10,3	6,0	26,4	8,4	2.000/100
	10	RF-M 10	3,9	15,5	13,0	7,7	30,9	10,5	1.500/100
	12	RF-M 12	3,9	18,0	15,5	9,0	34,6	13,0	1.500/100
1,5÷2,5 (16÷14)	2	*BF-M 2◆	4,9	5,6	5,0	2,8	17,9	2,2	3.000/100
	3	BF-M 3	4,9	5,6	5,0	2,8	17,9	3,2	2.500/100
	3,5	BF-M 3.5	4,9	5,6	5,0	2,8	17,9	3,7	2.500/100
	3,5	BF-M 3.5/1	4,9	6,2	6,5	3,1	19,7	3,7	2.500/100
	4	BF-M 4	4,9	8,0	6,5	4,0	20,6	4,3	2.500/100
	5	BF-M 5	4,9	8,0	7,5	4,0	21,6	5,3	2.500/100
	6	BF-M 6	4,9	9,4	8,6	4,7	23,4	6,4	2.000/100
	6	BF-M 6/1	4,9	12,0	10,3	6,0	26,4	6,4	2.000/100
	6	*BF-M 6/2◆	4,9	8,4	5,4	4,2	19,7	6,4	2.500/100
	7	BF-M 7	4,9	10,0	7,8	5,0	22,9	7,2	2.000/100
	8	BF-M 8	4,9	12,0	10,3	6,0	26,4	8,4	1.500/100
	10	BF-M 10	4,9	15,5	13,0	7,7	30,9	10,5	1.500/100
	12	BF-M 12	4,9	18	15,5	9,0	34,6	13,0	1.000/100
4÷6 (12÷10)	3	GF-M 3	6,7	8,0	8,1	4,0	26,3	3,2	1.000/100
	3,5	GF-M 3.5	6,7	8,0	8,1	4,0	26,3	3,7	1.000/100
	4	GF-M 4	6,7	9,0	8,1	4,5	26,8	4,3	1.000/100
	5	GF-M 5	6,7	9,0	8,1	4,5	26,8	5,3	1.000/100
	6	GF-M 6	6,7	11,0	11,1	5,5	30,8	6,4	1.000/100
	6	GF-M 6/1	6,7	11,0	8,1	5,5	27,8	6,4	1.000/100
	7	GF-M 7	6,7	11,0	11,1	5,5	30,8	7,2	1.000/100
	8	GF-M 8	6,7	13,6	12,1	6,8	33,1	8,4	1.000/100
	8	*GF-M 8/1◆	6,7	11,0	8,1	5,5	27,8	8,4	1.000/100
	10	GF-M 10	6,7	13,6	12,1	6,8	33,1	10,5	1.000/100
	10	GF-M 10/1	6,7	15,5	13,8	7,7	35,8	10,5	1.000/100
	12	GF-M 12	6,7	19,0	15,1	9,5	38,8	13,0	500/100
	14	GF-M 14	6,7	21,0	16,1	10,5	40,8	15,0	500/100
	16	GF-M 16	6,7	24,0	17,1	12,0	43,3	17,0	500/100

fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag
0,25÷1,5 (22÷16)	3	RF-U 3	3,9	5,5	5,5	4,0	19,6	3,2	3.000/100
	3,5	RF-U 3.5	3,9	6,0	6,5	3,8	20,4	3,7	3.000/100
	3,5	RF-U 3.5/1	3,9	7,2	6,5	3,8	20,4	3,7	3.000/100
	3,5	RF-U 3.5/2◆	3,9	6,4	6,5	3,8	20,4	3,7	3.000/100
	4	RF-U 4	3,9	6,5	7,5	3,7	21,3	4,3	3.000/100
	4	RF-U 4/1	3,9	8,5	7,5	3,7	21,3	4,3	3.000/100
	4	RF-U 4/2	3,9	7,5	7,5	3,7	21,3	4,3	3.000/100
	5	RF-U 5	3,9	8,5	7,5	3,7	21,3	5,3	3.000/100
	5	*RF-U 5/1◆	3,9	9,4	7,5	3,7	21,3	5,3	3.000/100
	6	RF-U 6	3,9	9,4	8,1	4,7	22,9	6,4	2.000/100
	6	RF-U 6/1	3,9	12,0	9,2	7,1	26,4	6,4	2.500/100
	8	RF-U 8	3,9	14,0	10,0	6,3	26,4	8,4	2.000/100
	10	RF-U 10	3,9	17,5	13,0	7,7	30,9	10,5	1.500/100
	12	RF-U 12	3,9	20,0	15,5	9,0	34,6	13,0	1.500/100
1,5÷2,5 (16÷14)	3	BF-U 3	4,9	5,5	5,5	4,0	19,6	3,2	2.500/100
	3,5	BF-U 3.5	4,9	6,4	6,5	3,8	20,4	3,7	2.500/100
	3,5	*BF-U 3.5/1	4,9	7,2	6,5	3,8	20,4	3,7	3.000/100
	4	BF-U 4	4,9	6,5	7,5	3,7	21,3	4,3	2.500/100
	4	BF-U 4/1	4,9	8,5	7,5	3,7	21,3	4,3	2.000/100
	4	BF-U 4/2	4,9	7,5	7,5	3,7	21,3	4,3	2.000/100
	5	BF-U 5	4,9	8,5	7,5	3,7	21,3	5,3	2.000/100
	5	BF-U 5/2◆	4,9	12,0	11,3	5,0	26,3	5,3	1.500/100
	6	BF-U 6	4,9	9,4	8,1	4,7	22,9	6,4	2.000/100
	6	BF-U 6/1	4,9	12,0	9,2	7,1	26,4	6,4	2.000/100
	8	BF-U 8	4,9	14,0	10,0	6,3	26,4	8,4	1.500/100
	10	BF-U 10	4,9	17,5	13,0	7,7	30,9	10,5	1.000/100
	12	BF-U 12	4,9	20,0	15,5	9,0	34,6	13,0	1.500/100
4÷6 (12÷10)	3,5	GF-U 3.5	6,7	7,5	8,5	3,9	26,6	3,7	1.000/100
	4	GF-U 4	6,7	7,5	8,0	4,4	26,6	4,3	1.000/100
	5	GF-U 5	6,7	9,5	8,0	4,4	26,6	5,3	1.000/100
	6	GF-U 6	6,7	10,0	11,0	5,5	30,7	6,4	1.000/100
	8	GF-U 8	6,7	13,5	12,0	8,0	34,2	8,4	1.000/100
	10	GF-U 10	6,7	15,5	13,0	8,0	35,2	10,5	1.000/100
	10	GF-U 10/1	6,7	17,5	13,8	7,7	35,8	10,5	1.000/100
	12	GF-U 12	6,7	21,0	15,1	9,5	38,8	13,0	500/100
	14	GF-U 14	6,7	23,0	16,1	10,5	40,8	15,0	500/100
	16	GF-U 16	6,7	26,0	17,1	11,5	42,8	17,0	500/100

◆*Not UL approved* **Made to order*

REINFORCED PA 6.6 INSULATED TERMINALS

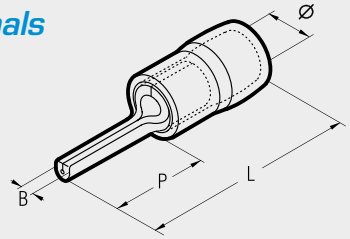
RKY
BKY
GKY

KY range

HALOGEN FREE

'KY' type terminals are designed to offer improved mechanical and electrical integrity under heavy-duty application.
This is achieved via a Copper sleeve located between the Copper barrel and Polyamide insulation of the terminal. Then, during crimping, the insulation of the conductor is integrated into the crimp due to the Copper sleeve being deformed around it to maintain the level of 'grip' required in applications subject to continuous mechanical vibrations (e.g: mobile plant, vehicles, moving components).
The operating temperature range is – 20 to + 105°C (Surge + 110°C).
Recommended crimping tools are shown on pages 96 to 115, 150.

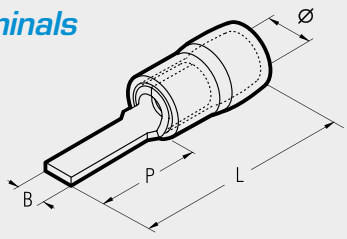
pin terminals

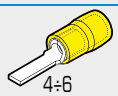


Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RKY-P 8	4,5	1,9	9,0	19,8	3.000/100
	RKY-P 10	4,5	1,9	10,0	20,8	3.500/100
	RKY-P 12	4,5	1,9	12,0	22,8	3.000/100
 1,5÷2,5 (16÷14)	BKY-P 8	5,2	1,9	9,0	19,8	3.000/100
	BKY-P 10	5,2	1,9	10,0	20,8	3.000/100
	BKY-P 12	5,2	1,9	12,0	22,8	3.000/100
 4÷6 (12÷10)	GKY-P 14	7,0	2,8	14,0	27,0	1.000/100

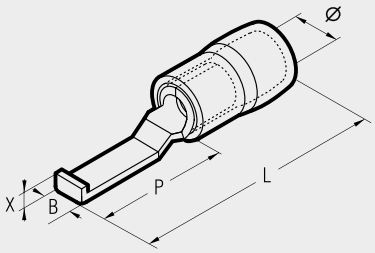
Consult Cembre for a wider range of pin and blade dimensions.

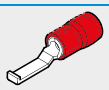
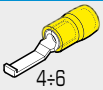
blade terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RKY-PP 12	4,5	3,0	13,0	23,8	3.000/100
	RKY-PP 12/19	4,5	2,0	18,0	28,8	3.000/100
	RKY-PP 16/23	4,5	2,2	18,0	28,8	2.500/100
 1,5÷2,5 (16÷14)	BKY-PP 12	5,2	3,0	13,0	23,8	2.500/100
	BKY-PP 12/25	5,2	2,4	13,0	23,8	2.000/100
	BKY-PP 16/23	5,2	2,2	18,0	28,8	2.500/100
 4÷6 (12÷10)	GKY-PP 12	7,0	4,0	14,0	27,0	1.000/100
	GKY-PP 17	7,0	2,0	18,0	31,0	1.000/100

hooked blade terminals



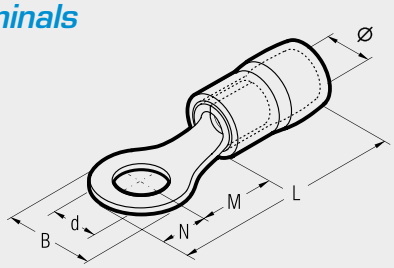
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RKY-PPL 30	4,5	3,0	16,8	28,2	2,1	3.000/100
	RKY-PPL 46	4,5	4,6	16,8	28,2	2,1	3.000/100
 1,5÷2,5 (16÷14)	BKY-PPL 30	5,2	3,0	16,8	28,2	2,1	2.500/100
	BKY-PPL 46	5,2	4,6	16,8	28,2	2,1	2.500/100
 4÷6 (12÷10)	GKY-PPL 46	7,0	4,6	17,2	30,2	2,4	1.000/100

REINFORCED PA 6.6 INSULATED TERMINALS

KY range

RKY
BKY
GKY

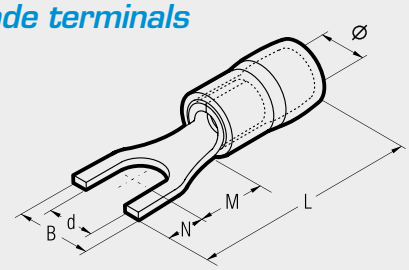
ring terminals



Cond. Size sqmm *(AWG)*	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	*Quantity Box/Bag*
0,25÷1,5 *(22÷16)*	3	**RKY-M 3**	4,5	5,5	5,0	2,5	18,5	3,2	*3.000/100*
	3,5	**RKY-M 3.5**	4,5	5,5	5,0	2,5	18,5	3,7	*3.000/100*
	3,5	**RKY-M 3.5/1**	4,5	6,6	6,3	3,1	20,4	3,7	*3.000/100*
	4	**RKY-M 4**	4,5	6,6	6,3	3,1	20,4	4,3	*3.000/100*
	5	**RKY-M 5**	4,5	8,0	7,0	3,8	21,8	5,3	*3.000/100*
	6	**RKY-M 6/1**	4,5	11,6	11,0	5,8	27,8	6,4	*2.000/100*
	8	**RKY-M 8**	4,5	11,6	11,0	5,8	27,8	8,4	*2.500/100*
	10	**RKY-M 10**	4,5	13,6	13,9	6,6	31,5	10,5	*1.500/100*
	12	**RKY-M 12**	4,5	19,6	16,0	9,4	36,4	13,0	*1.500/100*
1,5÷2,5 *(16÷14)*	3	**BKY-M 3**	5,2	6,6	4,8	3,0	18,8	3,2	*2.500/100*
	3,5	**BKY-M 3.5**	5,2	6,6	4,8	3,0	18,8	3,7	*2.500/100*
	3,5	**BKY-M 3.5/1**	5,2	6,6	6,3	3,1	20,4	3,7	*2.500/100*
	4	**BKY-M 4**	5,2	8,5	7,8	4,0	22,8	4,3	*2.500/100*
	5	**BKY-M 5**	5,2	8,5	7,8	4,0	22,8	5,3	*2.500/100*
	6	**BKY-M 6/1**	5,2	12,0	11,0	5,8	27,8	6,4	*2.500/100*
	8	**BKY-M 8**	5,2	12,0	11,0	5,8	27,8	8,4	*1.500/100*
	10	**BKY-M 10**	5,2	13,6	13,9	6,6	31,5	10,5	*1.500/100*
	12	**BKY-M 12**	5,2	19,2	16,0	9,4	36,4	13,0	*1.000/100*
4÷6 *(12÷10)*	3,5	**GKY-M 3.5**	7,0	7,2	6,1	3,6	22,7	3,7	*1.000/100*
	4	**GKY-M 4**	7,0	9,5	9,1	4,5	26,6	4,3	*1.000/100*
	5	**GKY-M 5**	7,0	9,5	9,1	4,5	26,6	5,3	*1.000/100*
	6	**GKY-M 6**	7,0	12,0	10,5	6,0	29,5	6,4	*1.000/100*
	8	**GKY-M 8**	7,0	15,0	13,5	7,5	34,0	8,4	*1.000/100*
	10	**GKY-M 10**	7,0	15,0	13,5	7,5	34,0	10,5	*1.000/100*
	12	**GKY-M 12**	7,0	19,2	16,0	9,6	38,6	13,0	*1.000/100*
	14	**GKY-M 14**	7,0	32,0	25,2	16,0	54,2	15,0	*500/100*
	16	**GKY-M 16**	7,0	32,0	25,2	16,0	54,2	17,0	*500/100*

Consult Cembre for a wider range of pin and blade dimensions.

fork/spade terminals



Cond. Size sqmm *(AWG)*	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	*Quantity Box/Bag*
0,25÷1,5 *(22÷16)*	3	**RKY-U 3**	4,5	5,7	6,5	4,5	22,0	3,2	*2.500/100*
	3,5	**RKY-U 3.5**	4,5	5,7	6,5	4,5	22,0	3,7	*2.500/100*
	4	**RKY-U 4**	4,5	6,4	6,5	4,5	22,0	4,3	*3.000/100*
	5	**RKY-U 5**	4,5	8,1	6,5	4,5	22,0	5,3	*3.000/100*
	6	**RKY-U 6**	4,5	9,5	6,5	4,5	22,0	6,4	*2.000/100*
	6	**RKY-U 6/1**	4,5	12,0	11,0	6,0	28,0	6,4	*2.000/100*
1,5÷2,5 *(16÷14)*	3	**BKY-U 3**	5,2	5,7	6,5	4,5	22,0	3,2	*2.500/100*
	3,5	**BKY-U 3.5**	5,2	6,0	6,5	4,5	22,0	3,7	*2.500/100*
	4	**BKY-U 4**	5,2	6,4	6,5	4,5	22,0	4,3	*2.500/100*
	5	**BKY-U 5**	5,2	7,9	6,5	4,5	22,0	5,3	*2.500/100*
	6	**BKY-U 6**	5,2	9,3	6,5	4,5	22,0	6,4	*2.000/100*
	6	**BKY-U 6/1**	5,2	12,0	11,0	6,0	28,0	6,4	*2.000/100*
4÷6 *(12÷10)*	3,5	**GKY-U 3.5**	7,0	7,2	7,5	3,9	24,4	3,7	*1.500/100*
	4	**GKY-U 4**	7,0	7,2	7,5	3,9	24,4	4,3	*1.000/100*
	5	**GKY-U 5**	7,0	9,0	7,0	5,5	25,5	5,3	*1.000/100*
	6	**GKY-U 6**	7,0	12,0	12,0	6,5	31,5	6,4	*1.000/100*
	8	**GKY-U 8**	7,0	14,0	10,5	7,0	30,5	8,4	*1.000/100*

FEMALE DISCONNECT TERMINALS

RF-F
BF-F
GF-F

Manufactured from Brass strip
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 115°C (Surge + 130°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.

File no. E212000

Polycarbonate insulated terminals - partially reinforced with Copper sleeve

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-F 305	2,8 x 0,5	3.000/100
	RF-F 308◆	2,8 x 0,8	3.000/100
	RF-F 405	4,8 x 0,5	2.500/100
	RF-F 408	4,8 x 0,8	2.500/100
	RF-F 608	6,35 x 0,8	2.000/100
1,5÷2,5 (16÷14)	BF-F 405	4,8 x 0,5	2.500/100
	BF-F 408	4,8 x 0,8	2.500/100
	BF-F 608	6,35 x 0,8	1.500/100
4÷6 (12÷10)	GF-F 608	6,35 x 0,8	1.000/100

Polycarbonate fully insulated terminals - partially reinforced with Copper sleeve

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-F 305P	2,8 x 0,5	2.000/100
	RF-F 308P◆	2,8 x 0,8	2.000/100
	RF-F 405P	4,8 x 0,5	1.500/100
	RF-F 408P	4,8 x 0,8	1.500/100
	RF-F 608P	6,35 x 0,8	1.000/100
1,5÷2,5 (16÷14)	BF-F 405P	4,8 x 0,5	1.500/100
	BF-F 408P	4,8 x 0,8	2.000/100
	BF-F 608P	6,35 x 0,8	1.000/100
4÷6 (12÷10)	GF-F 608P	6,35 x 0,8	800/100

◆*Not UL approved*

MALE DISCONNECT TERMINALS

RF-M
BF-M
GF-M

Manufactured from Brass strip
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 115°C (Surge + 130°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.

File no. E212000

Polycarbonate insulated terminals - partially reinforced with Copper sleeve

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-M 608	6,35 x 0,8	3.000/100
1,5÷2,5 (16÷14)	BF-M 608	6,35 x 0,8	2.500/100
4÷6 (12÷10)	GF-M 608	6,35 x 0,8	1.000/100

Polycarbonate fully insulated terminals - partially reinforced with Copper sleeve

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-M 608P◆	6,35 x 0,8	1.000/100
1,5÷2,5 (16÷14)	BF-M 608P◆	6,35 x 0,8	1.000/100

◆*Not UL approved*

MALE/FEMALE CONNECTORS

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

Manufactured from Brass strip
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 115°C (Surge + 130°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.

File no. E212000

Polycarbonate insulated terminals - partially reinforced with Copper sleeve

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-FM 608	6,35 x 0,8	1.000/100
1,5÷2,5 (16÷14)	BF-FM 608	6,35 x 0,8	1.500/100

BULLET AND SOCKET CONNECTORS

Polycarbonate insulated terminals - partially reinforced with Copper sleeve

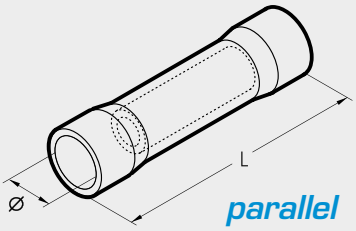
Cond. Size sqmm (AWG)	Ref.	Ø mm	Quantity Box/Bag
0,25÷1,5 (22÷16)	RF-BM 4◆	4	2.500/100
	RF-BF 4◆	4	1.000/100
1,5÷2,5 (16÷14)	BF-BM 5◆	5	2.000/100
	BF-BF 5◆	5	800/100

◆*Not UL approved*

BUTT AND PARALLEL CONNECTORS

File no. E125401

butt connectors



parallel connectors

PVC insulated

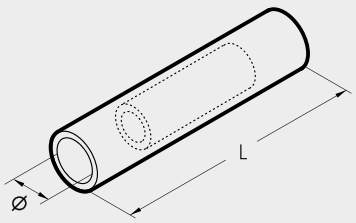
Cond. Size sqmm (AWG)	Ref.	Ø mm	L mm	Quantity Box/Bag
0,2÷0,5 (24÷20)	PL 01-M◆	3,0	25	3.000/100
0,25÷1,5 (22÷16)	PL 03-M	4,0	25	1.000/100
1,5÷2,5 (16÷14)	PL 06-M	5,0	25	1.500/100
4÷6 (12÷10)	PL 1-M	6,5	32	500/100
0,25÷1,5 (22÷16)	PL 03-P◆	4,0	20	3.000/100
1,5÷2,5 (16÷14)	PL 06-P◆	5,0	16	2.000/100

◆Not UL approved

PL

Manufactured from Copper tube
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 80°C (Surge + 90°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.

BUTT CONNECTORS

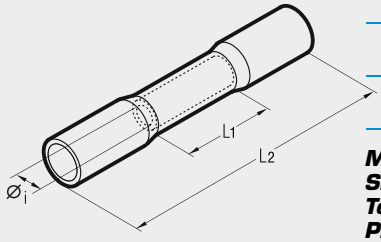


Polyamide PA6.6 insulated

Cond. Size sqmm (AWG)	Ref.	Øi mm	L mm	Quantity Box/Bag
0,25÷1,5 (22÷16)	NL 03-M	4,0	25,0	1.000/100
1,5÷2,5 (16÷14)	NL 06-M	5,4	25,5	1.500/100
4÷6 (12÷10)	NL 1-M	5,4	32,0	1.000/100
10 (8÷7)	NL 2-M	6,8	43,0	500/100
16 (6÷5)	NL 3-M	7,9	44,0	500/100

NL-M

Manufactured from Copper tube
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 115°C (Surge + 130°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.



PE HD insulated, heat shrinkable

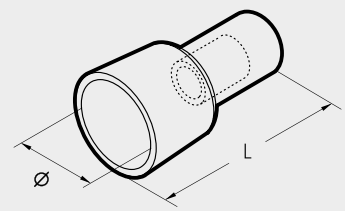
Cond. Size sqmm (AWG)	Ref.	Ø i mm	L1 mm	L2 mm	Quantity Box/Bag
0,5÷1 (20÷17)	WL 03-M	1,7	15,0	36,0	1.500/100
1,5÷2,5 (16÷14)	WL 06-M	2,3	15,0	36,0	1.000/100
4÷6 (12÷10)	WL 1-M	3,4	15,0	41,0	500/100

Max operating voltage: 600 V
Shrink temperature: 150 °C
Temperature range: -40 °C to + 105 °C
Protection: IP68

WL-M

Manufactured from Copper tube
- Electrolytically Tin plated
- Heat shrink sleeve with sealant
- Recommended crimping tools are shown on pages 98.

CLOSE END CONNECTORS



Polyamide PA6.6 insulated

Cond. Size sqmm (AWG)	Ref.	Ø mm	L mm	Quantity Box/Bag
0,25÷1,5 (22÷16)	NL 03-P	9,8	21,0	1.000/100
1,5÷2,5 (16÷14)	NL 06-P	7,9	19,9	1.000/100
	NL 06-PB	6,5	13,6	1.500/100
4÷6 (12÷10)	NL 1-P	10,5	21,5	800/100
	NL 1-PG	9,0	17,8	1.000/100

NL-P

Manufactured from Copper tube
- Electrolytically Tin plated
- The operating temperature range is – 20 to + 115°C (Surge + 130°C).
- Recommended crimping tools are shown on pages 96 to 115, 150.

REINFORCED DISCONNECT TERMINALS

for Copper cables

RKF-F
BKF-F
GK-F

Manufactured from Brass strip
- Electrolytically Tin plated
- fully reinforced with Copper sleeve, funnel entry
- The operating temperature range is –20°C to +105°C (Surge +110°C)
- Recommended crimping tools are shown on pages 96 to 115, 150.

female connectors, fully reinforced with Copper sleeve

PA6.6 insulated terminals

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-F 305	2,8 x 0,5	3.000/100
	RKF-F 308	2,8 x 0,8	3.500/100
	RKF-F 405	4,8 x 0,5	3.000/100
	RKF-F 408	4,8 x 0,8	2.500/100
	RKF-F 608	6,35 x 0,8	2.500/100
1,5÷2,5 (16÷14)	BKF-F 405	4,8 x 0,5	3.000/100
	BKF-F 408	4,8 x 0,8	3.000/100
	BKF-F 608	6,35 x 0,8	2.000/100
4÷6 (12÷10)	GK-F 608	6,35 x 0,8	1.500/100

PA6.6 fully insulated terminals

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-F 405P	4,8 x 0,5	1.500/100
	RKF-F 408P	4,8 x 0,8	2.000/100
	RKF-F 608P	6,35 x 0,8	1.000/100
1,5÷2,5 (16÷14)	BKF-F 405P	4,8 x 0,5	2.000/100
	BKF-F 408P	4,8 x 0,8	2.000/100
	BKF-F 608P	6,35 x 0,8	1.000/100
4÷6 (12÷10)	GK-F 608P	6,35 x 0,8	1.000/100

RKF
BKF
GKF

Manufactured from Brass strip
- Electrolytically Tin plated
- fully reinforced with Copper sleeve, funnel entry
- The operating temperature range is –20°C to +105°C (Surge +110°C)
- Recommended crimping tools are shown on pages 96 to 115, 150.

male connectors, fully reinforced with Copper sleeve - PA6.6 insulated terminals

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-M 608	6,35 x 0,8	3.000/100
1,5÷2,5 (16÷14)	BKF-M 608	6,35 x 0,8	2.500/100
4÷6 (12÷10)	GKF-M 608	6,35 x 0,8	1.000/100

male/female connectors, fully reinforced with Copper sleeve - PA6.6 insulated terminals

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-FM 608	6,35 x 0,8	1.500/100
1,5÷2,5 (16÷14)	BKF-FM 608	6,35 x 0,8	1.500/100

THORNE & DERRICK INTERNATIONAL
www.thorneandderrick.com

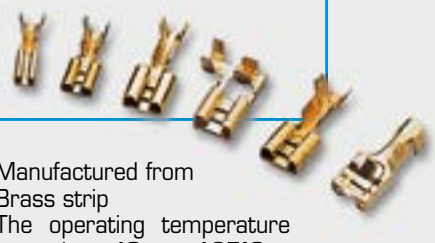
bullet and socket connectors fully reinforced with Copper sleeve PA6.6 insulated terminals

Cond. Size sqmm (AWG)	Ref.	Ø mm	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-BM 4	4	2.500/100
	RKF-BF 4	4	1.000/100
1,5÷2,5 (16÷14)	BKF-BM 4	4	2.000/100
	BKF-BF 4	4	800/100

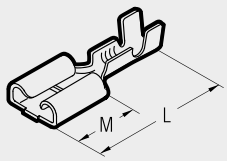
FEMALE CONNECTORS

open barrel

RN-FA
BN-FA



- Manufactured from Brass strip
- The operating temperature range is – 40 to + 125°C.
- Recommended crimping tools are shown on page 102.



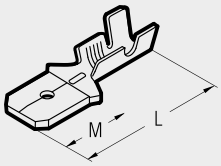
Conductor Size sqmm (AWG)	Ref.	Tab mm	M mm	L mm	Quantity Box/Bag
0,5÷1 (20÷17)	RN-FA 305	2,8 x 0,5	6,3	15,0	6.000/100
	RN-FA 405	4,8 x 0,5	6,3	15,0	5.000/100
	RN-FA 608	6,3 x 0,8	7,7	19,0	3.000/100
1÷2,5 (17÷14)	BN-FA 608	6,3 x 0,8	7,7	19,0	3.000/100
	* BN-FAB 608	6,3 x 0,8	7,7	15,5	1.000/100
	** BN-FAR 608	6,3 x 0,8	7,7	19,0	3.000/100

**flag type **with retainer*

MALE CONNECTORS

open barrel

RN-MA
BN-MA



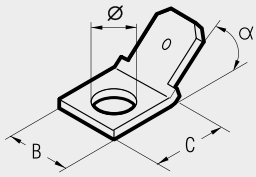
Conductor Size sqmm (AWG)	Ref.	Tab mm	M mm	L mm	Quantity Box/Bag
0,5÷1 (20÷17)	**RN-MA 305**	2,8 x 0,5	5,8	13,0	6.000/100
	RN-MA 405	4,8 x 0,5	6,3	17,3	5.000/100
	RN-MA 608	6,3 x 0,8	7,9	19,7	4.000/100
1÷2,5 (17÷14)	**BN-MA 608**	6,3 x 0,8	7,9	20,0	4.000/100

- Manufactured from Brass strip
- The operating temperature range is – 40 to + 125°C.
- Recommended crimping tool is shown on page 102

MALE TABS

for board mounting

MP
MPD



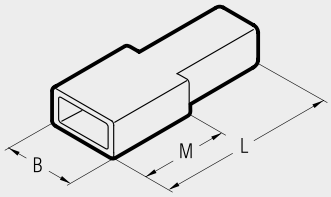
Ref.	Tab mm	Ø Stud mm	B mm	C mm	α	Quantity Box/Bag
MP 608	6,3 x 0,8	4	8	8,5	0°	5.000/100
MP 608/45	6,3 x 0,8	4	8	8,5	45°	6.000/100
MP 608/90	6,3 x 0,8	4	8	8,5	90°	5.000/100
***MP 608D**	6,3 x 0,8	5	8	14	0°	5.000/100

**double tab*

- Manufactured from Brass strip
- The operating temperature range is – 40 to + 125°C.

CONNECTOR SLEEVES

CFA
CMA



Ref.	Connector	B mm	M mm	L mm	Material	Quantity Box/Bag
CFA 300	Female 2,8	5,5	7	18	Polyethylene	3.000/100
***CFA 400**	Female 4,8	7,5	9	20	Polyethylene	2.000/100
***CFA 600**	Female 6,3	9,0	11	24	Polyethylene	1.500/100
****CFA2 600**	Female 6,3	9,0	9	22	Polyethylene	1.500/100
CFAR 600	Female 6,3 frontal insertion with retainer	9,0	12	25	Polyamide 6.6	1.000/100
CFAB 600	Female 6,3 flag	10,0	–	18	Polyamide 6.6	1.000/100
***CMA 600**	Male 6,3	12,0	11	22	Polyethylene	1.000/100

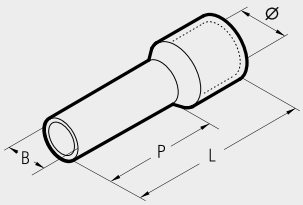
* For a single cable.
Colours available:
Transparent: no suffix
Red: add suffix R
Black: add suffix N

** For twin cables.
Colours available:
Transparent: no suffix
Red: add suffix R
Black: add suffix N
Green: add suffix V
Blue: add suffix B
Yellow: add suffix G

POLYPROPYLENE INSULATED END SLEEVES

PKE
PKC
CPKD

for flexible Copper cables



The PKE, PKC, CPKD range of end sleeves is manufactured from Tin plated electrolytic Copper.
Designed and developed to reinforce fine wire strands when terminating a cable into a connector block.

The operating temperature range is – 20 to + 105°C (Surge + 110°C).

Recommended crimping tools are shown on pages 96 to 118, 121, 150, 152, 154.

VALSTAR ND#2/PKE
Comprising:
- a selection of PKE end sleeves conductor size 1÷6 sqmm
- tool ND#2

VALSTAR ND#2/PKC
Comprising:
- a selection of PKC end sleeves conductor size 1÷6 sqmm
- tool ND#2

Conductor Size sqmm	Ref.	Dimensions mm Ø	B	P	L	Insulation Colour	Quantity Box/Bag
0,1÷0,3	**PKE 308**	1,9	1,3	8,0	12,4	yellow	25.000/500
0,3÷0,5	**PKE 508**	2,6	1,3	8,0	14,0	white	10.000/500
0,75	**PKE 7508**	3,4	1,6	8,2	14,6	blue	10.000/500
1,0	**PKE 108**	3,4	1,8	8,2	14,6	red	10.000/500
1,5	**PKE 1508**	3,8	2,1	8,2	14,6	black	10.000/500
	PKE 1518	3,8	2,1	18,0	24,4		5.000/500
2,5	**PKE 2508**	4,4	2,6	8,2	15,2	grey	7.500/500
	PKE 2518	4,4	2,6	18,0	25,0		5.000/500
4,0	**PKE 409**	4,8	3,2	9,0	16,0	orange	5.000/200
	PKE 418	4,8	3,2	18,0	25,0		3.000/200
6,0	**PKE 612**	5,8	3,9	12,0	20,0	green	2.500/100
	PKE 618	5,8	3,9	18,0	26,0		2.000/100
10,0	**PKE 1012**	7,4	4,8	12,0	21,5	brown	1.500/100
	PKE 1018	7,4	4,8	18,0	27,5		1.500/100
16,0	**PKE 1612**	9,3	5,9	12,0	22,7	white	1.000/100
	PKE 1618	9,3	5,9	18,0	28,6		1.000/100
25,0	**PKE 25016**	10,0	7,9	16,0	29,0	black	500/50
	PKE 25022	10,0	7,9	22,0	35,0		500/50

Insulated chain end sleeves

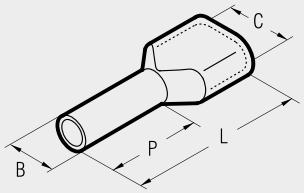
Developed for use with production equipment to give a quick and reliable crimped joint. Conforms to DIN standard 46 228/4.

Conductor Size sqmm	Ref.	Dimensions mm Ø	B	P	L	Insulation Colour	Quantity Reel
0,3÷0,5	**CPKD 508**	2,6	1,3	8,0	14,0	white	5.000
0,75	**CPKD 7508**	2,8	1,5	8,0	14,0	grey	5.000
1	**CPKD 108**	3,0	1,7	8,0	14,0	red	5.000
1,5	**CPKD 1508**	3,5	2,0	8,0	14,0	black	5.000
2,5	**CPKD 2508**	4,2	2,5	8,0	14,0	blue	3.000

Conductor Size sqmm	Ref.	Dimensions mm Ø	B	P	L	Insulation Colour	Quantity Box/Bag
0,1÷0,3	**PKC 306**	1,9	1,3	6,0	10,4	light blue	25.000/500
	PKC 308	1,9	1,3	8,0	12,4		25.000/500
0,3÷0,5	**PKC 508**	2,6	1,3	8,0	14,0	orange	10.000/500
	PKC 510	2,6	1,3	10,0	16,0		10.000/500
0,75	**PKC 7508**	3,4	1,6	8,2	14,6	white	10.000/500
	PKC 7512	3,4	1,6	12,0	18,4		10.000/500
1,0	**PKC 108**	3,4	1,8	8,2	14,6	yellow	10.000/500
	PKC 112	3,4	1,8	12,0	18,4		10.000/500
1,5	**PKC 1508**	3,8	2,1	8,2	14,6	red	10.000/500
	PKC 1518	3,8	2,1	18,0	24,4		5.000/500
2,5	**PKC 2508**	3,9	2,6	8,2	15,2	blue	7.500/500
	PKC 2518	3,9	2,6	18,0	25,0		5.000/500
4,0	**PKC 409**	4,8	3,2	9,0	16,0	grey	5.000/200
	PKC 418	4,8	3,2	18,0	25,0		3.000/200
6,0	**PKC 612**	5,8	3,9	12,0	20,0	black	2.500/100
	PKC 618	5,8	3,9	18,0	26,0		2.000/100
10,0	**PKC 1012**	7,4	4,8	12,0	21,5	ivory	1.500/100
	PKC 1018	7,4	4,8	18,0	27,5		1.500/100
16,0	**PKC 1612**	9,3	5,9	12,0	22,7	green	1.000/100
	PKC 1618	9,3	5,9	18,0	28,6		1.000/100
25,0	**PKC 25016**	10,0	7,9	16,0	29,0	brown	500/50
	PKC 25022	10,0	7,9	22,0	35,0		500/50
35,0	**PKC 35016**	12,0	8,9	16,0	30,0	beige	500/50
	PKC 35025	12,0	8,9	25,0	39,0		400/50
50,0	**PKC 50020**	13,8	11,0	20,0	36,0	olive	300/50
	PKC 50030	13,8	11,0	30,0	46,0		250/50
70	**PKC 70022**	16,0	14,3	22,0	38,0	yellow	100/25
95	**PKC 95025**	18,0	15,7	25,0	44,0	red	100/25
120	**PKC 120027**	21,0	17,5	27,0	48,0	blue	100/25

"TWIN" POLYPROPYLENE INSULATED END SLEEVES

for fine stranded cables



HALOGEN FREE

PKET
PKCT

Conductor Size sqmm	Ref.	Dimensions mm C	B	P	L	Insulation Colour	nd#4, HNKE16 and HNKE 50	Quantity Bag
2 x 0,5	**PKET 508**	4,6x2,6	1,5	8,0	15,0	white	1	500
2 x 0,75	**PKET 7508**	5,2x2,6	2,1	8,0	15,0	blue	1,5	500
	PKET 7512	5,2x2,6	2,1	12,0	19,0			500
2 x 1	**PKET 108**	5,8x3,2	2,6	8,0	16,0	red	2,5	500
	PKET 112	5,8x3,2	2,6	12,0	20,0			500
2 x 1,5	**PKET 1508**	6,5x3,6	2,6	8,0	16,0	black	2,5	500
	PKET 1512	6,5x3,6	2,6	12,0	20,0		2,4	500
2 x 2,5	**PKET 2510**	7,5x4,3	3,2	10,0	18,0	grey	4	250
	PKET 2512	7,5x4,3	3,2	12,0	21,0			250
2 x 4	**PKET 412**	9,0x5,2	4,2	12,0	23,0	orange	6	100
2 x 6	**PKET 614**	10,0x7,2	5,3	14,0	26,0	green	10	100
2 x 10	**PKET 1014**	13,0x7,2	7,0	14,0	26,0	brown	16	100
2 x 16	**PKET 1616**	18,0x9,5	8,8	16,0	30,0	white	35	100

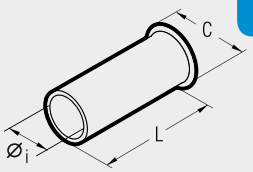
Conductor Size sqmm	Ref.	Dimensions mm C	B	P	L	Insulation Colour	nd#4, HNKE16 and HNKE 50	Quantity Bag
2 x 0,5	**PKCT 508**	4,6x2,6	1,5	8,0	15,0	orange	1	500
2 x 0,75	**PKCT 7508**	5,2x2,6	2,1	8,0	15,0	white	1,5	500
	PKCT 7512	5,2x2,6	2,1	12,0	19,0			500
2 x 1	**PKCT 108**	5,8x3,2	2,6	8,0	16,0	yellow	2,5	500
	PKCT 112	5,8x3,2	2,6	12,0	20,0			500
2 x 1,5	**PKCT 1508**	6,5x3,6	2,6	8,0	16,0	red	2,5	500
	PKCT 1512	6,5x3,6	2,6	12,0	20,0		2,4	500
2 x 2,5	**PKCT 2510**	7,5x4,3	3,2	10,0	18,0	blue	4	250
	PKCT 2512	7,5x4,3	3,2	12,0	21,0			250
2 x 4	**PKCT 412**	9,0x5,2	4,2	12,0	23,0	grey	6	100
2 x 6	**PKCT 614**	10,0x7,2	5,3	14,0	26,0	black	10	100
2 x 10	**PKCT 1014**	13,0x7,2	7,0	14,0	26,0	ivory	16	100
2 x 16	**PKCT 1616**	18,0x9,5	8,8	16,0	30,0	green	35	100

Type PKET, PKCT ranges of twin end sleeves are manufactured from Tin plated electrolytic Copper.
Designed to accomodate two cables terminating in the same sleeve they are ideal for looping conductors.
The operating temperature range is – 20 to + 105°C (Surge + 110°C).

Recommended crimping tools are shown on pages 96 to 117, 121, 150, 152, 154.

UNINSULATED END SLEEVES

for flexible Copper cables



KE

Conductor Size sqmm	Ref.	Dimensions mm Ø	L	C	Quantity Box/Bag
0,5	***KE 506 ST**	1,0	6,0	2,1	50.000/500
	KE 508 ST	1,0	8,0	2,1	50.000/500
0,75	***KE 7506 ST**	1,2	6,0	2,3	50.000/500
	KE 7508 ST	1,2	8,0	2,3	50.000/500
1	***KE 106 ST**	1,4	6,0	2,5	25.000/500
	***KE 110 ST**	1,4	10,0	2,5	25.000/500
1,5	***KE 1508 ST**	1,8	7,0	2,8	25.000/500
	***KE 1510 ST**	1,8	10,0	2,8	25.000/500
2,5	***KE 2508 ST**	2,3	7,0	3,4	25.000/500
	***KE 2510 ST**	2,3	10,0	3,4	20.000/500
4	***KE 410 ST**	2,8	9,0	4,0	12.500/500
	***KE 412 ST**	2,8	12,0	4,0	12.500/500
6	***KE 610 ST**	3,5	10,0	4,7	10.000/500
	***KE 612 ST**	3,5	12,0	4,7	7.500/500
	***KE 616 ST**	3,5	15,0	4,7	5.000/500
10	***KE 1016 ST**	4,5	15,0	5,8	4.000/250
16	***KE 1616 ST**	5,8	15,0	7,5	3.000/250
25	**KE 25015 ST**	7,3	15,0	9,5	1.500/100
	***KE 25018 ST**	7,3	18,0	9,5	1.500/100
35	**KE 35012 ST**	8,3	12,0	11,0	1.500/100
	KE 35015 ST	8,3	15,0	11,0	1.500/100
	***KE 35018 ST**	8,3	18,0	11,0	1.000/100

**To DIN standard 46 228/1*

KE series end sleeves are manufactured from Tin plated electrolytic Copper.
Designed and developed for use with flexible cables.

Recommended crimping tools are shown on pages 96 to 117, 121, 150, 152, 154.

UNINSULATED TERMINALS

S

S range - brazed seam

THORNE & DERRICK INTERNATIONAL
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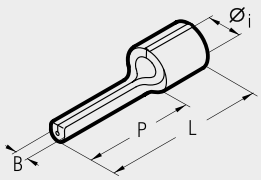
S range terminals are manufactured from electrolytic Copper strip and Tin plated. The seam is brazed to provide uniform mechanical strength.
The terminal barrel is rifled to enhance electrical contact and to improve mechanical strength.

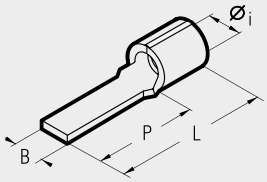
Recommended crimping tools are shown on pages 96 to 115, 150.

pin terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity Box/Bag
		Øi	B	P	L	
0,25÷1,25 (22÷16)	**S 1.5-P 8**	1,8	1,6	8,0	12,0	*8.000/100*
	S 1.5-P 10	1,8	1,6	10,0	14,0	*8.000/100*
	S 1.5-P 12	1,8	1,6	12,0	16,2	*8.000/100*
1,5÷2,5 (16÷14)	**S 2.5-P 8**	2,4	1,7	8,0	12,0	*7.000/100*
	S 2.5-P 10	2,4	1,8	10,0	14,0	*7.000/100*
	S 2.5-P 12	2,4	1,8	12,0	16,0	*7.000/100*
4÷6 (12÷10)	**S 6-P 10**	3,6	2,2	10,0	16,8	*4.000/100*
	S 6-P 12	3,6	2,2	12,0	19,4	*4.000/100*
	S 6-P 14	3,6	2,2	14,0	21,0	*3.500/100*

blade terminals



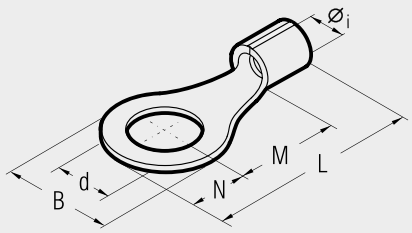
Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity Box/Bag
		Øi	B	P	L	
0,25÷1,25 (22÷16)	**S 1.5-PP 12**	1,8	3,0	12,8	17,0	*8.000/100*
	***S 1.5-PP 12/1**	1,8	3,0	11,3	15,5	*8.000/100*
	S 1.5-PP 12/19	1,8	1,9	13,2	17,4	*8.000/100*
	S 1.5-PP 14	1,8	3,0	14,8	19,0	*8.000/100*
1,5÷2,5 (16÷14)	**S 2.5-PP 12**	2,4	3,5	12,8	17,0	*7.000/100*
	S 2.5-PP 12/25	2,4	2,5	13,3	17,5	*7.000/100*
	S 2.5-PP 16/25	2,4	2,5	17,2	21,4	*7.000/100*
4÷6 (12÷10)	**S 6-PP 12**	3,6	4,0	13,3	19,7	*4.000/100*
	S 6-PP 17	3,6	2,9	19,1	25,5	*4.000/100*

**Made to order*

THORNE & DERRICK INTERNATIONAL

www.thorneandderrick.com

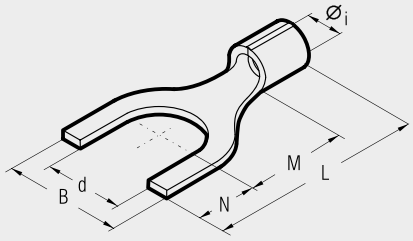
ring terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag
0,25÷1,25 (22÷16)	2	*S 1.5-M 2	1,8	5,6	4,5	2,8	11,5	2,2	7.000/100
	3	S 1.5-M 3	1,8	5,6	4,5	2,8	11,5	3,2	7.000/100
	3,5	S 1.5-M 3.5	1,8	5,6	4,5	2,8	11,5	3,7	7.000/100
	3,5	*S 1.5-M 3.5/1	1,8	6,2	7,1	3,1	14,4	3,7	7.000/100
	4	S 1.5-M 4	1,8	7,0	6,5	3,5	14,2	4,3	7.000/100
	4	*S 1.5-M 4/3	1,8	7,8	7,1	3,9	15,2	4,3	7.000/100
	5	S 1.5-M 5	1,8	7,8	7,1	3,9	15,2	5,3	7.000/100
	6	S 1.5-M 6	1,8	9,4	8,1	4,7	17,0	6,4	6.000/100
	6	S 1.5-M 6/1	1,8	12,0	10,3	6,0	20,5	6,4	5.000/100
	7	S 1.5-M 7	1,8	9,4	8,1	4,7	17,0	7,2	6.000/100
	8	S 1.5-M 8	1,8	12,0	10,3	6,0	20,5	8,4	4.000/100
	10	S 1.5-M 10	1,8	15,5	13,0	7,7	25,0	10,5	3.000/100
	12	S 1.5-M 12	1,8	18,0	15,5	9,0	28,7	13,0	2.000/100
1,5÷2,5 (16÷14)	3	S 2.5-M 3	2,4	5,6	5,0	2,8	12,0	3,2	6.000/100
	3,5	S 2.5-M 3.5	2,4	5,6	5,0	2,8	12,0	3,7	6.000/100
	3,5	*S 2.5-M 3.5/1	2,4	6,2	6,5	3,1	13,8	3,7	5.000/100
	4	S 2.5-M 4	2,4	8,0	6,5	4,0	14,7	4,3	5.000/100
	5	S 2.5-M 5	2,4	8,0	7,5	4,0	15,7	5,3	5.000/100
	6	S 2.5-M 6	2,4	9,4	8,6	4,7	17,5	6,4	5.000/100
	6	S 2.5-M 6/1	2,4	12,0	10,3	6,0	20,5	6,4	5.000/100
	7	S 2.5-M 7	2,4	10,0	7,8	5,0	17,0	7,2	5.000/100
	8	S 2.5-M 8	2,4	12,0	10,3	6,0	20,5	8,4	4.000/100
	10	S 2.5-M 10	2,4	15,5	13,0	7,7	25,0	10,5	2.500/100
	12	S 2.5-M 12	2,4	18,0	15,5	9,0	28,7	13,0	2.000/100
4÷6 (12÷10)	3	S 6-M 3	3,6	8,0	8,1	4,0	18,5	3,2	3.000/100
	3,5	S 6-M 3.5	3,6	8,0	8,1	4,0	18,5	3,7	3.000/100
	4	S 6-M 4	3,6	9,0	8,1	4,5	19,0	4,3	3.000/100
	5	S 6-M 5	3,6	9,0	8,1	4,5	19,0	5,3	2.500/100
	6	S 6-M 6	3,6	11,0	11,1	5,5	23,0	6,4	2.500/100
	6	*S 6-M 6/1	3,6	11,0	8,1	5,5	20,0	6,4	2.500/100
	7	S 6-M 7	3,6	11,0	11,1	5,5	23,0	7,2	2.500/100
	8	S 6-M 8	3,6	13,6	12,1	6,8	25,3	8,4	2.000/100
	8	*S 6-M 8/1	3,6	11,0	8,1	5,5	20,0	8,4	2.500/100
	10	S 6-M 10	3,6	13,6	12,1	6,8	25,3	10,5	2.000/100
	10	S 6-M 10/1	3,6	15,5	13,8	7,7	28,0	10,5	2.000/100
	12	S 6-M 12	3,6	19,0	15,1	9,5	31,0	13,0	1.000/100
	14	S 6-M 14	3,6	21,0	16,1	10,5	33,0	15,0	1.000/100
	16	S 6-M 16	3,6	24,0	17,1	12,0	35,5	17,0	1.000/100
10 (8)	4	S 10-M 4	4,8	11,5	9,0	5,8	23,8	4,3	2.000/100
	5	S 10-M 5	4,8	11,5	9,0	5,8	23,8	5,3	2.000/100
	6	S 10-M 6	4,8	11,5	9,0	5,8	23,8	6,4	2.000/100
	7	S 10-M 7	4,8	11,5	9,0	5,8	23,8	7,2	1.500/100

*Made to order

fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag
0,25÷1,25 (22÷16)	3	S 1.5-U 3	1,8	5,5	5,5	4,0	13,7	3,2	7.000/100
	3,5	S 1.5-U 3.5	1,8	6,0	6,5	3,8	14,5	3,7	7.000/100
	3,5	*S 1.5-U 3.5/2	1,8	6,4	6,5	3,8	14,5	3,7	7.000/100
	4	S 1.5-U 4	1,8	6,5	7,5	3,7	15,4	4,3	7.000/100
	4	*S 1.5-U 4/1	1,8	8,5	7,5	3,7	15,4	4,3	7.000/100
	4	S 1.5-U 4/2	1,8	7,5	7,5	3,7	15,4	4,3	7.000/100
	5	S 1.5-U 5	1,8	8,5	7,5	3,7	15,4	5,3	7.000/100
	5	*S 1.5-U 5/1	1,8	9,4	7,5	3,7	15,4	5,3	7.000/100
	6	S 1.5-U 6	1,8	9,4	8,1	4,7	17,0	6,4	6.000/100
	6	*S 1.5-U 6/1	1,8	12,0	9,2	7,1	20,5	6,4	6.000/100
	8	S 1.5-U 8	1,8	14,0	10,0	6,3	20,5	8,4	3.000/100
	10	S 1.5-U 10	1,8	17,5	13,0	7,7	25,0	10,5	2.500/100
	12	S 1.5-U 12	1,8	20,0	15,5	9,0	28,7	13,0	2.000/100
1,5÷2,5 (16÷14)	3	S 2.5-U 3	2,4	5,5	5,5	4,0	13,7	3,2	6.000/100
	3,5	S 2.5-U 3.5	2,4	6,4	6,5	3,8	14,5	3,7	6.000/100
	3,5	*S 2.5-U 3.5/1	2,4	7,2	6,5	3,8	14,5	3,7	6.000/100
	4	S 2.5-U 4	2,4	6,5	7,5	3,7	15,4	4,3	5.000/100
	4	*S 2.5-U 4/1	2,4	8,5	7,5	3,7	15,4	4,3	6.000/100
	4	*S 2.5-U 4/2	2,4	7,5	7,5	3,7	15,4	4,3	6.000/100
	5	S 2.5-U 5	2,4	8,5	7,5	3,7	15,4	5,3	6.000/100
	6	S 2.5-U 6	2,4	9,4	8,1	4,7	17,0	6,4	5.000/100
	6	*S 2.5-U 6/1	2,4	12,0	9,2	7,1	20,5	6,4	4.000/100
	8	S 2.5-U 8	2,4	14,0	10,0	6,3	20,5	8,4	2.500/100
	10	S 2.5-U 10	2,4	17,5	13,0	7,7	25,0	10,5	2.000/100
	12	S 2.5-U 12	2,4	20,0	15,5	9,0	28,7	13,0	2.000/100
4÷6 (12÷10)	3,5	S 6-U 3.5	3,6	7,5	8,5	3,9	18,8	3,7	3.000/100
	4	S 6-U 4	3,6	7,5	8,0	4,4	18,8	4,3	3.000/100
	5	S 6-U 5	3,6	9,5	8,0	4,4	18,8	5,3	2.500/100
	6	S 6-U 6	3,6	10,0	11,0	5,5	22,9	6,4	2.500/100
	8	S 6-U 8	3,6	13,5	12,0	8,0	26,4	8,4	2.000/100
	10	S 6-U 10	3,6	15,5	13,0	8,0	27,4	10,5	2.000/100
	10	*S 6-U 10/1	3,6	17,5	13,8	7,7	28,0	10,5	2.000/100
	12	S 6-U 12	3,6	21,0	15,1	9,5	31,0	13,0	1.000/100
	14	*S 6-U 14	3,6	23,0	16,1	10,5	33,0	15,0	1.000/100
	16	*S 6-U 16	3,6	26,0	17,1	11,5	35,0	17,0	1.000/100

UNINSULATED TERMINALS

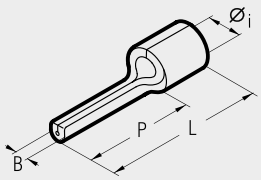
RN BN GN

RN, BN, GN range - unbrazed

RN, BN. GN range terminals are manufactured from electrolytic Copper strip and Tin plated.
The seam is unbrazed.
The terminal barrel is rifled to enhance electrical contact and to improve mechanical strength.

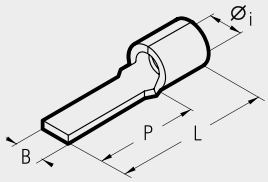
Recommended crimping tools are shown on pages 96 to 115, 150.

pin terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity Box/Bag
		Øi	B	P	L	
0,25÷1,5 (22÷16)	**RN-P 8**	1,8	1,6	8,0	12,0	*8.000/100*
	RN-P 10	1,8	1,6	10,0	14,0	*8.000/100*
	RN-P 12	1,8	1,6	12,0	16,2	*8.000/100*
1,5÷2,5 (16÷14)	**BN-P 8**	2,4	1,7	8,0	12,0	*7.000/100*
	BN-P 10	2,4	1,8	10,0	14,0	*7.000/100*
	BN-P 12	2,4	1,8	12,0	16,0	*7.000/100*
4÷6 (12÷10)	**GN-P 10**	3,6	2,2	10,0	16,8	*4.000/100*
	GN-P 12	3,6	2,2	12,0	19,0	*4.000/100*
	GN-P 14	3,6	2,2	14,0	21,0	*3.500/100*

blade terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity Box/Bag
		Øi	B	P	L	
0,25÷1,5 (22÷16)	**RN-PP 12**	1,8	3,0	12,8	17,0	*8.000/100*
	RN-PP 12/1	1,8	3,0	11,3	15,5	*8.000/100*
	RN-PP 12/19	1,8	1,9	13,2	17,4	*8.000/100*
	RN-PP 14	1,8	3,0	14,8	19,0	*8.000/100*
	RN-PP 16/23	1,8	2,3	17,2	21,4	*8.000/100*
1,5÷2,5 (16÷14)	**BN-PP 12**	2,4	3,5	12,8	17,0	*7.000/100*
	BN-PP 12/25	2,4	2,5	13,3	17,5	*7.000/100*
	BN-PP 16/25	2,4	2,5	17,2	21,4	*7.000/100*
4÷6 (12÷10)	**GN-PP 12**	3,6	4,0	13,3	19,7	*4.000/100*
	GN-PP 17	3,6	2,9	19,1	25,5	*4.000/100*

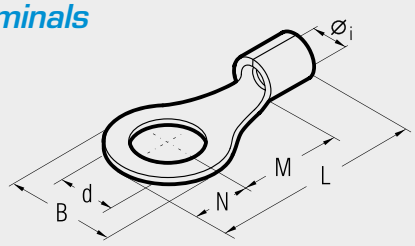
UNINSULATED TERMINALS

RN, BN, GN range - unbrazed

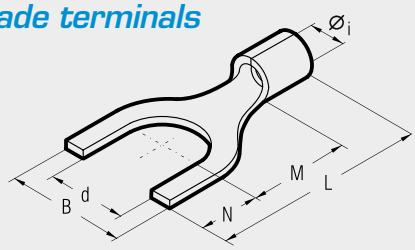
RN
BN
GN

THORNE & DERRICK INTERNATIONAL
www.thorneandderrick.com

ring terminals



fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag
0,25÷1,5 (22÷16)	2	*RN-M 2	1,8	5,6	4,5	2,8	11,5	2,2	7.000/100
	3	RN-M 3	1,8	5,6	4,5	2,8	11,5	3,2	7.000/100
	3,5	RN-M 3.5	1,8	5,6	4,5	2,8	11,5	3,7	7.000/100
	3,5	RN-M 3.5/1	1,8	6,2	7,1	3,1	14,4	3,7	7.000/100
	4	RN-M 4	1,8	7,0	6,5	3,5	14,2	4,3	7.000/100
	4	RN-M 4/3	1,8	7,8	7,1	3,9	15,2	4,3	7.000/100
	5	RN-M 5	1,8	7,8	7,1	3,9	15,2	5,3	7.000/100
	6	RN-M 6	1,8	9,4	8,1	4,7	17,0	6,4	6.000/100
	6	RN-M 6/1	1,8	12,0	10,3	6,0	20,5	6,4	4.000/100
	7	RN-M 7	1,8	9,4	8,1	4,7	17,0	7,2	6.000/100
	8	RN-M 8	1,8	12,0	10,3	6,0	20,5	8,4	4.000/100
	10	RN-M 10	1,8	15,5	13,0	7,7	25,0	10,5	3.000/100
	12	RN-M 12	1,8	18,0	15,5	9,0	28,7	13,0	2.000/100
1,5÷2,5 (16÷14)	2	*BN-M 2	2,4	5,6	5,0	2,8	12,0	2,2	6.000/100
	3	BN-M 3	2,4	5,6	5,0	2,8	12,0	3,2	6.000/100
	3,5	BN-M 3.5	2,4	5,6	5,0	2,8	12,0	3,7	6.000/100
	3,5	BN-M 3.5/1	2,4	6,2	6,5	3,1	13,8	3,7	6.000/100
	4	BN-M 4	2,4	8,0	6,5	4,0	14,7	4,3	5.000/100
	5	BN-M 5	2,4	8,0	7,5	4,0	15,7	5,3	5.000/100
	6	BN-M 6	2,4	9,4	8,6	4,7	17,5	6,4	5.000/100
	6	BN-M 6/1	2,4	12,0	10,3	6,0	20,5	6,4	5.000/100
	7	BN-M 7	2,4	10,0	7,8	5,0	17,0	7,2	5.000/100
	8	BN-M 8	2,4	12,0	10,3	6,0	20,5	8,4	4.000/100
	10	BN-M 10	2,4	15,5	13,0	7,7	25,0	10,5	2.500/100
	12	BN-M 12	2,4	18,0	15,5	9,0	28,7	13,0	2.000/100
4÷6 (12÷10)	3	GN-M 3	3,6	8,0	8,1	4,0	18,5	3,2	3.000/100
	3,5	GN-M 3.5	3,6	8,0	8,1	4,0	18,5	3,7	3.000/100
	4	GN-M 4	3,6	9,0	8,1	4,5	19,0	4,3	3.000/100
	5	GN-M 5	3,6	9,0	8,1	4,5	19,0	5,3	2.500/100
	6	GN-M 6	3,6	11,0	11,1	5,5	23,0	6,4	2.500/100
	6	GN-M 6/1	3,6	11,0	8,1	5,5	20,0	6,4	2.500/100
	7	GN-M 7	3,6	11,0	11,1	5,5	23,0	7,2	2.500/100
	8	GN-M 8	3,6	13,6	12,1	6,8	25,3	8,4	2.000/100
	8	*GN-M 8/1	3,6	11,0	8,1	5,5	20,0	8,4	2.500/100
	10	GN-M 10	3,6	13,6	12,1	6,8	25,3	10,5	2.000/100
	10	GN-M 10/1	3,6	15,5	13,8	7,7	28,0	10,5	2.000/100
	12	GN-M 12	3,6	19,0	15,1	9,5	31,0	13,0	1.000/100
	14	GN-M 14	3,6	21,0	16,1	10,5	33,0	15,0	1.000/100
	16	GN-M 16	3,6	24,0	17,1	12,0	35,5	17,0	1.000/100

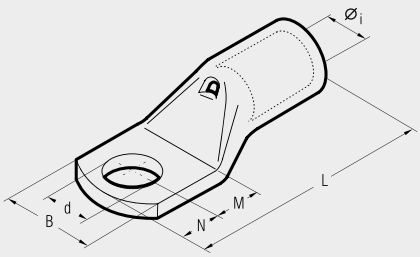
*Made to order

Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag
0,25÷1,5 (22÷16)	3	RN-U 3	1,8	5,5	5,5	4,0	13,7	3,2	7.000/100
	3,5	RN-U 3.5	1,8	6,0	6,5	3,8	14,5	3,7	7.000/100
	3,5	RN-U 3.5/2	1,8	6,4	6,5	3,8	14,5	3,7	7.000/100
	4	RN-U 4	1,8	6,5	7,5	3,7	15,4	4,3	7.000/100
	4	RN-U 4/1	1,8	8,5	7,5	3,7	15,4	4,3	7.000/100
	4	RN-U 4/2	1,8	7,5	7,5	3,7	15,4	4,3	7.000/100
	5	RN-U 5	1,8	8,5	7,5	3,7	15,4	5,3	5.000/100
	5	*RN-U 5/1	1,8	9,4	7,5	3,7	15,4	5,3	5.000/100
	6	RN-U 6	1,8	9,4	8,1	4,7	17,0	6,4	6.000/100
	6	RN-U 6/1	1,8	12,0	9,2	7,1	20,5	6,4	3.000/100
	8	RN-U 8	1,8	14,0	10,0	6,3	20,5	8,4	5.000/100
	10	RN-U 10	1,8	17,5	13,0	7,7	25,0	10,5	3.000/100
	12	RN-U 12	1,8	20,0	15,5	9,0	28,7	13,0	2.000/100
1,5÷2,5 (16÷14)	3	BN-U 3	2,4	5,5	5,5	4,0	13,7	3,2	6.000/100
	3,5	BN-U 3.5	2,4	6,4	6,5	3,8	14,5	3,7	6.000/100
	3,5	*BN-U 3.5/1	2,4	7,2	6,5	3,8	14,5	3,7	6.000/100
	4	BN-U 4	2,4	6,5	7,5	3,7	15,4	4,3	6.000/100
	4	BN-U 4/1	2,4	8,5	7,5	3,7	15,4	4,3	6.000/100
	4	BN-U 4/2	2,4	7,5	7,5	3,7	15,4	4,3	6.000/100
	5	BN-U 5	2,4	8,5	7,5	3,7	15,4	5,3	5.000/100
	6	BN-U 6	2,4	9,4	8,1	4,7	17,0	6,4	5.000/100
	6	BN-U 6/1	2,4	12,0	9,2	7,1	20,5	6,4	4.000/100
	8	BN-U 8	2,4	14,0	10,0	6,3	20,5	8,4	4.000/100
	10	BN-U 10	2,4	17,5	13,0	7,7	25,0	10,5	3.500/100
	12	BN-U 12	2,4	20,0	15,5	9,0	28,7	13,0	2.000/100
4÷6 (12÷10)	3,5	GN-U 3.5	3,6	7,5	8,5	3,9	18,8	3,7	3.000/100
	4	GN-U 4	3,6	7,5	8,0	4,4	18,8	4,3	3.000/100
	5	GN-U 5	3,6	9,5	8,0	4,4	18,8	5,3	2.500/100
	6	GN-U 6	3,6	10,0	11,0	5,5	22,9	6,4	2.500/100
	8	GN-U 8	3,6	13,5	12,0	8,0	26,4	8,4	2.000/100
	10	GN-U 10	3,6	15,5	13,0	8,0	27,4	10,5	2.000/100
	10	GN-U 10/1	3,6	17,5	13,8	7,7	28,0	10,5	2.000/100
	12	GN-U 12	3,6	21,0	15,1	9,5	31,0	13,0	1.000/100
	14	GN-U 14	3,6	23,0	16,1	10,5	33,0	15,0	1.000/100
	16	GN-U 16	3,6	26,0	17,1	11,5	35,0	17,0	1.000/100

COPPER TUBE CRIMPING LUGS

A-M

for Copper conductors



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UL File no. E125401

c UL us File no. E125401

A-M series lugs are manufactured from electrolytic Copper tube.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.
In applications subject to vibration, lugs still have to provide a reliable connection and annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.
The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.
Lugs are electrolytically tinplated to avoid oxidation.
A-M series lugs form an important part of Cembre crimping systems for power carrying conductors, details of the appropriate crimping tools and dies are shown opposite and in detail on pages 176 to 177.
Our technicians are always available to provide any technical advice which may be required.
The enclosed table is only indicative of the range and many variations in stud fixing and palm lengths are also available.

Cond. Size sqmm low stranded	Cond. Size sqmm flexible *	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: HN1	HN5	HN-A25	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45E	HT 51 RH 50 B 500E B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
0,25÷1,5		3	A 03-M 3◆	1,8	6,0	4,5	3,5	16,0	3,2	5.000/100														
		3,5	A 03-M 3.5◆	1,8	6,5	4,5	3,5	16,0	3,7	5.000/100														
		4	A 03-M 4◆	1,8	6,5	5,0	4,0	17,0	4,3	5.000/100														
		5	A 03-M 5◆	1,8	7,5	5,5	4,5	18,0	5,3	5.000/100														
		6	A 03-M 6◆	1,8	9,0	6,0	5,0	19,0	6,4	5.000/100														
1,5÷2,5		3	A 06-M 3◆	2,4	6,0	4,5	3,5	17,0	3,2	4.000/100														
		3,5	A 06-M 3.5◆	2,4	6,5	4,5	3,5	17,0	3,7	4.000/100														
		4	A 06-M 4◆	2,4	7,5	5,0	4,0	18,0	4,3	4.000/100														
		5	A 06-M 5◆	2,4	8,5	5,5	4,5	19,0	5,3	4.000/100														
		6	A 06-M 6◆	2,4	9,0	6,0	5,0	20,0	6,4	4.000/100														
		8	A 06-M 8◆	2,4	12,0	9,0	8,0	26,0	8,4	2.500/100														
4÷6		3	A 1-M 3	3,6	7,5	4,5	3,5	20,5	3,2	2.000/100	HN1					B 15D								
		3,5	A 1-M 3.5	3,6	7,5	4,5	3,5	20,5	3,7	2.000/100														
		4	A 1-M 4	3,6	8,0	5,0	4,0	21,5	4,3	2.000/100														
		5	A 1-M 5	3,6	9,0	6,5	6,0	25,0	5,3	2.000/100														
		6	A 1-M 6	3,6	11,0	7,0	6,0	25,5	6,4	2.000/100														
		8	A 1-M 8	3,6	14,0	9,0	8,0	29,5	8,4	1.500/100														
		10	A 1-M 10	3,6	16,5	11,0	10,0	33,5	10,5	1.000/100														
10		4	A 2-M 4	4,6	10,0	5,0	4,0	22,5	4,3	1.500/100		HN5	HN-A25	TN 70 SE	TN 120 SE		B 35-45D	B 35-50D	HT 45E	HT 51 RH 50 B 500E B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
		5	A 2-M 5	4,6	10,0	6,5	6,0	26,0	5,3	1.500/100														
		6	A 2-M 6	4,6	11,0	7,0	6,0	26,5	6,4	1.500/100														
		8	A 2-M 8	4,6	15,0	9,0	8,0	30,5	8,4	1.000/100														
		10	A 2-M 10	4,6	18,0	11,0	10,0	34,5	10,5	1.000/100														
		12	A 2-M 12	4,6	19,0	14,0	12,0	39,5	13,2	500/100														
16		4	A 3-M 4	5,8	11,5	5,0	4,0	25,5	4,3	1.000/100														
		5	A 3-M 5	5,8	11,5	6,5	6,0	29,0	5,3	1.000/100														
		6	A 3-M 6	5,8	11,5	7,0	6,0	29,5	6,4	1.000/100														
		8	A 3-M 8	5,8	15,0	9,0	8,0	33,5	8,4	500/100														
		10	A 3-M 10	5,8	18,0	11,0	10,0	37,5	10,5	500/100														
		12	A 3-M 12	5,8	20,0	14,0	12,0	42,5	13,2	500/100														
25		4	A 5-M 4	7,0	14,0	5,0	4,0	28,0	4,3	1.000/100														
		5	A 5-M 5	7,0	14,0	6,5	6,0	31,5	5,3	500/100														
		6	A 5-M 6	7,0	14,0	7,0	6,0	32,0	6,4	500/100														
		8	A 5-M 8	7,0	15,0	9,0	8,0	36,0	8,4	500/100														
		10	A 5-M 10	7,0	18,0	11,0	10,0	40,0	10,5	500/100														
		12	A 5-M 12	7,0	21,0	14,0	12,0	45,0	13,2	500/100														
35	25 35	5	A 7-M 5	8,9	17,0	6,5	6,0	34,0	5,3	500/100														
		6	A 7-M 6	8,9	17,0	7,0	6,0	34,5	6,4	500/100														
		8	A 7-M 8	8,9	17,0	9,0	8,0	38,5	8,4	400/100														
		10	A 7-M 10	8,9	19,0	11,0	10,0	42,5	10,5	400/100														
		12	A 7-M 12	8,9	21,0	14,0	12,0	47,5	13,2	300/50														
50	35 50	6	A 10-M 6	10,0	19,0	8,0	7,0	38,5	6,4	200/50														
		8	A 10-M 8	10,0	19,0	9,0	8,0	40,5	8,4	200/50														
		10	A 10-M 10	10,0	20,0	11,5	9,5	44,5	10,5	200/50														
		12	A 10-M 12	10,0	21,0	12,0	12,0	47,5	13,2	200/50														
		14	A 10-M 14	10,0	25,0	16,0	14,0	55,5	15,0	200/50														
		16	A 10-M 16	10,0	26,0	18,0	16,0	59,5	17,0	200/50														
70	50 70	6	A 14-M 6	11,3	21,0	8,0	7,0	44,0	6,4	200/50														
		8	A 14-M 8	11,3	21,0	9,0	8,0	46,0	8,4	200/50														
		10	A 14-M 10	11,3	21,0	11,0	10,0	50,0	10,5	200/50														
		12	A 14-M 12	11,3	22,0	14,0	12,0	55,0	13,2	150/50														
		14	A 14-M 14	11,3	25,0	16,0	14,0	59,0	15,0	100/50														
		16	A 14-M 16	11,3	26,0	18,0	16,0	63,0	17,0	100/50														

◆*Not UL approved*

COPPER TUBE CRIMPING LUGS

for Copper conductors

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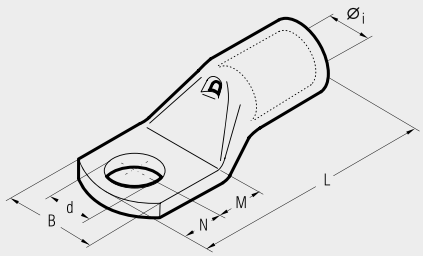


Cond. Size sqmm low stranded	Cond. Size sqmm flexible *	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
95	70 95	6	A 19-M 6	13,5	25,0	8,0	7,0	50,5	6,4	100/25	TN 120 SE**	B 35-45D, B 35-50D, HT 45-E, B 500E, B 55, HT 51, RH 50, HT 81-U, RHU 81, HT 120 and tools and heads with 130 kN crimping force, ECW-H3D, RHU 520
		8	A 19-M 8	13,5	25,0	9,0	8,0	52,5	8,4	100/25		
		10	A 19-M 10	13,5	25,0	11,0	10,0	56,5	10,5	100/25		
		12	A 19-M 12	13,5	25,0	14,0	12,0	61,5	13,2	100/25		
		14	A 19-M 14	13,5	25,0	16,0	14,0	65,5	15,0	100/25		
		16	A 19-M 16	13,5	27,0	18,0	16,0	69,5	17,0	100/25		
		20	A 19-M 20	13,5	29,5	22,0	20,0	77,5	21,0	50/25		
120	95 120	8	A 24-M 8	15,2	28,5	9,0	8,0	54,0	8,4	100/25		
		10	A 24-M 10	15,2	28,5	11,0	10,0	58,0	10,5	100/25		
		12	A 24-M 12	15,2	28,5	14,0	12,0	63,0	13,2	100/25		
		14	A 24-M 14	15,2	28,5	16,0	14,0	67,0	15,0	50/25		
		16	A 24-M 16	15,2	28,5	18,0	16,0	71,0	17,0	50/25		
		20	A 24-M 20	15,2	30,0	22,0	20,0	79,0	21,0	50/25		
150	120 150	8	A 30-M 8	16,7	31,5	13,0	11,0	69,0	8,4	50/25		
		10	A 30-M 10	16,7	31,5	13,0	11,0	69,0	10,5	50/25		
		12	A 30-M 12	16,7	31,5	16,0	14,0	75,0	13,2	50/25		
		14	A 30-M 14	16,7	31,5	18,0	16,0	79,0	15,0	50/25		
		16	A 30-M 16	16,7	31,5	19,0	17,0	81,0	17,0	50/25		
		20	A 30-M 20	16,7	31,5	22,0	20,0	87,0	21,0	50/25		
185	150 185	8	A 37-M 8	19,2	35,5	13,0	11,0	76,0	8,4	50/25		
		10	A 37-M 10	19,2	35,5	13,0	11,0	76,0	10,5	40/20		
		12	A 37-M 12	19,2	35,5	16,0	14,0	82,0	13,2	40/20		
		14	A 37-M 14	19,2	35,5	18,0	16,0	86,0	15,0	30/15		
		16	A 37-M 16	19,2	35,5	19,0	17,0	88,0	17,0	30/15		
		20	A 37-M 20	19,2	35,5	22,0	20,0	94,0	21,0	30/15		
240	185 240	8	A 48-M 8	21,1	39,0	13,0	11,0	77,5	8,4	30/15		
		10	A 48-M 10	21,1	39,0	13,0	11,0	77,5	10,5	30/15		
		12	A 48-M 12	21,1	39,0	14,0	12,0	79,5	13,2	30/15		
		14	A 48-M 14	21,1	39,0	18,0	16,0	92,0	15,0	30/15		
		16	A 48-M 16	21,1	39,0	19,0	17,0	94,0	17,0	30/15		
		20	A 48-M 20	21,1	39,0	22,0	20,0	100,0	21,0	30/15		
300	240 300	10	A 60-M 10	23,7	44,0	20,0	11,0	96,0	10,5	20/10		
		12	A 60-M 12	23,7	44,0	20,0	14,0	99,0	13,2	20/10		
		14	A 60-M 14	23,7	44,0	22,0	16,0	103,0	15,0	20/10		
		16	A 60-M 16	23,7	44,0	22,0	19,0	106,0	17,0	20/10		
		20	A 60-M 20	23,7	44,0	24,0	23,0	112,0	21,0	20/10		
400	300 400	12	A 80-M 12	27,0	51,0	22,0	19,0	113,0	13,2	20/5		
		14	A 80-M 14	27,0	51,0	22,0	19,0	113,0	15,0	20/5		
		16	A 80-M 16	27,0	51,0	22,0	19,0	113,0	17,0	20/5		
		20	A 80-M 20	27,0	51,0	24,0	23,0	119,0	21,0	20/5		
500	400 500	16	A 100-M 16	30,3	56,5	22,0	19,0	117,0	17,0	15/1		
		20	A 100-M 20	30,3	56,5	24,0	23,0	123,0	21,0	15/1		
630	500 630	16	A 120-M 16◆	33,4	61,6	22,0	19,0	128,0	17,0	12/1		
		20	A 120-M 20◆	33,4	61,6	24,0	23,0	134,0	21,0	10/1		
800	630	16	A 160-M 16◆	38,0	72,0	24,0	19,0	141,0	17,0	6/1		
		20	A 160-M 20◆	38,0	72,0	24,0	23,0	145,0	21,0	6/3		
1000	800	16	A 200-M 16◆	44,0	80,0	24,0	19,0	158,0	17,0	6/1		
		20	A 200-M 20◆	44,0	80,0	24,0	23,0	162,0	21,0	6/1		

*Actual conductor section may require a larger lug eg for 120mm² size use A30-... lug.

**See page 109

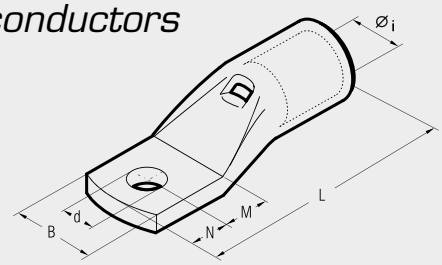
Isolated covers made of PVC for subsequent isolation of the uninsulated connectors, see page 33.

◆Not UL approved

RING TONGUE TERMINALS WITH CONTAINED PALM

A-M

for L.V. circuit breakers
for Copper conductors



File no. E125401

File no. E125401

This range of terminals features contained palm width and has been specifically developed for application on L.V. circuit breakers with reduced space terminal blocks. The contained palm width allows an immediate and easier installation. Cembre terminals are manufactured from electrolytic Copper tube.
The specifically designed section of the barrel and the choice of principal dimensions are optimising the best combination of mechanical strength and electrical conductivity.
These terminals are annealed to guarantee optimum ductility and are electrolytically Tin plated to avoid oxidation. The barrel is provided with an internal taper to ease the introduction of the conductor; furthermore, its length grants a comfortable and correct positioning between dies, during crimping operations.
Each palm is marked with the Cembre logo and part number.

Cond. Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: HN5	HN-A25	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	B 500E	B 55	HT 51	RH 50	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	5	**A 2-M 5/9**	4,6	9,0	6,5	6,0	26,0	5,3	*1000/100*																
16	5	**A 3-M 5/9**	5,8	9,0	6,5	6,0	29,0	5,3	*1000/100*																
25	5	**A 5-M 5/9**	7,0	9,0	6,5	6,0	31,5	5,3	*500/100*																
35	6	**A 7 B-M 6/11.5**	8,9	11,5	8,0	7,0	36,5	6,4	*400/100*																
50	6	**A 10 B-M 6/11.5**	10,0	11,5	8,0	7,0	40,5	6,4	*200/50*																
70	6	**A 14 B-M 6/11.5**	11,3	11,5	8,0	7,0	44,0	6,4	*200/50*																
95	8	**A 19 B-M 8/15.5**	13,5	15,5	9,0	8,0	52,5	8,4	*100/25*																
120	8	**A 24 B-M 8/19**	15,2	19,0	14,0	9,0	60,0	8,4	*100/25*																
	10	**A 24 B-M 10/19**	15,2	19,0	14,0	9,0	60,0	10,5	*100/25*																
150	8	**A 30 B-M 8/19**	16,7	19,0	18,0	9,0	70,0	8,4	*50/25*																
	10	**A 30 B-M 10/19**	16,7	19,0	18,0	9,0	70,0	10,5	*50/25*																
185	10	**A 37 B-M 10/24.5**	19,2	24,5	18,0	9,0	77,0	10,5	*50/25*																
240	10	**A 48-M 10/31**	21,1	31,0	13,0	9,0	80,0	10,5	*30/15*																
	12	**A 48-M 12/31**	21,1	31,0	16,0	12,0	86,0	13,2	*30/15*																
	16	**A 48-M 16/31**	21,1	31,0	19,0	17,0	94,0	17,0	*30/15*																
300	10	**A 60 B-M 10/31**	23,7	31,0	16,0	12,0	95,0	10,5	*20/10*																
	12	**A 60 B-M 12/31**	23,7	31,0	16,0	12,0	95,0	13,2	*20/10*																

Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

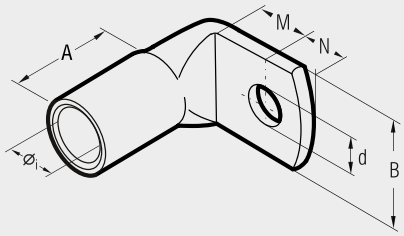
COPPER TUBE CRIMPING LUGS ANGLED 90°

for Copper conductors

A-L

File no. E125401

File no. E125401



Cond. Size sqmm low stranded	Cond. Size sqmm flexible*	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	A	d	Quantity Box/Bag	Mechanical Tools HN1	HN5	HN-425	TN 70 SE	TN 120 SE**	Hydraulic Tools B 15D	B 35-45D	B 35-50D	HT 45-E	B 500E	B 55	HT 51	RH 50	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
6		6	**A 1-L 6**	3,6	11,0	7,0	6,0	9,5	6,4	*2.000/100*																		
10		5	**A 2-L 5**	4,6	10,0	6,5	6,0	10,5	5,3	*1.500/100*																		
		6	**A 2-L 6**	4,6	11,0	7,0	6,0	10,5	6,4	*1.500/100*																		
		8	**A 2-L 8**	4,6	15,0	9,0	8,0	10,5	8,4	*500/100*																		
16		5	**A 3-L 5**	5,8	11,5	6,5	6,0	12,0	5,3	*1.000/100*																		
		6	**A 3-L 6**	5,8	11,5	7,0	6,0	12,0	6,4	*1.000/100*																		
		8	**A 3-L 8**	5,8	15,0	9,0	8,0	12,0	8,4	*1.000/100*																		
		10	**A 3-L 10**	5,8	18,0	11,0	10,0	12,0	10,5	*500/100*																		
25		6	**A 5-L 6**	7,0	14,0	7,0	6,0	13,0	6,4	*500/100*																		
		8	**A 5-L 8**	7,0	15,0	9,0	8,0	13,0	8,4	*500/100*																		
		10	**A 5-L 10**	7,0	18,0	11,0	10,0	13,0	10,5	*500/100*																		
35	25	6	**A 7-L 6**	8,9	17,0	7.0	6,0	15,5	6,4	*500/100*																		
		8	**A 7-L 8**	8,9	17,0	9,0	8,0	15,5	8,4	*300/100*																		
	35	10	**A 7-L 10**	8,9	19,0	11,0	10,0	15,5	10,5	*400/100*																		
		12	**A 7-L 12**	8,9	21,0	14,0	12,0	15,5	13,2	*300/100*																		
50	35	6	**A 10-L 6**	10,0	19,0	8,0	7,0	16,5	6,4	*300/100*																		
		8	**A 10-L 8**	10,0	19,0	9,0	8,0	16,5	8,4	*300/100*																		
	50	10	**A 10-L 10**	10,0	20,0	11,5	9,5	16,5	10,5	*200/50*																		
		12	**A 10-L 12**	10,0	21,0	12,0	12,0	16,5	13,2	*200/50*																		
70	50	8	**A 14-L 8**	11,3	21,0	9,0	8,0	20,0	8,4	*200/50*																		
		10	**A 14-L 10**	11,3	21,0	11,0	10,0	20,0	10,5	*200/50*																		
	70	12	**A 14-L 12**	11,3	22,0	14,0	12,0	20,0	13,2	*150/50*																		
		16	**A 14-L 16**	11,3	26,0	18,0	16,0	20,0	17,0	*150/50*																		
95	70	8	**A 19-L 8**	13,5	25,0	9,0	8,0	24,5	8,4	*100/25*																		
		10	**A 19-L 10**	13,5	25,0	11,0	10,0	24,5	10,5	*100/25*																		
	95	12	**A 19-L 12**	13,5	25,0	14,0	12,0	24,5	13,2	*100/25*																		
120	95	10	**A 24-L 10**	15,2	28,5	11,0	10,0	25,5	10,5	*50/25*																		
	120	12	**A 24-L 12**	15,2	28,5	14,1	12,0	25,5	13,2	*50/25*																		
150	120	10	**A 30-L 10**	16,7	31,5	13,0	11,0	28,5	10,5	*50/25*																		
	150	12	**A 30-L 12**	16,7	31,5	16,0	14,0	28,5	13,2	*50/25*																		
185	150	10	**A 37-L 10**	19,2	31,5	13,0	11,0	31,5	10,5	*50/25*																		
	185	12	**A 37-L 12**	19,2	31,5	16,0	14,0	31,5	13,2	*50/25*																		
240	185 240	12	**A 48-L 12**	21,1	39,0	16,0	14,0	33,0	13,2	*30/15*																		
300	240 300	12	**A 60-L 12**	23,7	39,0	20,0	14,0	42,0	13,2	*20/10*																		

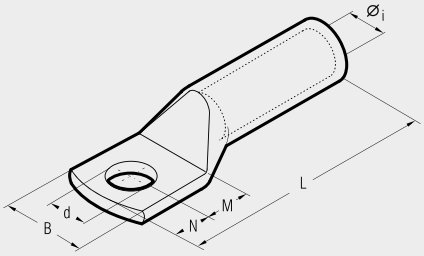
**Actual conductor section may require a larger lug eg for 120mm² size use A30-... lug.*

***See page 109*

A-L series lugs angled 90° are manufactured from electrolytic Copper tube.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.
In applications subject to vibration, terminals still have to perform a reliable connection, annealing plays a vital role in avoiding cracking or breaks between the barrel and palm.
The presence of an inspection hole facilitates full insertion of the conductor, whilst the barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.
Lugs are electrolytically Tin plated to avoid oxidation.
Details of the appropriate crimping tools and dies are shown on pages 196 to 197.

HEAVY DUTY COPPER TUBE TERMINALS

2A-M



2A-M series terminals are made from high purity Copper tube, and are annealed.
They feature a double length barrel for enhanced electrical and mechanical performance in heavy duty applications.
The absence of an inspection hole prevents the entry of water or moisture into the crimped joint making these terminals suitable for outdoor applications.
The terminals are electrolytically Tin plated to prevent atmospheric corrosion.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

2A-2M series terminals with double stud hole palm are also available, please consult us.

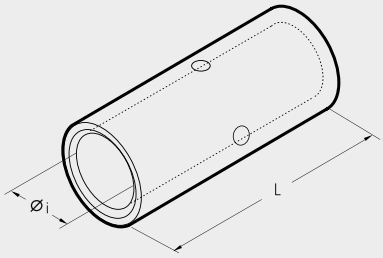
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools			Hydraulic Tools																		
			Øi	B	M	N	L	d		HN5	HN-A25	TN 70 SE	TN 120 SE*	B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 500E	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
16	8	**2 A 3-M 8**	5,8	15,0	9,0	8,0	43,5	8,4	*600/100*																						
	10	**2 A 3-M10**	5,8	18,0	11,0	10,0	47,5	10,5	*500/100*																						
25	8	**2 A 5-M 8**	7,0	15,0	9,0	8,0	51,0	8,4	*400/100*																						
	10	**2 A 5-M 10**	7,0	18,0	11,0	10,0	55,0	10,5	*300/50*																						
	12	**2 A 5-M 12**	7,0	21,0	14,0	12,0	60,0	13,2	*300/50*																						
35	8	**2 A 7-M 8**	8,9	17,0	9,0	8,0	53,0	8,4	*250/50*																						
	10	**2 A 7-M 10**	8,9	19,0	11,0	10,0	57,0	10,5	*250/50*																						
	12	**2 A 7-M 12**	8,9	21,0	14,0	12,0	62,0	13,2	*200/50*																						
50	10	**2 A 10-M 10**	10,0	20,0	11,0	10,0	63,0	10,5	*200/50*																						
	12	**2 A 10-M 12**	10,0	21,0	14,0	12,0	68,0	13,2	*150/50*																						
	14	**2 A 10-M 14**	10,0	25,0	16,0	14,0	72,0	15,0	*150/50*																						
	16	**2 A 10-M 16**	10,0	26,0	18,0	16,0	76,0	17,0	*150/50*																						
63 70	10	**2 A 14-M 10**	11,3	21,0	11,0	10,0	70,0	10,5	*100/50*																						
	12	**2 A 14-M 12**	11,3	22,0	14,0	12,0	75,0	13,2	*100/50*																						
	14	**2 A 14-M 14**	11,3	25,0	16,0	14,0	79,0	15,0	*100/50*																						
	16	**2 A 14-M 16**	11,3	26,0	18,0	16,0	83,0	17,0	*100/50*																						
95	10	**2 A 19-M 10**	13,5	25,0	11,0	10,0	76,5	10,5	*75/25*																						
	12	**2 A 19-M 12**	13,5	25,0	14,0	12,0	81,5	13,2	*75/25*																						
	14	**2 A 19-M 14**	13,5	25,0	16,0	14,0	85,5	15,0	*75/25*																						
	16	**2 A 19-M 16**	13,5	27,0	18,0	16,0	90,5	17,0	*75/25*																						
	20	**2 A 19-M 20**	13,5	29,5	22,0	20,0	97,5	21,0	*75/25*																						
120 125	10	**2 A 24-M 10**	15,2	28,5	11,0	10,0	82,0	10,5	*50/25*																						
	12	**2 A 24-M 12**	15,2	28,5	14,0	12,0	87,0	13,2	*50/25*																						
	14	**2 A 24-M 14**	15,2	28,5	16,0	14,0	91,0	15,0	*50/25*																						
	16	**2 A 24-M 16**	15,2	28,5	18,0	16,0	95,0	17,0	*50/25*																						
	20	**2 A 24-M 20**	15,2	30,0	22,0	20,0	103,0	21,0	*50/25*																						
150	10	**2 A 30-M 10**	16,7	31,5	13,0	11,0	92,0	10,5	*50/25*																						
	12	**2 A 30-M 12**	16,7	31,5	16,0	14,0	98,0	13,2	*30/15*																						
	14	**2 A 30-M 14**	16,7	31,5	18,0	16,0	102,0	15,0	*30/15*																						
	16	**2 A 30-M 16**	16,7	31,5	19,0	17,0	104,0	17,0	*30/15*																						
	20	**2 A 30-M 20**	16,7	31,5	22,0	20,0	110,0	21,0	*30/15*																						
185	12	**2 A 37-M 12**	19,2	35,5	16,0	14,0	108,0	13,2	*30/15*																						
	14	**2 A 37-M 14**	19,2	35,5	18,0	16,0	112,0	15,0	*30/15*																						
	16	**2 A 37-M 16**	19,2	35,5	19,0	17,0	114,0	17,0	*30/15*																						
	20	**2 A 37-M 20**	19,2	35,5	22,0	20,0	120,0	21,0	*30/15*																						
240	12	**2 A 48-M 12**	21,1	39,0	16,0	14,0	109,0	13,2	*20/5*																						
	14	**2 A 48-M 14**	21,1	39,0	18,0	16,0	113,0	15,0	*20/5*																						
	16	**2 A 48-M 16**	21,1	39,0	19,0	17,0	115,0	17,0	*20/5*																						
	20	**2 A 48-M 20**	21,1	39,0	22,0	20,0	121,0	21,0	*25/5*																						
300	12	**2 A 60-M 12**	23,7	44,0	20,0	14,0	129,5	13,2	*20/5*																						
	14	**2 A 60-M 14**	23,7	44,0	22,0	16,0	133,5	15,0	*20/5*																						
	16	**2 A 60-M 16**	23,7	44,0	22,0	19,0	136,5	17,0	*20/5*																						
	20	**2 A 60-M 20**	23,7	44,0	24,0	23,0	142,5	21,0	*20/5*																						
400	12	**2 A 80-M 12**	27,0	51,0	22,0	19,0	140,0	13,2	*15/5*																						
	14	**2 A 80-M 14**	27,0	51,0	22,0	19,0	140,0	15,0	*10/5*																						
	16	**2 A 80-M 16**	27,0	51,0	22,0	19,0	140,0	17,0	*10/5*																						
	20	**2 A 80-M 20**	27,0	51,0	24,0	23,0	146,0	21,0	*15/5*																						
500	16	**2 A 100-M 16**	30,3	56,5	22,0	19,0	147,0	17,0	*10/1*																						
	20	**2 A 100-M 20**	30,3	56,5	24,0	23,0	153,0	21,0	*10/1*																						
630	16	**2 A 120-M 16**	33,4	61,5	22,0	19,0	159,0	17,0	*20/1*																						
	20	**2 A 120-M 20**	33,4	61,5	24,0	23,0	165,0	21,0	*20/1*																						
800	20	**2 A 160-M 20**	38,0	72,0	24,0	23,0	187,0	21,0	*12/1*																						
1000	20	**2 A 200-M 20**	44,0	80,0	24,0	23,0	202,0	21,0	*6/1*																						

*See page 109

THROUGH CONNECTORS

File no. E125401

File no. E125401



L-M

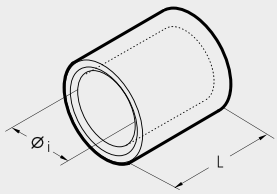
Conductor Size sqmm low stranded	Conductor Size sqmm Flexible	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Mechanical Tools: HN 1	HN 5	HN-A25	TN 70 SE	TN 120 SE*	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	B 500E	B 55	HT 51	RH 50	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
0,25÷1,5	0,25÷1,5	L 03-M	1,8	15	6.000/100	●					●												
1,5÷2,5	1,5÷2,5	L 06-M	2,4	15	4.000/100	●					●												
4÷6	4÷6	L 1-M	3,6	22	2.000/100	●					●												
10	10	L 2-M	4,6	25	1.000/100	●	●				●												
16	16	L 3-M	5,8	27	1.000/100		●	●			●												
25	25	L 5-M	7,0	29	500/100			●	●		●	●	●	●	●	●	●	●	●	●			
35	25÷35	L 7-M	8,9	33	400/100				●		●	●	●	●	●	●	●	●	●	●			
50	35÷50	L 10-M	10,0	37	200/50				●		●	●	●	●	●	●	●	●	●	●			
70	50÷70	L 14-M	11,3	39	200/50				●		●	●	●	●	●	●	●	●	●	●			
95	70÷95	L 19-M	13,5	43	100/25					●	●	●	●	●	●	●	●	●	●	●			
120	95÷120	L 24-M	15,2	47	100/25					●	●	●	●	●	●	●	●	●	●	●			
150	120÷150	L 30-M	16,7	58	50/25					●	●	●	●	●	●	●	●	●	●	●			
185	150÷185	L 37-M	19,2	64	50/25												●	●	●	●	●	●	●
240	185÷240	L 48-M	21,1	75	30/15												●	●	●	●	●	●	●
300	240÷300	L 60-M	23,7	90	20/10												●	●	●	●	●	●	●
400	300÷400	L 80-M	27,0	94	20/5												●	●	●	●	●	●	●
500	400÷500	L 100-M	30,3	98	12/1												●	●	●	●	●	●	●
630	500÷630	L 120-M◆	33,4	105	12/1												●	●	●	●	●	●	●
800	600	L 160-M◆	38,0	112	9/1												●	●	●	●	●	●	●
1000	800	L 200-M◆	44,0	120	6/1												●	●	●	●	●	●	●

*See page 109

◆Not UL approved

L-M range of connectors are designed for jointing low voltage conductors.
Made of electrolytic Copper tube having the same dimension as A-M series lugs: L-M connectors are annealed and electrolytically Tin plated.
They feature an internal taper at both ends to ease the introduction of the conductor and a central stop to ensure correct positioning.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

PARALLEL CONNECTORS



L-P

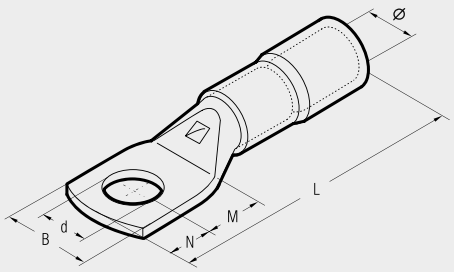
Total Conductor Size sqmm low stranded	Total Conductor Size sqmm Flexible	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Mechanical Tools: HN 1	HN 5	HN-A25	TN 70 SE	TN 120 SE*	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	B 500E	B 55	HT 51	RH 50	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
0,25÷1,5	0,25÷1,5	L 03-P	1,8	6,0	10.000/100	●					●												
1,5÷2,5	1,5÷2,5	L 06-P	2,4	6,0	5.000/100	●					●												
4÷6	4÷6	L 1-P	3,6	9,0	3.000/100	●					●												
10	10	L 2-P	4,6	10,5	3.000/100	●	●				●												
16	16	L 3-P	5,8	11,5	2.000/100		●	●			●												
25	25	L 5-P	7,0	13,0	1.500/100			●	●		●	●	●	●	●	●	●	●	●	●			
35	25÷35	L 7-P	8,9	14,0	500/100				●		●	●	●	●	●	●	●	●	●	●			
50	35÷50	L 10-P	10,0	16,0	500/100				●		●	●	●	●	●	●	●	●	●	●			
70	50÷70	L 14-P	11,3	18,0	500/100				●		●	●	●	●	●	●	●	●	●	●			
95	70÷95	L 19-P	13,5	19,0	300/50					●	●	●	●	●	●	●	●	●	●	●			
120	95÷120	L 24-P	15,2	22,0	200/50					●	●	●	●	●	●	●	●	●	●	●			
150	120÷150	L 30-P	16,7	26,5	100/50					●	●	●	●	●	●	●	●	●	●	●			
185	150÷185	L 37-P	19,2	26,5	100/50												●	●	●	●	●	●	●
240	185÷240	L 48-P	21,1	34,0	60/15												●	●	●	●	●	●	●
300	240÷300	L 60-P	23,7	43,0	50/25												●	●	●	●	●	●	●

*See page 109

Made of electrolytic Copper tube, having the same dimensions as A-M series lugs, L-P connectors are annealed and electrolytically Tin plated.
They feature an internal taper to ease the introduction of the conductor.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS

ANE-M



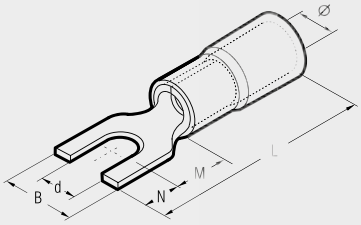
ANE-M series lugs are manufactured from electrolytic Copper tube annealed and Tin plated.
The interior of the PA6.6 insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.
It also eliminates the need to insulate the terminal using either tape or heat shrinkable tubing.
Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance.
The operating temperature range is – 20 to + 115°C (Surge + 130°C).
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.
Details of the appropriate crimping tools and dies are shown on pages 178 to 179.

Cond. Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools HNN3	HNN4	TNN 70	TNN 120	Hydraulic Tools B 15D	B 35-50D	HT 51	RH 50	B 500E	B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	4	ANE 2-M 4	8,0	10,0	5,0	4,0	34,1	4,3	500/100												
	5	ANE 2-M 5	8,0	10,0	6,5	6,0	37,6	5,3	500/100												
	6	ANE 2-M 6	8,0	11,0	7,0	6,0	38,1	6,4	500/100												
	8	ANE 2-M 8	8,0	15,0	9,0	8,0	42,1	8,4	500/100												
	10	ANE 2-M 10	8,0	18,0	11,0	10,0	46,1	10,5	500/100												
	12	ANE 2-M 12	8,0	19,0	14,0	12,0	51,1	13,2	500/100												
16	4	ANE 3-M 4	9,2	11,5	5,0	4,0	38,6	4,3	500/100												
	5	ANE 3-M 5	9,2	11,5	6,5	6,0	42,1	5,3	500/100												
	6	ANE 3-M 6	9,2	11,5	7,0	6,0	42,6	6,4	500/100												
	8	ANE 3-M 8	9,2	15,0	9,0	8,0	46,6	8,4	500/100												
	10	ANE 3-M 10	9,2	18,0	11,0	10,0	50,6	10,5	400/100												
	12	ANE 3-M 12	9,2	20,0	14,0	12,0	55,6	13,2	300/100												
25	4	ANE 5-M 4	11,1	14,0	5,0	4,0	41,0	4,3	300/100												
	5	ANE 5-M 5	11,1	14,0	6,5	6,0	44,5	5,3	300/100												
	6	ANE 5-M 6	11,1	14,0	7,0	6,0	45,0	6,4	300/100												
	8	ANE 5-M 8	11,1	15,0	9,0	8,0	49,0	8,4	300/100												
	10	ANE 5-M 10	11,1	18,0	11,0	10,0	53,0	10,5	300/100												
	12	ANE 5-M 12	11,1	21,0	14,0	12,0	58,0	13,2	250/50												
35	6	ANE 7-M 6	13,6	17,0	7,0	6,0	50,0	6,4	200/50												
	8	ANE 7-M 8	13,6	17,0	9,0	8,0	54,0	8,4	200/50												
	10	ANE 7-M 10	13,6	19,0	11,0	10,0	58,0	10,5	200/50												
	12	ANE 7-M 12	13,6	21,0	14,0	12,0	63,0	13,2	200/50												
50	6	ANE 10-M 6	13,8	19,0	8,0	7,0	53,0	6,4	200/50												
	8	ANE 10-M 8	13,8	19,0	9,0	8,0	55,0	8,4	150/50												
	10	ANE 10-M 10	13,8	20,0	11,5	9,5	59,0	10,5	150/50												
	12	ANE 10-M 12	13,8	21,0	12,0	12,0	62,0	13,2	150/50												
70	6	ANE 14-M 6	15,8	21,0	8,0	7,0	61,0	6,4	100/25												
	8	ANE 14-M 8	15,8	21,0	9,0	8,0	63,0	8,0	100/25												
	10	ANE 14-M 10	15,8	21,0	11,0	10,0	67,0	10,5	100/25												
	12	ANE 14-M 12	15,8	22,0	14,0	12,0	72,0	13,2	100/25												
	14	ANE 14-M 14	15,8	25,0	16,0	14,0	76,0	15,0	100/25												
95	8	ANE 19-M 8	18,0	25,0	9,0	8,0	73,0	8,4	50/25												
	10	ANE 19-M 10	18,0	25,0	11,0	10,0	77,0	10,5	50/25												
	12	ANE 19-M 12	18,0	25,0	14,0	12,0	82,0	13,2	50/25												
	14	ANE 19-M 14	18,0	25,0	16,0	14,0	86,0	15,0	50/25												
	16	ANE 19-M 16	18,0	27,0	18,0	16,0	80,0	17,0	50/25												
120	10	ANE 24-M 10	20,0	28,5	11,0	10,0	77,7	10,5	50/25												
	12	ANE 24-M 12	20,0	28,5	14,0	12,0	86,5	13,2	50/25												
	14	ANE 24-M 14	20,0	28,5	16,0	14,0	88,5	15,0	50/25												
	16	ANE 24-M 16	20,0	28,5	18,0	16,0	90,5	17,0	50/25												
150	12	ANE 30-M 12	23,0	31,5	16,0	14,0	101,0	13,2	30/15												
	14	ANE 30-M 14	23,0	31,5	18,0	16,0	105,0	15,0	30/15												
	16	ANE 30-M 16	23,0	31,5	19,0	17,0	107,0	17,0	30/15												
	20	ANE 30-M 20	23,0	31,5	22,0	20,0	113,0	21,0	30/15												

POLYAMIDE PA6.6 INSULATED FORK TERMINALS

File no. E125401

ANE-U



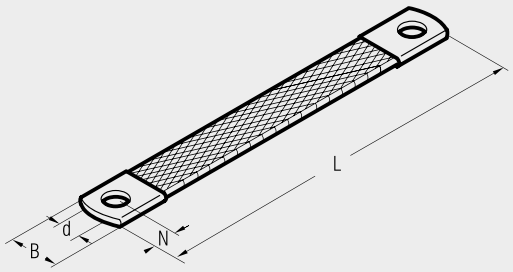
Conductor Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools HNN 3	HNN 4	TNN 70	TNN 120	Hydraulic Tools B 15D	B 35-50D	HT 51 RH 50 B 50E B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	4	**ANE 2-U 4**	8,0	9,8	7,5	7,0	35,1	4,3	*500/100*									
	5	**ANE 2-U 5**	8,0	11,5	7,5	7,0	35,1	5,3	*500/100*									
16	4	**ANE 3-U 4**	9,2	10,0	10,0	8,0	41,1	4,3	*500/100*									
	5	**ANE 3-U 5**	9,2	11,5	10,0	8,0	41,1	5,3	*500/100*									

ANE-U series terminals are made from electrolytic Copper, rolled, Tin plated and brazed.
The interior of the PA6.6 insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.

The operating temperature range is – 20 to + 115°C (Surge + 130°C).
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.
Details of the appropriate crimping tools and dies are shown on pages 178 to 179.

FLEXIBLE BRAIDS

FL



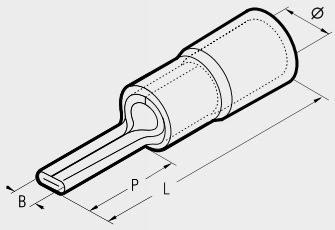
Size sqmm	Ø Stud mm	Ref.	Dimensions mm B	N	L	d	Quantity
10	8	**FL 10-150**	17	10	150	8,5	*50*
	8	**FL 10-200**	17	10	200	8,5	*50*
	8	**FL 10-250**	17	10	250	8,5	*50*
16	8	**FL 16-150**	17	10	150	8,5	*50*
	8	**FL 16-200**	17	10	200	8,5	*50*
	8	**FL 16-250**	17	10	250	8,5	*50*
	8	**FL 16-320**	17	10	320	8,5	*50*
	8	**FL 16-350**	17	10	350	8,5	*50*
	8	**FL 16-420**	17	10	420	8,5	*25*
	8	**FL 16-570**	17	10	570	8,5	*25*
	8	**FL 16-660**	17	10	660	8,5	*25*
25	8	**FL 25-150**	21	10	150	8,5	*50*
	8	**FL 25-200**	21	10	200	8,5	*50*
	8	**FL 25-250**	21	10	250	8,5	*50*
	8	**FL 25-300**	21	10	300	8,5	*50*

Flexible braids are manufactured from electrolytic Copper wire.
Braids of different conductor sizes or lengths are available on request.
Standard finish - bright Copper.

Flexible braids can be supplied Tin plated, in this case add the suffix "ST" to reference.
E.g.:
- FL 10-150 (Bright Copper)
- FL 10-150-ST (Tin plated)

POLYAMIDE PA6.6 INSULATED PIN TERMINALS

ANE-P



File no. E125401

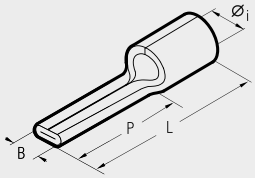
ANE-P series terminals are made from electrolytic Copper, rolled, Tin plated and brazed. The interior of the PA6.6 insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.
The operating temperature range is – 20 to + 115°C (Surge + 130°C).
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.

Conductor Size Flexible sqmm	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag	Mechanical Tools HNN 3	HNN 4	TNN 70	TNN 120	Hydraulic Tools B 15D	B 35-50D	HT 51 RH 50 B 500E B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	**ANE 2-P 12**	8,0	4,3	14,5	35,1	*500/100*									
16	**ANE 3-P 14**	9,2	5,5	18,0	41,1	*500/100*									
25	**ANE 5-P 16**	11,1	7,0	20,3	45,0	*300/100*									
35	**ANE 7-P 20**	13,6	8,0	24,5	55,0	*200/50*									

Details of the appropriate crimping tools and dies are shown on pages 178 to 179.

UNINSULATED PIN CONNECTORS

A-P



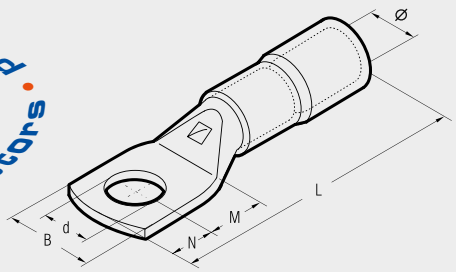
A-P series pin connectors are designed to terminate conductors into contact blocks.
They are manufactured from Copper strip, rolled, brazed and Tin plated.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

Cond. Size sqmm low stranded	flexible *	Ref.	Dimensions mm Øi	B	P	L	Quantity Box/Bag	Mechanical Tools HN 1	HN 5	HN-A25	TN 70 SE	TN 120 SE	Hydraulic Tools B 15D	B 35-45D	HT 45-E	HT 45	HT 51 RH 50 B 500E B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	10	**A 2-P 12**	4,8	4,3	14,5	23,5	*1.000/100*												
16	16	**A 3-P 14**	5,9	5,5	18,0	28,0	*1.500/100*												
25	25	**A 5-P 16**	7,0	7,0	20,3	32,0	*1.000/100*												
35	25÷35	**A 7-P 20**	8,9	8,0	24,5	39,0	*500/100*												
50	35÷50	**A 10-P 25**	10,0	9,5	26,0	45,0	*250/50*												
70	50÷70	**A 14-P 30**	11,5	11,0	31,0	55,0	*200/50*												

POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS

for extra flexible Copper conductors

ANE-M



Conductor Size Extra Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools				
			Ø	B	M	N	L	d		TNN 70	TNN 120	B 35-50D	B 55	B 500E	RH 50	HT 51
35	6	**ANE 9-M 6/15**	13,6	15,0	8,0	7,0	54,0	6,4	*200/50*							
	8	**ANE 9-M 8**	13,6	17,0	9,0	8,0	56,0	8,4	*200/50*							
	10	**ANE 9-M 10**	13,6	18,5	11,0	10.0	60,0	10,5	*150/50*							
	12	**ANE 9-M 12**	13,6	21,0	14,0	12,0	65,0	13,2	*150/50*							
50	6	**ANE 12-M 6/15**	15,7	15,0	8,0	7,0	59,5	6,4	*100/25*							
	8	**ANE 12-M 8**	15,7	19,8	9,0	8,0	61,5	8,4	*100/25*							
	10	**ANE 12-M 10**	15,7	19,8	11,0	10,0	65,5	10,5	*100/25*							
	10	**ANE 12-M 10/19**	15,7	19,0	11,0	10,0	65,5	10,5	*100/25*							
	12	**ANE 12-M 12**	15,7	22,0	14,0	12,0	70,5	13,2	*100/25*							
70	6	**ANE 17-M 6**	17,9	23,0	8,0	7,0	63,8	6,4	*100/25*							
	8	**ANE 17-M 8**	17,9	23,0	9,0	8,0	65,8	8,4	*100/25*							
	10	**ANE 17-M 10**	17,9	23,0	11,0	10,0	69,8	10,5	*50/25*							
	10	**ANE 17-M 10/19**	17,9	19,0	11,0	10,0	69,8	10,5	*100/25*							
	12	**ANE 17-M 12**	17,9	23,0	14,0	12,0	74,8	13,2	*50/25*							
	14	**ANE 17-M 14**	17,9	25,0	15,5	12,0	76,3	15,0	*50/25*							
	16	**ANE 17-M 16**	17,9	27,0	16,5	13,5	78,8	17,0	*50/25*							
95	8	**ANE 20-M 8**	20,0	27,0	9,0	8,0	70,6	8,4	*50/25*							
	10	**ANE 20-M 10**	20,0	27,0	11,0	10,0	74,6	10,5	*50/25*							
	12	**ANE 20-M 12**	20,0	27,0	14,0	12,0	79,6	13,2	*50/25*							
	14	**ANE 20-M 14**	20,0	27,0	15,5	12,0	81,1	15,0	*50/25*							
	16	**ANE 20-M 16**	20,0	27,0	16,5	13,5	83,6	17,0	*50/25*							
120	10	**ANE 29-M 10**	22,4	30,0	11,0	10,0	81,5	10,5	*50/25*							
	12	**ANE 29-M 12**	22,4	30,0	14,0	12,0	86,5	13,2	*50/25*							
	14	**ANE 29-M 14**	22,4	30,0	15,5	12,0	88,5	15,0	*50/25*							
	16	**ANE 29-M 16**	22,4	30,0	16,5	13,5	90,5	17,0	*50/25*							
	20	**ANE 29-M 20**	22,4	30.0	22,0	20,0	102,5	21,0	*50/25*							
150	12	**ANE 35-M 12**	25,0	34,2	16,0	14,0	95,0	13,2	*30/15*							
	14	**ANE 35-M 14**	25,0	34,2	18,0	16,0	99,0	15,0	*30/15*							
	16	**ANE 35-M 16**	25,0	34,2	19,0	17,0	101,0	17,0	*30/15*							
	20	**ANE 35-M 20**	25,0	34,2	22,0	20,0	107,0	21,0	*30/15*							

HT 120 and tools and heads with 130 kN crimping force

ECW-H3D

These lugs are particularly recommended for use with extra flexible conductors on for instance, welding machines.

ANE-M series lugs are manufactured from electrolytic Copper tube annealed and Tin plated.

The interior of the PA6.6 insulated sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.

It also eliminates the need to insulate the terminal using either tape or heat shrinkable tubing.

Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance.

The operating temperature range is – 20 to + 115°C (Surge + 130°C).

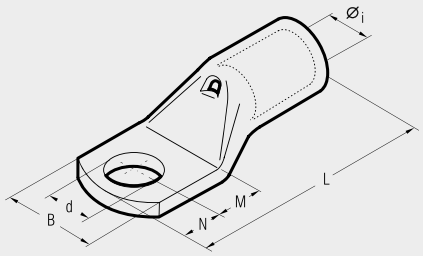
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.

Details of the appropriate crimping tools and dies are shown on pages 178 to 179.

COPPER TUBE CRIMPING LUGS

A-M

for extra flexible Copper conductors



for fine stranded SPECIAL flexible conductors

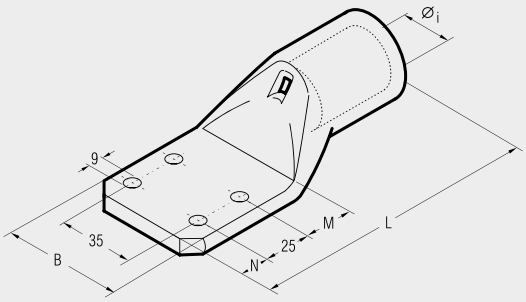
These lugs are particularly recommended for use with extra flexible conductors on for instance, welding machines.
A-M series lugs are designed to suit panel applications.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility and electrolytically Tin plated to avoid oxidation.
The presence of an inspection hole facilitates full insertion of the conductor.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

Conductor Size Extra Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: TN 70 SE	TN 120 SE	Hydraulic Tools: B 35-45D	B 35-50D	HT 45-E	B 55	B 500E	RH 50	HT 51	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
35	6	**A 9-M 6/15**	9,3	15,0	8,0	7,0	38,5	6,4	400/100														
	8	**A 9-M 8**	9,3	17,0	9,0	8,0	40,5	8,4	400/100														
	10	**A 9-M 10**	9,3	18,5	11,0	10,0	44,5	10,5	400/100														
	12	**A 9-M 12**	9,3	21,0	14,0	12,0	49,5	13,2	300/50														
50	6	**A 12-M 6/15**	11,0	15,0	8,0	7,0	40,5	6,4	200/50														
	8	**A 12-M 8**	11,0	19,3	9,0	8,0	42,5	8,4	200/50														
	10	**A 12-M 10**	11,0	19,3	11,0	10,0	46,5	10,5	200/50														
	10	**A 12-M 10/19**	11,0	19,0	11,0	10,0	46,5	10,5	200/50														
	12	**A 12-M 12**	11,0	22,0	14,0	12,0	51,5	13,2	200/50														
70	6	**A 17-M 6**	13,0	23,0	8,0	7,0	45,0	6,4	200/50														
	8	**A 17-M 8**	13,0	23,0	9,0	8,0	47,0	8,4	150/50														
	10	**A 17-M 10**	13,0	23,0	11,0	10,0	51,0	10,5	150/50														
	10	**A 17-M 10/19**	13,0	19,0	11,0	10,0	51,0	10,5	200/50														
	12	**A 17-M 12**	13,0	23,0	14,0	12,0	56,0	13,2	150/50														
	14	**A 17-M 14**	13,0	25,0	15,5	12,0	57,5	15,0	150/25														
	16	**A 17-M 16**	13,0	27,0	16,5	13,5	60,0	17,0	150/25														
95	8	**A 20-M 8**	15,0	27,0	9,0	8,0	50,0	8,4	100/25														
	10	**A 20-M 10**	15,0	27,0	11,0	10,0	54,0	10,5	100/25														
	12	**A 20-M 12**	15,0	27,0	14,0	12,0	59,0	13,2	100/25														
	14	**A 20-M 14**	15,0	27,0	15,5	12,0	60,5	15,0	100/25														
	16	**A 20-M 16**	15,0	27,0	16,5	13,5	63,0	17,0	100/25														
120	8	**A 29-M 8**	16,5	30,0	9,0	8,0	53,5	8,4	100/25														
	10	**A 29-M 10**	16,5	30,0	11,0	10,0	57,5	10,5	100/25														
	12	**A 29-M 12**	16,5	30,0	14,0	12,0	62,5	13,2	100/25														
	14	**A 29-M 14**	16,5	30,0	15,5	12,0	64,0	15,0	100/25														
	16	**A 29-M 16**	16,5	30,0	16,5	13,5	66,5	17,0	100/25														
	20	**A 29-M 20**	16,5	30,0	22,0	20,0	78,5	21,0	75/25														
150	10	**A 35-M 10**	19,2	34,2	13,0	11,0	65,5	10,5	50/25														
	12	**A 35-M 12**	19,2	34,2	16,0	14,0	71,5	13,2	50/25														
	14	**A 35-M 14**	19,2	34,2	18,0	16,0	75,5	15,0	50/25														
	16	**A 35-M 16**	19,2	34,2	19,0	17,0	77,5	17,0	50/25														
	20	**A 35-M 20**	19,2	34,2	22,0	20,0	83,5	21,0	50/25														
185	10	**A 40-M 10**	21,0	37,5	13,0	11,0	73,0	10,5	30/15														
	12	**A 40-M 12**	21,0	37,5	16,0	14,0	79,0	13,2	30/15														
	14	**A 40-M 14**	21,0	37,5	18,0	16,0	83,0	15,0	30/15														
	16	**A 40-M 16**	21,0	37,5	19,0	17,0	85,0	17,0	30/15														
	20	**A 40-M 20**	21,0	37,5	22,0	20,0	91,0	21,0	30/15														

Isolated covers made of PVC for subsequent isolation of the uninsulated connectors, see page 33.

COPPER TUBE LUGS 4-ESI FIXING

A-4ESI



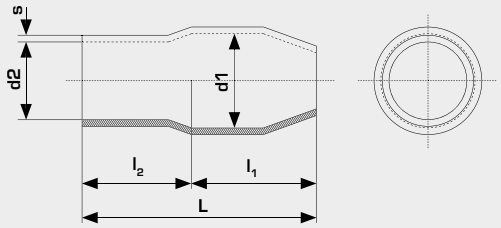
Conductor Size sqmm	Ref.	Dimensions mm					Quantity Box/Bag	Hydraulic Tools				
		Øi	B	M	N	L		HT 51 RH 50 B 500E B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
185	**A 37-4ESI**	19,2	61	20	15	124	*20/10*					
240	**A 48-4ESI**	21,1	61	20	15	128	*20/10*					
300	**A 60-4ESI**	23,7	61	20	15	133	*20/10*					
400	**A 80-4ESI**	27,0	61	20	15	134	*15/5*					
500	**A 100-4ESI**	30,3	61	20	15	139	*10/5*					
630	**A 120-4ESI**	33,4	61	20	15	144	*10/5*					
800	**A 160-4ESI**	38,0	61	20	15	158	*8/4*					

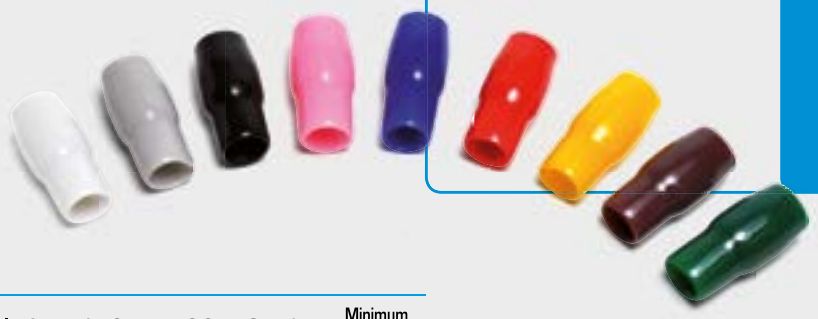
A-4ESI series lugs are made from high purity electrolytic Copper tube, annealed and Tin plated.
The four hole stud fixing in accordance with E.A. specifications ensures compatibility with most transformer fixing arrangements.
Details of the appropriate crimping tools and dies are shown on pages 176 to 177.

INSULATED COVERS

For uninsulated connectors

ES





Ref.	Connectors A-M*	d1 Ø	d2 Ø	l_1 ±1	l_2 ±1	L ± 2	s ± 0.2	Quantity	Minimum Order Qty
ES03-..	***A03***	3.3	3.1	7.0	8.0	15.0	0.6	100	3.000
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-..	***A2***	7.2	6.2	11.0	10.0	21.0	1.0	100	1.000
ES3-..	***A3***	10.0	8.0	15.0	13.0	28.0	1.1	100	
ES5-..	***A5***	12.0	9.5	15.0	14.0	29.0	1.2	100	
ES10-..	***A7, A9, A10***	14.0	11.8	17.0	17.0	34.0	1.4	100	
ES14-..	***A12, A14***	17.0	13.9	22.0	20.0	42.0	1.5	100	500
ES19-..	***A17, A19***	19.0	16.0	25.0	21.0	46.0	1.5	50	
ES24-..	***A20, A24***	22.0	18.0	31.0	24.0	55.0	1.7	50	200
ES30-..	***A29, A30***	24.0	20.0	32.0	28.0	60.0	1.8	50	
ES37-..	***A35, A37***	26.0	22.0	34.0	31.0	65.0	1.8	50	
ES40-..	***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	100
ES80-..	***A60, A80***	36.7	30.0	42.0	33.0	75.0	2.0	25	

Dimensions are in mm
Add the suffix corresponding to the selected colour to the reference:
***-BU** blue, **-GY** grey, **-BR** brown, **-BK** black, **-WH** white, **-RE** red, **-GN** green, **-YE** yellow, **-PK** pink*

** See A-M type copper tube lugs on pages 22-23, 32*
*** Depending on the diameter of the insulated cable*

Insulated covers in PVC for general use with Cembre A-M copper tube lugs characterised by environmental tolerance, flexibility, not inflammability & stable performance. Widely used for the insulation and protection of connections and electrical terminations.

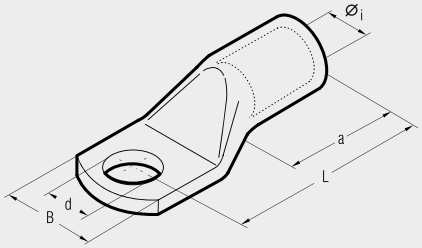
General features:

- **Material**: PVC
- **Self extinguishing (UL94)**: V0
- **Working temperature**: 85 °C
- **Colours**: red, yellow, blue, green, black, grey, white, brown, pink.

COPPER TUBE CRIMPING LUGS ACCORDING TO DIN 46235

DR

for Copper conductors



DR series lugs are manufactured from electrolytic Copper tube and designed to obtain high electrical conductivity combined with the mechanical strength required to resist vibration and pull out.
Cembre lugs are annealed and Tin plated for improved surface protection.
The annealing process optimises the structural features of the material allowing easier crimping and greater resistance to mechanical stresses.
Dimensions are according to DIN 46235.
The barrel entrance of the lug is chamfered to allow easy conductor insertion, while its length facilitates precise positioning in the crimping die.

Each lug is marked with:
- Cembre logo and part code.
- conductor type and csa (mm^2).
- Stud Ø (mm).
- crimping die code

Details of the appropriate crimping tools and dies are shown on page 185.

Consult us for special requirements

Conductor Size sqmm	Ø Stud mm	Ref.	Code	Dimensions mm Øi	d	L	B	a	Quantity Box/Bag	Mechanical Tools: HN-025	TND 6-70	TND 10-120	Hydraulic Tools: B 15D	B 35-45D	B 35-500	HT 45-E	HT 51	RH 50	B 500E	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
6	5	DR6-5	5	3,7	5,3	24,0	8,5	10,0	800/100															
	6	DR6-6	5	3,7	6,4	24,0	9,0	10,0	800/100															
	8	DR6-8*	5	3,7	8,4	26,0	13,0	10,0	800/100															
10	5	DR10-5	6	4,4	5,3	27,5	10,0	10,0	800/100	■	■		■									■	■	■
	6	DR10-6	6	4,4	6,4	27,0	10,0	10,0	800/100	■	■		■									■	■	■
	8	DR10-8*	6	4,4	8,4	28,0	13,0	10,0	800/100	■	■		■									■	■	■
	10	DR10-10*	6	4,4	10,5	28,5	15,0	10,0	800/100	■	■		■									■	■	■
16	5	DR16-5*	8	5,5	5,3	36,0	13,0	20,0	400/100	■	■		■									■	■	■
	6	DR16-6	8	5,5	6,4	36,0	13,0	20,0	400/100	■	■		■									■	■	■
	8	DR16-8	8	5,5	8,4	37,0	13,0	20,0	400/100	■	■		■									■	■	■
	10	DR16-10	8	5,5	10,5	40,0	16,5	20,0	400/100	■	■		■									■	■	■
	12	DR16-12*	8	5,5	13,0	41,0	19,0	20,0	400/100	■	■		■									■	■	■
25	6	DR25-6	10	7,0	6,4	39,0	14,6	20,0	400/100	■	■		■	■								■	■	■
	8	DR25-8	10	7,0	8,4	39,5	16,0	20,0	400/100	■	■		■	■								■	■	■
	10	DR25-10	10	7,0	10,5	40,0	16,0	20,0	200/100	■	■		■	■								■	■	■
	12	DR25-12	10	7,0	13,0	40,5	18,0	20,0	200/100	■	■		■	■								■	■	■
35	6	DR35-6*	12	8,2	6,4	42,5	17,5	20,0	200/100		■		■	■								■	■	■
	8	DR35-8	12	8,2	8,4	42,0	17,0	20,0	200/100		■		■	■								■	■	■
	10	DR35-10	12	8,2	10,5	43,0	19,0	20,0	200/100		■		■	■								■	■	■
	12	DR35-12	12	8,2	13,0	43,0	21,0	20,0	200/100		■		■	■								■	■	■
	16	DR35-16*	12	8,2	17,0	44,0	28,0	20,0	200/100		■		■	■								■	■	■
50	6	DR50-6*	14	10,0	6,4	52,0	20,0	28,0	100/25		■	■	■	■	■							■	■	■
	8	DR50-8	14	10,0	8,4	52,0	20,0	28,0	100/25		■	■	■	■	■							■	■	■
	10	DR50-10	14	10,0	10,5	53,0	22,0	28,0	100/25		■	■	■	■	■							■	■	■
	12	DR50-12	14	10,0	13,0	53,0	24,0	28,0	100/25		■	■	■	■	■							■	■	■
	16	DR50-16	14	10,0	17,0	57,0	28,0	28,0	100/25		■	■	■	■	■							■	■	■
70	8	DR70-8	16	11,5	8,4	56,0	24,0	28,0	50/25		■	■	■	■	■	■						■	■	■
	10	DR70-10	16	11,5	10,5	56,0	24,0	28,0	50/25		■	■	■	■	■	■						■	■	■
	12	DR70-12	16	11,5	13,0	56,0	24,0	28,0	50/25		■	■	■	■	■	■						■	■	■
	16	DR70-16	16	11,5	17,0	60,0	30,0	28,0	50/25		■	■	■	■	■	■						■	■	■
	20	DR70-20*	16	11,5	21,0	84,5	30,0	28,0	50/25		■	■	■	■	■	■						■	■	■
95	8	DR95-8*	18	13,5	8,4	65,0	28,0	35,0	50/25			■	■	■	■	■	■					■	■	■
	10	DR95-10	18	13,5	10,5	66,0	28,0	35,0	50/25			■	■	■	■	■	■					■	■	■
	12	DR95-12	18	13,5	13,0	66,0	28,0	35,0	50/25			■	■	■	■	■	■					■	■	■
	16	DR95-16	18	13,5	17,0	65,5	32,0	35,0	50/25			■	■	■	■	■	■					■	■	■
	20	DR95-20*	18	13,5	21,0	71,0	33,0	35,0	50/25			■	■	■	■	■	■					■	■	■
120	8	DR120-8*	20	15,5	8,4	70,0	31,0	35,0	50/25			■	■	■	■	■	■	■				■	■	■
	10	DR120-10	20	15,5	10,5	70,0	31,0	35,0	50/25			■	■	■	■	■	■	■				■	■	■
	12	DR120-12	20	15,5	13,0	70,5	31,0	35,0	50/25			■	■	■	■	■	■	■				■	■	■
	16	DR120-16	20	15,5	17,0	70,0	31,5	35,0	50/25			■	■	■	■	■	■	■				■	■	■
	20	DR120-20	20	15,5	21,0	72,0	36,0	35,0	50/25			■	■	■	■	■	■	■				■	■	■
150	10	DR150-10	22	17,0	10,5	79,0	34,0	35,0	50/25				■	■	■	■	■	■	■			■	■	■
	12	DR150-12	22	17,0	13,0	78,5	34,0	35,0	50/25				■	■	■	■	■	■	■			■	■	■
	16	DR150-16	22	17,0	17,0	78,0	34,0	35,0	50/25				■	■	■	■	■	■	■			■	■	■
	20	DR150-20	22	17,0	21,0	78,0	38,0	35,0	50/25				■	■	■	■	■	■	■			■	■	■
185	10	DR185-10	25	19,0	10,5	83,0	37,0	40,0	25/25								■	■	■	■	■	■	■	■
	12	DR185-12	25	19,0	13,0	82,5	37,0	40,0	25/25								■	■	■	■	■	■	■	■
	16	DR185-16	25	19,0	17,0	82,0	37,0	40,0	25/25								■	■	■	■	■	■	■	■
	20	DR185-20	25	19,0	21,0	83,0	40,0	40,0	25/25								■	■	■	■	■	■	■	■
240	10	DR240-10*	28	21,5	10,5	92,0	42,0	40,0	20/10															
	12	DR240-12	28	21,5	13,0	92,0	42,5	40,0	20/10															
	16	DR240-16	28	21,5	17,0	92,0	42,5	40,0	20/10															
	20	DR240-20	28	21,5	21,0	92,0	45,0	40,0	20/10															

** Non-standard; dimensions of the tube according to DIN 46.235*

COPPER TUBE CRIMPING LUGS ACCORDING TO DIN 46235

for Copper conductors

DR

Conductor Size sqmm	Ø Stud mm	Ref.	Code	Dimensions mm Øi	d	L	B	a	Quantity Box/Bag	Hydraulic Tools: HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 52D
300	12	**DR300-12***	32	24,5	13,0	104,0	47,0	50,0	*10/5*			
	16	**DR300-16**	32	24,5	17,0	100,0	48,0	50,0	*10/5*			
	20	**DR300-20**	32	24,5	21,0	100,0	47,0	50,0	*10/5*			
400	12	**DR400-12***	38	27,5	13,0	117,0	55,0	70,0	*5/5*			
	16	**DR400-16**	38	27,5	17,0	117,0	55,0	70,0	*5/5*			
	20	**DR400-20**	38	27,5	21,0	117,0	55,0	70,0	*5/5*			
500	12	**DR500-12***	42	31,0	13,0	130,0	60,0	70,0	*5/5*			
	16	**DR500-16***	42	31,0	17,0	130,0	60,0	70,0	*5/5*			
	20	**DR500-20**	42	31,0	21,0	130,0	60,0	70,0	*5/5*			
625	20	**DR625-20**	44	34,5	21,0	135,0	63,0	80,0	*5/5*			

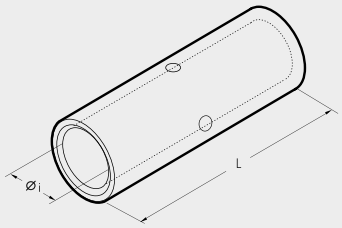
** Non-standard; dimensions of the tube according to DIN 46235*

Consult us for special requirements

CRIMPING THROUGH CONNECTORS ACCORDING TO DIN 46267 T.1

for Copper cables

DSV



Conductor Size sqmm	Ref.	Code	Dimensions mm Øi	L	Quantity Box/Bag	Mechanical Tools: HN-D25	TND 6-70	TND 10-120	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51 RH 50 B500E	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 52D
6	**DSV 6**	5	3,7	30	*1.200/100*												
10	**DSV 10**	6	4,4	30	*1.200/100*												
16	**DSV 16**	8	5,5	50	*400/100*												
25	**DSV 25**	10	7,0	50	*200/100*												
35	**DSV 35**	12	8,2	50	*200/100*												
50	**DSV 50**	14	10,0	56	*200/50*												
70	**DSV 70**	16	11,5	56	*100/50*												
95	**DSV 95**	18	13,5	70	*100/50*												
120	**DSV 120**	20	15,5	70	*50/25*												
150	**DSV 150**	22	17,0	80	*50/25*												
185	**DSV 185**	25	19,0	85	*25/25*												
240	**DSV 240**	28	21,5	90	*15/15*												
300	**DSV 300**	32	24,5	100	*10/5*												
400	**DSV 400**	38	27,5	150	*10/5*												
500	**DSV 500**	42	31,0	160	*5/5*												
625	**DSV 625**	44	34,5	160	*5/5*												

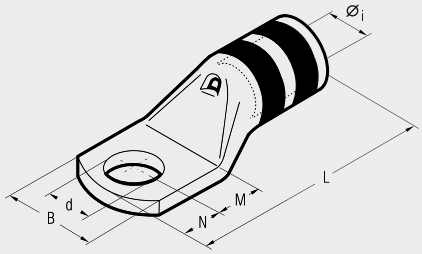
DSV series through connectors are manufactured from electrolytic Copper tube, annealed and surface protected by tin plating.
Internal and external dimensions match those of DR series lugs.
Chamfered ends and a central stop provide easy and correct insertion of the conductor.
Details of the appropriate crimping tools and dies are shown on page 185.

Consult us for special requirements

C

COLOUR CODED COPPER CRIMPING LUGS

for Copper conductors



File no. E125401

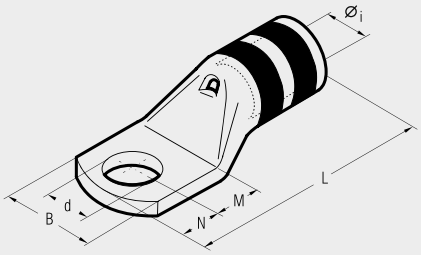
C series lugs are manufactured from electrolytic Copper tube.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility, an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.
In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.
The presence of an inspection hole facilitates full insertion of the conductor. The barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.
Lugs are electrolytically tinplated to avoid oxidation.
The tongue is clearly marked with wire size and die index for Cembre tools.
UL listed for US and Canada per UL486A up to 35 KV.
C series lugs are an important part of Cembre crimping systems for power carrying conductors.
Details of the appropriate crimping tools and dies are shown on page 184.
Cembre technicians are available to provide technical advice as required.
Please consult Cembre for products not listed.

Cond. Size sqmm	Conductor AWG Size	Conductor AWG Navy	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Colour Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
10	8	23	4	C8-8	4,6	10,0	5,0	4,0	22,5	4,3	RED	600/50	TN 70 SE TN 120 SE	B15 B35-50 HT 51 RH 50 B 500E HT 120 and tools and heads with 130 kN crimping force ECW-H3D RHU 520
			5	C8-10	4,6	10,0	6,5	6,0	26,0	5,3		600/50		
			6	C8-14	4,6	11,0	7,0	6,0	26,5	6,4		600/50		
			8	C8-516	4,6	15,0	9,0	8,0	30,5	8,4		600/50		
			10	C8-38	4,6	18,0	11,0	10,0	34,5	10,5		600/50		
			12	C8-12	4,6	19,0	14,0	12,0	39,5	13,2		600/50		
16	6		4	C6-8	5,8	11,5	5,0	4,0	25,5	4,3	BLUE	600/50		
			5	C6-10	5,8	11,5	6,5,0	6,0	29,0	5,3		600/50		
			6	C6-14	5,8	11,5	7,0	6,0	29,5	6,4		600/50		
			8	C6-516	5,8	15,0	9,0	8,0	33,5	8,4		600/50		
			10	C6-38	5,8	18,0	11,0	10,0	37,5	10,5		600/50		
			12	C6-12	5,8	20,0	14,0	12,0	42,5	13,2		400/50		
25	4	40	4	C4-8	6,2	12,5	5,0	4,0	25,5	4,3	GREY	600/50		
			5	C4-10	6,2	12,5	6,5	6,0	29,0	5,3		600/50		
			6	C4-14	6,2	12,5	7,0	6,0	29,5	6,4		600/50		
			8	C4-516	6,2	15,0	9,0	8,0	33,5	8,4		600/50		
			10	C4-38	6,2	18,0	11,0	10,0	37,5	10,5		400/50		
			12	C4-12	6,2	20,0	14,0	12,0	42,5	13,2		400/50		
	3	50	4	C3-8	7,0	14,0	5,0	4,0	28,0	4,3	WHITE	600/50		
			5	C3-10	7,0	14,0	6,5	6,0	31,5	5,3		600/50		
			6	C3-14	7,0	14,0	7,0	6,0	32,0	6,4		600/50		
			8	C3-516	7,0	15,0	9,0	8,0	36,0	8,4		600/50		
			10	C3-38	7,0	18,0	11,0	10,0	40,0	10,5		400/50		
			12	C3-12	7,0	21,0	14,0	12,0	45,0	13,2		400/50		
35	2	60	5	C2-10	7,6	17,0	6,5	6,0	33,0	5,3	BROWN	400/50		
			6	C2-14	7,6	17,0	7,0	6,0	33,5	6,4		400/50		
			8	C2-516	7,6	17,0	9,0	8,0	37,5	8,4		400/50		
			10	C2-38	7,6	19,0	11,0	10,0	41,5	10,5		400/50		
			12	C2-12	7,6	21,0	14,0	12,0	46,5	13,2		200/50		
	1	75	6	C1-14	8,9	17,0	7,0	6,0	34,5	6,4	GREEN	400/50		
			8	C1-516	8,9	17,0	9,0	8,0	38,5	8,4		400/50		
			10	C1-38	8,9	19,0	11,0	10,0	42,5	10,5		400/50		
			12	C1-12	8,9	21,0	14,0	12,0	47,5	13,2		200/50		
50	1/0	100	6	C1/0-14	10,0	19,0	8,0	7,0	40,5	6,4	PINK	200/25		
			8	C1/0-516	10,0	19,0	9,0	8,0	42,5	8,4		200/25		
			10	C1/0-38	10,0	20,0	11,0	10,0	46,5	10,5		200/25		
			12	C1/0-12	10,0	21,0	14,0	12,0	51,5	13,2		200/25		
			14	C1/0-916	10,0	25,0	16,0	14,0	55,5	15,0		200/25		
			16	C1/0-58	10,0	26,0	18,0	16,0	59,5	17,0		200/25		
70	2/0	125	6	C2/0-14	11,3	21,0	8,0	7,0	44,0	6,4	BLACK	200/25		
			8	C2/0-516	11,3	21,0	9,0	8,0	46,0	8,4		200/25		
			10	C2/0-38	11,3	21,0	11,0	10,0	50,0	10,5		200/25		
			12	C2/0-12	11,3	22,0	14,0	12,0	55,0	13,2		200/25		
			14	C2/0-916	11,3	25,0	16,0	14,0	59,0	15,0		100/25		
			16	C2/0-58	11,3	26,0	18,0	16,0	63,0	17,0		100/25		
			20	C2/0-34	11,3	29,5	22,0	20,0	75,0	21,0		100/25		
95	3/0	150	6	C3/0-14	12,4	23,0	8,0	7,0	45,0	6,4	ORANGE	200/25		
			8	C3/0-516	12,4	23,0	9,0	8,0	47,0	8,4		200/25		
			10	C3/0-38	12,4	23,0	11,0	10,0	51,0	10,5		100/25		
			12	C3/0-12	12,4	24,0	14,0	12,0	56,0	13,2		100/25		
			14	C3/0-916	12,4	27,0	16,0	14,0	60,0	15,0		100/25		
			16	C3/0-58	12,4	28,0	18,0	16,0	64,0	17,0		100/25		
			20	C3/0-34	12,4	31,5	22,0	20,0	72,0	21,0		100/25		

COLOUR CODED COPPER CRIMPING LUGS

for Copper conductors

File no. E125401

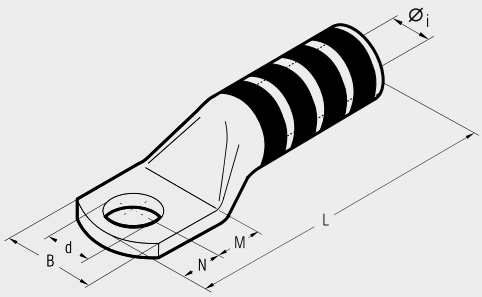


Cond. Size sqmm	Conductor AWG Size	Conductor AWG Navy	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Colour Code	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
	4/0	200	6	C4/0-14	13,5	25,0	8,0	7,0	50,5	6,4	PURPLE	100/25	TN 120 SE	B35-50
			8	C4/0-516	13,5	25,0	9,0	8,0	52,5	8,4		100/25		B 500E
			10	C4/0-38	13,5	25,0	11,0	10,0	56,5	10,5		100/25		RH 50
			12	C4/0-12	13,5	25,0	14,0	12,0	61,5	13,2		100/25		HT 51
			14	C4/0-916	13,5	25,0	16,0	14,0	65,5	15,0		100/25		HT 120 and tools and heads with 130 kN crimping force
			16	C4/0-58	13,5	27,0	18,0	16,0	69,5	17,0		50/25		ECW-H3D
			20	C4/0-34	13,5	29,5	22,0	20,0	77,5	21,0		50/25		RHU 520
120	250 MCM	250	6	C250-14	15,2	28,5	8,0	7,0	52,0	6,4	YELLOW	100/25		
			8	C250-516	15,2	28,5	9,0	8,0	54,0	8,4		100/25		
			10	C250-38	15,2	28,5	11,0	10,0	58,0	10,5		100/25		
			12	C250-12	15,2	28,5	14,0	12,0	63,0	13,2		50/25		
			14	C250-916	15,2	28,5	16,0	14,0	67,0	15,0		50/25		
			16	C250-58	15,2	28,5	18,0	16,0	71,0	17,0		50/25		
			20	C250-34	15,2	30,0	22,0	20,0	79,0	21,0		50/25		
			22	C250-78	15,2	32,0	24,0	23,0	84,0	23,0		50/25		
150	300 MCM	300	8	C300-516	16,7	31,5	13,0	11,0	69,0	8,4	WHITE	40/10		
			10	C300-38	16,7	31,5	13,0	11,0	69,0	10,5		40/10		
			12	C300-12	16,7	31,5	16,0	14,0	75,0	13,2		40/10		
			14	C300-916	16,7	31,5	18,0	16,0	79,0	15,0		40/10		
			16	C300-58	16,7	31,5	19,0	17,0	81,0	17,0		40/10		
			20	C300-34	16,7	31,5	22,0	20,0	87,0	21,0		40/10		
			22	C300-78	16,7	31,5	24,0	23,0	92,0	23,0		40/10		
185	350 MCM	350	10	C350-38	17,6	33,0	13,0	11,0	70,5	10,5	RED	40/20		
			12	C350-12	17,6	33,0	16,0	14,0	76,5	13,2		40/20		
			14	C350-916	17,6	33,0	18,0	16,0	80,5	15,0		40/20		
			16	C350-58	17,6	33,0	19,0	17,0	82,5	17,0		40/20		
			20	C350-34	17,6	33,0	22,0	20,0	88,5	21,0		40/20		
			22	C350-78	17,6	37,0	24,0	23,0	93,5	23,0		30/15		
	400 MCM	400	10	C400-38	19,2	35,5	13,0	11,0	76,0	10,5	BLUE	40/20		
			12	C400-12	19,2	35,5	16,0	14,0	82,0	13,2		40/20		
			14	C400-916	19,2	35,5	18,0	16,0	86,0	15,0		40/20		
			16	C400-58	19,2	35,5	19,0	17,0	88,0	17,0		40/20		
			20	C400-34	19,2	35,5	22,0	20,0	94,0	21,0		40/20		
			22	C400-78	19,2	35,5	24,0	23,0	99,0	23,0		40/20		
240	500 MCM		10	C500-38	21,1	39,0	13,0	11,0	82,0	10,5	BROWN	30/15		
			12	C500-12	21,1	39,0	16,0	14,0	88,0	13,2		30/15		
			14	C500-916	21,1	39,0	18,0	16,0	92,0	15,0		30/15		
			16	C500-58	21,1	39,0	19,0	17,0	94,0	17,0		30/15		
			20	C500-34	21,1	39,0	22,0	20,0	100,0	21,0		20/10		
			22	C500-78	21,1	39,0	24,0	23,0	105,0	23,0		20/10		
300	600 MCM		12	C600-12	23,7	44,0	20,0	14,0	99,0	13,2	GREEN	20/10		
			14	C600-916	23,7	44,0	22,0	16,0	103,0	15,0		20/10		
			16	C600-58	23,7	44,0	22,0	19,0	106,0	17,0		20/10		
			20	C600-34	23,7	44,0	24,0	23,0	112	21,0		10/5		
			22	C600-78	23,7	44,0	24,0	23,0	112,0	23,0		10/5		
	750 MCM		12	C750-12	26,0	48,0	22,0	19,0	113,0	13,2	BLACK	10/5		
			16	C750-58	26,0	48,0	22,0	19,0	113,0	17,0		10/5		
			20	C750-34	26,0	48,0	24,0	23,0	119,0	21,0		10/5		
			22	C750-78	26,0	48,0	24,0	23,0	119,0	23,0		10/5		

COLOUR CODED COPPER CRIMPING LUGS

CL

one hole long barrel for Copper conductors



File no. E125401

CL series lugs are manufactured from electrolytic Copper tube for use in heavy duty applications.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.
In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.
The long barrel provides better mechanical pull-out strenght.
Lugs are electrolytically tinplated to avoid oxidation.
The tongue is clearly marked with wire size and die index for Cembre tools.
UL listed for US and Canada per UL486A up to 35 KV.
CL series lugs are an important part of Cembre crimping systems for power carrying conductors. Details of the appropriate crimping tools and dies are shown on page 184.
Cembre technicians are available to provide technical advice as required.
Please consult Cembre for products not listed.

Cond. Size sqmm	Conductor AWG Size	Conductor AWG Navy	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Colour Code	Quantity Box/Bag	Mechanical Tools: TN 70 SE	Mechanical Tools: TN 120 SE	Hydraulic Tools: B15	Hydraulic Tools: B35-50	Hydraulic Tools: HT 51 RH 50 B 500E	Hydraulic Tools: HT 120 and tools and heads with 130 kN crimping force	Hydraulic Tools: ECW-H3D	Hydraulic Tools: RHU 520
10	8	23	5	CL8-10	4,6	10,0	6,5	6,0	37,5	5,3	RED	400/50	●	●	●	●	●	●	●	●
			6	CL8-14	4,6	11,0	7,0	6,0	38,0	6,4		400/50								
			10	CL8-38	4,6	18,0	11,0	10,0	46,0	10,5		400/50								
16	6		5	CL6-10	5,8	11,5	6,5	6,0	40,0	5,3	BLUE	400/50								
			6	CL6-14	5,8	11,5	7,0	6,0	40,5	6,4		400/50								
			12	CL6-12	5,8	20,0	14,0	12,0	53,5	13,2		400/50								
25	4	40	5	CL4-10	6,2	12,5	6,5	6,0	47,0	5,3	GREY	400/50								
			6	CL4-14	6,2	12,5	7,0	6,0	47,5	6,4		400/50								
			10	CL4-38	6,2	18,0	11,0	10,0	55,5	10,5		400/50								
			12	CL4-12	6,2	20,0	14,0	12,0	60,5	13,2		400/50								
	3	50	6	CL3-14	7,0	14,0	7,0	6,0	47,5	6,4	WHITE	200/100								
			8	CL3-516	7,0	15,0	9,0	8,0	51,5	8,4		200/100								
			10	CL3-38	7,0	18,0	11,0	10,0	55,5	10,5		200/100								
			12	CL3-12	7,0	21,0	14,0	12,0	60,5	13,2		200/100								
35	2	60	5	CL2-10	7,6	17,0	6,5	6,0	46,0	5,3	BROWN	200/50								
			6	CL2-14	7,6	17,0	7,0	6,0	46,5	6,4		200/50								
			8	CL2-516	7,6	17,0	9,0	8,0	50,5	8,4		200/50								
			12	CL2-12	7,6	21,0	14,0	12,0	59,5	13,2		200/50								
	1	75	5	CL1-10	8,9	17,0	6,5	6,0	48,0	5,3	GREEN	200/50								
			8	CL1-516	8,9	17,0	9,0	8,0	52,5	8,4		200/50								
			12	CL1-12	8,9	21,0	14,0	12,0	61,5	13,2		200/50								
50	1/0	100	5	CL1/0-10	10,0	19,0	8,0	7,0	53,5	5,3	PINK	100/50								
			8	CL1/0-516	10,0	19,0	9,0	8,0	55,5	8,4		100/50								
			10	CL1/0-38	10,0	20,0	11,0	10,0	59,5	10,5		100/50								
			12	CL1/0-12	10,0	21,0	14,0	12,0	64,5	13,2		100/50								
70	2/0	125	10	CL2/0-38	11,3	21,0	11,0	10,0	67,5	10,5	BLACK	100/50								
			12	CL2/0-12	11,3	22,0	14,0	12,0	72,5	13,2		100/50								
95	3/0	150	12	CL3/0-12	12,4	24,0	14,0	12,0	71,5	13,2	ORANGE	100/50		●						
	4/0	200	10	CL4/0-38	13,5	25,0	11,0	10,0	73,5	10,5	PURPLE	60/30								
			12	CL4/0-12	13,5	25,0	14,0	12,0	78,5	13,2		60/30								
120	250 MCM	250	12	CL250-12	15,2	28,5	14,0	12,0	84,0	13,2	YELLOW	50/25								
150	300 MCM	300	12	CL300-12	16,7	31,5	16,0	14,0	98,0	13,2	WHITE	30/15								
185	350 MCM	350	12	CL350-12	17,6	33,0	16,0	14,0	98,0	13,2	RED	30/15								
	400 MCM	400	12	CL400-12	19,2	35,5	16,0	14,0	107,0	13,2	BLUE	20/10								
			16	CL400-58	19,2	35,5	19,0	17,0	113,0	17,0		20/10								
240	500 MCM		12	CL500-12	21,1	39,0	16,0	14,0	108,0	13,2	BROWN	20/10								
			16	CL500-58	21,1	39,0	19,0	17,0	114,0	17,0		20/10								
300	600 MCM		12	CL600-12	23,7	44,0	20,0	14,0	128,5	13,2	GREEN	10/5								
			16	CL600-58	23,7	44,0	22,0	19,0	135,5	17,0		10/5								
	750 MCM		12	CL750-12	26,0	48,0	22,0	19,0	140,5	13,2	BLACK	10/5								
			16	CL750-58	26,0	48,0	22,0	19,0	140,5	17,0		10/5								

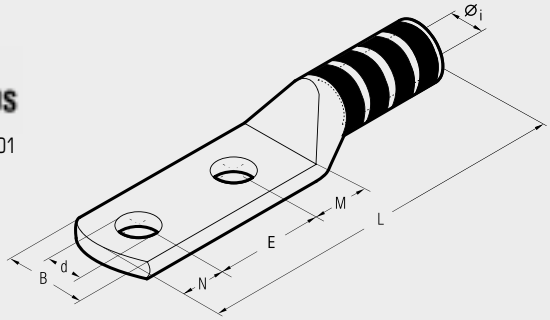
Also available with inspection hole.
In case of order, add suffix IH to the part number.
E.g.: CL250IH-12

COLOUR CODED COPPER CRIMPING LUGS

CL-D

double hole long barrel for Copper conductors

File no. E125401



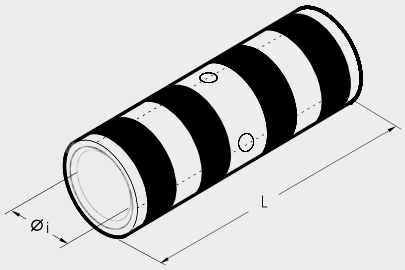
Cond. Size sqmm	Conductor AWG Size	Conductor AWG Navy	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	E	N	L	d	Colour Code	Quantity Box/Bag	Mechanical Tools TN 70 SE	TN 120 SE	Hydraulic Tools B15	B35-50	HT 51 RH 50 B 500E	HT 120 and tools and heads with 130 kN crimping force ECW-H3D	RHU 520
10	8	23	6	CL8-D14	4,6	11,0	7,0	16,0	6,0	53,0	6,4	RED	400/50	●	●	●	●	●	●	●
			6	CL8-D141	4,6	11,0	7,0	19,0	6,0	56,0	6,4		400/50							
			10	CL8-D38	4,6	18,0	11,0	25,5	10,0	70,5	10,5		400/50							
16	6		6	CL6-D14	5,8	11,5	7,0	16,0	6,0	54,5	6,4	BLUE	400/50							
			6	CL6-D141	5,8	11,5	7,0	19,0	6,0	57,5	6,4		400/50							
			10	CL6-D38	5,8	18,0	11,0	25,5	10,0	72,0	10,5		400/50							
			12	CL6-DN	5,8	20,0	14,0	44,5	12,0	96,0	13,2		400/50							
25	4	40	6	CL4-D14	6,2	12,5	7,0	16,0	6,0	62,0	6,4	GREY	200/50							
			6	CL4-D141	6,2	12,5	7,0	19,0	6,0	65,0	6,4		200/50							
			10	CL4-D38	6,2	18,0	11,0	25,5	10,0	79,5	10,5		200/50							
			12	CL4-DN	6,2	20,0	14,0	44,5	12,0	103,5	13,2		200/50							
	3	50	10	CL3-D38	7,0	18,0	11,0	25,5	10,0	79,5	10,5	WHITE	200/50							
			12	CL3-DN	7,0	21,0	14,0	44,5	12,0	103,5	13,2		200/50							
35	2	60	6	CL2-D14	7,6	17,0	7,0	16,0	6,0	61,0	6,4	BROWN	200/50							
			6	CL2-D141	7,6	17,0	7,0	19,0	6,0	64,0	6,4		200/50							
			10	CL2-D38	7,6	19,0	11,0	25,5	10,0	78,5	10,5		100/50							
			10	CL2-DN38	7,6	19,0	11,0	44,5	10,0	97,5	10,5		100/50							
			12	CL2-DN	7,6	21,0	14,0	44,5	12,0	102,5	13,2		100/50							
	1	75	6	CL1-D14	8,9	17,0	7,0	16,0	6,0	63,0	6,4	GREEN	200/50							
			6	CL1-D141	8,9	17,0	7,0	19,0	6,0	66,0	6,4		200/50							
			10	CL1-D38	8,9	19,0	11,0	25,5	10,0	80,5	10,5		100/25							
			12	CL1-DN	8,9	21,0	14,0	44,5	12,0	104,5	13,2		100/25							
50	1/0	100	6	CL1/0-D14	10,0	19,0	7,9	16,0	7,0	68,0	6,4	PINK	100/25							
			6	CL1/0-D141	10,0	19,0	7,9	19,0	7,0	71,0	6,4		100/25							
			10	CL1/0-D38	10,0	20,0	10,9	25,5	10,0	83,5	10,5		100/25							
			12	CL1/0-DN	10,0	21,0	14,0	44,5	12,0	107,5	13,2		100/25							
70	2/0	125	6	CL2/0-D14	11,3	21,0	7,8	16,0	7,0	76,0	6,4	BLACK	60/30							
			6	CL2/0-D141	11,3	21,0	7,8	19,0	7,0	79,0	6,4		60/30							
			10	CL2/0-D38	11,3	21,0	11,0	25,5	10,0	91,5	10,5		60/30							
			12	CL2/0-DN	11,3	22,0	14,0	44,5	12,0	115,5	13,2		60/30							
95	3/0	150	6	CL3/0-D141	12,4	23,3	8,0	19,0	7,0	82,0	6,4	ORANGE	60/30							
			10	CL3/0-D38	12,4	23,3	11,0	25,5	10,0	94,5	10,5		60/30							
			12	CL3/0-DN	12,4	24,0	14,0	44,5	12,0	118,5	13,2		60/30							
	4/0	200	6	CL4/0-D141	13,5	25,0	13,0	19,0	11,0	94,0	6,4	PURPLE	50/25							
			10	CL4/0-D38	13,5	25,0	11,0	25,5	10,0	97,5	10,5		50/25							
			10	CL4/0-DN38	13,5	25,0	11,0	44,5	10,0	116,5	10,5		50/25							
			12	CL4/0-DN	13,5	25,0	14,0	44,5	12,0	121,5	13,2		50/25							
120	250 MCM	250	10	CL250-D38	15,2	28,5	11,0	25,5	10,0	103,0	10,5	YELLOW	40/20							
			12	CL250-DN	15,2	28,5	14,0	44,5	12,0	127,0	13,2		40/20							
150	300 MCM	300	10	CL300-D38	16,7	31,5	13,0	25,5	11,0	116,0	10,5	WHITE	30/15							
			12	CL300-DN	16,7	31,5	16,0	44,5	14,0	141,0	13,2		30/15							
185	350 MCM	350	6	CL350-D141	17,6	33,0	13,0	19,0	11,0	109,5	6,4	RED	30/15							
			10	CL350-D38	17,6	33,0	13,0	25,5	11,0	116,0	10,5		30/15							
			12	CL350-DN	17,6	33,0	16,0	44,5	14,0	141,0	13,2		30/15							
	400 MCM	400	6	CL400-D141	19,2	35,5	13,0	19,0	11,0	118,5	6,4	BLUE	20/10							
			10	CL400-D38	19,2	35,5	13,0	25,5	11,0	125,0	10,5		20/10							
			12	CL400-DN	19,2	35,5	16,0	44,5	14,0	150,0	13,2		20/10							
240	500 MCM		6	CL500-D141	21,1	39,0	13,0	19,0	11,0	119,5	6,4	BROWN	20/10							
			10	CL500-D38	21,1	39,0	13,0	25,5	11,0	126,0	10,5		10/5							
			12	CL500-DN	21,1	39,0	16,0	44,5	14,0	151,0	13,2		10/5							
300	600 MCM		10	CL600-D38	23,7	44,0	20,0	25,5	11,0	149,5	10,5	GREEN	20/5							
			12	CL600-DN	23,7	44,0	20,0	44,5	14,0	171,5	13,2		20/5							
	750 MCM		10	CL750-DN38	26,0	48,0	20,0	44,5	11,0	173,5	10,5	BLACK	15/5							
			10	CL750-D38	26,0	48,0	20,0	25,5	11,0	154,5	10,5		15/5							
			12	CL750-DN	26,0	48,0	20,0	44,5	14,0	176,5	13,2		15/5							

CL series lugs are manufactured from electrolytic Copper tube.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility, an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.
In applications subject to vibration, terminals have to perform a reliable connection, the annealing process plays a vital role in avoiding cracking or breaks between the barrel and palm.
The barrel length has been designed to allow easy and accurate positioning of the dies during the crimping operation.
Lugs are electrolytically tin-plated to avoid oxidation.
The tongue is clearly marked with wire size and die index for Cembre tools.
UL listed for US and Canada per UL486A up to 35 KV.
CL series lugs are an important part of Cembre crimping systems for power carrying conductors.
Details of the appropriate crimping tools and dies are shown on page 184.
Cembre technicians are available to provide technical advice as required.
Please consult Cembre for products not listed.

COLOUR CODED SPLICES

BSCL

long barrel



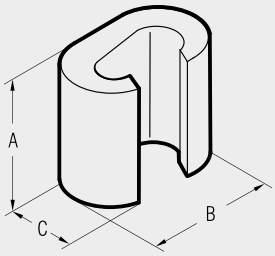
File no. E125401

BSCL range of connectors are designed for jointing low voltage conductors in heavy duty applications.
Made of electrolytic Copper tube having the same dimension as C and CL series lugs, BSCL connectors are annealed and electrolytically Tin plated.
They feature an internal taper at both ends to ease the introduction of the conductor and a central stop to ensure correct positioning. **UL listed for US and Canada per UL486A up to 35 KV.**
Appropriate crimping tools and dies are shown in details on page 184.

Conductor Size sqmm	Conductor Size AWG	Ref.	Dimensions mm Øi	Dimensions mm L	Colour Code	Quantity Box/Bag	Mechanical Tools: HN1	Mechanical Tools: HN5	Mechanical Tools: TN 70 SE	Mechanical Tools: TN 120 SE	Hydraulic Tools: B15	Hydraulic Tools: B35-50	Hydraulic Tools: HT 51 RH 50 B 500E	Hydraulic Tools: HT 120 and tools and heads with 130 kN crimping force	Hydraulic Tools: ECW-H3D	Hydraulic Tools: RHU 520
10	*8*	**BSCL8**	4,6	50,5	RED	*600/150*	●	●	●	●	●	●	●	●	●	●
16	*6*	**BSCL6**	5,8	50,5	BLUE	*400/100*		●	●	●	●	●	●	●	●	●
25	*4*	**BSCL4**	6,2	60,5	GREY	*200/100*			●	●	●	●	●	●	●	●
	3	**BSCL3**	7,0	60,5	WHITE	*200/50*			●	●	●	●	●	●	●	●
35	*2*	**BSCL2**	7,6	60,5	BROWN	*200/50*			●	●	●	●	●	●	●	●
	1	**BSCL1**	8,9	65,5	GREEN	*200/50*			●	●	●	●	●	●	●	●
50	*1/0*	**BSCL1/0**	10,0	73,0	PINK	*200/50*			●	●	●	●	●	●	●	●
70	*2/0*	**BSCL2/0**	11,3	79,0	BLACK	*100/50*			●	●	●	●	●	●	●	●
95	*3/0*	**BSCL3/0**	12,4	79,0	ORANGE	*80/40*				●	●	●	●	●	●	●
	4/0	**BSCL4/0**	13,5	85,5	PURPLE	*50/25*				●	●	●	●	●	●	●
120	*250 MCM*	**BSCL250**	15,2	85,5	YELLOW	*50/25*				●	●	●	●	●	●	●
150	*300 MCM*	**BSCL300**	16,7	104,5	WHITE	*40/20*				●	●	●	●	●	●	●
185	*350 MCM*	**BSCL350**	17,6	104,5	RED	*40/20*							●	●	●	●
	400 MCM	**BSCL400**	19,2	111,0	BLUE	*20/10*							●	●	●	●
240	*500 MCM*	**BSCL500**	21,1	117,0	BROWN	*20/10*							●	●	●	●
300	*600 MCM*	**BSCL600**	23,7	139,5	GREEN	*20/10*								●	●	●
	750 MCM	**BSCL750**	26,0	149,0	BLACK	*10/10*								●	●	●

SLEEVE CONNECTORS

C-C



Tin plated version

Conductor Size sqmm Run	Tap	Ref.	Dimensions mm A	B	C	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
6÷2,5	6÷1,5	**C 6-C 6 ST**	9,0	9,8	6,4	1.000/100	HP4-C10	B 35-45D, B 35-500, HT 45-E, B 500E, B 55, HT 51, RH 50, HT 81-U, RHU 81, HT 120 and tools and heads with 130 kN crimping force, ECW-H3D
10	10÷1,5	**C 10-C 10 ST**	12,0	12,6	8,4	500/100		
16	16÷1,5	**C 16-C 16 ST**	17,0	19,4	12,0	500/100		
25÷16	10÷1,5	**C 25-C 10 ST**	17,0	19,8	13,0	400/50		
25	25÷16	**C 25-C 25 ST**	17,0	21,4	13,0	300/50		
40÷35	16÷1,5	**C 35-C 16 ST**	21,0	24,6	15,4	200/25		
40÷35	40÷25	**C 35-C35 ST**	21,0	26,6	15,6	200/25		
50	25÷10							
70÷63	25÷1,5	**C 70-C 25 N ST**	21,0	26,4	17,5	200/25		
50	25÷4	**C 50-C 25 ST**	25,0	32,9	21,0	100/25		
50	50÷35	**C 50-C 50 ST**	26,0	33,0	21,0	100/25		
70÷50	40÷4	**C 70-C 35 ST**	28,0	33,0	21,0	100/25		
70÷50	70÷35	**C 70-C 70 ST**	28,0	34,0	21,0	100/25		
100÷95	40÷4	**C 95-C 35 ST**	29,0	40,6	26,0	50/25		
100÷95	70÷40	**C 95-C 70 ST**	29,0	41,0	26,0	50/25		
100÷95	100÷63	**C 95-C 95 ST**	29,0	41,0	26,0	50/25		
125÷110	125÷25	**C 120-C 120 ST**	30,0	45,0	28,0	50/25		
160÷150	125÷25	**C 150-C 120 ST**	31,0	45,0	28,0	50/25		
150	150÷63	**C 150-C 150 ST**	30,0	45,0	28,0	50/25		
185	100÷16	**C 185-C 95 ST**	31,0	45,0	28,0	50/25		
185÷120	185÷120	**C 185-C 185 ST**	22,6	68,0	34,0	30/15		
240÷150	120÷95	**C 240-C 120 ST**	22,6	68,0	34,0	30/15		

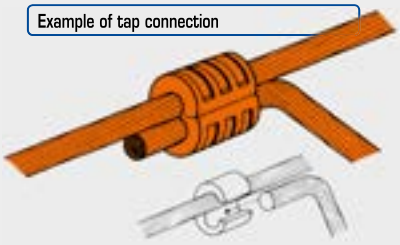
bright surface version

Conductor Size sqmm Run	Tap	Ref.	Dimensions mm A	B	C	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
6÷2,5	6÷1,5	**C 6-C 6**	9,0	9,8	6,4	1.000/100	HP4-C10	B 35-45D, B 35-500, HT 45-E, B 500E, B 55, HT 51, RH 50, HT 81-U, RHU 81, HT 120 and tools and heads with 130 kN crimping force, ECW-H3D
10	10÷1,5	**C 10-C 10**	12,0	12,6	8,4	500/100		
16	16÷1,5	**C 16-C 16**	17,0	19,4	12,0	500/100		
25÷16	10÷1,5	**C 25-C 10**	17,0	19,8	13,0	400/50		
25	25÷16	**C 25-C 25**	17,0	21,4	13,0	300/50		
40÷35	16÷1,5	**C 35-C 16**	21,0	24,6	15,4	200/25		
40÷35	40÷25	**C 35-C35**	21,0	26,6	15,6	200/25		
50	25÷10							
70÷63	25÷1,5	**C 70-C 25 N**	21,0	26,4	17,5	200/25		
50	25÷4	**C 50-C 25**	25,0	32,9	21,0	100/25		
50	50÷35	**C 50-C 50**	26,0	33,0	21,0	100/25		
70÷50	40÷4	**C 70-C 35**	28,0	33,0	21,0	100/25		
70÷50	70÷35	**C 70-C 70**	28,0	34,0	21,0	100/25		
100÷95	40÷4	**C 95-C 35**	29,0	40,6	26,0	50/25		
100÷95	70÷40	**C 95-C 70**	29,0	41,0	26,0	50/25		
100÷95	100÷63	**C 95-C 95**	29,0	41,0	26,0	50/25		
125÷110	125÷25	**C 120-C 120**	30,0	45,0	28,0	50/25		
160÷150	125÷25	**C 150-C 120**	31,0	45,0	28,0	50/25		
150	150÷63	**C 150-C 150**	30,0	45,0	28,0	50/25		
185	100÷16	**C 185-C 95**	31,0	45,0	28,0	50/25		
185÷120	185÷120	**C 185-C 185**	22,6	68,0	34,0	30/15		
240÷150	120÷95	**C 240-C 120**	22,6	68,0	34,0	30/15		

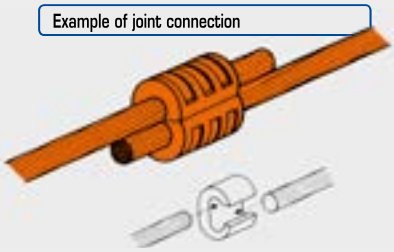
"C" connectors are manufactured from high purity Copper profiles and are suitable for a variety of uses either to create an earthing network or tapping off from overhead distribution lines. Each connector is marked as follows:
- Cembre trade mark
- Reference number
- Conductor size-Run
- Conductor size-Tap
- Number of crimps
- Die reference.

Details of the appropriate crimping tools and dies are shown on page 180.

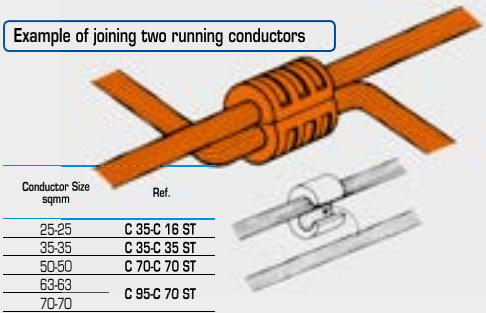
Example of tap connection



Example of joint connection

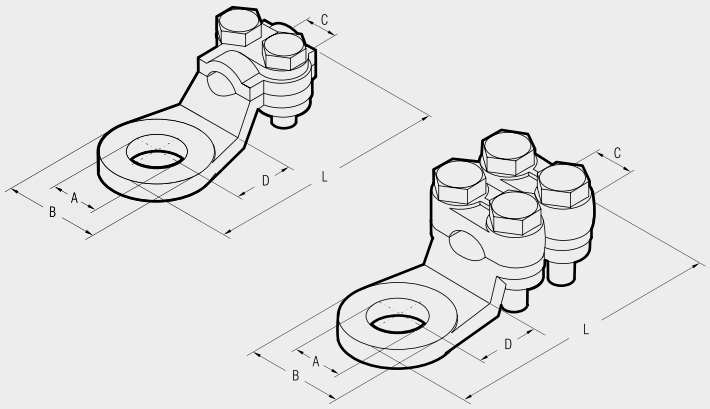


Example of joining two running conductors



Conductor Size sqmm	Ref.
25-25	C 35-C 16 ST
35-35	C 35-C 35 ST
50-50	C 70-C 70 ST
63-63	C 95-C 70 ST
70-70	
95-95	C 150-C 120 ST
120-120	
125-125	C 150-C 150
120-120	C 185-C 95 ST
125-125	

MECHANICAL FIXING LUGS



Material:
Brass CB754S EN 1982
Nickel plated.
Zinc plated Steel bolts.

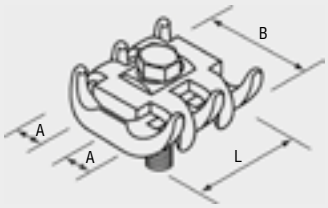
2 bolt fixing lugs

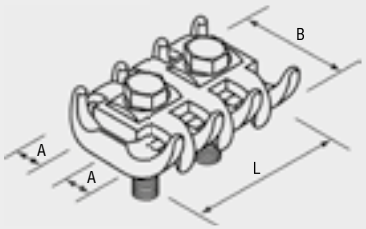
Conductor Size sqmm	Ref.	A bolt	Dimensions mm				Quantity
			B	C	D	L	
16	**2155**	M8	18,0	4,5	12,5	39	*100*
16	**2171**	M10	18,0	4,5	12,5	39	*100*
25	**2156**	M8	19,5	6,0	13,0	43	*100*
25	**2172**	M10	19,5	6,0	13,0	43	*100*
35	**2157**	M12	23,0	7,0	15,0	49	*50*
35	**2173**	M14	23,0	7,0	15,0	49	*50*
50	**2174**	M14	25,0	8,0	17,0	56	*50*

4 bolt fixing lugs

Conductor Size sqmm	Ref.	A bolt	Dimensions mm				Quantity
			B	C	D	L	
50	**2158**	M12	23,5	8	16,0	57	*50*
75	**2160**	M12	28,0	10	20,0	65	*25*
75	**2176**	M16	28,0	10	20,0	65	*25*
100	**2161**	M12	31,0	13	17,0	66	*25*
125	**2162**	M15	33,0	14	18,0	71	*25*
150	**2163**	M14	34,0	16	19,5	75	*25*
175	**2164**	M15	36,0	16	21,0	78	*25*

CABLE CLAMPS





Single bolt fixing

Conductor Size sqmm	Ref.	Ø A for cable mm	Dimensions mm		Quantity
			B	L	
6÷16	**2323**	3÷ 5	24	20	*50*
16÷50	**2326**	5÷ 8	30	25	*50*
35÷70	**2329**	7÷12	40	30	*25*

Material:
Brass CB754S EN 1982
Zinc plated Steel bolts.
Zinc plated Steel nut.

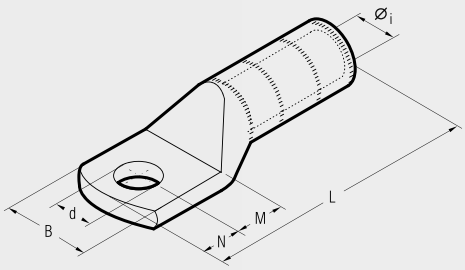
2 bolt fixing

Conductor Size sqmm	Ref.	Ø A for cable mm	Dimensions mm		Quantity
			B	L	
6÷16	**2333**	3÷ 5	27	32	*50*
16÷50	**2336**	5÷ 8	32	40	*50*
35÷70	**2339**	7÷12	40	44	*25*
50÷95	**2342**	8÷14	48	48	*10*
70÷150	**2344**	12÷16	51	53	*10*
150÷300	**2346***	16÷22	66	66	*5*

** Stainless Steel bolts*

HIGH VOLTAGE COPPER TERMINALS

CA-M
2A-M



Series CA-M and 2A-M terminals are designed for high voltage applications up to 33 kV.
They are manufactured from high purity Copper tube, annealed and Tin plated.
The extended barrel enhances both electrical and mechanical performance. The absence of an inspection hole prevents moisture entry into the crimped joint and makes these terminals suitable for outdoor applications.
Details of the appropriate crimping tools and dies are shown on page 180.

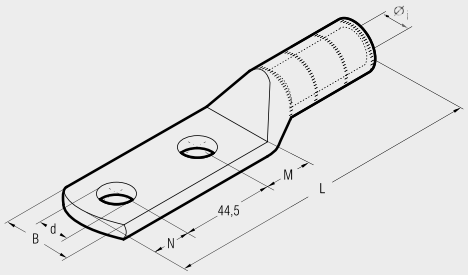
Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Hydraulic Tools
25 R/BR/BS*	8	CA 25-M 8	6,8	14,0	9	8	65,0	8,4	300/50	B35-50D
	10	CA 25-M 10	6,8	18,0	13	11	72,0	10,5	200/50	
	12	CA 25-M 12	6,8	21,0	16	14	78,0	13,2	200/50	
30 RC/S ÷ 40 S	12	CA 40 S-M 12	8,2	21,0	16	14	79,0	13,2	150/50	
	16	CA 40 S-M 16	8,2	26,0	19	17	85,0	17,0	100/50	
35 BR/BS*	10	CA 35-M 10	8,25	21,0	13	11	73,0	10,5	150/50	
	12	CA 35-M 12	8,25	21,0	16	14	79,0	13,2	150/50	
	16	CA 35-M 16	8,25	26,0	19	17	85,0	17,0	150/50	
50 RC	12	CA 50 R-M 12	8,7	20,5	16	14	79,0	13,2	150/50	
50 S	12	CA 50 S-M 12	9,5	21,0	16	14	79,0	13,2	150/50	
	16	CA 50 S-M 16	9,5	26,0	19	17	85,0	17,0	100/50	
50 BR/BS*	10	CA 50-M 10	9,5	21,0	13	11	73,0	10,5	150/50	
	12	CA 50-M 12	9,5	21,0	16	14	79,0	13,2	150/50	
	14	CA 50-M 14	9,5	25,0	18	16	83,0	15,0	100/50	
	16	CA 50-M 16	9,5	26,0	19	17	85,0	17,0	100/50	
63 S ÷ 70 S	12	CA 70 S-M 12	11,0	28,0	16	14	81,2	13,2	50/25	HT 51 RH 50 B 500E B 55 HT 81-U RHU 81
	16	CA 70 S-M 16	11,0	30,0	19	17	87,2	17,0	50/25	
70 BR/BS*	10	CA 70 S-M 10	11,0	26,0	13	11	75,2	10,5	50/25	
	12	CA 70 S-M 12	11,0	28,0	16	14	81,2	13,2	50/25	
	14	CA 70 S-M 14	11,0	28,0	18	16	85,2	15,0	50/25	
	16	CA 70 S-M 16	11,0	30,0	19	17	87,2	17,0	50/25	
80 S ÷ 95 RC	12	CA 95 R-M 12	12,0	28,0	16	14	91,0	13,2	50/25	
	14	CA 95 R-M 14	12,0	29,0	18	16	95,0	15,0	50/25	
95 S ÷ 100 S	12	CA 95 S-M 12	13,5	28,0	16	14	91,0	13,2	50/25	
	14	CA 95 S-M 14	13,5	29,0	18	16	94,5	15,0	50/25	
	16	CA 95 S-M 16	13,5	30,0	20	17	97,0	17,0	50/25	
95 BR/BS*	10	CA 95-M 10	13,5	28,0	13	11	85,0	10,5	50/25	
	12	CA 95-M 12	13,5	28,0	16	14	91,0	13,2	50/25	
	16	CA 95-M 16	13,5	30,0	20	17	97,0	17,0	50/25	
120 RC/S ÷ 150 RC	12	CA 150 R-M 12	15,0	31,0	16	14	97,0	13,2	30/15	
	14	CA 150 R-M 14	15,0	31,0	18	16	101,0	15,0	30/15	
120 BR/BS*	12	CA 120-M 12	15,0	31,0	16	14	97,0	13,2	30/15	
	16	CA 120-M 16	15,0	31,0	19	17	103,0	17,0	30/15	
150 S ÷ 160 RC	12	CA 150 S-M 12	16,5	32,0	16	14	97,0	13,2	30/15	
	14	CA 150 S-M 14	16,5	32,0	18	16	101,0	15,0	30/15	
150 BR/BS*	12	CA 150-M 12	16,5	32,0	16	14	97,0	13,2	30/15	
	16	CA 150-M 16	16,5	32,0	19	17	103,0	17,0	30/15	
160 S ÷ 200 RC	14	CA 200 R-M 14	17,0	32,5	18	16	101,0	15,0	30/15	
185 BR/BS*	12	CA 185-M 12	18,0	33,5	16	14	97,0	13,2	30/15	
	16	CA 185-M 16	18,0	33,5	19	17	103,0	17,0	30/15	
200 S ÷ 240 RC	14	CA 240 R-M 14	19,2	43,0	18	16	107,0	15,0	15/5	HT 120 and tools and heads with 130 kN crimping force
240 S ÷ 315 RC	14	CA 315 R-M 14	21,5	43,0	18	16	105,0	15,0	15/5	
240 BR/BS*	12	CA 240-M 12	20,5	42,0	16	14	103,0	13,2	15/5	
	16	CA 240-M 16	20,5	42,0	19	17	109,0	17,0	15/5	
	20	CA 240-M 20	20,5	42,0	22	20	115,0	21,0	15/5	
300 BR/BS*	12	CA 300-M 12	23,0	43,5	16	14	109,5	13,2	15/5	
	16	CA 300-M 16	23,0	43,5	19	17	115,5	17,0	15/5	
	20	CA 300-M 20	23,0	43,5	22	20	121,5	21,0	15/5	
315 S	14	CA 315 S-M 14	23,7	44,0	18	16	105,0	15,0	15/5	
400 R	14	2 A 80-M 14	27,0	51,0	22	19	140,0	15,0	15/5	
	16	2 A 80-M 16	27,0	51,0	22	19	140,0	17,0	15/5	
	20	2 A 80-M 20	27,0	51,0	24	23	146,0	21,0	15/5	
500 R	16	2 A 100-M 16	30,3	56,5	22	19	147,0	17,0	10/1	ECW-H3D
	20	2 A 100-M 20	30,3	56,5	24	23	153,0	21,0	10/1	
600 R ÷ 630 R	16	2 A 120-M 16	33,4	61,5	22	19	159,0	17,0	20/1	RHU 520
	20	2 A 120-M 20	33,4	61,5	24	23	165,0	21,0	20/1	

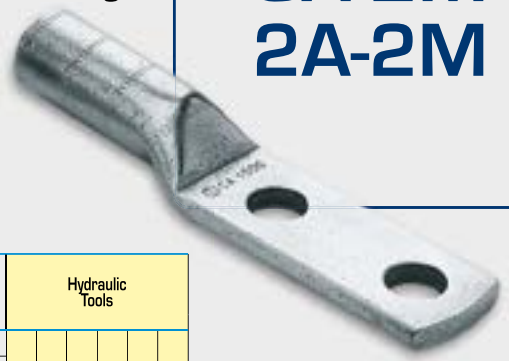
Conductor Format: R = Round, RC = Round Compact, S = Sector, BR = IEC228 (BS6360) Round, BS = IEC228 (BS6360) Sector*
** = Pre-rounding required, consult Cembre for appropriate die set*

HIGH VOLTAGE TERMINALS

CA-2M
2A-2M

two hole fixing



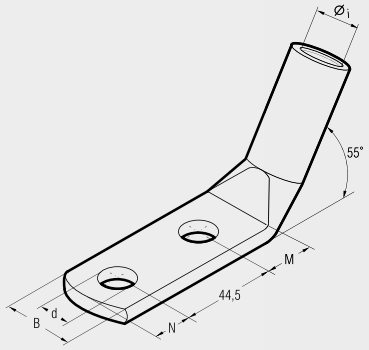


Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools							
			Øi	B	M	N	L	d		B35-50D	B 55	B 500E	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
25 R	8	**CA 25-2 M 8**	6,8	14,0	10	11	113,5	8,4	*200/50*								
	12	**CA 25-2 M 12**	6,8	21,0	16	14	122,5	13,2	*150/50*								
25 BR/BS*	8	**CA 25-2 M 8**	6,8	14,0	10	11	113,5	8,4	*200/50*								
	10	**CA 25-2 M 10**	6,8	18,0	13	11	116,5	10,5	*150/50*								
	12	**CA 25-2 M 12**	6,8	21,0	16	14	122,5	13,2	*150/50*								
30 RC/S ÷ 40 S	12	**CA 40 S-2 M 12**	8,2	21,5	16	14	123,5	13,2	*100/50*								
35 BR/BS*	12	**CA 35-2 M 12**	8,25	21,5	16	14	123,5	13,2	*100/50*								
50 RC	12	**CA 50 R-2 M 12**	8,7	20,5	16	14	123,5	13,2	*100/50*								
50 S	12	**CA 50 S-2 M 12**	9,5	21,0	16	14	123,5	13,2	*100/50*								
50 BR/BS*	12	**CA 50-2 M 12**	9,5	21,0	16	14	123,5	13,2	*100/50*								
63 S ÷ 70 S	12	**CA 70 S-2 M 12**	11,0	27,0	16	14	127,7	13,2	*50/25*								
70 BR/BS*	12	**CA 70 S-2 M 12**	11,0	27,0	16	14	127,7	13,2	*50/25*								
80 S ÷ 95 RC	14	**CA 95 R-2 M 14**	12,0	28,0	18	16	139,5	15,0	*30/15*								
95 S ÷ 100 S	14	**CA 95 S-2 M 14**	13,5	29,0	18	16	139,5	15,0	*30/15*								
95 BR/BS*	12	**CA 95-2 M 12**	13,5	28,0	16	14	135,5	13,2	*30/15*								
120 RC/S ÷ 150 RC	14	**CA 150 R-2 M 14**	15,0	31,0	18	16	145,5	15,0	*30/15*								
120 BR/BS*	12	**CA 120-2 M 12**	15,0	31,0	16	14	141,5	13,2	*30/15*								
150 S ÷ 160 RC	14	**CA 150 S-2 M 14**	16,5	32,0	18	16	145,5	15,0	*30/15*								
150 BR/BS*	12	**CA 150-2 M 12**	16,5	32,0	16	14	141,5	13,2	*30/15*								
160 S ÷ 200 RC	14	**CA 200 R-2 M 14**	17,0	32,5	18	16	145,0	15,0	*30/15*								
185 BR/BS*	12	**CA 185-2 M 12**	18,0	32,5	16	14	141,5	13,2	*30/15*								
200 S ÷ 240 RC	14	**CA 240 R-2 M 14**	19,2	43,0	18	16	151,5	15,0	*15/5*								
240 S ÷ 315 RC	14	**CA 315 R-2 M 14**	21,5	43,0	18	16	149,5	15,0	*20/5*								
240 BR/BS*	12	**CA 240-2 M 12**	20,5	43,0	16	14	147,5	13,2	*15/5*								
300 BR/BS*	12	**CA 300-2 M 12**	23,0	43,0	16	14	145,5	13,2	*20/5*								
315 S	14	**CA 315 S-2 M 14**	23,7	44,0	18	16	149,5	15,0	*20/5*								
400 R	12	**2 A 80-2 M 12**	27,0	51,0	20	14	177,5	13,2	*15/5*								
	14	**2 A 80-2 M 14**	27,0	51,0	22	16	181,5	15,0	*15/5*								
	16	**2 A 80-2 M 16**	27,0	51,0	22	19	184,5	17,0	*15/5*								
500 R	14	**2 A 100-2 M 14**	30,3	56,5	22	16	182,5	15,0	*10/5*								
	16	**2 A 100-2 M 16**	30,3	56,5	22	19	185,5	17,0	*10/5*								
600 R ÷ 630 R	14	**2 A 120-2 M 14**	33,4	61,5	22	16	200,5	15,0	*15/5*								
	16	**2 A 120-2 M 16**	33,4	61,5	22	19	202,5	17,0	*15/5*								

Conductor Format: R = Round, RC = Round Compact, S = Sector, BR = IEC228 (BS6360) Round, BS = IEC228 (BS6360) Sector*
** = Pre-rounding required, consult Cembre for appropriate die set*

CA-2M and 2A-2M Copper Tube Terminal Lugs are designed for high voltage applications up to 33kV.
Manufactured from high purity Copper tube, annealed and Tin plated.
The extended barrel enhances electrical and mechanical performance.
The absence of an inspection hole prevents moisture entry into the crimped joint.
Featuring an extended palm with two fixing holes at 44.5mm centres.
Details of the appropriate crimping tools and dies are shown on page 180.

2A-2M/55°



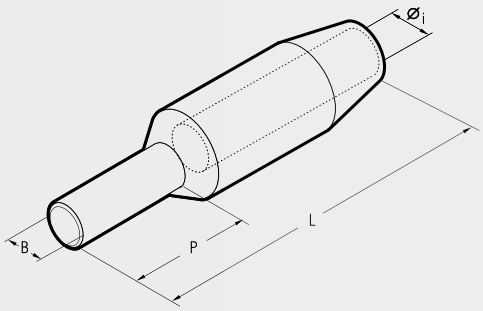
Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm					Quantity Box/Bag	Hydraulic Tools		
			Øi	B	M	N	d		HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
400 R	14	**2 A 80 - 2 M 14/55°**	27,0	51,0	22	16	15	*10/5*			
600 R ÷ 630 R	14	**2 A 120 - 2 M 14/55°**	33,4	61,5	22	16	15	*15/3*			

Conductor Format: R = Round

The 2A-2M/55° Copper Tube Terminal Lugs have the same characteristics as the CA-2M and 2A-2M ranges, with the additional feature of the palm bent at 55°.

HIGH VOLTAGE STALK CONNECTORS

MT-C



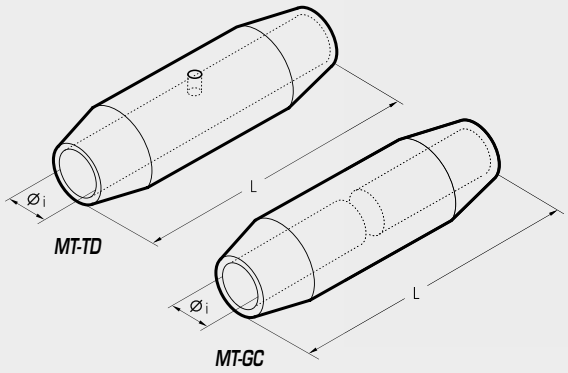
MT-C series connectors are designed for high voltage applications up to 33 kV.
They are manufactured from high purity Copper, annealed and Tin plated.
The extended barrel enhances both electrical and mechanical performance.
The stalk or pin makes these connectors ideal for terminating conductors into contact blocks.
Details of the appropriate crimping tools and dies are shown on page 180.

Conductor Size (sqmm) & Format	Ref.	Dimensions mm				Quantity Box/Bag	Hydraulic Tools
		Øi	B	P	L		
25 R	MT 25-C 8	6,8	8	35	80	90/3	B35-50D
30 RC/S ÷ 40 S	MT 40 S-C 8	8,2	8	35	80	90/3	
	MT 40 S-C 10	8,2	10	35	80	90/3	
	MT 40 S-C 14-80	8,2	14	80	123	30/3	
35 BR/BS*	MT 35-C 8	8,2	8	35	80	90/3	
	MT 35-C 10	8,2	10	35	80	90/3	
	MT 35-C 14-80	8,2	14	80	123	30/3	
50 RC	MT 50 R-C 8	8,8	8	35	80	90/3	
	MT 50 R-C 10	8,8	10	35	80	90/3	
50 S	MT 50 S-C 8	9,5	8	35	80	90/3	
	MT 50 S-C 10	9,5	10	35	80	90/3	
	MT 50 S-C 14-80	9,5	14	80	123	30/3	
50 BR/BS*	MT 50-C 8	9,5	8	35	80	90/3	
	MT 50-C 10	9,2	10	35	80	90/3	
	MT 50-C 14-80	9,5	14	80	123	90/3	
63 S ÷ 70 S	MT 70 S-C 10	11,2	10	35	90	30/3	HT 51 RH 50 B 500E B 55 HT 81-U RHU 81 HT 120 and tools and heads with 130 kN crimping force ECW-H3D RHU 520
70 BR/BS*	MT 70-C 10	11,2	10	35	90	30/3	
80 S ÷ 95 RC	MT 95 R-C 10	12,0	10	45	110	60/3	
	MT 95 R-C 12	12,0	12	45	110	60/3	
95 S ÷ 100 S	MT 95 S-C 10	13,5	10	45	110	60/3	
	MT 95 S-C 12	13,5	12	45	110	60/3	
	MT 95 S-C 14-80	13,5	14	80	145	60/3	
95 BR/BS*	MT 95-C 10	13,5	10	45	110	60/3	
	MT 95-C 12	13,5	12	45	110	60/3	
	MT 95-C 14-80	13,5	14	80	145	60/3	
120 RC/S ÷ 150 RC	MT 150 R-C 12	15,0	12	45	110	60/3	
	MT 150 R-C 16	15,0	16	45	110	30/3	
120 BR/BS*	MT 120-C 12	15,0	12	45	110	60/3	
	MT 120-C 16	15,0	16	45	110	60/3	
150 S ÷ 160 RC	MT 150 S-C 12	16,5	12	45	110	60/3	
	MT 150 S-C 14-80	16,5	14	80	145	45/3	
	MT 150 S-C 16	16,5	16	45	110	60/3	
150 BR/BS*	MT 150-C 10	16,5	10	45	110	60/3	
	MT 150-C 12	16,5	12	45	110	60/3	
	MT 150-C 14-80	16,5	14	80	145	45/3	
	MT 150-C 16	16,5	16	45	110	60/3	
160 S ÷ 200 RC	MT 200 R-C 10	17,0	10	45	110	30/3	
	MT 200 R-C 16	17,0	16	45	110	30/3	
185 BR/BS*	MT 185-C 10	18,0	10	45	110	30/3	
	MT 185-C 16	18,0	16	45	110	30/3	
200 S ÷ 240 RC	MT 240 R-C 12	19,5	12	50	115	30/3	
	MT 240 R-C 16	19,5	16	50	115	30/3	
240 S ÷ 315 RC	MT 315 R-C 16	21,5	16	50	115	30/3	
240 BR/BS*	MT 240-C 12	20,5	12	45	110	30/3	
	MT 240-C 16	20,5	16	50	115	30/3	
300 BR/BS*	MT 300-C 16	23,0	16	50	115	30/3	
315 S	MT 315 S-C 16	24,0	16	60	130	30/3	

Conductor Format: R = Round, RC = Round Compact, S = Sector, BR = IEC228 (BS6360) Round, BS = IEC228 (BS6360) Sector*
** = Pre-rounding required, consult Cembre for appropriate die set*

HIGH VOLTAGE COPPER THROUGH CONNECTORS

MT-TD
MT-GC



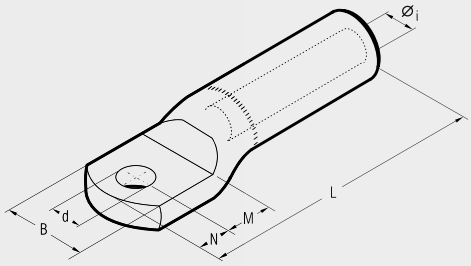
Conductor Size (sqmm) & Format	Ref.	Ref.	Dimensions mm		Quantity Box/Bag	Hydraulic Tools						
			Øi	L		B35-500	B 55	B 500E	RH 50	HT 51	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
25 R/BR/BS*	MT 25-TD	MT 25-GC	6,8	60	90/3										
30 RC/S ÷ 40 S	MT 40 S-TD	MT 40 S-GC	8,2	60	90/3										
30 BR/BS*	MT 35-TD	MT 35-GC	8,2	60	90/3										
50 RC	MT 50 R-TD	MT 50 R-GC	8,7	60	90/3										
50 S	MT 50 S-TD	MT 50 S-GC	9,5	60	90/3										
50 BR/BS*	MT 50-TD	MT 50-GC	9,5	60	90/3										
63 S ÷ 70 S	MT 70 S-TD	MT 70 S-GC	11,0	70	30/3										
70 BR/BS*	MT 70-TD	MT 70-GC	11,0	70	30/3										
80 S ÷ 95 RC	MT 95 R-TD	MT 95 R-GC	12,0	80	30/3										
95 S ÷ 100 S	MT 95 S-TD	MT 95 S-GC	13,5	80	30/3										
95 BR/BS*	MT 95-TD	MT 95-GC	13,5	80	30/3										
120 RC/S ÷ 150 RC	MT 150 R-TD	MT 150 R-GC	15,0	80	30/3										
120 BR/BS*	MT 120-TD	MT 120-GC	15,0	80	30/3										
150 S ÷ 160 RC	MT 150 S-TD	MT 150 S-GC	16,5	80	30/3										
150 BR/BS*	MT 150-TD	MT 150-GC	16,5	80	30/3										
160 S ÷ 200 RC	MT 200 R-TD	MT 200 R-GC	17,0	100	30/3										
185 BR/BS*	MT 185-TD	MT 185-GC	18,0	100	30/3										
200 S ÷ 240 RC	MT 240 R-TD	MT 240 R-GC	19,2	100	30/3										
240 S ÷ 315 RC	MT 315 R-TD	MT 315 R-GC	21,5	100	30/3										
240 BR/BS*	MT 240-TD	MT 240-GC	20,5	100	30/3										
300 BR/BS*	MT 300-TD	MT 300-GC	23,0	100	30/3										
315 S	MT 315 S-TD	MT 315 S-GC	23,7	100	30/3										
400 BR/BS*	MT 400-TD	MT 400-GC	27,0	120	15/3										
500 R	MT 500-TD		30,3	118	15/3										
600 R ÷ 630 R	MT 630-TD		33,4	130	9/3										

Conductor Format: R = Round, RC = Round Compact, S = Sector, BR = IEC228 (BS6360) Round, BS = IEC228 (BS6360) Sector*
** = Pre-rounding required, consult Cembre for appropriate die set*

MT-TD and MT-GC series connectors are designed to join conductors in high voltage applications up to 33 kV.
They are manufactured from high purity Copper, annealed and Tin plated.
MT-GC series feature a solid stop which forms a barrier between the two conductors being joined, this prevents the migration of oils or greases, which may be present, in one cable contaminating the other cable.
MT-TD connectors are unblocked and are suitable for joining cables of the same type.
Details of the appropriate crimping tools and dies are shown on page 180.

ALUMINIUM TERMINALS

AA-M

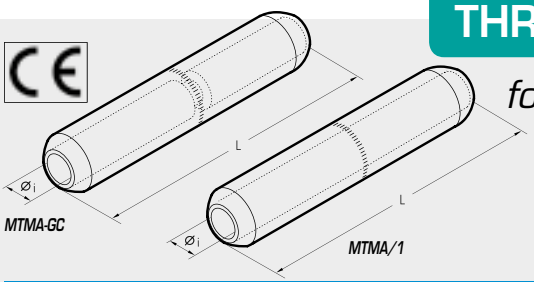


AA-M series terminals are made from Aluminium of a purity equal to or greater than 99,5%.
They are designed to accept a variety of conductor forms especially low stranded compacted conductors.
Non circular conductors may require pre-rounding prior to introduction to the terminal.
Barrels are capped and filled with grease so as to avoid oxidation of the Aluminium.
Details of the appropriate crimping tools and dies are shown on page 181.

Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools				
			Øi	B	M	N	L	d						
16	8	**AA 16-M 8**	5,5	21	13	11	77,0	8,4	*60/3*	HT 131-UC RHU 131-C B 1300-UCE				
25	8	**AA 25-M 8**	6,5	21	13	11	77,0	8,4	*60/3*					
35	8	**AA 35-M 8**	8,0	23	13	11	77,5	8,4	*60/3*					
	10	**AA 35-M 10**	8,0	23	13	11	77,5	10,5	*60/3*					
50	12	**AA 50-M 12**	9,0	26	16	14	91,0	13,2	*60/3*					
	14	**AA 50-M 14**	9,0	26	18	16	95,0	15,0	*60/3*					
70	12	**AA 70-M 12**	11,0	27	16	14	91,0	13,2	*45/3*					
	14	**AA 70-M 14**	11,0	27	18	16	95,0	15,0	*45/3*					
95	12	**AA 95-M 12**	12,5	27	16	14	91,0	13,2	*45/3*					
	14	**AA 95-M 14**	12,5	27	18	16	95,0	15,0	*45/3*					
120	12	**AA 120-M 12**	13,7	35	16	14	115,0	13,2	*30/3*					
	14	**AA 120-M 14**	13,7	35	18	16	119,0	15,0	*30/3*					
150	12	**AA 150-M 12**	15,5	34	16	14	115,0	13,2	*30/3*					
	14	**AA 150-M 14**	15,5	34	18	16	119,0	15,0	*30/3*					
185	12	**AA 185-M 12**	17,0	42	20	14	122,0	13,2	*18/3*					
	14	**AA 185-M 14**	17,0	42	22	16	126,0	15,0	*18/3*					
240	12	**AA 240-M 12**	19,5	44	20	14	122,0	13,2	*15/3*					
	14	**AA 240-M 14**	19,5	44	22	16	126,0	15,0	*15/3*					
300	12	**AA 300-34 M 12**	22,5	47	22	14	130,0	13,2	*15/3*		HT120 HT131-C RHC 131	ECW-H3D		
	14	**AA 300-34 M 14**	22,5	47	22	16	132,0	15,0	*15/3*					
	16	**AA 300-34 M 16**	22,5	47	22	17	133,0	17,0	*15/3*					
	16	**AA 300-M 16**	23,3	54	19	17	172,0	17,0	*12/3*					RHU 230-630
400	16	**AA 400-M 16**	26,0	56	19	17	172,0	17,0	*12/3*					
500	16	**AA 500-40 M 16**	29,1	57	22	19	177,0	17,0	*12/3*					
630	16	**AA 630-M 16**	32,5	70	22	19	177,0	17,0	*9/3*					

THROUGH CONNECTORS

for Aluminium conductors



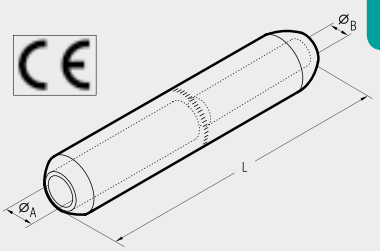
MTMA-GC
MTMA/1

Conductor Size sqmm	Ref.	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Hydraulic Tools				
10	MTMA 10-GC		4,3	90,5	60/3	B 130D-UCE				
16	MTMA 16-GC	MTMA 16/1	5,5	90,5	60/3					
25	MTMA 25-GC	MTMA 25/1	6,5	90,5	60/3					
35	MTMA 35-GC	MTMA 35/1	8,0	90,5	60/3					
	MTMA 35-20-GC		8,0	106,5	30/3					
50	MTMA 50-GC	MTMA 50/1	9,0	106,5	30/3					
70	MTMA 70-GC	MTMA 70/1	11,0	106,5	30/3					
95	MTMA 95-GC		12,5	110,0	30/3					
		MTMA 95/1	12,5	106,5	30/3	RHU 131-C				
120	MTMA 120-GC	MTMA 120/1	13,7	133,0	30/3					
150	MTMA 150-GC		15,5	135,0	30/3					
		MTMA 150/1	15,5	133,5	30/3					
185	MTMA 185-GC	MTMA 185/1	17,0	143,5	15/3					
240	MTMA 240-GC	MTMA 240/1	19,5	143,5	15/3					
300	MTMAD 300-GC		22,5	144,5	15/3	HT 131-UC	HT120 HT131-C RHC 131	ECW-H3D		
		MTMAD 300/1	22,5	135,0	15/3					
	MTMA 300-GC		23,3	218,0	15/3				RHU 230-630	
400		MTMA 400/1	26,0	218,0	15/3					
500	MTMA 500-GC		29,1	218,5	15/3					
500		MTMA 500-40/1	29,1	218,0	12/3					
630		MTMA 630/1	32,5	218,5	12/3					

MTMA-GC series through connectors are made from Aluminium of a purity equal to or greater than 99,5%. They feature a solid stop which creates a barrier between the two sides of conductors to be joined. Barrels are capped and filled with grease so as to avoid oxidation of the connector. MTMA/1 series through connectors are unblocked and are suitable for joining cables of the same type. Details of the appropriate crimping tools and dies are shown on pages 182-183.

REDUCER THROUGH CONNECTORS

for Aluminium or Copper conductors



MTMA-GC

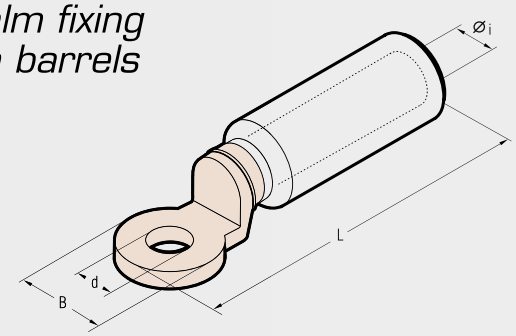
Conductor Size sqmm Side A Al	Side B Al/Cu	Ref.	Dimensions mm ØA	Dimensions mm ØB	Dimensions mm L	Quantity Box/Bag	Hydraulic Tools				
16	10	MTMA 16-10-GC	5,5	4,3	90,5	60/3	B 130D-UCE				
25	10	MTMA 25-10-GC	6,5	4,3	90,5	60/3					
	16	MTMA 25-16-GC	6,5	5,5	90,5	60/3					
50	25	MTMA 50-25-GC	9,0	6,5	106,5	30/3					
	35	MTMA 50-35-GC	9,0	8,0	106,5	30/3					
70	35	MTMA 70-35-GC	11,0	8,0	106,5	30/3					
	50	MTMA 70-50-GC	11,0	9,0	106,5	30/3					
95	50	MTMA 95-50-GC	12,5	9,0	109,4	30/3					
	70	MTMA 95-70-GC	12,5	11,0	106,5	30/3					
120	70	MTMA 120-70-GC	13,7	11,0	133,0	30/3					
	95	MTMA 120-95-GC	13,7	12,5	133,0	30/3					
150	70	MTMA 150-70-GC	15,5	11,0	133,0	30/3					
	95	MTMA 150-95-GC	15,5	12,5	134,4	30/3					
	120	MTMA 150-120-GC	15,5	13,7	133,0	30/3					
185	120	MTMA 185-120-GC	17,0	13,7	143,5	15/3					
	150	MTMA 185-150-GC	17,0	15,5	143,5	15/3					
240	150	MTMA 240-150-GC	19,5	15,5	143,5	15/3					
	185	MTMA 240-185-GC	19,5	17,0	143,5	15/3					
300	95	MTMAD 300-95-GC	22,5	12,5	144,5	15/3	HT 131-UC	HT120 HT131-C RHC 131	ECW-H3D		
	150	MTMAD 300-150-GC	22,5	15,5	144,5	15/3					
	185	MTMAD 300-185-GC	22,5	17,0	144,5	15/3					
	240	MTMAD 300-240-GC	22,5	19,5	144,5	15/3					
400	240	MTMA 400-240-GC	26,0	19,5	218,0	15/3				RHU 230-630	
	300	MTMA 400-300-GC	26,0	23,3	218,0	15/3					
500	300	MTMA 500-300-GC	29,1	23,3	218,5	12/3					
	400	MTMA 500-400-GC	29,1	26,0	218,5	12/3					

MTMA-GC series reducer through connectors are manufactured to the same specification as MTMA-GC series through connectors. Details of the appropriate crimping tools and dies are shown on pages 182-183.

BIMETALLIC CONNECTORS

CAA-M

Copper palm fixing
Aluminium barrels



The barrels of series CAA-M connectors are made from Aluminium of a purity equal to or greater than 99,5%.
The barrel is friction welded to the palm thus achieving the best possible transition between the Copper palm and Aluminium barrel.
Barrels are capped and filled with grease so as to avoid oxidation of the Aluminium.
Details of the appropriate crimping tools and dies are shown on pages 181, 183.

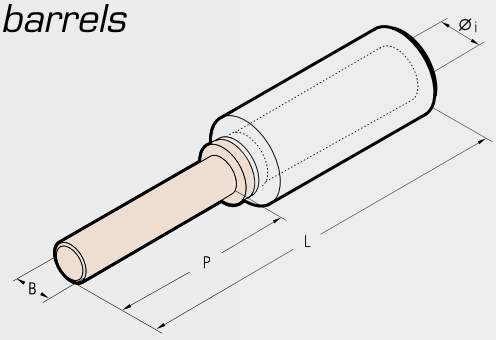
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm Øi	B	L	d	Quantity Box/Bag	Hydraulic Tools
10	12	**CAA 10-M 12**	4,3	24	87,0	13,0	*90/3*	HT 131-UC / RHU 131-C / B 1300-UCE
16	12	**CAA 16-M 12**	5,5	24	87,0	13,0	*90/3*	
25	12	**CAA 25-M 12**	6,5	24	87,0	13,0	*90/3*	
35	12	**CAA 35-M 12**	8,0	24	87,0	13,0	*90/3*	
	12	**CAA 35-20-M 12**	8,0	24	87,0	13,0	*60/3*	
50	12	**CAA 50-M 12**	9,0	24	87,0	13,0	*60/3*	
70	12	**CAA 70-M 12**	11,0	24	87,0	13,0	*60/3*	
95	12	**CAA 95-M 12**	12,5	24	87,0	13,0	*60/3*	
120	12	**CAA 120-M 12**	13,7	31	111,0	13,0	*30/3*	
150	12	**CAA 150-M 12**	15,5	31	111,0	13,0	*30/3*	
185	12	**CAA 185-M 12**	17,0	35	116,0	13,0	*24/3*	
240	12	**CAA 240-M 12**	19,5	35	116,0	13,0	*18/3*	
300	12	**CAA 300-34 M 12**	22,5	35	120,0	13,0	*15/3*	HT120 / HT131C / RHC 131
	16	**CAA 300-34 M 16**	22,5	35	120,0	17,0	*15/3*	
	16	**CAA 300-M 16**	23,3	35	152,5	16,5	*12/3*	ECW-H3D / RHU 230-630
400	16	**CAA 400-M 16**	26,0	35	152,5	16,5	*12/3*	
500	16	**CAA 500-M 16 TNBD**	29,1	35	152,5	16,5	*12/3*	
630	8	**CAA 630-4 M 8**	32,5	60	192,0	4 x 9,0*	*9/3*	

** 4 holes with 30 mm between axes*

BIMETALLIC CONNECTORS

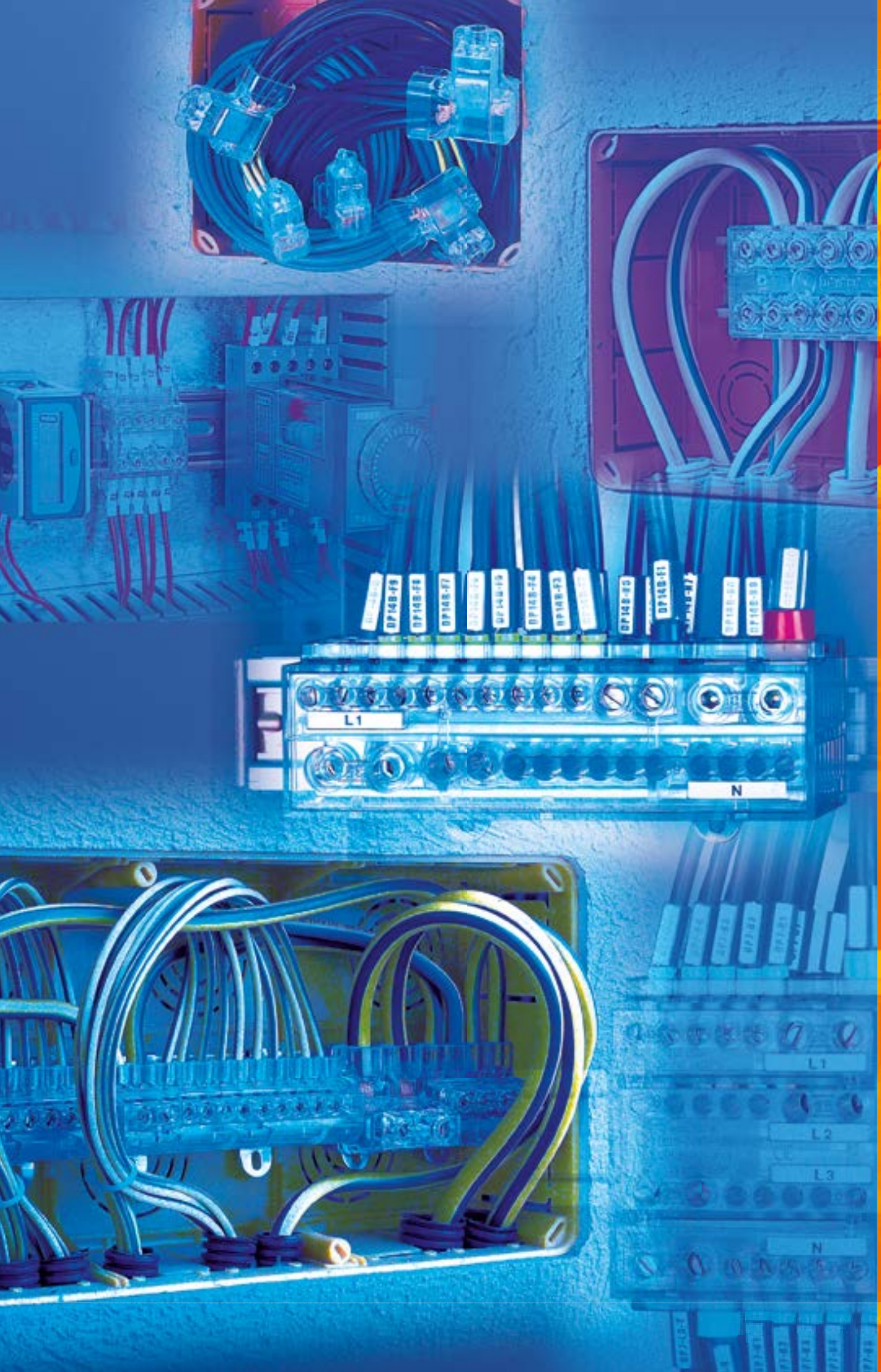
MTA-C

Copper pin
Aluminium barrels



The barrels of series MTA-C connectors are made from Aluminium of a purity equal to or greater than 99,5%.
The barrel is friction welded to the pin thus achieving the best possible transition between the Copper pin and Aluminium barrel.
Barrels are capped and filled with grease so as to avoid oxidation of the Aluminium.
Details of the appropriate crimping tools and dies are shown on pages 181, 183.

Conductor Size sqmm	Ref.	Dimensions mm Øi	B	P	L	Quantity Box/Bag	Hydraulic Tools
16	**MTA 16-C**	5,5	8	30	82	*90/3*	HT 131-UC / RHU 131-C / B 1300-UCE
25	**MTA 25-C**	6,5	8	30	82	*90/3*	
35	**MTA 35-C**	8,0	8	30	82	*90/3*	
50	**MTA 50-C**	9,0	12	45	97	*60/3*	
70	**MTA 70-C**	11,0	12	45	97	*60/3*	
95	**MTA 95-C**	12,5	12	45	97	*60/3*	
120	**MTA 120-C**	13,7	14	55	125	*30/3*	
150	**MTA 150-C**	15,5	14	55	125	*30/3*	
185	**MTA 185-C**	17,0	14	55	125	*24/3*	
240	**MTA 240-C**	19,5	14	55	125	*24/3*	



TERMINAL BLOCKS

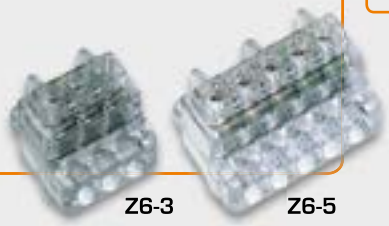
SINGLE POLE TERMINAL BLOCKS

type ZETApiù®

Z6

indirect clamping

nominal section 6 sqmm



Z6-3 Z6-5

Z6-6 Z6-10

The "Z...D" version has been designed for mounting on DIN rails

3, 5, 6 and 10 way, single pole terminal blocks for conductor section 1 to 6 sqmm.
Self contained and robust, they are quick and easy to install for both industrial and domestic use.
The indirect clamping of the "ZETApiù" terminal blocks guarantees a low and stable contact resistance.
Indirect clamping eliminates damage to the conductor strands.
The easy-entry receptacles also grant a fast and reliable insertion of the cable.

Ref.	No. of Ways	Connecting Capacity sqmm	Nominal Voltage V	Maximum Operating Temperature °C	Insulation Specification	Self Extinguishing Specification	Dimensions mm	Weight g	Quantity
Z6-3	3	(3 way) 1÷6	450	85	IP 20	V-0 (UL 94)	23x23xh27,5	15	30
Z6-3D							23x40xh36,5	18,5	10
Z6-5	5	(5 way) 1÷6	450	85	IP 20	V-0 (UL 94)	35x23xh27,5	23	20
Z6-5D							35x40xh36,5	26,5	10
Z6-6	6	(6 way) 1÷6	450	85	IP 20	V-0 (UL 94)	23x43xh28,5	26	15
Z6-6D							23x53xh33	31	10
Z6-10	10	(10 way) 1÷6	450	85	IP 20	V-0 (UL 94)	35x43xh28,5	41	10
Z6-10D							35x53xh33	46	15

D= Version with clamp for DIN rail

Technical features:

- ***Self-extinguishing Polycarbonate body***
- ***Tempered Steel clamps***
- ***Electrolytically Tin plated Copper interconnections***

SINGLE POLE TERMINAL BLOCKS

type ZETApiù®

Z16

indirect clamping

nominal section 16 sqmm

Z16-3 Z16-4

Z16-5N

Z16-8

Z16-12

3, 4, 5, 8 and 12 way, single pole terminal blocks.
Ideal for use as an equipotential bonding connector for both industrial and domestic use.

Ref.	No. of Ways	Connecting Capacity sqmm	Nominal Voltage V	Maximum Operating Temperature °C	Insulation Specification	Self Extinguishing Specification	Dimensions mm	Weight g	Quantity
Z16-3	3	16	450	85	IP 20	V-0 (UL 94)	38x31,3xh38	52	20
Z16-3D							38x50xh44	55,5	15
Z16-4	4	16	450	85	IP 20	V-0 (UL 94)	27x54xh37	50	15
Z16-4D							27x58xh43	54	10
Z16-5N	5	16	450	85	IP 20	V-0 (UL 94)	61x31,5xh38	64,5	10
Z16-5ND							61x50xh44	68	4
Z16-8	8 (2÷6)	(2 way) 16 + (6 way) 6	450	85	IP 20	V-0 (UL 94)	35,5x50xh36,5	50	15
Z16-8D							35,5x57xh42	56	10
Z16-12	12 (2÷10)	(2 way) 16 + (10 way) 6	450	85	IP 20	V-0 (UL 94)	104,5x32,5xh36,5	115	8
Z16-12D							104,5x50xh42	125	5

D= Version with clamp for DIN rail

type ZETApiù®

SINGLE POLE TERMINAL BLOCKS

indirect clamping

nominal section 35 sqmm

Z35

Z35-3

Z35-4

Z35-6

Ref.	No. of Ways	Connecting Capacity sqmm	Nominal Voltage V	Maximum Operating Temperature °C	Insulation Specification	Self Extinguishing Specification	Dimensions mm	Weight g	*Quantity*
Z35-3	3	35	450	85	IP 20	V-0 (UL 94)	53x48,5xh42	110	*10*
Z35-3D							53x50xh48	114	*5*
Z35-4	4	35	450	85	IP 20	V-0 (UL 94)	37x85xh42	129	*5*
Z35-4D							37x85xh48	133	*5*
Z35-6	6 (2+4)	*(2 way)* 35 + *(4 way)* 16	450	85	IP 20	V-0 (UL 94)	83x41xh43	130	*8*
Z35-6D							83x49xh52	140	*5*

D= Version with clamp for DIN rail

3, 4 and 6 way, single pole terminal blocks. Ideal for use as an equipotential bonding connector for both industrial and domestic use.

type ZETApiù®

SINGLE POLE TERMINAL BLOCKS

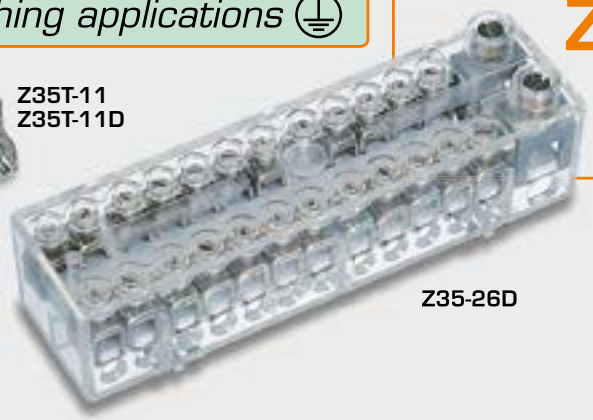
indirect clamping

for earthing applications ⏚

Z35
Z50

Z35T-11
Z35T-11D

Z50-10D



Z35-26D

Ref.	No. of Ways	Connecting Capacity sqmm	Maximum Operating Temperature °C	Self Extinguishing Specification	Dimensions mm	Weight g	*Quantity*
Z35T-11	11 (1+10)	*(1 way)* 35 + *(10 way)* 6	85	V-0 (UL 94)	58x43xh42	70	*10*
Z35T-11D					58x53xh47	75	
Z35-26D	26 (2+24)	*(2 way)* 35 + *(24 way)* 10	85	V-0 (UL 94)	151x52xh48	379	*4*
Z50-10D	10 (2+8)	*(2 way)* 50 + *(8 way)* 25	85	V-0 (UL 94)	77,5x55xh49	320	*6*

D= Version with clamp for DIN rail

10, 11 and 26 way, single pole terminal blocks.
Ideal for use as an equipotential bonding connector for both industrial and domestic use.

CONNECTING CAPACITY OF TERMINAL BLOCKS

TERMINAL BLOCKS TYPE "ZETApiù"

TYPE	NOMINAL SECTION	No. OF WAYS X NOMINAL SECTION	CONNECTING CAPACITY OF EACH WAY* No. of Conductors x Section	MARKINGS
Z6-3 Z6-3D	6 mm²	3 x 6 mm²	1 x 6 mm² R/F 1 x 4 mm² R/F 1÷2 x 2,5 mm² R/F 1÷2 x 1,5 mm² R/F 1÷4 x 1 mm² R/F	CE, 6 sqmm 450 V T 85°C, TÜV, EAC
Z6-5 Z6-5D	6 mm²	5 x 6 mm²		CE, 6 sqmm 450 V T 85°C
Z6-6 Z6-6D	6 mm²	6 x 6 mm²		
Z6-10 Z6-10D	6 mm²	10 x 6 mm²		
Z16-3 Z16-3D	16 mm²	3 x 16 mm²	1 x 16 mm² R/F 1 x 10 mm² R/F 1÷2 x 6 mm² R/F 1÷3 x 4 mm² R/F 1÷4 x 2,5 mm² R/F 1÷8 x 1,5 mm² R/F	CE, 16 sqmm 450 V T 85°C, TÜV, EAC
Z16-4 Z16-4D	16 mm²	4 x 16 mm²	1 x 16 mm² F 1 x 10 mm² F 1÷2 x 6 mm² F 1÷3 x 4 mm² F 1÷4 x 2,5 mm² F 1÷8 x 1,5 mm² F	CE, 16 sqmm 450 V T 85°C
Z16-5N Z16-5ND	16 mm²	5 x 16 mm²	1 x 16 mm² R/F 1 x 10 mm² R/F 1÷2 x 6 mm² R/F 1÷3 x 4 mm² R/F 1÷4 x 2,5 mm² R/F 1÷8 x 1,5 mm² R/F	CE, 16 sqmm 450 V T 85°C
Z16-8 Z16-8D	16 mm²/6 mm²	2 x 16 mm²	1 x 16 mm² R/F 1 x 10 mm² R/F 1÷2 x 6 mm² R/F 1÷3 x 4 mm² R/F 1÷4 x 2,5 mm² R/F 1÷8 x 1,5 mm² R/F	CE, 16÷6 sqmm 450 V T 85°C
		6 x 6 mm²	1 x 6 mm² R/F 1 x 4 mm² R/F 1÷2 x 2,5 mm² R/F 1÷2 x 1,5 mm² R/F 1÷4 x 1 mm² R/F	
Z16-12 Z16-12D	16 mm²/6 mm²	2 x 16 mm²	1 x 16 mm² F 1 x 10 mm² F 1÷2 x 6 mm² F 1÷3 x 4 mm² F 1÷4 x 2,5 mm² F	CE, 16÷6 sqmm 450 V T 85°C
		10 x 6 mm²	1 x 6 mm² F 1 x 4 mm² F 1÷2 x 2,5 mm² F 1÷2 x 1,5 mm² F 1÷4 x 1 mm² F	

**A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than the nominal section.*

***R** = Rigid conductor* ***F** = Flexible conductor*

CONNECTING CAPACITY OF TERMINAL BLOCKS

TERMINAL BLOCKS TYPE "ZETApiù"

TYPE	NOMINAL SECTION	No. OF WAYS X NOMINAL SECTION	CONNECTING CAPACITY OF EACH WAY* No. of Conductors x Section	MARKINGS
Z35-3 Z35-3D	35□	3 x 35□	1 x 35□ R/F 1 x 25□ R/F 1÷2 x 16□ R/F 1÷3 x 10□ R/F 1÷5 x 6□ R/F	CE, 35 sqmm 450 V T 85°C
Z35-4 Z35-4D	35□	4 x 35□	1 x 35□ F 1 x 25□ F 1÷2 x 16□ F 1÷3 x 10□ F 1÷6 x 6□ F	CE, 35 sqmm 450 V T 85°C
Z35-6 Z35-6D	35□/16□	2 x 35□	1 x 35□ R/F 1 x 25□ R/F 1÷2 x 16□ R/F 1÷3 x 10□ R/F 1÷6 x 6□ F	CE, 35÷16 sqmm 450 V T 85°C, LR, RINA
		4 x 16□	1 x 16□ R/F 1 x 10□ R/F 1÷2 x 6□ R/F 1÷3 x 4□ R/F 1÷5 x 2,5□ F	
Z35T-11 Z35T-11D	35□/6□	1 x 35□	1 x 35□ R/F 1 x 25□ R/F 1 x 16□ R/F 1 x 10□ R/F	CE, 35÷6 sqmm T 85°C
		10 x 6□	1 x 6□ R/F 1 x 4□ R/F 1÷2 x 2,5□ R/F 1÷2 x 1,5□ R/F 1÷4 x 1□ R/F	
Z35-26D	35□/10□	2 x 35□	1 x 35□ R/F 1 x 25□ R/F 1÷2 x 16□ R/F 1÷3 x 10□ R/F 1÷6 x 6□ R/F	CE, 35÷10 sqmm T 85°C, LR, RINA
		24 x 10□	1 x 10□ R/F 1 x 6□ R/F 1÷2 x 4□ R/F 1÷4 x 2,5□ R/F	
Z50-10D	50□/25□	2 x 50□	1 x 50□ R/F 1 x 35□ R/F 1÷2 x 25□ R/F 1÷4 x 16□ R/F	CE, ** RINA, 50÷25 sqmm T 85°C
		8 x 25□	1 x 25□ R/F 1÷2 x 16□ R/F 1÷3 x 10□ R/F 1÷6 x 6□ R/F 1÷9 x 4□ R/F	

*A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than the nominal section.

R = Rigid conductor F = Flexible conductor

MARKINGS:

CE

Istituto italiano del Marchio di Qualità type approval

Lloyd's Register of Shipping type approval

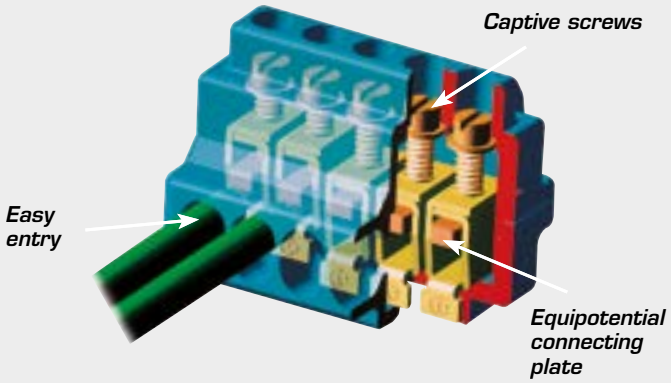
Registro Italiano Navale type approval

** EN 60947-7-1: 2002

CONFORM TO:

Directives 2006/95/CE

EN 60998-1: 2004 and EN 60998-2-1: 2004 Norms



POWER DISTRIBUTION BLOCK

type ZETAblock®

Z-DP

indirect clamping

FOUR POLE 100 A

Z 25-DP7-100

TWO POLE 125 A

Z 35-DP14B-125

Z 50-DP12-160

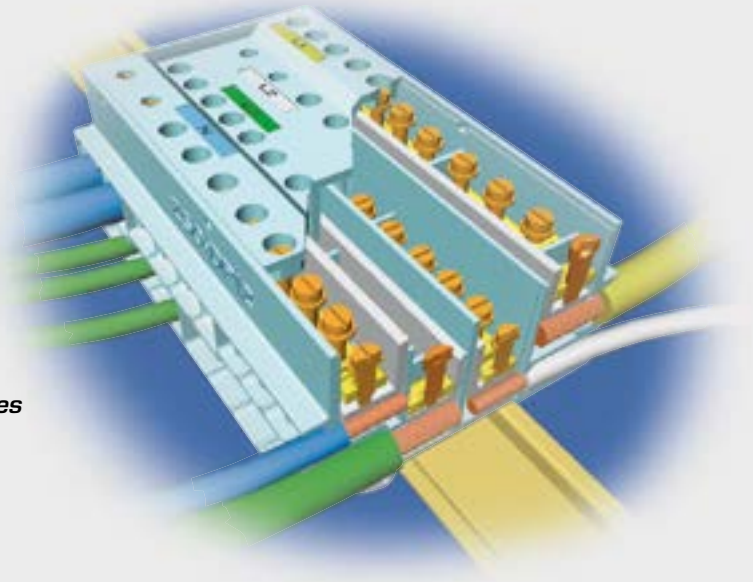
FOUR POLE 125 A

Z 35-DP14-125

FOUR POLE 160 A

100, 125 and 160A, 2–4 pole distribution blocks with 7, 14 and 12 ways per pole respectively.
Accepting a wide cable CSA range (1 - 50 sqmm) and of compact size, ZETAblocks are ideal for control cabinets and distribution panels.
The lateral arrangement of terminals on upper and lower faces (Z35-DP14B one face only), simplifies connection and promotes tidy, homogeneous cable routing to assist subsequent wiring operations.
Easy entry apertures provide quick, effective cable insertion while the indirect clamping feature eliminates damage to cable strands and assures a low, stable contact resistance.

Ref.	No. of poles	No. of Ways per pole	Nominal CSA for each pole sqmm	Maximum operating voltage Ui	Impulse voltage Uimp	Maximum operating current In	Allowable short duration fault current Icw	Maximum allowed peak fault current Ipk	Self Extinguishing Specification	Dimensions mm	Weight g	Qty
Z 25-DP7-100	4	7 (2+5)	(2 way) 25 + (5 way) 6	800 V	8 kV	100 A	3 kA	18 kA	V-0 (UL 94)	70x84xh45	290	2
Z 35-DP14-125	4	14 (2+2+10)	(2 way) 35 + (2 way) 16 + (10 way) 6	800 V	8 kV	125 A	4,2 kA	18 kA	V-0 (UL 94)	137x83xh46	700	1
Z 35-DP14B-125	2	14 (2+2+10)	(2 way) 35 + (2 way) 16 + (10 way) 6	800 V	8 kV	125 A	4,2 kA	18 kA	V-0 (UL 94)	137x44xh46	360	2
Z 50-DP12-160	4	12 (2+4+6)	(2 way) 50 + (4 way) 25 + (6 way) 16	800 V	8 kV	160 A	6 kA	18 kA	V-0 (UL 94)	150x84xh48	780	1



Technical features:

- ***Self extinguishing antishock Polycarbonate body***
- ***Tempered Steel captive clamping screws and plates***
- ***Electrolytically Tin plated Copper interconnectors***

type ZETA*block*®

POWER DISTRIBUTION BLOCK

indirect clamping

Z-DP

CONNECTING CAPACITY OF POWER DISTRIBUTION BLOCK

POWER DISTRIBUTION BLOCK TYPE "ZETA*block*"

TYPE	NOMINAL SECTION	No. OF WAYS x NOMINAL SECTION	CONNECTING CAPACITY OF EACH WAY No. of Conductors x Section	MARKINGS
Z25-DP7-100	25□/6□	2 x 25□	1 x 25□ *F* 1 x 16□ *F* 1÷2 x 10□ *F*	CE IMQ 25÷6 sqmm
		5 x 6□	1 x 6□ *F* 1 x 4□ *F* 1÷2 x 2,5□ *F* 1÷2 x 1,5□ *F* 1÷4 x 1□ *F*	
Z35-DP14-125 Z35-DP14B-125	35□/16□/6□	2 x 35□	1 x 35□ *F* 1 x 25□ *F* 1÷2 x 16□ *F* 1÷3 x 10□ *F*	CE IMQ 35÷16÷6 sqmm
		2 x 16□	1 x 16□ *F* 1 x 10□ *F* 1÷2 x 6□ *F* 1÷3 x 4□ *F* 1÷4 x 2,5□ *F*	
		10 x 6□	1 x 6□ *F* 1 x 4□ *F* 1÷2 x 2,5□ *F* 1÷2 x 1,5□ *F* 1÷4 x 1□ *F*	
Z50-DP12-160	50□/25□/16□	2 x 50□	1 x 50□ *F* 1 x 35□ *F* 1÷2 x 25□ *F*	CE IMQ 50÷25÷16 sqmm
		4 x 25□	1 x 25□ *F* 1 x 16□ *F* 1÷2 x 10□ *F*	
		6 x 16□	1 x 16□ *F* 1 x 10□ *F* 1÷2 x 6□ *F*	

F = Flexible conductor

MARKINGS:

CE

IMQ *Istituto italiano del Marchio di Qualità type approval*

CONFORM TO:

Directives 2006/95/CE

EN 60947-7-1: 2002 Norms

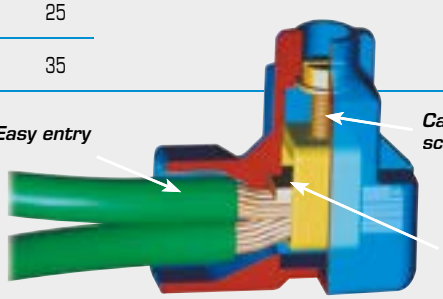
ONE WAY TERMINAL BLOCKS

type ZETAmini®

Z-1

indirect clamping

Ref.	Connecting Capacity sqmm	Nominal Voltage V	Maximum Operating Temperature °C	Insulation Specification	Self Extinguishing Specification	Dimensions mm	Weight g	*Quantity Box/Bag*
Z2.5-1	2,5	450	85	IP 20	V-0 (UL 94)	7,6x20xh23,5	3	*500/25*
Z6-1	6					11,5x28xh29	6	*250/25*
Z10-1	10					15,6x32xh32,5	11	*100/10*
Z16-1	16					18x34xh38	15	*100/10*
Z25-1	25					20,8x42,5xh43,5	29	*50/10*
Z35-1	35					25x45xh51,5	37	*40/10*



Technical features:

- ***Self-extinguishing Polycarbonate body***
- ***Electrolytically Zinc plated, tempered Steel clamp and screw***
- ***Electrolytically Tin plated Steel connection plate***

One way, single pole terminal blocks for conductors sections from 0.5 to 35 sqmm. Self contained and robust, they are ideal for the fast and safe installation for industrial and domestic applications.

The indirect clamping of the "ZETAmini" terminal blocks guarantees a low and stable contact resistance.

The easy-entry receptacle also grants a fast and reliable insertion of the cable.

CONNECTING CAPACITY OF TERMINAL BLOCKS

TERMINAL BLOCKS TYPE "ZETAmini"

TYPE	NOMINAL SECTION	CONNECTING CAPACITY * No. of Conductors x Section		MARKINGS
Z2.5-1	2,5 mm²	2 x 2,5 mm² *R/F* 2÷3 x 1,5 mm² *R/F* 2÷5 x 1,0 mm² *R/F*	2÷6 x 0,75 mm² *R/F* 2÷10 x 0,5 mm² *R/F* 2÷18 x Ø0,4÷0,6 *mm* communication type wire	CE, RINA, Lloyd's, Cembre
Z6-1	6 mm²	2 x 6 mm² *R/F* 2÷3 x 4 mm² *R/F* 2÷4 x 2,5 mm² *R/F* 2÷6 x 1,5 mm² *R/F* 2÷6 x 1 mm² *R/F*	2÷10 x 0,75 mm² *R/F* 2÷12 x 0,5 mm² *R/F* (1 x 6 mm² *F*) + (4 x 1,5 mm² *F*) (1 x 6 mm² *F*) + (2 x 2,5 mm² *F*)	CE, RINA, Lloyd's, Cembre
Z10-1	10 mm²	2 x 10 mm² *R/F* 2÷3 x 6 mm² *R/F* 2÷5 x 4 mm² *R/F* 2÷8 x 2,5 mm² *R/F* (1 x 6 mm² *F*) + (1 x 4 mm² *F*) + (2 x 2,5 mm² *F*) + (3 x 1,5 mm² *F*)	2÷12 x 1,5 mm² *R/F* 2÷20 x 1 mm² *R/F* 2÷25 x 0,75 mm² *R/F*	CE, RINA, Lloyd's, Cembre
Z16-1	16 mm²	2 x 16 mm² *R/F* 2÷3 x 10 mm² *R/F* 2÷5 x 6 mm² *R/F*	2÷8 x 4 mm² *R/F* 2÷12 x 2,5 mm² *R/F* 2÷18 x 1,5 mm² *R/F*	CE, RINA, Lloyd's, Cembre
Z25-1	25 mm²	2 x 25 mm² *R/F* 2÷3 x 16 mm² *R/F* 2÷4 x 10 mm² *R/F*	2÷8 x 6 mm² *R/F* 2÷11 x 4 mm² *R/F* 4÷16 x 2,5 mm² *R/F*	CE, RINA, Lloyd's, Cembre
Z35-1	35 mm²	2 x 35 mm² *R/F* 2÷3 x 25 mm² *R/F* 2÷4 x 16 mm² *R/F* 2÷7 x 10 mm² *R/F*	2÷11 x 6 mm² *R/F* 4÷17 x 4 mm² *R/F* 5÷28 x 2,5 mm² *R/F*	CE, RINA, Lloyd's, Cembre

**A mixture of conductor sizes may be connected to the terminal block provided that the sum of their sections is less than twice the nominal section.*

R = Rigid conductor F = Flexible conductor

MARKINGS:

- *Lloyd's Register of Shipping type approval*
- *Registro Italiano Navale type approval*
- CE
- *Istituto italiano del Marchio di Qualità type approval*

CONFORM TO:

Directives 2006/95/CE

EN 60998-1: 2004 and EN 60998-2-1: 2004 Norms

Cembre

CS4 CONNECTORS

for PV conductors

CS4

New

Certificate No R60040256

CS411 - CS412
FREE version

CS420
FIXED version

CS4 range

Ref.	Description	Flexible Conductor Size sqmm	Cable External Ø mm	*Quantity Box/Bag*
CS411	free connector set	2,5 - 4 - 6	4,4 ÷ 5,8	*100/10*
CS412	free connector set	2,5 - 4 - 6	5,8 ÷ 7,2	*100/10*
CS420	fixed connector set	2,5 - 4 - 6	4,4 ÷ 7,2	*100/10*

CS4 connectors are ideal for the connection of Copper conductors in photovoltaic installations.
Recommended crimping tools are shown on pages 103, 105, 150.

accessories

Ref.	Description	*Quantity Box/Bag*
CS4 KEY	Disconnection tool - for easy working on inverters and string boxes	*100/10*
CS4 MFC	Sealing cap for male and female connector	*1.000/100*
CS4 GR	Rear gasket for fixed connectors	*1.000/100*

Technical features:

rated voltage	1000 VDC
rated impulse voltage	8 kV
rated insulation voltage	4 kV
rated input current	30 A
reference standard	EN 50521:2008
application class	Class A
protection class	Class II
pollution class	3
over voltage category	III
lower ambient temperature	-40 °C
upper ambient temperature	+85 °C
upper temperature limit	105 °C
type of conductor	Flexible
termination type	Crimped
cable clamp type	ø min. 4,4 ± 0,2 mm ø max. 7,2 ± 0,2 mm
number of poles	1
conductor size	2,5 – 4,0 and 6,0 mm²
degree of protection	IP 67
rewirable	no
cable nut tighening torque	1,5 Nm

CS4 MFC

CS4 GR

CS4 KEY

CS4 CONNECTORS

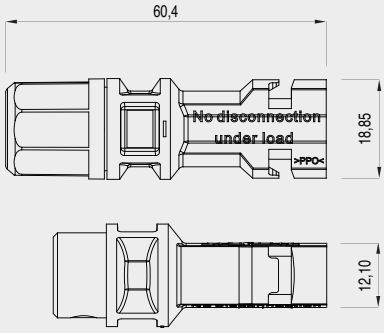
for PV conductors

CS4

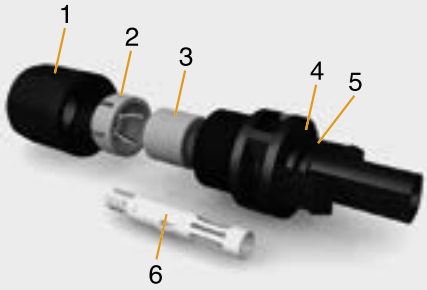
free connector male

Ref.	Flexible Cond. Size sqmm	Cable External Ø mm
CS411M	2,5 - 4 - 6	4,4 ÷ 5,8
CS412M		5,8 ÷ 7,2

Part	Description
1	Threaded locking ring (PPO)
2	Strain relief (Acetal Resin)
3	Grommet (EPDM)
4	Body connector male (PPO)
5	Male terminal (Cu alloy)

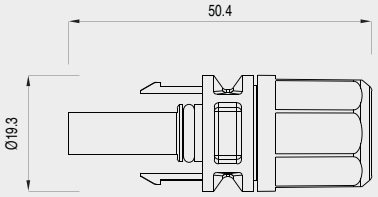


free connector female



Ref.	Flexible Cond. Size sqmm	Cable External Ø mm
CS411F	2,5 - 4 - 6	4,4 ÷ 5,8
CS412F		5,8 ÷ 7,2

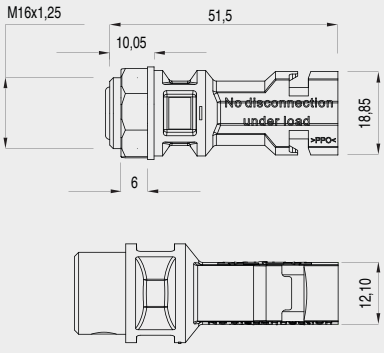
Part	Description
1	Threaded locking ring (PPO)
2	Strain relief (Acetal Resin)
3	Grommet (EPDM)
4	Body connector female (PPO)
5	O-ring (EPDM)
6	Female terminal (Cu alloy)



fixed connector male

Ref.	Flexible Cond. Size sqmm	Cable External Ø mm
CS420M	2,5 - 4 - 6	4,4 ÷ 7,2

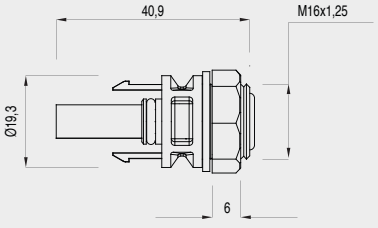
Part	Description
1	Nut (PPO)
2	Gasket (NBR)
3	Body connector male (PPO)
4	Male terminal (Cu alloy)



fixed connector female

Ref.	Flexible Cond. Size sqmm	Cable External Ø mm
CS420F	2,5 - 4 - 6	4,4 ÷ 7,2

Part	Description
1	Nut (PPO)
2	Gasket (NBR)
3	O-ring (EPDM)
4	Body connector female (PPO)
5	Female terminal (Cu alloy)



CABLE GLANDS AND ACCESSORIES

MAXIblock® CABLE GLANDS

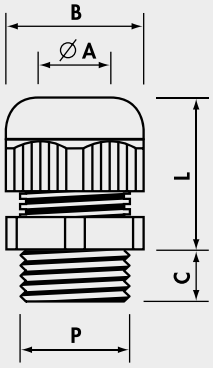
1900

Polyamide PA6.6

File no. E220310

File no. E220310

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey,
RAL 9005 black, RAL 7001 dark grey



MAXIblock® *standard*

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1900.M12	M12x1,5	12,2	3,5- 7	15	8	18-22	100
1900.M16	M16x1,5	16,2	5 -10	19	8	22-27	100
1900.M20	M20x1,5	20,5	7 -13	25	9	24-30	100
1900.M25	M25x1,5	25,4	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	64,0	34 -45	66	12	45-55	5

Add to Ref: N for Black, G for Dark Grey

MAXIblock® *reduced cable entry*

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1910.M12	M12x1,5	12,2	**2- 5**	15	8	18-22	100
1910.M16	M16x1,5	16,2	**3- 7**	19	8	22-27	100
1910.M20	M20x1,5	20,5	**5-10**	25	9	24-30	100
1910.M25	M25x1,5	25,4	**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	64,0	**27-39**	66	12	45-55	5

Add to Ref: N for Black, G for Dark Grey

MAXIblock® *extended thread*

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1901.M12	M12x1,5	12,2	3,5- 7	15	**15**	18-22	100
1901.M16	M16x1,5	16,2	5 -10	19	**15**	22-27	100
1901.M20	M20x1,5	20,5	7 -13	25	**15**	24-30	50
1901.M25	M25x1,5	25,4	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	64,0	34 -45	66	**18**	45-55	5

Add to Ref: N for Black, G for Dark Grey

MAXIblock® CABLE GLANDS

Polyamide PA6.6

1900

MAXIblock® *standard*

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1900.07	Pg 7	12,7	3,5- 7	15	8	18-22	100
1900.09	Pg 9	15,5	5 - 8	19	8	22-26	100
1900.11	Pg11	18,8	5 -10	22	8	23-28	100
1900.13	Pg13,5	20,5	7 -12	24	9	24-29	100
1900.16	Pg16	22,6	10 -14	27	10	26-31	50
1900.21	Pg21	28,5	13 -18	33	12	30-35	50
1900.29	Pg29	37,2	18 -25	42	12	33-39	25
1900.36	Pg36	47,2	20 -32	53	14	42-49	10
1900.42	Pg42	54,2	28 -38	60	14	42-50	5
1900.48	Pg48	60,0	37 -45	66	15	45-55	5

Add to Ref: N for Black, G for Dark Grey

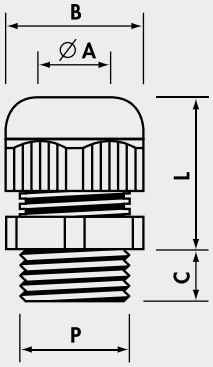
Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey.
RAL 9005 black, RAL 7001 dark grey

MAXIblock® *reduced cable entry*

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1910.07	Pg 7	12,7	**2- 5**	15	8	18-22	100
1910.09◆	Pg 9	15,5	**2- 6**	19	8	22-26	100
1910.11	Pg11	18,8	**4- 7**	22	8	23-28	100
1910.13	Pg13,5	20,5	**5-10**	24	9	24-29	100
1910.16◆	Pg16	22,6	**6-12**	27	10	26-31	50
1910.21	Pg21	28,5	**9-15**	33	12	30-35	50
1910.29◆	Pg29	37,2	**12-20**	42	12	33-39	25
1910.36	Pg36	47,2	**18-26**	53	14	42-49	10
1910.42	Pg42	54,2	**25-31**	60	14	42-50	5
1910.48◆	Pg48	60,0	**27-39**	66	15	45-55	5

Add to Ref: N for Black



MAXIblock® *extended thread*

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1901.07	Pg 7	12,7	3,5- 7	15	**15**	18-22	100
1901.09	Pg 9	15,5	5 - 8	19	**15**	22-26	100
1901.11	Pg11	18,8	5 -10	22	**15**	23-28	100
1901.13	Pg13,5	20,5	7 -12	24	**15**	24-29	100
1901.16	Pg16	22,6	10 -14	27	**15**	26-31	50
1901.21	Pg21	28,5	13 -18	33	**15**	30-35	50
1901.29	Pg29	37,2	18 -25	42	**15**	33-39	25
1901.36	Pg36	47,2	20 -32	53	**18**	42-49	10
1901.42	Pg42	54,2	28 -38	60	**18**	42-50	5
1901.48	Pg48	60,0	37 -45	66	**18**	45-55	5

Add to Ref: N for Black

◆*Not UL approved*

Technical data pages 201 to 204

MAXIblock® CABLE GLANDS

Polyamide PA6.6

1900/X

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey,

MAXIblock® *standard factory fitted with locknuts with collar*

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

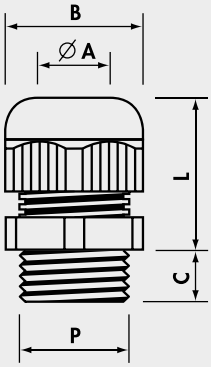
Ref.	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
1900.M12/X	M12x1,5	12,2	3,5- 7	15	8	18-22	100/10
1900.M16/X	M16x1,5	16,2	5 -10	19	8	22-27	100/10
1900.M20/X	M20x1,5	20,5	7 -13	25	9	24-30	50/10
1900.M25/X	M25x1,5	25,4	10 -17	30	10	28-39	30/10
1900.M32/X	M32x1,5	32,5	13 -21	36	10	33-44	20/10
1900.M40/X	M40x1,5	40,5	19 -28	46	10	36-45	10/5
1900.M50/X	M50x1,5	50,5	27 -35	55	12	43-52	10/5
1900.M63/X	M63x1,5	64,0	34 -45	66	12	45-55	5/5

Pg thread DIN 40 430

Ref.	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
1900.07/X	Pg 7	12,7	3,5- 7	15	8	18-22	100/10
1900.09/X	Pg 9	15,5	5 - 8	19	8	22-26	100/10
1900.11/X	Pg11	18,8	5 -10	22	8	23-28	100/10
1900.13/X	Pg13,5	20,5	7 -12	24	9	24-29	50/10
1900.16/X	Pg16	22,6	10 -14	27	10	26-31	30/10
1900.21/X	Pg21	28,5	13 -18	33	12	30-35	20/10
1900.29/X	Pg29	37,2	18 -25	42	12	33-39	20/10
1900.36/X	Pg36	47,2	20 -32	53	14	42-49	10/5
1900.42/X	Pg42	54,2	28 -38	60	14	42-50	5/5
1900.48/X	Pg48	60,0	37 -45	66	15	45-55	5/5

1900

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey,
RAL 9005 black



MAXIblock® *standard*

BSP thread ISO 228/1

Ref. Grey	P Light	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1900.14	G1/4"	13,5	3- 6,5	15	8	18-22	100
1900.38	G3/8"	17,0	4- 8	19	8	22-26	100
1900.12	G1/2"	21,5	7-12	24	10	24-29	100
1900.34	G3/4"	27,0	13-18	33	12	30-35	50

Add to Ref: N for Black

spiralblock® CABLE GLANDS

Polyamide PA6.6

1500

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey,
RAL 9005 black

spiralblock® standard

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1500.M12	M12x1,5	12,2	3,5- 7	15	8	57	100
1500.M16	M16x1,5	16,2	5 -10	19	8	79	50
1500.M20	M20x1,5	20,5	7 -13	25	9	90	25
1500.M25	M25x1,5	25,4	10 -17	30	10	120	20
1500.M32	M32x1,5	32,5	13 -21	36	10	140	10

Add to Ref: N for Black

spiralblock® standard

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1500.07	Pg 7	12,7	3,5- 7	15	8	57	100
1500.09	Pg 9	15,5	5 - 8	19	8	68	100
1500.11	Pg11	18,8	5 -10	22	8	80	50
1500.13	Pg13,5	20,5	7 -12	24	10	90	50
1500.16	Pg16	22,6	10 -14	27	10	100	25
1500.21	Pg21	28,5	13 -18	33	12	112	20

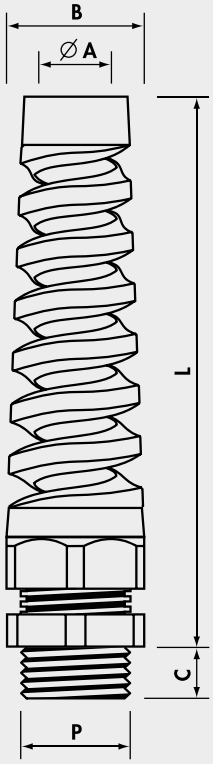
Add to Ref: N for Black

spiralblock® standard

BSP thread ISO 228/1

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
1500.14	G1/4"	13,5	3- 6,5	15	8	57	100
1500.38	G3/8"	17,0	4- 8	19	9	68	100
1500.12	G1/2"	21,5	7-12	24	10	90	50
1500.34	G3/4"	27,0	13-18	33	12	112	20

Add to Ref: N for Black



Technical data pages 201 to 204

MAXIblock® ATEX CABLE GLANDS

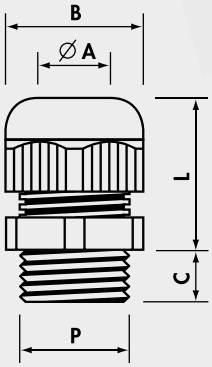
4900

Polyamide PA6.6

CE 0051 Ex II 2 G D

Certificate No IMQ ATEX 028X

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Safety level: Ex e IIC/Ex tb IIIC
according to
EN 60079-0 : 2009
EN 60079-7 : 2007
EN 60079-31 : 2009
Areas of utilisation: 1 & 2, 21 & 22
Temperature range:
–20°C to +75°C (continuous)
Sealing ring: NEOPRENE®
Protection: IP 65
Colour: RAL 7035 light grey



Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4900.M12	M12x1,5	12,2	3,5- 6,5	15	8	18-22	100
4900.M16	M16x1,5	16,2	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	25,4	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	64,0	35 -42	66	12	45-55	5

extended thread

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4901.M12	M12x1,5	12,2	3,5- 6,5	15	**15**	18-22	100
4901.M16	M16x1,5	16,2	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	25,4	11 -17	30	**15**	30-41	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	64,0	35 -42	66	**18**	45-55	5

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4900.07	Pg 7	12,7	3,5- 6,5	15	8	18-22	100
4900.09	Pg 9	15,5	6,5- 8	19	8	22-26	100
4900.11	Pg11	18,8	8 -10	22	8	23-28	100
4900.13	Pg13,5	20,5	9 -12	24	9	24-29	100
4900.16	Pg16	22,6	10 -14	27	10	26-31	50
4900.21	Pg21	28,5	14 -18	33	12	30-35	50
4900.29	Pg29	37,2	18 -22	42	12	33-39	25
4900.36	Pg36	47,2	22 -32	53	14	42-49	10
4900.42	Pg42	54,2	28 -38	60	14	42-50	5
4900.48	Pg48	60,0	38 -45	66	15	45-55	5

extended thread

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A mini-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4901.07	Pg 7	12,7	3,5- 6,5	15	**15**	18-22	100
4901.09	Pg 9	15,5	6,5- 8	19	**15**	22-26	100
4901.11	Pg11	18,8	8 -10	22	**15**	23-28	100
4901.13	Pg13,5	20,5	9 -12	24	**15**	24-29	100
4901.16	Pg16	22,6	10 -14	27	**15**	26-31	50
4901.21	Pg21	28,5	14 -18	33	**15**	30-35	50
4901.29	Pg29	37,2	18 -22	42	**15**	33-39	25
4901.36	Pg36	47,2	22 -32	53	**18**	42-49	10
4901.42	Pg42	54,2	28 -38	60	**18**	42-50	5
4901.48	Pg48	60,0	38 -45	66	**18**	45-55	5

Technical data pages 201 to 204

COMPRESSION CABLE GLANDS

Polyamide PA6

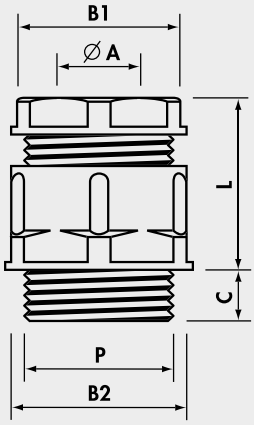
1700
1400

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
1709	Pg 7	12,7	5,5- 7	15	16	8	16-20	300/100
***1700**	Pg 9	15,5	6,5- 8,5	17	20	8	19-22	200/100
***1701**	Pg11	18,8	8 -10	19	22	8	21-25	100/100
***1702**	Pg13,5	20,5	8 -11	21	24	9	22-26	100/100
1703	Pg16	22,6	11 -14	23	27	10	24-33	50/50
1704	Pg21	28,5	14,5-18	30	33	11	25-32	50/25
1705	Pg29	37,2	19 -26	40	42	11	27-32	20/10
1706	Pg36	47,2	30 -34	50	53	14	33-42	10/10
1707	Pg42	54,2	30 -38	55	60	13	37-48	5/5
1708	Pg48	60,0	38 -44	60	65	14,5	37-48	5/5

*Add to Ref: N for Black

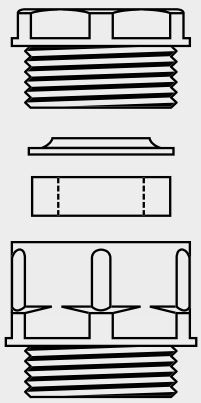
Material: POLYAMIDE PA6
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: PVC 50 sh A
Protection: IP 54
Colour: RAL 7035 light grey,
RAL 9005 black



BSP thread ISO 228/1

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
1400	G1/4"	13,5	5,5- 7	15	16	8	16-20	300/100
***1401**	G3/8"	17,0	6,5- 8,5	17	20	8	19-22	200/100
***1401B**	G3/8"	17,0	8 -10	19	22	8	18-24	100/100
***1401C**	G3/8"	17,0	10 -12	22	24	9	22-26	100/100
***1402**	G1/2"	21,5	8 -11	21	24	9	22-26	100/100
1403	G5/8"	23,5	11 -14	23	27	10	24-33	50/50
1404	G3/4"	27,0	14,5-18	30	33	11	25-32	50/25
1405	G1"	34,0	17 -22	34	38	11,5	27-35	20/10
1407	G1"1/2	48,0	30 -34	50	53	14	33-42	10/10
1408	G2"	60,0	38 -44	60	65	14,5	37-48	5/5

*Add to Ref: N for Black



Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
1730M20	M20x1,5	20,5	8-11	21	24	9	22-26	100

*Add to Ref: N for Black

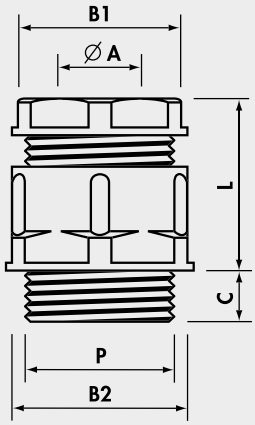
Technical data pages 201 to 204

COMPRESSION CABLE GLANDS

1700T

Polyamide PA6

Material: POLYAMIDE PA6
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Protection: IP 54
Colour: RAL 7035 light grey,
RAL 9005 black



Compression cable glands

special Internal blanking disc: PVC 50 sh

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	*Quantity* Box/Bag
* **1700T**	Pg 9	15,5	6,5- 8,5	17	20	8	19-22	200/100
* **1701T**	Pg11	18,8	8 -10	19	22	8	21-25	100/100
* **1702T**	Pg13,5	20,5	8 -11	21	24	9	22-26	100/100

*Add to Ref: N for Black

Compression cable gland - reduced cable entry

Sealing ring: CHLOROPRENE, concentric, multi-sector

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1702CONC	Pg13,5	20,5	**5,5-13**	21	24	9	22-26	100

Add to Ref: N for Black

POLYSTYRENE CABLE GLANDS

Polystyrene PS

1700P

Cable Glands

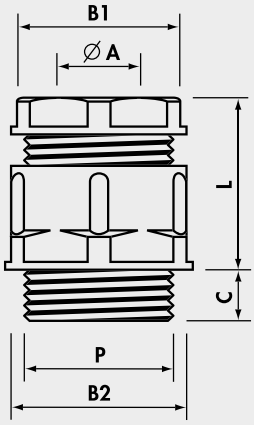
Sealing ring: PVC 50 sh A - Protection: IP 54

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	*Quantity* *Box/Bag*
1700P	Pg9	15,5	7 - 8,5	17	20	8	19-22	200/100
* **1701P**	Pg11	18,8	8 -10	19	22	8	21-25	100/100
* **1702P**	Pg13,5	20,5	8 -11	21	24	9	22-26	100/100
1703P	Pg16	22,6	11 -14	24	27	10	24-33	50/50
1704P	Pg21	28,5	14,5-18	30	33	11	25-32	50/25

*Add to Ref: N for Black

Material: POLYSTYRENE PS
Temperature range:
–20°C to +60°C (continuous)
Colour: RAL 7035 light grey,
RAL 9005 black

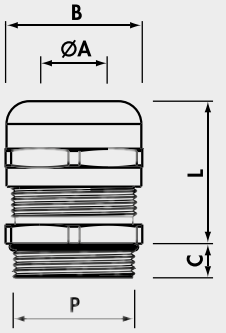


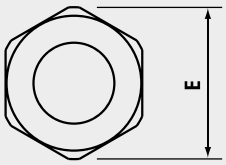
MAXIbrass® CABLE GLANDS

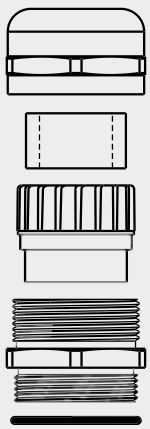
Nickel Plated Brass

2900

Material:
NICKEL PLATED BRASS
(CuZn 39 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert:
POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-25°C to +100°C (continuous)







MAXIbrass® standard

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2900.M12N	M12x1,5	12,2	3 - 7	16	18	6,5	16-20	100
2900.M16N	M16x1,5	16,2	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	25,4	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	64,0	34 -45	67	74	15,0	40-52	5

MAXIbrass® reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2910.M12N	M12x1,5	12,2	**1 - 5**	16	18	6,5	16-20	100
2910.M16N	M16x1,5	16,2	**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	25,4	**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	64,0	**27 -39**	67	74	15,0	40-52	5

Cembre

Technical data pages 201 to 204

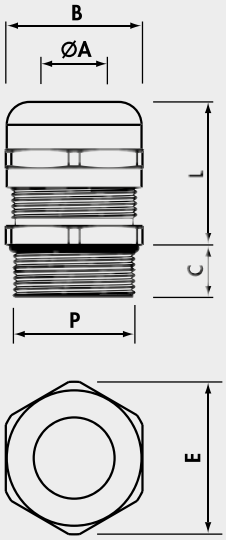
File no. E220310

File no. E220310

MAXIbrass® extended thread

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

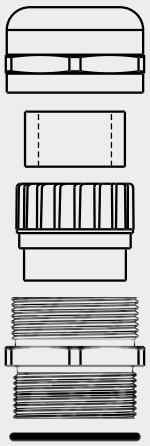
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2901.M12N	M12x1,5	12,2	3 - 7	16	18	**12**	16-20	100
2901.M16N	M16x1,5	16,2	4,5-10	20	23	**12**	20-25	100
2901.M20N	M20x1,5	20,5	7 -13	24	27	**12**	20-27	50
2901.M25N	M25x1,5	25,4	10 -17	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



MAXIbrass® extended thread and reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2911.M12N	M12x1,5	12,2	**1 - 5**	16	18	**12**	16-20	100
2911.M16N	M16x1,5	16,2	**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	25,4	**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



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MAXIbrass® CABLE GLANDS

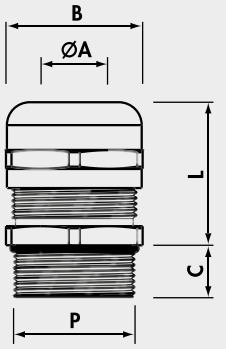
2900

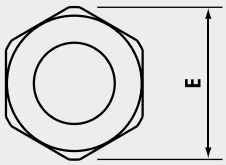
Nickel Plated Brass

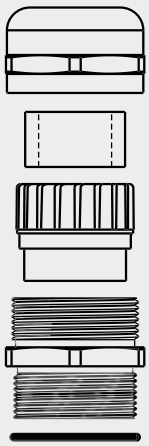
File no. E220310

File no. E220310

Material:
NICKEL PLATED BRASS
(CuZn 39 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert:
POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-25°C to +100°C (continuous)







MAXIbrass® standard

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2900.07N	Pg 7	12,7	3 - 7	16	18	5,0	16-20	100
2900.09N	Pg 9	15,5	4 - 8	17	19	6,0	17-23	100
2900.11N	Pg11	18,8	4,5-10	20	23	6,0	20-25	100
2900.13N	Pg13,5	20,5	5 -12	22	25	6,5	20-26	50
2900.16N	Pg16	22,6	7 -13	24	27	6,5	20-27	50
2900.21N	Pg21	28,5	10 -17	30	33	7,0	24-30	50
2900.29N	Pg29	37,2	17 -25	40	45	8,0	30-37	25
2900.36N	Pg36	47,2	20 -32	50	55	8,0	38-48	10
2900.42N	Pg42	54,2	28 -38	57	63	10,0	39-48	5
2900.48N	Pg48	60,0	34 -45	67	74	15,0	40-52	5

MAXIbrass® reduced cable entry

Pg thread DIN 40 430

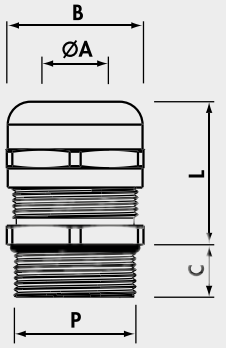
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2910.07N	Pg 7	12,7	**1 - 5**	16	18	5,0	16-20	100
2910.09N	Pg 9	15,5	**2 - 6**	17	19	6,0	17-23	100
2910.11N	Pg11	18,8	**2,5- 7**	20	23	6,0	20-25	100
2910.13N	Pg13,5	20,5	**4 -10**	22	25	6,5	20-26	50
2910.16N	Pg16	22,6	**5 -10**	24	27	6,5	20-27	50
2910.21N	Pg21	28,5	**6 -13**	30	33	7,0	24-30	50
2910.29N	Pg29	37,2	**11 -20**	40	45	8,0	30-37	25
2910.36N	Pg36	47,2	**18 -26**	50	55	8,0	38-48	10
2910.42N	Pg42	54,2	**24 -31**	57	63	10,0	39-48	5
2910.48N	Pg48	60,0	**27 -39**	67	74	15,0	40-52	5

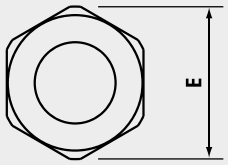
Technical data pages 201 to 204

MAXIbrass® extended thread

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2901.07N	Pg 7	12,7	3 - 7	16	18	**12**	16-20	100
2901.09N	Pg 9	15,5	4 - 8	17	19	**12**	17-23	100
2901.11N	Pg11	18,8	4,5-10	20	23	**12**	20-25	100
2901.13N	Pg13,5	20,5	5 -12	22	25	**12**	20-26	50
2901.16N	Pg16	22,6	7 -13	24	27	**12**	20-27	50
2901.21N	Pg21	28,5	10 -17	30	33	**12**	24-30	50
2901.29N	Pg29	37,2	17 -25	40	45	**15**	30-37	25
2901.36N	Pg36	47,2	20 -32	50	55	**15**	38-48	10
2901.42N	Pg42	54,2	28 -38	57	63	**15**	39-48	5

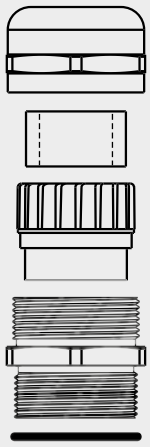




MAXIbrass® extended thread and reduced cable entry

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2911.07N	Pg 7	12,7	**1 - 5**	16	18	**12**	16-20	100
2911.09N	Pg 9	15,5	**2 - 6**	17	19	**12**	17-23	100
2911.11N	Pg11	18,8	**2,5- 7**	20	23	**12**	20-25	100
2911.13N	Pg13,5	20,5	**4 -10**	22	25	**12**	20-26	50
2911.16N	Pg16	22,6	**5 -10**	24	27	**12**	20-27	50
2911.21N	Pg21	28,5	**6 -13**	30	33	**12**	24-30	50
2911.29N	Pg29	37,2	**11 -20**	40	45	**15**	30-37	25
2911.36N	Pg36	47,2	**18 -26**	50	55	**15**	38-48	10
2911.42N	Pg42	54,2	**24 -31**	57	63	**15**	39-48	5



Technical data pages 201 to 204

MAXIbrass® ATEX CABLE GLANDS

5900

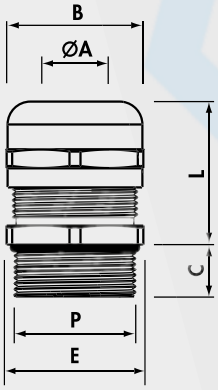
Nickel Plated Brass

CE 0051 Ex II 2 G D

Certificate No IMQ ATEX 028X

Temperature range: -25°C to +75°C (continuous)
Protection: IP 65

Material: NICKEL PLATED BRASS (CuZn 39 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A (factory fitted)
Safety level: Ex e IIC/Ex tb IIIC according to
EN 60079-0 : 2009
EN 60079-7 : 2007
EN 60079-31 : 2009
Areas of utilisation: 1 & 2, 21 & 22



Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
5900.M12N	M12x1,5	12,2	3 - 6,5	16	18	6,5	16-20	100
5900.M16N	M16x1,5	16,2	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	25,4	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	64,0	35 -42	67	74	15,0	40-52	5

extended thread

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
5901.M12N	M12x1,5	12,2	3 - 6,5	16	18	**12**	16-20	100
5901.M16N	M16x1,5	16,2	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	25,4	11 -17	29	32	**12**	24-30	50
5901.M32N	M32x1,5	32,5	14 -21	36	40	**12**	27-34	25
5901.M40N	M40x1,5	40,5	21 -27	45	50	**12**	34-42	10
5901.M50N	M50x1,5	50,5	26 -35	54	60	**12**	35-43	8

EMC CABLE GLANDS

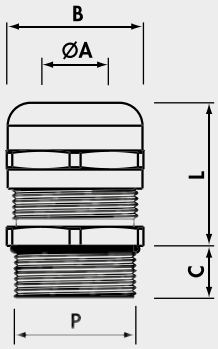
20M3

Nickel Plated Brass

Protection: IP 68, 5 bar
Temperature range:
-30°C to +120°C (continuous)

CE

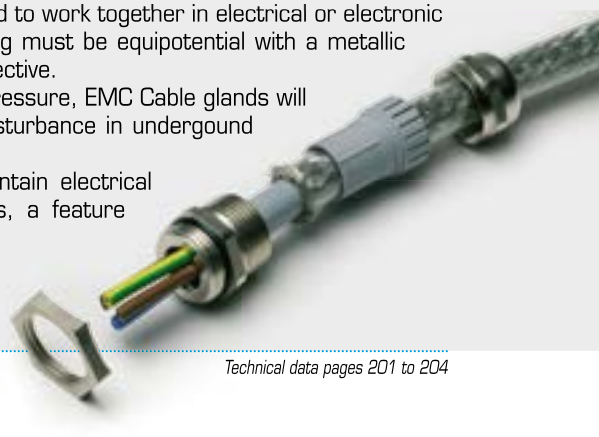
Material: NICKEL PLATED BRASS (CuZn 39 Pb 3)
Sealing-ring: CLOROPRENE (CR)
Cable grip insert: PA 6.6
O-Ring: (NBR) (factory fitted)



Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L max (mm)	Quantity *Box/Bag*
20M3M1261N	M12x1,5	12,2	3 - 6,5	14	5	22	300/100
20M3M1661N	M16x1,5	16,2	5,5-10	17	5,5	24,5	200/100
20M3M2061N	M20x1,5	20,5	8 -13	22	6	27	100/50
20M3M2561N	M25x1,5	25,4	11 -18	30	7	31	50/25
20M3M3261N	M32x1,5	32,5	15 -21	34	8	33	30/10
20M3M4061N	M40x1,5	40,5	19 -27	44	8	40	20/10
20M3M5061N	M50x1,5	50,5	26 -35	55	9	48	10/5
20M3M6361N	M63x1,5	64,0	39 -48	66	10	50	5/5

EMC Cable glands and locknuts are designed to work together in electrical or electronic applications where a metallic cable shielding must be equipotential with a metallic enclosure, in accordance with the EMC directive.
Offering IP68 ingress protection at 5 bar pressure, EMC Cable glands will maintain shielding from electromagnetic disturbance in undergound applications.
EMC locknuts have serrated teeth to maintain electrical contact through paint or surface coatings, a feature which also enhances vibration resistance.



Technical data pages 201 to 204

COMPRESSION CABLE GLANDS

Brass

2003
2002
2001

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

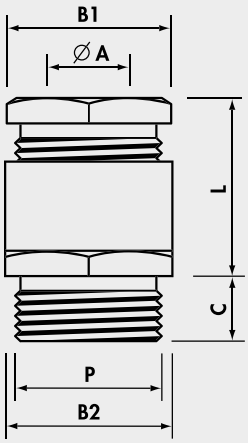
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
2003M1221N	M12x1,5	12,2	4 - 6	13	14	5	13-16	500/100
2003M1621N	M16x1,5	16,2	8 -10	15	17	5	14-17	200/100
2003M2021N	M20x1,5	20,5	10 -12	20	22	6	16-19	150/50
2003M2521N	M25x1,5	25,4	17 -19	28	30	7	19-23	50/50
2003M3221N	M32x1,5	32,5	26 -28	37	39	8	21-25	100/50
2003M4021N	M40x1,5	40,5	33 -35	47	50	8	24-30	20/20
2003M5021N	M50x1,5	50,5	39 -41	54	57	9	28-34	10/5
2003M6321N	M63x1,5	64,0	43 -45	60	66/68	10	30-36	10/5

Material: Metric & Pg threads
NICKEL PLATED BRASS
(CuZn 39 Pb 3)
BSP thread - PLAIN BRASS
Protection: IP 54
Sealing ring:
Metric thread - RUBBER 55sh A
Pg thread - RUBBER 55 sh A
BSP thread - PVC 50 sh A

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
200200721N	Pg 7	12,7	5 - 7	13	14	5	13-16	400/100
200200921N	Pg 9	15,5	8 -10	15	17	6	14-17	300/100
200201121N	Pg11	18,8	8 -10	18	20	6	14-18	200/50
200201321N	Pg13,5	20,5	10 -12	20	22	6,5	16-19	100/50
200201621N	Pg16	22,6	12 -14	22	24	6,5	17-20	50/50
200202121N	Pg21	28,5	17 -19	28	30	7	19-23	50/50
200202921N	Pg29	37,2	26 -28	37	40	8	21-25	15/15
200203621N*	Pg36	47,2	33 -35	47	50	9	24-30	10/10
200204221N	Pg42	54,2	39 -41	54	57	10	28-34	10/10
200204821N*	Pg48	60,0	43 -45	60	64	10	36-45	10/10

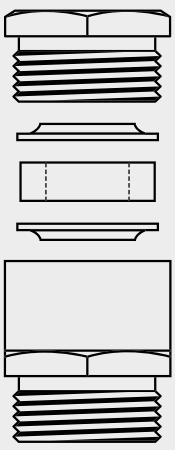
* Double sealing ring



BSP thread ISO 228/1

Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
200101441	G1/4"	13,5	5,5 - 7	13	15	6,5	14-17	400/100
207101441	G1/4"	13,5	5,5 - 7	13	∅15	6,5	14-17	400/100
200103841	G3/8"	17,0	6,5 - 8,5	17	19	7,5	15-19	200/100
200101241	G1/2"	21,5	8 -11	21	23	8	17-23	100/100
200105841	G5/8"	23,5	11 -14	23	25	8,5	20-24	100/50
200103441	G3/4"	27,0	14,5-17,5	27	29	9	20-26	50/50
200110041	G1"	34,0	18 -22	34	36	10	23-28	25/25
200111841	G1"1/8	38,0	21 -26	38	40	10,5	23-28	25/25
200111441	G1"1/4	42,0	28 -32	42	45	11,5	25-31	20/20
200111241	G1"1/2	48,0	32 -36	48	50	11,5	28-35	20/20
200120041	G2"	60,0	38 -42	60	64	13,5	31-37	10/10
• 200121221*	G2"1/2	76,0	44 -57	80	80	20	32-37	5/5
• 200130021	G3"	89,0	67 -69	95	95	20	42-52	5/5

Add to Ref: N for NICKEL PLATED BRASS
• Sealing ring: CLOROPRENE
* Concentric sealing ring



Technical data pages 201 to 204

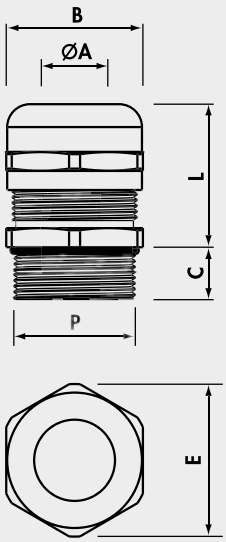
MAXI*inox* CABLE GLANDS

7900
7900A

Stainless Steel 303 (X8 CrNiS 18-9)

Stainless Steel 316L (X2 CrNiMo 17-12-2)

Material:
STAINLESS STEEL 303/316L
Sealing-ring: NEOPRENE®
Cable grip insert:
POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-25°C to +100°C (continuous)



MAXI*inox* Stainless Steel AISI 303

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Stainless Steel AISI 303	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
7900.M12	M12x1,5	12,2	3 - 7	16	18	6,5	16-20	90/30
7900.M16	M16x1,5	16,2	4,5-10	20	23	7,0	20-25	120/30
7900.M20	M20x1,5	20,5	7 -13	24	27	8,0	20-27	75/25
7900.M25	M25x1,5	25,4	10 -17	29	32	8,0	24-30	40/20
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	64,0	34 -45	67	74	15,0	40-52	5

MAXI*inox* Stainless Steel AISI 316L

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Stainless Steel AISI 316L	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
7900A.M12	M12x1,5	12,2	3 - 7	16	18	6,5	16-20	60/20
7900A.M16	M16x1,5	16,2	4,5-10	20	23	7,0	20-25	80/20
7900A.M20	M20x1,5	20,5	7 -13	24	27	8,0	20-27	60/20
7900A.M25	M25x1,5	25,4	10 -17	29	32	8,0	24-30	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	64,0	34 -45	67	74	15,0	40-52	5

MAXI*inox* CABLE GLANDS

Stainless Steel 303 (X8 CrNiS 18-9)

Stainless Steel 316L (X2 CrNiMo 17-12-2)

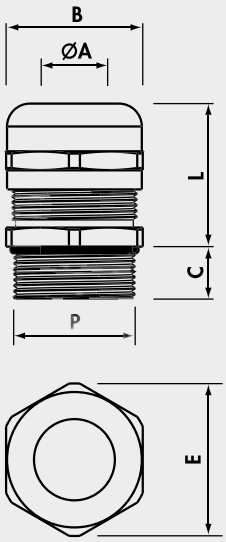
7900
7900A

MAXI*inox* Stainless Steel AISI 303

Pg thread DIN 40 430

Stainless Steel AISI 303	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
7900.07	Pg 7	12,7	3 - 7	16	18	5,0	16-20	90/30
7900.09	Pg 9	15,5	4 - 8	17	19	6,0	17-23	90/30
7900.11	Pg11	18,8	4,5-10	20	23	6,0	20-25	60/30
7900.13	Pg13,5	20,5	5 -12	22	25	6,5	20-26	90/30
7900.16	Pg16	22,6	7 -13	24	27	6,5	20-27	60/30
7900.21	Pg21	28,5	10 -17	30	33	7,0	24-30	40/20
7900.29	Pg29	37,2	17 -25	40	45	8,0	30-37	30/15
7900.36	Pg36	47,2	20 -32	50	55	8,0	38-48	10
7900.42	Pg42	54,2	28 -38	57	63	10,0	36-46	5
7900.48	Pg48	60,0	34 -45	67	74	15,0	40-52	5

Material:
STAINLESS STEEL 303/316L
Sealing-ring: NEOPRENE®
Cable grip insert:
POLYAMIDE PA6.6
O-Ring: NITRILE 70 sh A
(factory fitted)
Protection: IP 68
Temperature range:
-25°C to +100°C (continuous)



MAXI*inox* Stainless Steel AISI 316L

Pg thread DIN 40 430

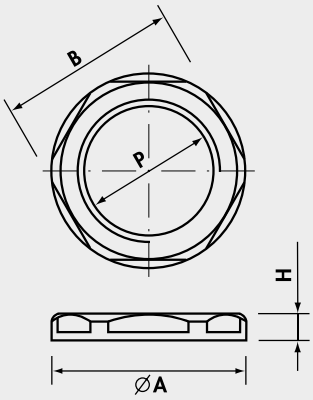
Stainless Steel AISI 316L	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity *Box/Bag*
7900A.07	Pg 7	12,7	3 - 7	16	18	5,0	16-20	60/20
7900A.09	Pg 9	15,5	4 - 8	17	19	6,0	17-23	60/20
7900A.11	Pg11	18,8	4,5-10	20	23	6,0	20-25	100/20
7900A.13	Pg13,5	20,5	5 -12	22	25	6,5	20-26	100/20
7900A.16	Pg16	22,6	7 -13	24	27	6,5	20-27	40/20
7900A.21	Pg21	28,5	10 -17	30	33	7,0	24-30	60/15
7900A.29	Pg29	37,2	17 -25	40	45	8,0	30-37	20/10
7900A.36	Pg36	47,2	20 -32	50	55	8,0	38-48	7
7900A.42	Pg42	54,2	28 -38	57	63	10,0	36-46	5
7900A.48	Pg48	60,0	34 -45	67	74	15,0	40-52	5

LOCKNUTS WITH COLLAR

Polyamide PA6 or PA6.6

1143
1142
1141

Material: POLYAMIDE PA6 or 6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 7035 light grey,
RAL 9005 black,
RAL 7001 dark grey



Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	Ø A (mm)	B Spanner (mm)	H (mm)	Quantity Box/Bag
1143M12	M12X1,5	18,5	17	5	1.000/100
1143M16	M16X1,5	24	22	5	600/100
1143M20	M20X1,5	29	27	6	400/100
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

Add to Ref: N for Black, G for Dark Grey

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	Ø A (mm)	B Spanner (mm)	H (mm)	Quantity Box/Bag
1142007	Pg 7	21	19	5	100
1142009	Pg 9	24	22	5	700/100
1142011	Pg11	26	24	5	500/100
1142013	Pg13,5	29	27	6	400/100
1142016	Pg16	33	30	6	100
1142021	Pg21	39	36	7	200/50
1142029	Pg29	50	46	7	50
1142036	Pg36	66	60	8	30
1142042	Pg42	73	65	8	25
1142048	Pg48	78	70	8	20

Add to Ref: N for Black, G for Dark Grey

BSP thread ISO 228/1

Ref. Light Grey	P	Ø A (mm)	B Spanner (mm)	H (mm)	Quantity Box/Bag
1141012	G1/2"	29	27	6	400/100
1141112	G1"1/2	66	60	8	30
1141200	G2"	78	70	8	20

Add to Ref: N for Black

LOCKNUTS WITHOUT COLLAR

Polyamide PA6 or PA6.6

1112
1710
1410

Material:
POLYAMIDE PA6 or 6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 7035 light grey,
RAL 9005 black

Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	B Spanner (mm)	H (mm)	*Quantity* *Box/Bag*
1112	M12X1,5	17	5	1.000/100
1116	M16X1,5	22	5	700/100
1120	M20X1,5	27	6	400/100
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

Add to Ref: N for Black

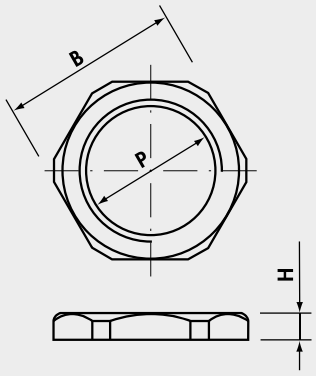
Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	B Spanner (mm)	H (mm)	*Quantity* *Box/Bag*
* **1719E17**	Pg 7	17	5	1.000/100
1719	Pg 7	19	5	100
1710	Pg 9	22	5	700/100
1711	Pg11	24	5	500/100
1712	Pg13,5	27	6	400/100
1713	Pg16	30	6	100
△*1714E34	Pg21	34	7	200/100
1714	Pg21	36	7	200/100
1715	Pg29	46	7,5	100/50

Add to Ref: N for Black

△ Light Grey only

* Not DIN 46 320



BSP thread ISO 228/1

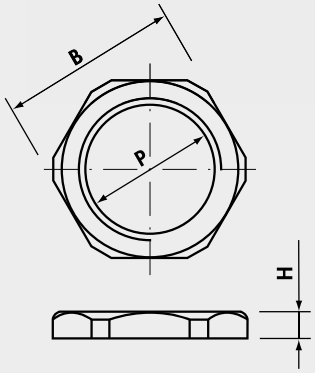
Ref. Light Grey	P	B Spanner (mm)	H (mm)	*Quantity* *Box/Bag*
1410	G1/4"	19	5	800/100
1411	G3/8"	23	6	600/100
1412	G1/2"	27	6	400/100
1413	G5/8"	30	6	100
1414	G3/4"	34	7	200/100
1415	G1"	40	7	50

Add to Ref: N for Black

LOCKNUTS

Brass

2033
2032
2031



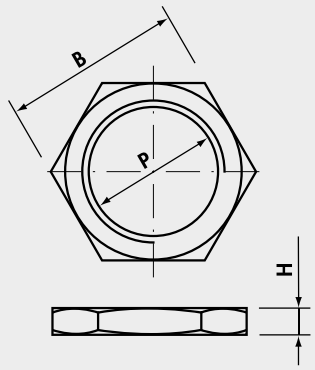
Metric thread M 1.5 pitch CEI EN 60423

Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2033M12N	M12X1,5	16	2,8	2.000/100
2033M16N	M16X1,5	19	2,8	1.000/100
2033M20N	M20X1,5	24	3	600/100
2033M25N	M25X1,5	30	4,0	400/50
2033M32N	M32X1,5	36	4	250/25
2033M40N	M40X1,5	45	5,0	150/10
2033M50N	M50X1,5	60	5	100/10
2033M63N	M63X1,5	70	5,5	50/5

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2032007N	Pg 7	16*	2,8	1.500/100
2032009N	Pg 9	18	2,8	1.500/100
2032011N	Pg11	21	3	1.000/100
2032013N	Pg13,5	23	3	1.000/100
2032016N	Pg16	26	3	600/100
2032021N	Pg21	32	3,5	500/100
2032029N	Pg29	41	4	300/100
2032036N	Pg36	51	5	100/10
2032042N	Pg42	60	5	50/10
2032048N	Pg48	64	5,5	50/10

*Different dimension to DIN 46320



BSP thread ISO 228/1

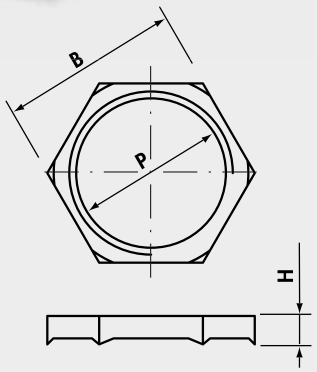
Ref. Plain Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2031014	G1/4"	16	3	2.400/100
2031038	G3/8"	19	3	2.000/100
2031012	G1/2"	24	3,5	1.000/100
2031058	G5/8"	26	4	500/50
2031034	G3/4"	30	4	500/50
2031100	G1"	37	4	250/25
2031118	G1"1/8	41	4,5	100/25
2031114	G1"1/4	45	4,5	200/20
2031112	G1"1/2	52	5,5	100/20
2031200	G2"	64	7	50/10
2031212	G2"1/2	80	7	20/5
2031300	G3"	95	8	20/5

Add to Ref: N for NICKEL PLATED BRASS

EMC LOCKNUTS

Nickel Plated Brass

20N3



EMC Locknuts

Material: NICKEL PLATED BRASS (CuZn 40 Pb 3)

Metric thread M 1.5 pitch CEI EN 60423

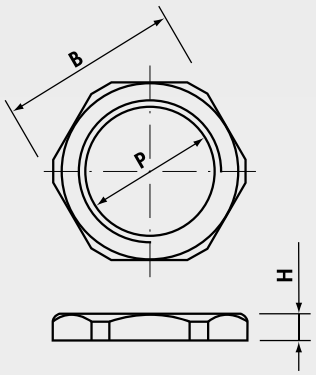
Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	*Quantity Box/Bag*
20N3M12N	M12X1,5	15	4,1	1000/100
20N3M16N	M16X1,5	19	4,2	1000/100
20N3M20N	M20X1,5	24	4,2	500/100
20N3M25N	M25X1,5	30	4,8	400/100
20N3M32N	M32X1,5	36	5,4	200/100
20N3M40N	M40X1,5	46	6,2	100/50
20N3M50N	M50X1,5	60	7	50/50
20N3M63N	M63X1,5	70	7	50/25

MAXI*inox* LOCKNUTS

Stainless Steel 303 (X8 CrNiS 18-9)

Stainless Steel 316L (X2 CrNiMo 17-12-2)

7032
7033



Metric thread M 1.5 pitch CEI EN 60423

Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner (mm)	H (mm)	AISI 303 *Quantity Box/Bag*	AISI 316L *Quantity Box/Bag*
7033M12	7033AM12	M12X1,5	16	2,8	450/30	300/20
7033M16	7033AM16	M16X1,5	20	2,8	450/30	300/20
7033M20	7033AM20	M20X1,5	24	3,5	250/25	200/20
7033M25	7033AM25	M25X1,5	29	4	160/20	120/15
7033M32	7033AM32	M32X1,5	36	4	105/15	84/12
7033M40	7033AM40	M40X1,5	45	5	60/15	40/10
7033M50	7033AM50	M50X1,5	57	5	40/10	28/7
7033M63	7033AM63	M63X1,5	70	5,5	32/8	20/5

Pg thread DIN 40 430

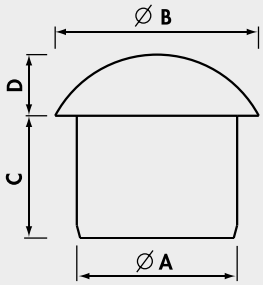
Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner (mm)	H (mm)	AISI 303 *Quantity Box/Bag*	AISI 316L *Quantity Box/Bag*
7032007	7032A007	Pg 7	16	2,8	450/30	300/20
7032009	7032A009	Pg 9	20	2,8	450/30	300/20
7032011	7032A011	Pg11	22	3	300/30	200/20
7032013	7032A013	Pg13,5	22	3	300/30	200/20
7032016	7032A016	Pg16	27	3	240/30	160/20
7032021	7032A021	Pg21	32	3,5	160/20	150/15
7032029	7032A029	Pg29	41	4	60/15	40/10
7032036	7032A036	Pg36	50	5	40/10	28/7
7032042	7032A042	Pg42	60	5	40/10	20/5
7032048	7032A048	Pg48	64	5,5	32/8	20/5

INTERNAL PLUGS FOR CABLE GLANDS

TCP

Polyamide PA6.6

Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 9005 black
Application:
Blanking the cable entry of **MAXIblock**®, **MAXIbrass**® and **MAXIinox** cable glands and maintaining IP 68.



Plugs

Ref.	Suitable for MAXIblock®	Suitable for MAXIbrass® MAXIinox	Ø A (mm)	Ø B (mm)	C (mm)	D (mm)	Quantity Box/Bag
TCP5	M12R + Pg7R	M12R	4,5	8,5	10,8	4,5	3.000/100
TCP10	Pg9R	Pg9R	6	12	12	4,5	2.000/100
TCP12	M12 + Pg7 M16R + Pg11R	M12 + Pg7 M16R + Pg11R	6,8	12	12	4,5	1.000/100
TCP15	Pg9	Pg9	8	11	11,5	5	1.500/100
TCP18	M16 + Pg11	M16 + Pg11	9,5	12,5	13	5	1.500/100
TCP20	M20R Pg13,5 + Pg13,5R Pg16R	M20R Pg13 + Pg13,5R Pg16R	10	15	14	6	800/100
TCP25	M20 + Pg16	M20 + Pg16	12,5	17	15	8	400/100
TCP30	M25R + M32R Pg21R	M25R + M32R Pg21R	12,5	22,5	18	9	300/100
TCP35	M25 + Pg21	M25 + Pg21	16	19,5	18	8	300/100
TCP40	M32	M32	19	22,5	19	9	150/50
TCP45	M40R + Pg29 + Pg36R	M40R + Pg29	22	30	20	10	100/50
TCP50	M40 + M50R + Pg42R	M40 + M50R	27,5	38	25	12	50/25
TCP55	Pg36	Pg36	31,5	36,5	23,5	12	50/25
TCP60	M50	M50	34,5	40	23,5	12	50/25
TCP65	M63R + Pg42 + Pg48R	M63R + Pg42	37,5	48	26,5	12	30/15
TCP70	M63 + Pg48	M63 + Pg48	43	48	26,5	12	30/15

R: reduced cable entry

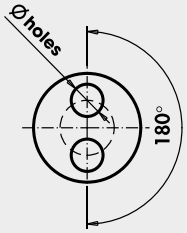
36 TGM

Material: NEOPRENE® 70 sh A
Temperature range:
–40°C to +130°C
Protection: IP 68
Colour: RAL 9005 black
Application:
IP68 sealing of multiple cables entering MAXIblock®, MAXIbrass® or MAXIinox cable glands.

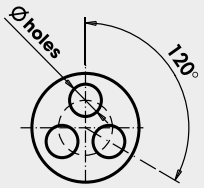
Multi-entry seals

Ref.	Suitable for MAXIblock®	Suitable for MAXIbrass® MAXIinox®	n° entries	Ø Dia entry (mm)	Quantity Box/Bag
36A3M1623	M16 + Pg11	M16 + Pg11	2	3	1.500/100
36A3M1624	M16 + Pg11	M16 + Pg11	2	4	1.000/100
36A3M16322	M16 + Pg11	M16 + Pg11	3	2,2	1.500/100
36A3M2025	M20 + Pg13,5	M20 + Pg13,5 + Pg16	2	5	500/100
36A3M2034	M20 + Pg13,5	M20 + Pg13,5 + Pg16	3	4	500/100
36A3M20356	M20 + Pg13,5	M20 + Pg13,5 + Pg16	3	5,6	500/100
36A3M2526	M25	M25 + Pg21	2	6	300/50
36A3M2536	M25	M25 + Pg21	3	6	300/50
36A3M2537	M25	M25 + Pg21	3	7	300/50
36A3M2545	M25	M25 + Pg21	4	5	300/50
36A3M2546	M25	M25 + Pg21	4	6	300/50
36A3M2554	M25	M25 + Pg21	5	4	300/50
36A3M3228	M32	M32	2	8	150/50
36A3M3239	M32	M32	3	9	150/50
36A3M32465	M32	M32	4	6,5	150/50
36A3M3248	M32	M32	4	8	150/50
36A3M4078	M40	M40	7	8	100/100
36A3M40106	M40	M40	10	6	100/100
36A3M5088	M50	M50	8	8	50/50
36C201629	Pg16	-	2	3+9	400/50

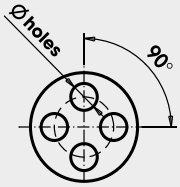
2 ENTRIES



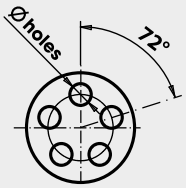
3 ENTRIES



4 ENTRIES



5 ENTRIES

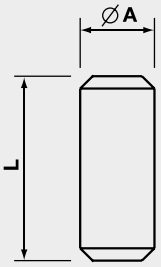


Material: POLYAMIDE PA6.6
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 7035 light grey

Application:
Plugging unused entries in multi-entry seals and maintaining IP68.

Multi-entry seal plugs

Ref.	Suitable for Seal	Ø A (mm)	L (mm)	Quantity Box/Bag
TGM38	36A3M1623	3	10	5.000/100
TGM48	36A3M1624 + 36A3M2034 + 36A3M2554	4	8	5.000/100
TGM58	36A3M2025	5	8	5.000/100
TGM513	36A3M2545	5	13	2.500/50
TGM613	36A3M2526 + 36A3M2536 + 36A3M40106	6	13	2.000/50
TGM713	36A3M2537	7	13	2.000/50
TGM817	36A3M3248 + 36A3M5088 + 36A3M4078	8	17	100



ENTRY THREAD ADAPTERS

2093
2043
20A4

Nickel Plated Brass

Material: NICKEL PLATED BRASS (CuZn 40 Pb 3)

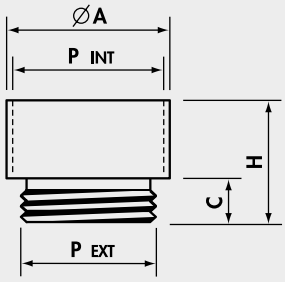


Fig. 1

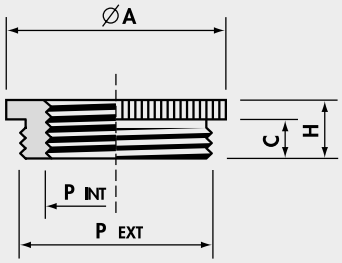


Fig. 2

Entry thread enlargers

Metric thread M 1.5 pitch CEI EN 60423

Ref.	P EXT	P INT	Ø A (mm)	C (mm)	H (mm)	Quantity Box/Bag
20931216N	M12X1,5	M16X1,5	18	5	15,5	500/100
20931620N	M16X1,5	M20X1,5	22	5	17,5	300/100
20932025N	M20X1,5	M25X1,5	27	6	20	150/50
20932532N	M25X1,5	M32X1,5	34	7	22,5	100/50
20932540N	M25X1,5	M40X1,5	42	7	23,5	50/50
20933240N	M32X1,5	M40X1,5	42	8	24,5	50/50
20933250N	M32X1,5	M50X1,5	52	8	27,5	25/25
20934050N	M40X1,5	M50X1,5	52	8	27,5	25/25
20935063N	M50X1,5	M63X1,5	66	9	31	20/10

Entry thread reducers

Metric thread M 1.5 pitch CEI EN 60423

Ref.	P EXT	P INT	Ø A (mm)	C (mm)	H (mm)	Quantity Box/Bag
20431612N	M16X1,5	M12X1,5	18	5	7,5	1.000/100
20432012N	M20X1,5	M12X1,5	22	6	9	600/100
20432016N	M20X1,5	M16X1,5	22	6	9	500/100
20432512N	M25X1,5	M12X1,5	27	7	10	300/50
20432516N	M25X1,5	M16X1,5	27	7	10	300/50
20432520N	M25X1,5	M20X1,5	27	7	10	300/100
20433220N	M32X1,5	M20X1,5	34	8	11	100/25
20433225N	M32X1,5	M25X1,5	34	8	11	200/50
20434025N	M40X1,5	M25X1,5	43	8	11,5	100/25
20434032N	M40X1,5	M32X1,5	43	8	11,5	100/25
20435032N	M50X1,5	M32X1,5	53	9	12,5	50/10
20435040N	M50X1,5	M40X1,5	53	9	12,5	50/25
20436340N	M63X1,5	M40X1,5	66	10	14	30/10
20436350N	M63X1,5	M50X1,5	66	10	14	30/10

Entry thread converters - Metric to Pg

Ref.	P EXT	P INT	Fig.	Ø A (mm)	C (mm)	H (mm)	Quantity Box/Bag
20A42011N	M20X1,5	Pg11	1	22	6,5	17,5	300/100
20A42016N	M20X1,5	Pg16	1	24	6,5	20	200/50
20A42513N	M25X1,5	Pg13,5	2	27	7	10	300/50
20A42516N	M25X1,5	Pg16	2	27	7	10	300/50
20A43216N	M32X1,5	Pg16	2	36	8	11,5	100/25
20A43221N	M32X1,5	Pg21	2	36	8	11,5	100/25

Entry thread converters - Pg to Metric

20A40916N	Pg 9	M16X1,5	1	20	6	15	400/100
20A41120N	Pg11	M20X1,5	1	22	6	16	300/100
20A41320N	Pg13,5	M20X1,5	1	24	6,5	16,5	200/50
20A41620N	Pg16	M20X1,5	2	24	6,5	9,5	50/50
20A42120N	Pg21	M20X1,5	2	30	7	10	100/100
20A42125N	Pg21	M25X1,5	2	30	7	10	100/100
20A42925N	Pg29	M25X1,5	2	39	8	11,5	50/50

ENTRY THREAD ADAPTERS

Nickel Plated Brass

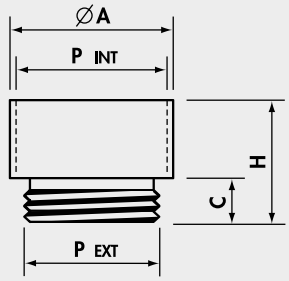
1800 2042

Entry thread enlargers

Pg thread DIN 40 430 - Dimensions DIN 46 320-K

Ref.	P EXT	P INT	∅ A (mm)	C (mm)	H (mm)	*Quantity Box/Bag*
180709	Pg 7	Pg 9	17	5	15	600/100
180911	Pg 9	Pg11	20	6	16,5	500/100
180913	Pg 9	Pg13,5	22	6	17,5	300/100
181113	Pg11	Pg13,5	22	6	17,5	300/100
181116	Pg11	Pg16	24	6	18,5	100/50
181316	Pg13,5	Pg16	24	6,5	19	200/50
181321	Pg13,5	Pg21	30	6,5	21	150/50
181621	Pg16	Pg21	30	6,5	21	100/25
182129	Pg21	Pg29	39	7	23	75/25
182936	Pg29	Pg36	50	8	27,5	30/10
183642	Pg36	Pg42	57	9	31	20/10
184248	Pg42	Pg48	64	10	33	20/10

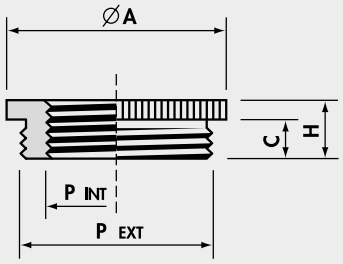
Material: NICKEL PLATED BRASS (CuZn 40 Pb 3)



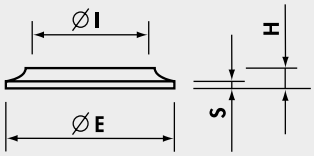
Entry thread reducers

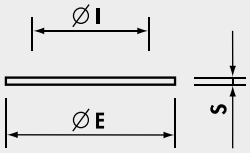
Pg thread DIN 40 430 - Dimensions DIN 46 320-H

Ref.	P EXT	P INT	∅ A (mm)	C (mm)	H (mm)	*Quantity Box/Bag*
20420907N	Pg 9	Pg 7	17	6	8,5	800/100
20421107N	Pg11	Pg 7	20	6	8,5	600/100
20421109N	Pg11	Pg 9	20	6	8,5	600/100
20421307N	Pg13,5	Pg 7	22	6,5	9	600/100
20421309N	Pg13,5	Pg 9	22	6,5	9	600/100
20421311N	Pg13,5	Pg11	22	6,5	9	600/100
20421607N	Pg16	Pg 7	24	6,5	9,5	300/50
20421609N	Pg16	Pg 9	24	6,5	9,5	400/100
20421611N	Pg16	Pg11	24	6,5	9,5	400/100
20421613N	Pg16	Pg13,5	24	6,5	9,5	400/100
20422111N	Pg21	Pg11	30	7	10	200/50
20422113N	Pg21	Pg13,5	30	7	10	200/50
20422116N	Pg21	Pg16	30	7	10	200/50
20422916N	Pg29	Pg16	39	8	11,5	100/25
20422921N	Pg29	Pg21	39	8	11,5	100/25
20423621N	Pg36	Pg21	50	9	12,5	50/25
20423629N	Pg36	Pg29	50	9	12,5	50/25
20424229N	Pg42	Pg29	57	10	14	50/25
20424236N	Pg42	Pg36	57	10	14	50/25
20424836N	Pg48	Pg36	64	10	14	50/25
20424842N	Pg48	Pg42	64	10	14	50/25



6010





Compression washers

Material: Zinc plated STEEL UNI 5961/84

Ref.	Fits thread	Ø E (mm)	Ø I (mm)	H (mm)	S (mm)	*Quantity Box/Bag*
6010.14	G1/4"	11	8	1,1	0,5	15.000/1.000
6010.38	G3/8"	14,5	10	1,8	0,5	5.000/1.000
6010.12	Pg13,5 + G1/2"	18	14	1,5	0,5	4.000/1.000
6010.58	Pg16 + G5/8"	20	15.5	2	0,5	3.000/1.000
6010.34	G3/4"	24	18.5	2	0,5	2.500/500
6010.01	G1"	30	24.5	2	0,5	1.500/500
6010.114	G1"1/4	38	33.5	2	0,5	1.000/500
6010.11	Pg11	17	12	1,9	0,5	5.000/1.000
6010.21	Pg21	26,5	20	2,3	0,5	2.000/500
6010.29	Pg29 + G1"1/8	35	26.5	2	0,5	1.000/500
6010.36	Pg36 + G1"1/2	45	38	-	0,8	750/250
6010.42	Pg42	51	42.5	2,3	0,5	500/250
6010.48	Pg48 + G2"	56	47.5	3	0,5	400/100

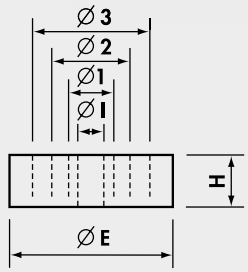
1880
1890

Concentric sealing rings

Material: BUTADIENE-NITRILE NBR with concentric perforations

Ref.	Suitable only for Cable Glands IP54 (1700... 2002..)	Ø E (mm)	Ø 3 (mm)	Ø 2 (mm)	Ø 1 (mm)	Ø I (mm)	H (mm)		Quantity Box/Bag
1880	Pg9 + M16	13,3	–	–	–	10	7,5	5	5,5	1.500/100
1881	Pg11	16,5	–	–	–	12,5	10	7,5	6	1.000/100
1882	Pg13,5 + M20 + G1/2"	18,3	–	–	–	12,5	10	7,5	6	800/100
1883	Pg16 + G5/8"	20,4	–	–	15	12,5	10	7,5	7	600/100
1884	Pg21 + M25	26,0	–	–	19	16	13	10	8	300/100
1884A	Pg21 + M25	26,0	–	–	20,5	18	15	10,5	8	300/100
***1885**	Pg29 + M32 + G1"1/8	34,7	–	–	27	24	21	18	9,5	150/50
1886	Pg36 + G1"1/2 + M40	44,7	–	–	33	30	27	24	12	100/50
***1887**	Pg42 + M50	51,7	–	–	39	36	33	30	14	50/25
1888/5	Pg48 + G2" + M63	57,0	45	41	37	33	29	24	14	75/25
***1888**	Pg48 + G2" + M63	57,0	–	–	45	42	39	36	14	75/25

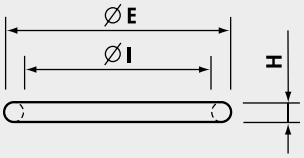
*material: RUBBER NR



O-rings

Material: BUTADIENE-NITRILE 70 sh

Ref.	Fits thread	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
1889	M12	12,81	9,25	1,78	1.000
1890	Pg7 + G1/4"	14,38	10,82	1,78	5.000/1.000
1890A	M16 + Pg9 + G3/8"	15,98	12,42	1,78	5.000/1.000
1891	Pg11	19,16	15,60	1,78	5.000/1.000
1891A	M20	20,73	17,17	1,78	5.000/1.000
1892	Pg13,5 + G1/2"	22,33	18,77	1,78	5.000/1.000
1892A	Pg16 + G5/8"	23,91	20,35	1,78	5.000/1.000
1892B	M25	25,51	21,95	1,78	5.000/1.000
1893	Pg21	28,68	25,12	1,78	3.000/500
1893A	M32	30,00	26,00	2,00	500
1925,3	G3/4"	30,31	25,07	2,62	1.000/500
1894	G1"	35,06	29,82	2,62	1.000/500
1895	M40 + Pg29 + G1"1/8	39,84	34,60	2,62	1.000/500
1896	G1"1/4	43,01	37,77	2,62	500
1897	Pg36 + G1"1/2	49,36	44,12	2,62	800/100
1898	Pg42 + G1"3/4	55,71	50,47	2,62	800/100
1899	Pg48 + G2"	62,06	56,82	2,62	100
1899A	G2"1/2	76,50	69,44	3,53	100/1
1899B	G3"	92,60	81,92	5,34	100/1

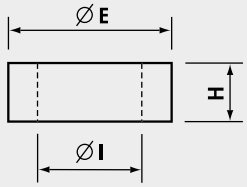


SEALING RINGS

PVC 50 sh A

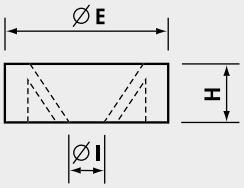
341
342
343
344

Material: PVC 50 sh A



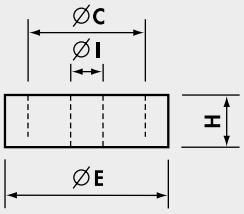
Cylindrical sealing rings

Ref.	Fits thread	C (mm)	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
3411014	G1/4"	-	10,9	6,7	6	1.500/100
3411038	G3/8" + M16	-	14,5	8,5	6	1.000/100
3411012	Pg13,5 + G1/2" + M20	-	18	11	7,5	500/100
3412016	Pg16 + G5/8"	-	20	14	7,5	300/100
3422016	Pg16 + G5/8"	-	20	10	7,5	300/100
3411034	G3/4"	-	23,5	17,5	8	300/100
3411100	G1"	-	29	22	10	200/100
3412011	Pg11	-	16,5	10	7	1.000/100
3412021	Pg21 + M25	-	26	18	8,5	300/100
3422021	Pg21 + M25	-	26	13	8,5	250/50
3412029	Pg29 + G1"1/8 + M32	-	35	26	10	200/100



Membrane sealing rings

Ref.	Fits thread	C (mm)	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
3431100	G1"	-	29	15	9,5	200/100



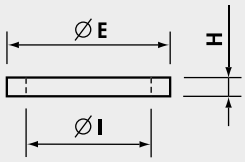
Double sealing rings

Ref.	Fits thread	C (mm)	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
3441012	G1/2" + Pg13,5 + M20	13	18,5	8	6,5	500/100
3441034	G3/4"	17	23	12,5	8,5	300/100

357 FD

Material: BUTADIENE-NITRILE NBR 70 sh A
Temperature range: -20°C to +70°C
Colour: RAL 7035 light grey

Ref.	Fits thread	∅ E (mm)	∅ I (mm)	H (mm)	*Quantity* *Box/Bag*
3572007	Pg7	16,5	11,5	1	4.000/100
3572011	Pg11	23	17,5	1	2.500/100
35720131	Pg13,5 + M20X1,5 + G1/2"	27,5	20,5	1,4	1.000/100
3572013	Pg13,5	30	20,5	2,2	1.000/100
3572016	Pg16	29	23	2	1.000/100
3572021	Pg21	33,5	27	3	500/100
3573M16	M16X1,5	20,5	16,3	1	3.000/100
3573M20	M20X1,5 + Pg13,5 + G1/2"	25,5	20,5	1	4.000/100
3573M25	M25X1,5	30,5	25,5	1	2.000/100
3573M32	M32X1,5	40,5	32,5	1	1.500/100



Material: NEOPRENE® 80 sh A
Temperature range: -25°C to +100°C
Colour: RAL 9005 black

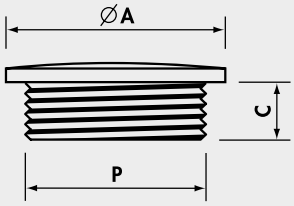
Ref.	Fits thread	∅ E (mm)	∅ I (mm)	H (mm)	*Quantity* *Box/Bag*
FD M12	M12	16	10	1,2	2.500/50
FD 7	Pg7 + G1/4"	17	11,3	1,2	3.000/50
FD 9	Pg9	20	13,9	1,2	2.000/50
FD M16	M16 + G3/8"	20	15,5	1,2	2.000/50
FD 11	Pg11	23	17,1	1,2	2.000/50
FD M20	M20	24	18	1,2	2.000/50
FD 13,5	Pg13,5 + G1/2"	25	19	1,2	2.500/50
FD 16	Pg16 + G5/8"	27	21	1,2	1.500/50
FD M25	M25	31	23	1,2	1.000/20
FD 21	Pg21 + G3/4"	34,5	27	1,5	1.000/25
FD M32	M32 + G1"	40	30	1,5	600/20
FD 29	Pg29 + G1"1/8"	45	35,2	1,5	500/25
FD M40	M40 + G1"1/4	48	38	1,5	500/20
FD 36	Pg36 + G1"1/2"	56	45,2	1,5	250/25
FD M50	M50	55	47,5	1,0	10
FD 42	Pg42 + G1"3/4"	62	52	1,0	10
FD 48	Pg48 + G2"	68	58	1,0	10
FD M63	M63	68	60,5	1,0	500/5

ENTRY PLUGS

Polyamide PA6

1053
1052

Material: POLYAMIDE PA6
reinforced with fibreglass
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Protection: IP 54
Colour: RAL 7035 light grey,
RAL 9005 black



Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	∅ A (mm)	C (mm)	*Quantity*
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

Add to Ref: N for Black

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	∅ A (mm)	C (mm)	*Quantity* *Box/Bag*
1052007	Pg 7	15	6	100
1052009	Pg 9	19	6	100
1052011	Pg11	22	7	100
1052013	Pg13,5	25	7	100
1052016	Pg16	27	7	100
1052021	Pg21	33	9	50
1052029	Pg29	44	9	100/50
1052036	Pg36	55	10	20
1052042	Pg42	62	10	10
1052048	Pg48	69	12	10

Add to Ref: N for Black

ENTRY PLUGS

Polystyrene PS

1253
1840

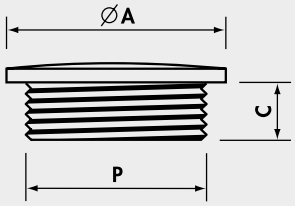
Protection: IP 54

Material: POLYSTYRENE PS
Temperature range:
–20°C to +60°C (continuous)
Colour: RAL 7035 light grey,
RAL 9005 black

Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	∅ A (mm)	C (mm)	*Quantity*
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

Add to Ref: N for Black



Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	∅ A (mm)	C (mm)	*Quantity Box/Bag*
1840	Pg 7	15	6	100
1841	Pg 9	19	6	100
1842	Pg11	22	7	100
1843	Pg13,5	25	7	100
1844	Pg16	27	7	100
1845	Pg21	33	9	50
1846	Pg29	44	9	100/50
1847	Pg36	55	10	20
1848	Pg42	62	10	10
1849	Pg48	69	12	10

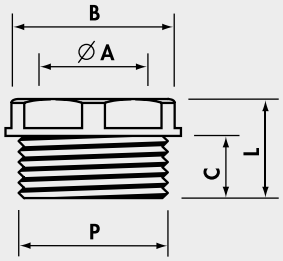
Add to Ref: N for Black

ENTRY BUSHES

1700

Polyamide PA6

Material: POLYAMIDE PA6
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 7035 light grey,
RAL 9005 black



Entry bushes

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	∅A (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity Box/Bag*
* **1700.2**	Pg 9	10	16	9	14	600/100
* **1701.2**	Pg11	11,5	19	10	15	300/100
* **1702.2**	Pg13,5	13,5	21	11	16,5	300/100
1703.2	Pg16	16	23	12,5	18,5	200/100
1704.2	Pg21	22	30	12	17,5	100/50
1705.2	Pg29	27	40	15	22	50/50

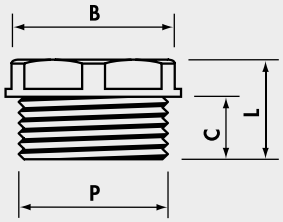
BSP thread ISO 228/1

* **1830**	G1/4"	8,5	15	8,5	13,5	800/100
* **1831**	G3/8"	11,5	17	9	14	300/100
* **1832**	G1/2"	13	21	11	16,5	300/100

Metric thread M 1.5 pitch CEI EN 60423

△**1835G**	M16X1,5	11,5	17	9	14	100/100
* **1836**	M20X1,5	13,5	21	11	16,5	300/100

* Add to Ref: N for Black
△ Dark Grey only



Blind entry bushes

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Light Grey	P	∅A (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity Box/Bag*
* **1702.5**	Pg13,5	–	21	11	17	300/100
1703.5	Pg16	–	23	12,5	18,5	200/100

BSP thread ISO 228/1

* **1861**	G3/8"	–	17	9	14	600/100
* **1862**	G1/2"	–	21	11	16,5	200/100

Metric thread M 1.5 pitch CEI EN 60423

* **1866**	M20X1,5	–	21	11	17	100

*Add to Ref: N for Black

ENTRY PLUGS AND BUSHES

Brass

2053
2052
2021

Entry plugs

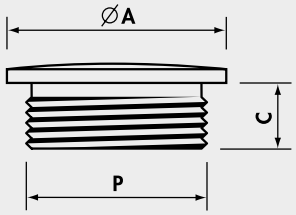
Metric thread M 1.5 pitch CEI EN 60423

Ref. Nickel Plated Brass	P	∅ A (mm)	C (mm)	*Quantity Box/Bag*
2053M12N	M12X1,5	14	5	1,500/100
2053M16N	M16X1,5	18	5	1,000/100
2053M20N	M20X1,5	22	6,5	500/100
2053M25N	M25X1,5	28	7	200/100
2053M32N	M32X1,5	35	8	150/25
2053M40N	M40X1,5	44	8,5	100/25
2053M50N	M50X1,5	54	9	50/25
2053M63N	M63X1,5	67	10	25/25

Material: Entry plugs - NICKEL PLATED BRASS (CuZn 40 Pb 3)
Entry bushes - PLAIN BRASS
Protection: Entry plugs - IP 54

Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Nickel Plated Brass	P	∅ A (mm)	C (mm)	*Quantity Box/Bag*
2052007N	Pg 7	14	5	1,500/100
2052009N	Pg 9	17	6	1,000/100
2052011N	Pg11	20	6	500/100
2052013N	Pg13,5	22	6,5	500/100
2052016N	Pg16	24	6,5	500/100
2052021N	Pg21	30	7	200/50
2052029N	Pg29	39	8	100/25
2052036N	Pg36	50	9	50/25
2052042N	Pg42	57	10	25/25
2052048N	Pg48	64	10	25/25

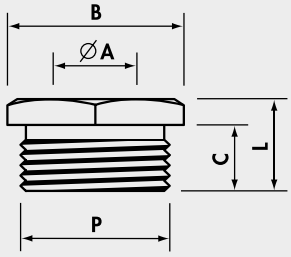


Entry bushes

BSP thread ISO 228/1

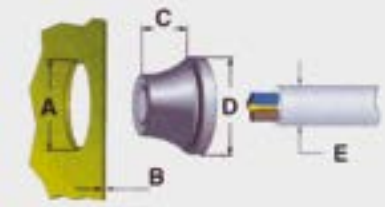
Ref. Brass	P	∅ A (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity Box/Bag*
2021014	G1/4"	10	13	6	8,5	1,000/100
2021038	G3/8"	12	17	7,5	10,5	800/100
2021012	G1/2"	16	21	9,5	13	400/100
2021058	G5/8"	18	23	10	13,5	250/50
2021034	G3/4"	21	27	10	14	200/50
2021100	G1"	26,5	34	11	15,5	100/50
2021118	G1"1/8	31	38	12	16,5	100/25
2021114	G1"1/4	35	42	13	18	50/25
2021112	G1"1/2	41,5	48	13	18,5	50/25
2021200	G2"	51,5	60	13,5	19,5	25/25

Add to Ref: N for NICKEL PLATED BRASS



RS

Material: EPDM
Halogen-free and chemical resistant
Temperature range: –40°C to +110°C
Protection: IP 67
Colour: RAL 7001 light grey
Application:
IP67 sealing of cables and conduits in Metric and Pg threaded entries through material thickness 0,5-4 mm

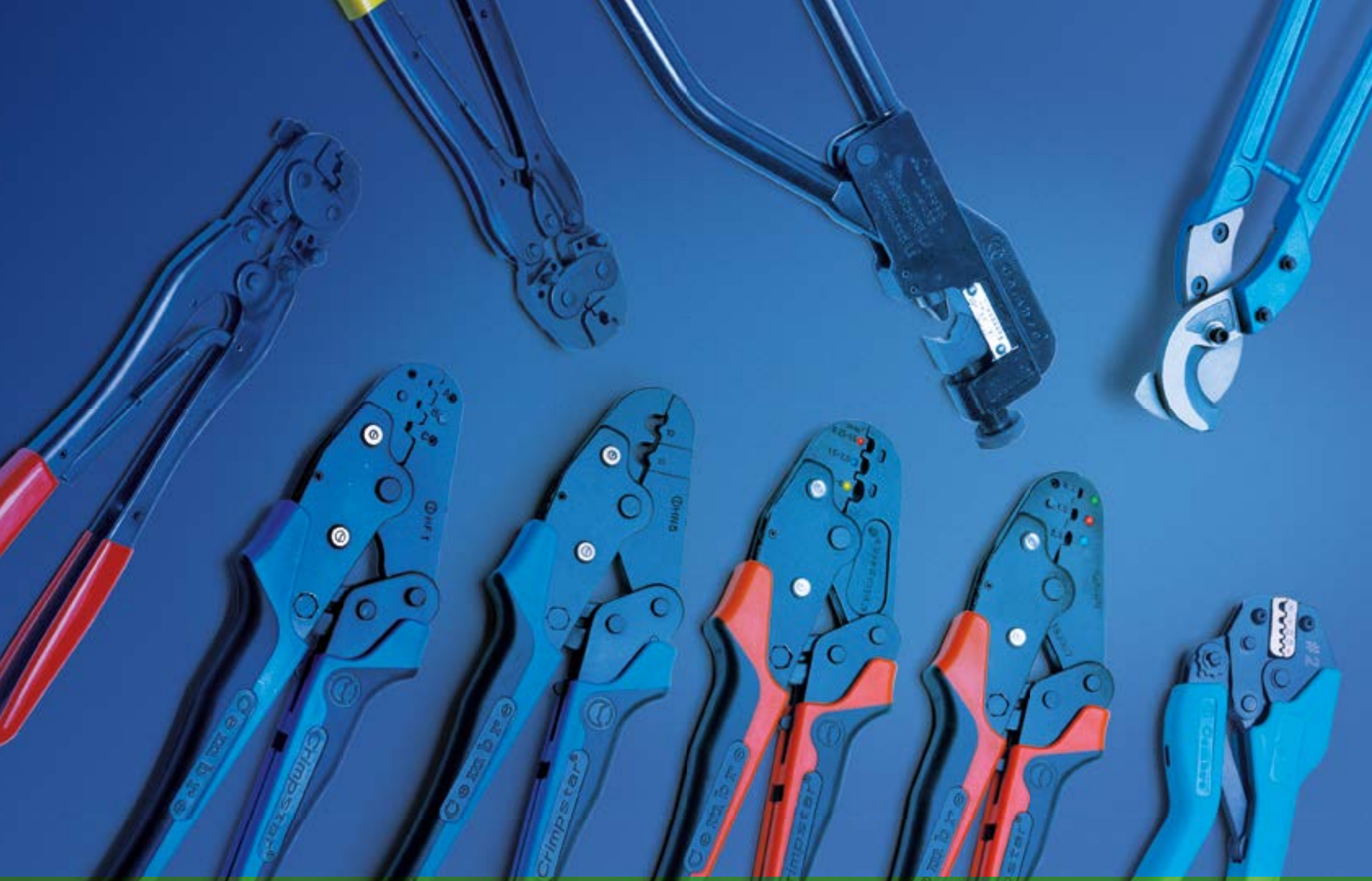


Fits Metric thread

Ref.	Fits Threaded Entry	Dimensions A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Quantity Box/Bag
RS0407.M12	M12	12,5	0,5 - 2	5,6	20,0	4 - 7	2,000/50
RS0509.M16	M16	16,5	1 - 4	11,0	21,0	5 - 9	2,000/50
RS0813.M20	M20/Pg13,5	20,5	1 - 4	13,4	25,5	8 - 13	3,000/50
RS1117.M25	M25	25,5	1 - 4	15,3	30,5	11 - 17	2,000/50
RS1520.M32	M32	32,5	1 - 4	18,6	38,5	15 - 20	1,000/25
RS1928.M40	M40	40,5	1 - 4	21,7	48,5	19 - 28	600/25
RS2735.M50	M50	50,5	1 - 4	25,0	60,5	27 - 35	250/10

Fits Pg thread

Ref.	Fits Threaded Entry	Dimensions A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Quantity Box/Bag
RS0305.07	Pg 7	12,5	0,5 - 2	5,4	20,0	3 - 5	2,000/50
RS0507.09	Pg 9	16,0	1 - 4	10,3	21,0	5 - 7	2,000/50
RS0710.11	Pg11	19,0	1 - 4	12,7	24,0	7 - 10	3,000/50
RS1014.16	Pg16	23,0	1 - 4	14,7	28,0	10 - 14	2,000/50
RS1420.21	Pg21	29,0	1 - 4	17,6	35,0	14 - 20	1,000/25
RS2026.29	Pg29	38,0	1 - 4	20,0	46,0	20 - 26	600/25
RS2635.36	Pg36	48,0	1 - 4	23,9	58,0	26 - 35	250/10



MECHANICAL AND PNEUMATIC TOOLS

HP 1

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HP 1**	Crimp style:
Crimping range:	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 0,2 to 2,5 sqmm	
Dimensions:		
Length (closed handles)	234,5 mm	
Width (closed handles)	73,0 mm	
Height	18,3 mm	
Weight:	512 g	
Package dimensions:	240 x 81 x 25 mm	

HP 3

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HP 3**	Crimp style:
Crimping range:	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 0,25 to 6 sqmm	
Dimensions:		
Length (closed handles)	234,5 mm	
Width (closed handles)	73,0 mm	
Height	18,3 mm	
Weight:	498 g	
Package dimensions:	240 x 81 x 25 mm	

HNN 3

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HNN 3**	Crimp style:
	Crimping range:	PA6.6 insulated terminals and connectors for conductor sizes 1,5 to 10 sqmm
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	491 g
	Package dimensions:	240 x 81 x 25 mm

HNN 4

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HNN 4**	Crimp style:
	Crimping range:	PA6.6 insulated terminals and connectors for conductor sizes 10 and 16 sqmm
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	492 g
	Package dimensions:	240 x 81 x 25 mm

HPH 1

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HPH 1**	Crimp style:
Crimping range:		Through connectors PE HD insulated, heat shrinkable. for conductor sizes 0,5 to 6 sqmm and PA6.6 connectors NL-M, NL-P for conductor sizes 0,25 to 6 mm²
Dimensions:		
Length (closed handles)		234,5 mm
Width (closed handles)		73,0 mm
Height		18,3 mm
Weight:		512 g
Package dimensions:		240 x 81 x 25 mm

HNKE 4

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HNKE 4**	Crimp style:
Crimping range:		End sleeves for conductor sizes 0,5 to 4 sqmm
Dimensions:		
Length (closed handles)		236 mm
Width (closed handles)		73,0 mm
Height		18,3 mm
Weight:		516 g
Package dimensions:		240 x 81 x 25 mm

HNKE 16

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HNKE 16**	Crimp style:
	Crimping range:	End sleeves for conductor sizes 4 to 16 mm²
	Dimensions:	
	Length (closed handles)	236 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	491 g
	Package dimensions:	240 x 81 x 25 mm

HNKE 50

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HNKE 50**	Crimp style:
	Crimping range:	End sleeves for conductor sizes 25 - 35 - 50 mm²
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	590 g
	Package dimensions:	240 x 81 x 25 mm

HN 1

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HN 1**	Crimp style:
	Crimping range:	Uninsulated terminals and connectors for conductor sizes 0,25 to 10 sqmm
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	480 g
	Package dimensions:	240 x 81 x 25 mm

HN 5

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HN 5**	Crimp style:
	Crimping range:	Uninsulated terminals and connectors for conductor sizes 10 and 16 sqmm
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	489 g
	Package dimensions:	240 x 81 x 25 mm

HN-A25

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HN-A25**	Crimp style:
	Crimping range:	Uninsulated terminals and connectors A-M, L-M and L-P series for conductor sizes 10 to 25 mm²
	Dimensions:	
	Length (closed handles)	229 mm
	Width (closed handles)	78,6 mm
	Height	18,3 mm
	Weight:	500 g
	Package dimensions:	240 x 81 x 25 mm

HN-D25

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HN-D25**	Crimp style:
	Crimping range:	Cu tube lugs DR (DIN 46235) and through connectors DSV (DIN 46267) for conductor sizes 10 to 25 sqmm
	Dimensions:	
	Length (closed handles)	229 mm
	Width (closed handles)	78,6 mm
	Height	18,3 mm
	Weight:	500 g
	Package dimensions:	240 x 81 x 25 mm

HF 1

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HF 1**	Crimp style:
Crimping range:		Open barrel Brass terminals for conductors sizes 0,5 to 4 sqmm (not BN-FAB/FAR type)
Dimensions:		
Length (closed handles)		234,5 mm
Width (closed handles)		73,0 mm
Height		18,3 mm
Weight:		509 g
Package dimensions:		240 x 81 x 25 mm

HF 2

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HF 2**	Crimp style:
Crimping range:		Open barrel Brass terminals for conductors sizes 0,08 to 1,3 sqmm (28 to 16 AWG)
Dimensions:		
Length (closed handles)		234,5 mm
Width (closed handles)		73,0 mm
Height		18,3 mm
Weight:		497 g
Package dimensions:		240 x 81 x 25 mm

HX 1

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HX 1**	Crimp style:
	Crimping range:	Coaxial connectors type RG58, RG59, RG62 and RG 71
	Dimensions:	
	Length (closed handles)	234,5 mm
	Width (closed handles)	73,0 mm
	Height	18,3 mm
	Weight:	481 g
	Package dimensions:	240 x 81 x 25 mm

HN-CS4

Specific positioner for Cembre CS4 connectors

Manual tool, compact and easy to use, equipped with:

- treated Steel crimp jaws with high mechanical properties.
- factory-set ratchet for crimping control (automatic handle opening upon completion of crimping operation).
- Emergency release lever which, if necessary, opens the crimp jaws before their complete closure.
- Ergonomically designed non-slip moulded plastic grips.

Technical features:	**Crimpstar® HN-CS4**	Crimp style:
	Crimping range:	Cembre CS4 connectors for conductors sizes 2,5 - 4 - 6 sqmm
	Dimensions:	
	Length (closed handles)	231 mm
	Width (closed handles)	78,6 mm
	Height	46 mm
	Weight:	650 g
	Package dimensions:	230 x 85 x 50 mm

MECHANICAL TOOLS nd® RANGE

ND#1

A generation of tools, with a unique mechanism to reduce operator effort. Small and compact, with ergonomically designed handles for ease of operation.

High quality materials combined with advanced design and manufacturing technology, produce a reliable tool with a guaranteed consistent, crimping operation.

Technical features:

ND#1	Crimp style:
Crimping range:	Insulated and uninsulated end sleeves for conductors sizes 0,3 to 1,5 sqmm
Dimensions:	
Length (closed handles)	190 mm
Width (closed handles)	72 mm
Height	21 mm
Weight:	470 g

ND#2

Technical features:

ND#2	Crimp style:
Crimping range:	Insulated and uninsulated end sleeves for conductors sizes 1 to 6 sqmm
Dimensions:	
Length (closed handles)	190 mm
Width (closed handles)	72 mm
Height	21 mm
Weight:	470 g

ND#3

Technical features:

ND#3	Crimp style:
Crimping range:	Insulated and uninsulated end sleeves for conductors sizes 6 to 16 sqmm
Dimensions:	
Length (closed handles)	190 mm
Width (closed handles)	72 mm
Height	21 mm
Weight:	470 g

ND#4

Technical features:

ND#4	Crimp style:
Crimping range:	Insulated and uninsulated end sleeves for conductors sizes 0,5 to 4 sqmm
Dimensions:	
Length (closed handles)	190 mm
Width (closed handles)	72 mm
Height	21 mm
Weight:	470 g

Package dimensions:	195 x 76 x 20 mm

MECHANICAL TOOLS ZKE RANGE

ZKE 6-F

Crimp style: ◇

Tool for crimping end sleeves
0,5 to 6 sqmm
front insertion

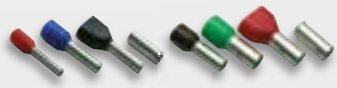
ZKE 610

Crimp style: □

Single aperture, ratchet controlled tool
for crimping end sleeves,
0,08 to 10 sqmm
side insertion

ZKE 2

Crimp style: ⌓

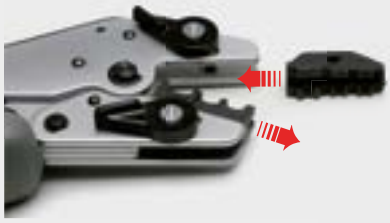


For end sleeves
0,5 to 16 sqmm

MECHANICAL TOOL HWE1

with interchangeable dies

HWE1



Rapid insertion/extraction of dies without using other tools

A robust and reliable tool designed to optimise the installers time and effort. A single tool body with a range of interchangeable dies allows a quick and simple transfer from one cable/connector combination to another, across a range of applications.

Technical features

- Length: 240 mm
- Weight: 590 g
- Automatic opening of handles following completion of the crimping operation
- Dull Nickel finish
- Anti-slip handle grips

INTERCHANGEABLE DIES TO ORDER SEPARATELY

INSULATED AND UNINSULATED END SLEEVES
WF16
Size 0,5 ÷ 16 mm²

INSULATED CONNECTORS RED, BLUE AND YELLOW
IT6
Size 0,5 ÷ 6 mm²

PHOTOVOLTAIC CONNECTORS (MULTI-CONTACT)
MC3
Size 4 ÷ 6 mm²
MC4
Size 4 ÷ 6 mm²

INSULATED AND UNINSULATED END SLEEVES
WF6
Size 0,5 ÷ 6 mm²
WF35
Size 16 ÷ 35 mm²

UNINSULATED CABLE LUGS
NIT10
Size 0,5 ÷ 10 mm²

OPEN BARREL BRASS CONNECTORS
OB2.5P
Size 0,5 and 2,5 mm²
SUB-D 075
Size 0,05 and 0,75 mm²
SUB-D 050
Size 0,08 and 0,5 mm²

COAXIAL CONNECTORS
C59
RG58,RG59, RG62

See page 111 for **HB 11** cable stripper

Also available:

HWE1 KIT
comprising:
- **HWE1** Manual mechanical tool
- **WF16** die
- **IT6** die
- all contained in a sturdy plastic case with extra compartments for interchangeable dies

MECHANICAL TOOLS HP4 RANGE

HP4-R

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet.
Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor. According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings:
1) strong, 2) medium, 3) light.
The tool is particularly easy to use thanks to its shape and handle coating.
At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code:
one point for red conductor sizes from 0.25 to 1.5 mm^2

Construction features:

- Special treated and externally protected Steel body, ratchet and handles.
- Handle coating in soft red PVC plastic.

Technical features:	HP4-R	Crimp style:
Crimping range:		PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 0,25 to 1,5 sqmm
Dimensions:		
Length (closed handles)		265 mm
Width (closed handles)		80 mm
Weight:		500 g
Package dimensions:		330 x 110 x 50 mm

HP4-B

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet.
Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor. According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings:
1) strong, 2) medium, 3) light.
The tool is particularly easy to use thanks to its shape and handle coating.
At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code:
two points for blue conductor sizes from 1.5 to 2.5 mm^2

Construction features:

- Special treated and externally protected Steel body, ratchet and handles.
- Handle coating in soft blue PVC plastic.

Technical features:	HP4-B	Crimp style:
Crimping range:		PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 1,5 to 2,5 sqmm
Dimensions:		
Length (closed handles)		265 mm
Width (closed handles)		80 mm
Weight:		500 g
Package dimensions:		330 x 110 x 50 mm

MECHANICAL TOOLS HP4 RANGE

HP4-G

Construction features:

- Special treated and externally protected Steel body, ratchet and handles.
- Handle coating in soft yellow PVC plastic.

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet.
Equipped with a positioning device to reduce the operator's effort and facilitate proper crimping of the conductor. According to the different thicknesses of the conductor insulation, the crimping on the insulation can be carried out by adjusting the jaws through three different settings:
1) strong, 2) medium, 3) light.
The tool is particularly easy to use thanks to its shape and handle coating.
At the end of the crimping the outer surface of the conductor is automatically stamped with the following crimping code:
three points for yellow conductor from 4 to 6 sqmm

Technical features:	HP4-G	Crimp style:
	Crimping range:	PVC, PC and PA6.6 insulated terminals and connectors for conductor sizes 4 to 6 sqmm
	Dimensions:	
	Length (closed handles)	320 mm
	Width (closed handles)	105 mm
	Weight:	810 g
	Package dimensions:	330 x 110 x 50 mm

HP4-C10

Professional manual mechanical tool with ratchet mechanism that prevents the handles from opening again before reaching the ratchet.
The tool is particularly easy to use thanks to its shape and handle coating.

Construction features:

- Specially treated and externally protected Steel body, ratchet and handles.
- Handle coating in soft yellow PVC.

Technical features:	HP4-C10	Crimp style:
	Crimping range:	For sleeve connectors type C6-C6 and C10-C10
	Dimensions:	
	Length (closed handles)	325 mm
	Width (closed handles)	105 mm
	Weight:	730 g
	Package dimensions:	330 x 110 x 50 mm

TN 70SE

Professional manual mechanical tool suitable for crimping A-M Cu lugs and non-insulated L-M and L-P connectors.
Heat treated Steel crimp jaws.
Easily adjustable die positioning by knurled screw and reference vernier scale.
Handles made from anti-slip plastic with hilt.

Technical features:	TN 70SE	Crimp style:
	Crimping range:	*Uninsulated terminals and connectors for conductor sizes 6 R/F to 70 R/F mm²
	Dimensions:	
	Length (closed handles)	450 mm
	Width (closed handles)	127 mm
	Weight:	2 kg

*R= Rigid conductor F= Flexible conductor

TNN 70

Professional manual mechanical tool suitable for the crimping of wire terminals and PA 6.6 insulated connectors.
Heat treated Steel crimp jaws.
Easily adjustable die positioning by knurled screw and reference vernier scale.
Handles made from anti-slip plastic with hilt.

Technical features:	TNN 70	Crimp style:
	Crimping range:	*Polyamide PA6.6 insulated terminals and connectors for conductor sizes 10 F to 70 F mm²
	Dimensions:	
	Length (closed handles)	450 mm
	Width (closed handles)	127 mm
	Weight:	2 kg

*F= Flexible conductor

TN 120SE

Professional manual mechanical tool suitable for crimping A-M Cu lugs and non-insulated L-M and L-P connectors.
Heat treated Steel crimp jaws.
Easily adjustable die positioning by knurled screw and reference vernier scale.
Handles made from anti-slip plastic with hilt.

Technical features:	**TN 120SE**	Crimp style:
	Crimping range:	*Uninsulated terminals and connectors for conductor sizes 10 R/F to 120 R/150 F mm²
	Dimensions:	
	Length (closed handles)	700 mm
	Width (closed handles)	170 mm
	Weight:	3 kg

*R= Rigid conductor F= Flexible conductor

TNN 120

Professional manual mechanical tool suitable for the crimping of wire terminals and PA 6.6 insulated connectors.
Heat treated Steel crimp jaws.
Easily adjustable die positioning by knurled screw and reference vernier scale.
Handles made from anti-slip plastic with hilt.

Technical features:	**TNN 120**	Crimp style:
	Crimping range:	*Polyamide PA6.6 insulated terminals and connectors for conductor sizes 10 F to 120 F mm²
	Dimensions:	
	Length (closed handles)	700 mm
	Width (closed handles)	170 mm
	Weight:	3 kg

*F= Flexible conductor

TND 6-70

Mechanical tools equipped with rotating dies with hexagonal imprint compliant with **DIN 480863** suitable to crimp Copper lugs according to **DIN 46235** and through connectors according to **DIN 46267 T.1** (refer to page 34-35), Particularly sturdy and easy to handle.

Technical features:	**TND 6-70**	Crimp style:
Crimping range:	Uninsulated terminals and connectors according to **DIN 46235** and **DIN 46267 T.1** for conductor sizes 6 to 70 mm²	
Dimensions:		
Length (closed handles)	515 mm	
Width (closed handles)	132 mm	
Weight:	2 kg	

TND 10-120

Mechanical tools equipped with rotating dies with hexagonal imprint compliant with **DIN 480863** suitable to crimp Copper lugs according to **DIN 46235** and through connectors according to **DIN 46267 T.1** (refer to page 34-35), Particularly sturdy and easy to handle.

Technical features:	**TND 10-120**	Crimp style:
Crimping range:	Uninsulated terminals and connectors according to **DIN 46235** and **DIN 46267 T.1** for conductor sizes 10 to 120 mm²	
Dimensions:		
Length (closed handles)	665 mm	
Width (closed handles)	162 mm	
Weight:	3,7 kg	

CABLE CUTTERS

KT

KT 1

Cutting Capacity - Section Cond. sqmm

Rigid	Multi-Cond.	Flexible
Cu 16 Al 35	Cu 50 Al 50	Cu 70

KT 2

Cutting Capacity - Section Cond. sqmm

Rigid	Multi-Cond.	Flexible
Cu 16 Al 50	Cu 70 Al 70	Cu 95

KT 5
Hand operated tool
for cutting cables
up to max section 25 sqmm

KT 3
For cutting cables Ø max 32 mm
Weight: 0,59 kg
Length: 255 mm

KT 4
For cutting cables Ø max 52 mm
Weight: 0,89 kg
Length: 310 mm

511

5116660250
For cutting cables Ø max 18 mm
Weight: 1,5 kg
Length: 600 mm

5116660500
For cutting cables Ø max 25.4 mm
Weight: 3 kg
Length: 800 mm

WIRE STRIPPERS

HB 1-U

Wire stripper,
for PVC
insulated cables
0,1 to 6 sqmm

HB 11

For photovoltaics insulated cables
2,5 to 6 sqmm
stripping length 8,5 mm

SCISSORS

SC 1

Electricians scissors with high
carbon Steel blades and satin
finished Nylon handles.

SC 3X

Multi-purpose scissors with
high hardness blades (56 HRC)
and anti slide serrations. The moulded plas-
tic handles combine a rigid structure with a
softer material for finger comfort.
Cutting of flexible conductors up to 35 mm²

SC 4X

New

Multi-purpose scissors with
high hardness blades (56 HRC)
and anti slide serrations. The moulded plas-
tic handles combine a rigid structure with a
softer material for finger comfort.
Cutting of flexible conductors up to 50 mm²

HB 13UE

Universal cable stripping tool for external sleeves of Low/Medium Voltage cables Ø 12,7 to 63,5 mm and primary insulator in XLPE max Ø 38,1 mm

HB 12N

For vulcanised extruded semiconductor

HB12N cable stripping tool removes the semiconductor layer by being manually rotated around the cable while lateral advancement is achieved automatically. Safe and convenient, it can be used on cables with a semi-con diameter between 18 - 60 mm.

- Sturdy frame in anodised Aluminium alloy and Steel.
- Special Steel blade with precise cutting depth regulation.
- Stripping operation can start at any point along the conductor.
- Bearing mounted rollers provide smooth cutting action.

- With "REVERSE" function, which allows the removal of semiconductor up to 7 mm thick from the sheath of the cable.
- Double speed for each direction.

The **HB 12N** kit includes:
- HB 12N cable stripping tool
- sturdy plastic case

HB 29-U HB 40-U

Wire stripper, for circular cables.

- **Three types of cut:**
  - Circumferential
  - Linear
  - Spiral
- **Blade height adjustable to suit insulation thickness**
- **Blade profile suits difficult insulation**
- **PTFE blade housing reduces friction**
- **Spare blade HBSJ29/40**

- **HB 29-U:** Ø 4,5 - 29 mm
- **HB 40-U:** Ø 19 - 40 mm

Dimensions:	HB 29-U	HB 40-U
Length mm:	138	153
Width mm:	38	54
Depth mm:	38	28
Weight g:	100	110

HAND TOOL FOR CUTTING AND SEALING FLEXIBLE CONDUIT

KTS 1632

Cuts and seals flexible plastic conduit in a single operation. Lightweight and easy to operate. Suitable for flexible conduits from Ø16 to Ø32 mm.

Length: 230 mm
Width: 58 mm
Thickness: 32 mm.
Weight: 0,32 kg.

PC 1

Plastic pipe cutting tool
Cutting capacity: Ø 6 to Ø 42 mm.

Body:
die-cast Aluminium alloy

Blade material:
hardened Carbon Steel

FRAME-TYPE HOLE PUNCHING TOOL FOR CABLE TRUNKING

MT-FC48N

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild Steel, fibreglass or plastic material, up to 2 mm thick.

Hole dimensions					Maximum thickness of mild Steel (mm)	Code
Nominal Ø (mm)	Nominal Ø (inch)	Pg	ISO	Inch		
15,5	.610	Pg9	-	-	2	RD 15.5 SS-FC
16,2	.638	-	ISO-16	-		RD 16.2 SS-FC
17,5	.689	-	-	-		RD 17.5 SS-FC
18,8	.740	Pg11	-	-		RD 18.8 SS-FC
19,1	.752	-	-	-		RD 19.1 SS
20,5	.807	Pg 13,5	ISO-20	-		RD 20.5 SS
22,6	.890	Pg16	-	-		RD 22.6 SS
23,8	.937	-	-	5/8"		RD 23.8 SS
25,4	1.000	-	ISO-25	-		RD 25.4 SS
27,0	1.063	-	-	3/4"		RD 27.0 SS
28,5	1.122	Pg21	-	-		RD 28.5 SS
30,5	1.201	-	-	7/8"		RD 30.5 SS
31,8	1.252	-	-	-		RD 31.8 SS
32,5	1.279	-	ISO-32	-		RD 32.5 SS
34,6	1.362	-	-	-		RD 34.6 SS
37,2	1.464	Pg29	-	-		RD 37.2 SS
38,1	1.500	-	-	-		RD 38.1 SS
40,5	1.594	-	ISO-40	-		RD 40.5 SS-FC
41,3	1.626	-	-	-		RD 41.3 SS-FC
42,5	1.673	-	-	1"1/4"		RD 42.5 SS-FC
43,2	1.701	-	-	-		RD 43.2 SS-FC
44,5	1.752	-	-	-		RD 44.5 SS-FC
47,2	1.858	Pg36	-	-		RD 47.2 SS-FC

New

VAL P30
Supplied in a robust plastic case.

Lightweight and easy to operate, designed for punching holes up to 47,2 mm diameter in the side wall of trunking without the need for pre drilling.

Max centre of hole to edge of trunking: 53,5 mm

Length : 251,5 mm
Width: 224 mm
Thickness : 66 mm
Weight: 3,28 kg

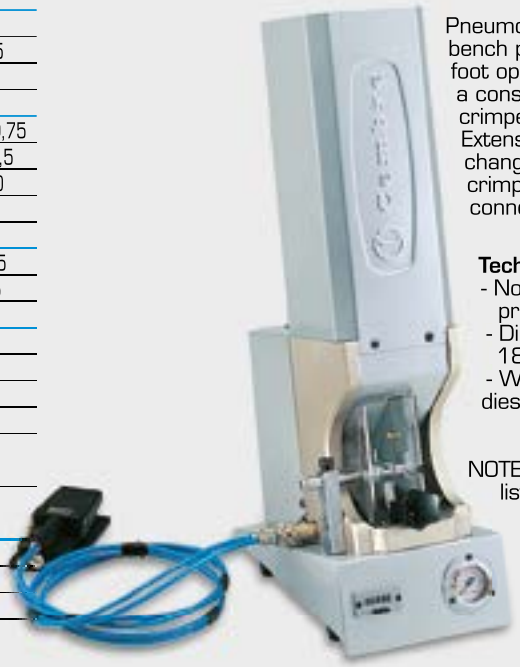
BENCH PRESS TOOLS

PNB-1

INTERCHANGEABLE DIES (to be ordered separately)

Die Set	Guard*	Connector Type			Nominal Conductor Size sqmm
PV-1	PU-1	*Insulated connectors*		*green*	0,2÷0,5
PR-1				*red*	0,25÷1,5
PB-1				*blue*	1,5÷2,5
PG-1				*yellow*	4÷6
KE 0.75-1	PK-1	*End Sleeves*		*KE, PK...*	0,3 - 0,5 - 0,75
KE 2.5-1					1 - 1,5 - 2,5
KE 10-1					4 - 6 - 10
MTT 16-50	ME-1				16
MTT 25-50					25
N1-1	PU-1	A 03-M..	S 1.5-..		0,25 - 1,5
		A 06-M..	S 2.5-..		1,5 - 2,5
		A 1-M..	S 6-..		4 - 6
ME 1-50	PU-1	*Uninsulated Copper lugs*		*A1-M..*	4 - 6
ME 2-50	ME-1			*A2-M..*	*S10-M..* 10
ME 3-50				*A3-M..*	16
ME 5-50				*A5-M..*	25
ME 7-50				*A7-M..*	35
ME 9-50				*A9-M..*	
ME 10-50				*A10-M..*	50
ME 12-50				*A12-M..*	
MN 2RF-50	MN RF-1	*Polyamide insulated lugs*		*ANE2-M..*	10
MN 3RF-50				*ANE3-M..*	16
MN 5RF-50				*ANE5-M..*	25
MN 7RF-50				*ANE7-M..*	35
				ANE9-M..	

** Supplied as standard with the machine*



Pneumo-hydraulic, production bench press, controlled by a foot operated pedal, provides a consistent and reliable crimped connection. Extensive range of interchangeable dies available for crimping a wide variety of connectors.

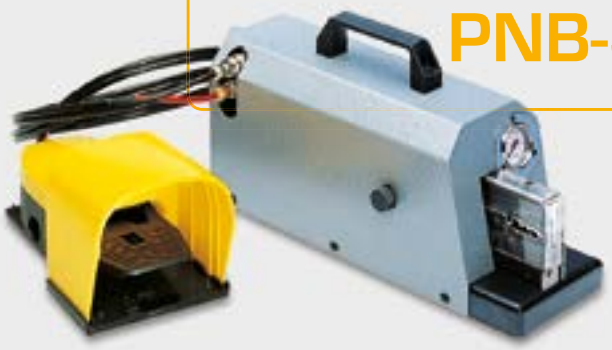
Technical details:
- Nominal operating pressure: 6 bar
- Dimensions LxDxH: 180x320x700 mm
- Weight: 23 kg (without dies)

NOTE: for applications not listed, please contact Cembre.

PNB-3

Tool	Connector Type	Conductor Size sqmm
PNB-3P*	*Insulated connectors red, blue and yellow*	0,25÷6
PNB-3PD	*Insulated terminals and butt connectors - frontal insertion*	0,25÷6
PNB-3N1	*Uninsulated terminals*	0,25÷10
PNB-3N5	*Uninsulated terminals*	10÷16
PNB-3NN3	*Polyamide insulated terminals*	1,5÷10
PNB-3NN4	*Polyamide insulated terminals*	10÷16
PNB-3F/M	*Bullet connectors*	0,5÷2,5

** Will also crimp Polycarbonate fully-insulated terminals if fitted with PNB3F/M positioner, available as an optional accessory.*



Technical details:
- Normal operating pressure: 6÷7 bar
- Dimensions LxDxH: 130x370x195 mm
- Weight: 10,3 kg

Pneumatic bench press operated by foot pedal for crimping terminals and connectors 0,25 to 16 sqmm.

PNB-4KE

Tool	Connector Type	Conductor Size sqmm
PNB-4KE	*End Sleeves type PK.. and type KE*	0.3÷10

Technical details:
- Nominal operating pressure: 6 bar
- Dimensions LxDxH: 120x160x300mm
- Weight: 6 kg

Pneumatic bench press, controlled by a foot operated pedal. Supplied with a multi-aperture die suitable for crimping insulated and uninsulated end sleeves from 0,3 to 10 sqmm. Compact and efficient. Easy to operate, producing a secure and reliable crimped connection.

ELECTRICAL CRIMPING TOOL

ECT-KE2.5

Portable

Portable electrical crimping tool for end sleeves 0,14 to 2,5 sqmm with 13 mm crimp length.
Crimping occurs automatically when the end sleeve activates an internal pressure switch.

Technical details:
- Supply voltage: 220/230V 50Hz
- Maximum operating temperature: 40 °C
- Crimp length: 13 mm

Tool	Connector Type	Conductor Size sqmm
ECT-KE2.5	*End Sleeves type PK.. and type KE*	0.14÷2.5

PNEUMATIC CRIMPING TOOLS

PNB-6KE
PNB-7KE

Hand held - PNB series

Technical details:

PNB-6KE

Crimping range	0,25 ÷ 2,5 sqmm / 24 ÷ 14 AWG
Weight	400 g
Dimensions	Ø 44 x 200 mm
Spiral hose length	2 m

PNB-7KE

Crimping Range	4 ÷ 10 sqmm / 12 ÷ 8 AWG
Weight	400 g
Dimensions	Ø 44 x 200 mm
Spiral hose length	2 m

PNB-6KE and **PNB-7KE** hand tools facilitate the rapid crimping of insulated end sleeves while avoiding the operator discomfort associated with ordinary manual tools.
Lightweight and easy to use, these tools are ideal for panel building applications and component assembly.

Both tools are designed to be maintenance-free and need no routine calibration. A 4-6 bar air supply is required for connection via the quick coupler fitted to the hose supplied with the tool.

PNEUMATIC CRIMPING TOOLS

Bench mounted tools with foot pedal - PNB series

PNB-6KE-T
PNB-7KE-T

CE

Technical details:

	PNB-6KE-T
Crimping range	0,25 ÷ 2,5 sqmm / 24 ÷ 14 AWG
Weight	1000 g
Dimensions	Ø 140 x 200 x 70 mm
Inclusive of spiral hose, foot pedal and bench mount with storage	

	PNB-7KE-T
Crimping Range	4 ÷ 10 sqmm / 12 ÷ 8 AWG
Weight	1000 g
Dimensions	Ø 140 x 200 x 70 mm
Inclusive of spiral hose, foot pedal and bench mount with storage	

PNB-6KE-T and **PNB-7KE-T** have bench mounts with storage and are foot pedal operated to allow operators to have both hands free when assembling cable harnesses.

Both tools are designed to be maintenance-free and need no routine calibration. A 4-6 bar air supply is required for connection via the quick coupler fitted to the hose supplied with the tool.

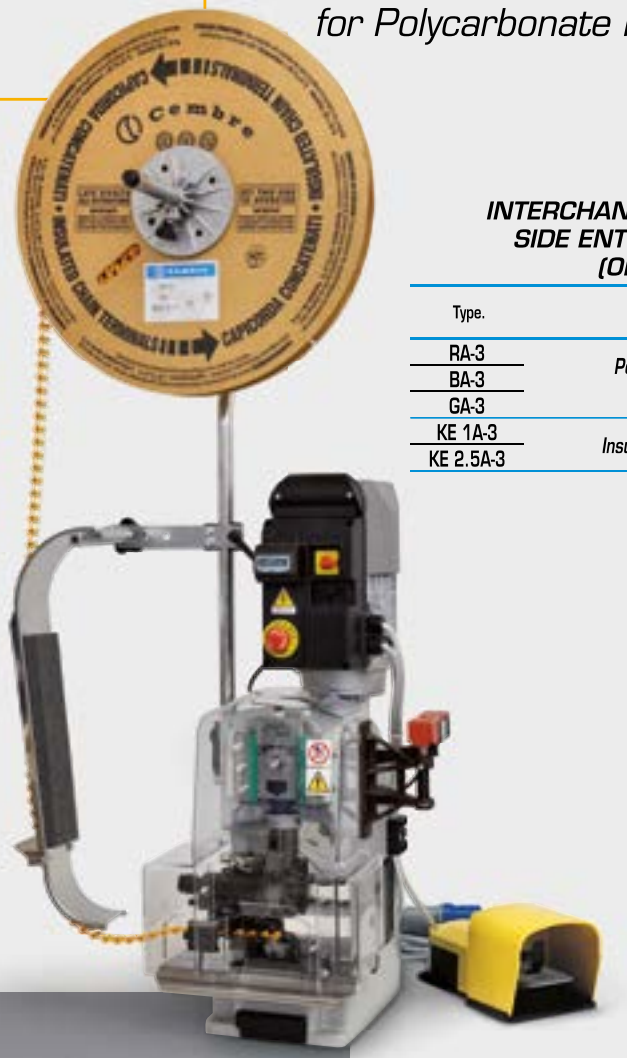
BENCH PRESS

ELB-3

for Polycarbonate insulated chain connectors

Electro-pneumatic, production bench press, controlled by a foot operated pedal.
Producing a consistent and reliable crimped connection.
Interchangeable application heads available to suit the complete range of Polycarbonate insulated connectors.

Technical details:
Air supply: 6 bar (90 psi)
Dimensions LxDxH:
180x250x620mm
Weight: 41 kg
(without application heads)
Motor:
- Power 0,55 kW / 0,75 HP
- Supply Voltage 220 V / 50 Hz
- Speed 2.800 r.p.m



INTERCHANGEABLE APPLICATOR HEADS, SIDE ENTRY WITH PNEUMATIC FEED (ORDER AS REQUIRED)

Type.	Connectors		Conductor Size sqmm
RA-3	*Polycarbonate insulated chain terminals*	*red*	0,25÷1,5
BA-3		*blue*	1,5÷2,5
GA-3		*yellow*	4÷6
KE 1A-3	*Insulated chain end sleeves*		0,5÷1
KE 2.5A-3			1÷2,5

c UL us
File no. E125401
File no. E212000

HALOGEN FREE

OPERATING TEMPERATURE UP TO 115°C

See pages 6-7 and 16 for types and features of the insulated chain connectors and end sleeves.

HYDRAULIC CRIMPING TOOLS AND CUTTERS

HYDRAULIC CRIMPING TOOL

HT 45-E

general features

Crimping force kN	Dimensions mm		Weigth kg
	length	*width*	
50	346	130	2,0

Lightweight and compact, this tool is ideal for the compression of connectors on over head lines and other general applications.

Having the benefit of spring loaded handles, the dies can be advanced using only one hand; therefore leaving the other hand free to position the connector.

For ease of operation and comfort of the operator, the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure releasing system can easily be operated at any stage of the compression.

MAIN APPLICATIONS - max section mm²		
L.V. lugs and splices	"C" sleeve connectors	H.V. lugs and splices
150	35	70

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P1*	445x290xh95	1,2	❊	–

**Suitable for storage of the tool and 20 sets of dies.*

The operator can advance the dies using only one hand, leaving the other hand free to position the connector.

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 51

general features

Crimping force kN	Dimensions mm		Weight kg
	length	width	
50	380	130	2,7

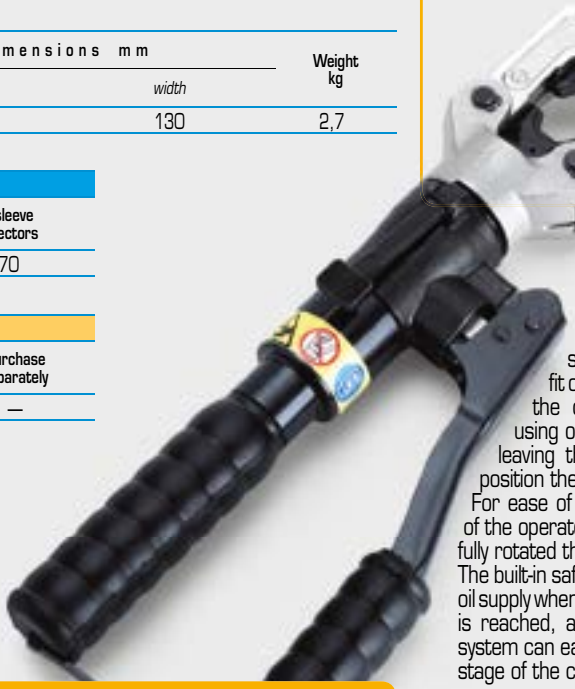
MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
240	120	120	70

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P1*	445x290xh95	1,2	❊	—

** Suitable for storage of the tool and 20 sets of dies.*



HT 51-KV version also available for Power Supply Companies

New design two speed hydraulic tool, lightweight and compact, this tool is ideal for working in confined spaces. Having the benefit of spring loaded handles, the dies can be advanced using only one hand; therefore leaving the other hand free to position the connector.
For ease of operation and comfort of the operator, the tool head can be fully rotated through 180 degrees.
The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure release system can easily be operated at any stage of the compression.

HYDRAULIC PRESSHEAD

RH 50

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	width	
50	700	196	75	1,6

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
240	120	120	70

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P1*	445x290xh95	1,2	❊	—
Canvas bag 007	350x105	0,13	—	❊

** Suitable for storage of the tool and 20 sets of dies.*

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172) RH 50 is suitable for installing the same range of connectors as HT 51.

HYDRAULIC PRESSHEAD

RHM 50

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	width	
50	700	210	70	1,6

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	End sleeves
240	120	120

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P1*	445x290xh95	1,2	❊	—
Canvas bag 007	350x105	0,13	—	❊

** Suitable for storage of the tool and 20 sets of dies.*

Particularly suitable for high volume bench crimping.

Hydraulic presshead complete with quick automatic coupler for connection to hydraulic pump with working pressure of 700 bar max, (see page 168-172).
RHM50 is suitable for installing the same range of connectors as RH50.

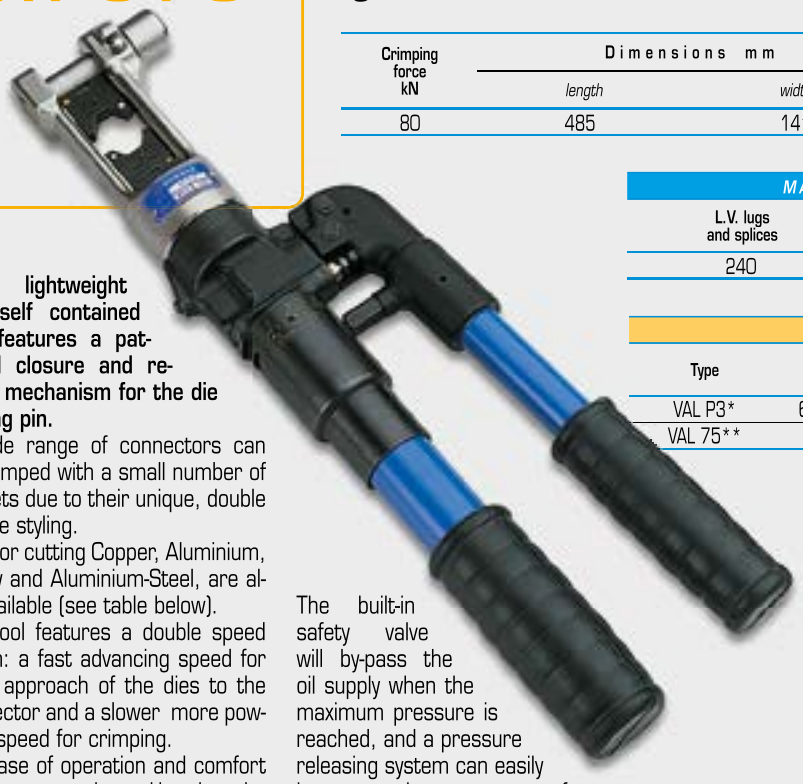
These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 81-U

general features

Crimping force kN	Dimensions mm		Weight Kg
	length	width	
80	485	141	3,4



MAIN APPLICATIONS - max section mm²		
L.V. lugs and splices	"C" sleeve connectors	H.V. lugs and splices
240	100	200

This lightweight and self contained tool features a patented closure and release mechanism for the die locking pin.

A wide range of connectors can be crimped with a small number of die sets due to their unique, double groove styling.

Dies for cutting Copper, Aluminium, aldrey and Aluminium-Steel, are also available (see table below).

The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.

For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure releasing system can easily be operated at any stage of the compression.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P3*	620x380xh135	2,5	❊	—
VAL 75**	270x80xh30	0,15	—	❊

* Suitable for storage of the tool and three VAL 75.
**Suitable for storing five sets of dies.

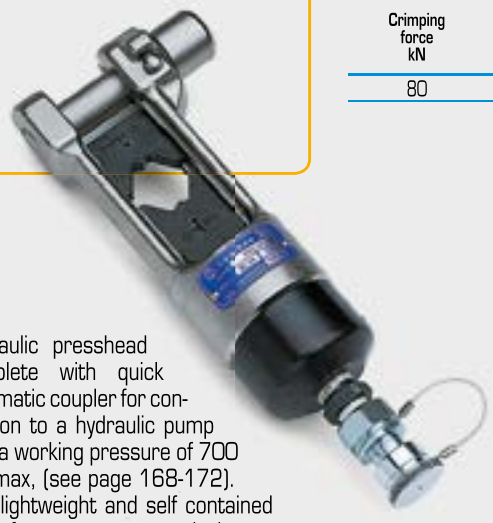
HYDRAULIC PRESSHEAD

RHU 81

general features

CE

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	width	
80	700	235	91	1,9



MAIN APPLICATIONS - max section mm²		
L.V. lugs and splices	"C" sleeve connectors	H.V. lugs and splices
240	100	200

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

This lightweight and self contained head features a patented closure and release mechanism for the die locking pin.

The head is easy to use and is ideally suited for crimping in confined spaces.

RHU81 is suitable for installing the same range of connectors as HT 81-U.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 007	350x105	0,13	—	❊

HT 81-U and RHU 81 ACCESSORIES FOR CUTTING CONDUCTORS		
Die Type	Cutting Capacity	Conductor Type
MB2-80U	Ø 16 mm	Cu, Alu, Aldrey and Alu-Steel
	This die is suitable to cut Steel conductors (R ≤ 160 daN/mm²) having the most common strandings, i.e.: 19 x 1,2 = Ø est. 6,0 mm 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	
MB3-80U	Suitable to cut Aluminium strands of 150 mm² Aluminium-Steel conductors, without damage to the Steel core	

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 120

general features

Crimping force kN	Dimensions mm		Weight kg
	length	*width*	
120	488	138	5,7

MAIN APPLICATIONS - max section mm²					
L.V. lugs	L.V. splices	Insulated terminals	"C" sleeve connectors	H.V. lugs	H.V. splices
400	240	240	185	400	240

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P3*	620x380xh135	2,5	❄	–

**Suitable for storage of the tool and 14 sets of dies.*

This light-weight and self contained tool will accept the semi-circular slotted dies, common to most 130 kN tools.
It is particularly suitable for installing crimp type electrical connectors for overhead line applications.
The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.
For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure release system can easily be operated at any stage of the compression.

HT 120-KV version also available for Power Supply Companies

Die release system, protected from accidental operation

HT 120 features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.

Pressure release trigger, which can be operated at any stage of the compression.

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 131-C

general features

Crimping force kN	Dimensions mm		Jaw Opening mm	Weight kg
	length	*width*		
130	473	144	25	5,5

This new model, self contained, robust and sturdy, will accept all semi-circular slotted dies, common to most 130 kN tools.
The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.
For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

MAIN APPLICATIONS - max section mm²					
L.V. lugs	L.V. splices	Insulated terminals	"C" sleeve connectors	H.V. lugs	H.V. splices
400	240	240	185	400	240

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P3*	620x380xh135	2,5	❊	—

**Suitable for storage of the tool and 14 sets of dies*

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and the pressure release system can easily be operated at any stage of compression.

HYDRAULIC PRESSHEADS

RHC 131

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Jaw Opening mm	Weight kg
		length	*width*		
130	700	232	124	25	3,8

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172) **This new design with improved mechanical features,** is suitable for installing the same range of connectors as HT 131-C.

MAIN APPLICATIONS - max section mm²					
L.V. lugs	L.V. splices	Insulated terminals	"C" sleeve connectors	H.V. lugs	H.V. splices
400	240	240	185	400	240

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P26*	445x290xh115	1,2	—	❊

**Suitable for storage of the head and 14 sets of dies*

RHM 132

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
130	700	216	80	3,1

Particularly suitable for high volume bench crimping.

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

MAIN APPLICATIONS - max section mm²		
L.V. lugs	Insulated terminals	H.V. lugs
400	240	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P26*	445x290xh115	1,2	—	❊

**Suitable for storage of the head and 14 sets of dies*

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 131LN-C

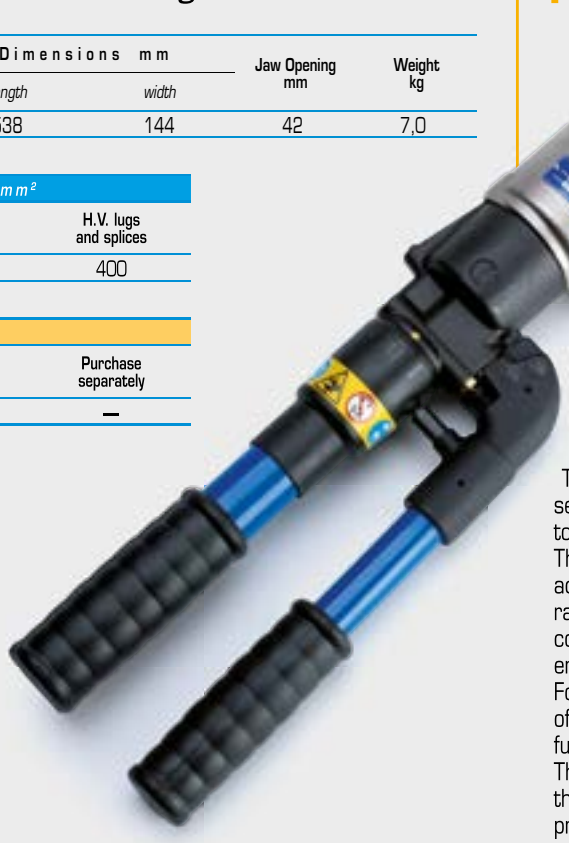
general features

Crimping force kN	Dimensions mm		Jaw Opening mm	Weight kg
	length	*width*		
130	538	144	42	7,0

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
400	240	185	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P3*	620x380xh135	2,5	❄	–

**Suitable for storage of the tool and 12 sets of dies*



Hydraulic "C" head tool with a large 42 mm jaw opening, for easier introduction/removal of large size compression terminations and joints.

The HT131LN-C will accept all semi-circular slotted dies, common to most 130 kN tools.

The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.

For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and the pressure release system can easily be operated at any stage of compression.

HYDRAULIC PRESSHEAD

RHC 131LN

CE

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Jaw Opening mm	Weight kg
		length	*width*		
130	700	298	122	42	5,4

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
400	240	185	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P26*	445x290xh115	1,2	–	❄

**Suitable for storage of the head and 14 sets of dies*

Hydraulic head featuring a large 42 mm jaw opening; complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172). Is suitable for installing the same range of connectors as HT 131LN-C.

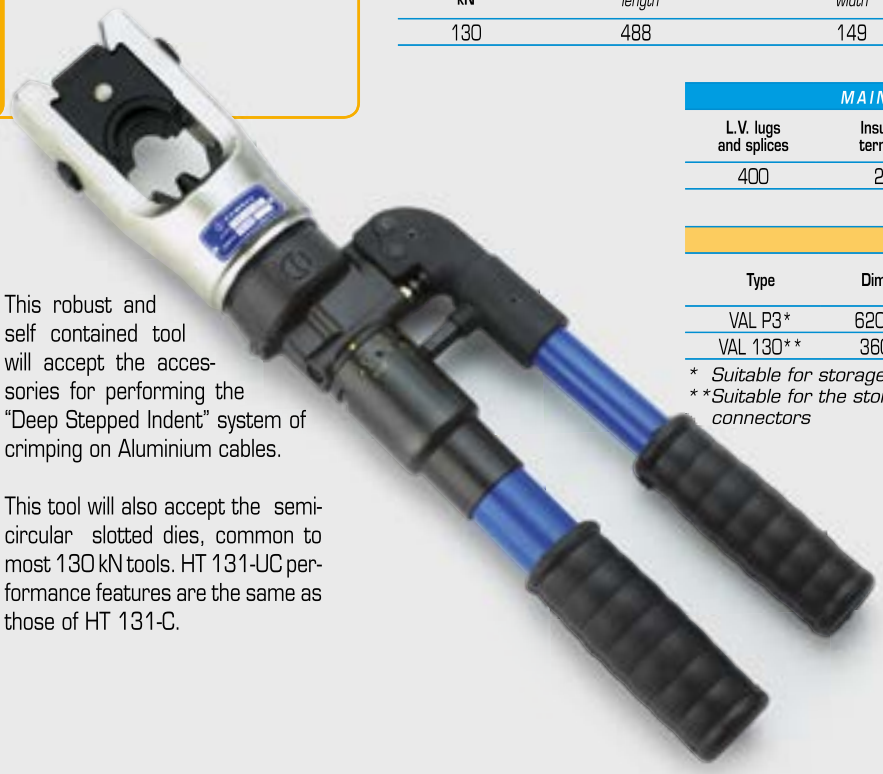
These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC CRIMPING TOOL

HT 131-UC

general features

Crimping force kN	Dimensions mm		Weight kg
	length	*width*	
130	488	149	5,4



This robust and self contained tool will accept the accessories for performing the "Deep Stepped Indent" system of crimping on Aluminium cables.

This tool will also accept the semi-circular slotted dies, common to most 130 kN tools. HT 131-UC performance features are the same as those of HT 131-C.

MAIN APPLICATIONS - max section mm²				
L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P3*	620x380xh135	2,5	❊	—
VAL 130**	360x280xh48	3,0	—	❊

** Suitable for storage of the tool and 14 sets of semi-circular slotted dies*
***Suitable for the storage of accessories for crimping Aluminium connectors*

HYDRAULIC PRESSHEAD

RHU 131-C

general features

CE

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
130	700	245	89	3,7

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

RHU 131-C is suitable for installing the same range of connectors as HT 131-UC.

MAIN APPLICATIONS - max section mm²				
L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P26*	445x290xh115	1,2	—	❊
VAL 130**	360x280xh48	3,0	—	❊
VAL 130-U***	450x305xh80	5,0	—	❊

** Suitable for storage of the head and 14 sets of dies*
*** Suitable for the storage of accessories for crimping Aluminium connectors*
**** Suitable for storage of the head, semi-circular slotted dies and dies for crimping Aluminium connectors*

VAL 130

VAL 130-U

VAL P26

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC PRESSHEAD

ECW-H3D

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
230	700	290	120	5,5

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
630	300	240	630

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL ECW-H3D*	345x305xh90	4,2	—	❄

** Suitable for storage of the head and 10 sets of dies*

ECW-H3D ACCESSORIES FOR CUTTING CONDUCTORS		
Die Type	Cutting Capacity	Conductor Type
WT2-3D	Ø 20 mm	Cu, Alu, Aldrey and Alu-Steel
	Ø 20 mm	Extra flexible Steel with ≥ 200 strands
	This die is suitable to cut Steel conductors (R ≤ 160 daN/mm²) having the most common strandings, i.e.: 19 x 1,2 = Ø est. 6,0 mm; 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	

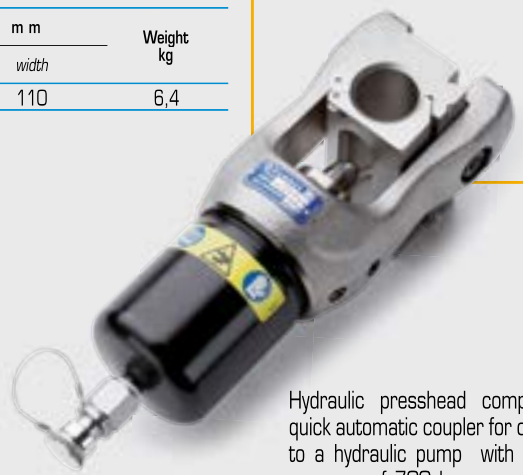
Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).
Adaptor type **AU230-130D** is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 130 kN tools. Also available is a series of dies for the compression of DIN electrical connectors, and a die for cutting Copper, Aluminium, aldrey, Aluminium-Steel and Steel conductors.

HYDRAULIC PRESSHEAD

RHU 231

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
230	700	320	110	6,4



MAIN APPLICATIONS - max section mm²	
Alu lugs and splices	Cu lugs and splices
500	630

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 231*	470x273xh96	7,2	❄	—

** Suitable for storage of the head and dies for Aluminium compression*

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).
For crimping up to 500 sqmm Aluminium.
Dies are available also for crimping Copper connectors.

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC PRESSHEAD

RHU 230-630

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
230	700	365	193	9,0

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).
It allows for crimping up to 630 sqmm Aluminium (according to HN 68 S90).
Adapters **AU 230-130-C/N**, and **AU 230-PS/E**, are available as an optional extra enabling the head to utilise the semicircular slotted dies which are common to most 130 kN tools.

MAIN APPLICATIONS - max section mm²			
CU lugs and splices	Alu lugs and splices	"C" sleeve connectors	H.V. lugs and splices
400	630	185	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 230-630*	405x230xh145	3,5	❊	—
VAL MAT 230-630*	290x260xh70	3,1	—	❊

* *Suitable for storage of the head*
** *Suitable for storage of the accessories*

VAL MAT 230-630

VAL 230-630

HYDRAULIC PRESSHEAD

RHU 450

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
450	700	260	120	10,3

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

Adaptor type **AU 450-130 D** is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 130 kN tools.

MAIN APPLICATIONS - Hexagonal crimp according to DIN 48083 max section mm²		
Cu	Al	Al/St
1000	1000	680/85

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 450*	285x212xh124	2,8	❊	—

* *Suitable for storage of the head*

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC PRESSHEAD

RHU 520

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
520	700	306	200	18,0

MAIN APPLICATIONS - max section mm²	
Lugs and splices	H.V. overhead lines
1200	630

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 520*	384x231xh145	3,2	—	❄
VAL MAT 520**	500x310xh68	5,1	—	❄

** Suitable for storage of the head*
*** Suitable for storage of 10 sets of dies*

VAL MAT 520

VAL 520

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).
Adaptor type **AU520-130C** is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 130 kN tools.

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

HYDRAULIC PRESSHEAD

RHU 600

general features

Crimping force kN	Max operating pressure bar	Dimensions with support mm		Weight with support kg
		length	*width*	
600	700	447	241	22.4

MAIN APPLICATIONS

- "U" Alcoa series die and "L" Burndy series die, etc.
- Aluminium and Copper max size 2156 MCM

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 600*	480x235xh260	8,6	❊	—

** Suitable for storage of the head*

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

VAL 600

HYDRAULIC PRESSHEAD

RHU 1000

general features

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
1.100	700	414	278	50,6

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 1000*	334x244xh435	12	❊	—

**Suitable for storage of the head*

VAL 1000

New

Operable from single or double acting hydraulic power source

Lifting eye; screwed into the base of the cylinder, allows easy transportation of the head in aerial operation.

RHU 1000 is a 1.100 kN hydraulic presshead for full tension, transmission and substation connections, complete with quick automatic coupler for connection to hydraulic pumps with a working pressure of 700 bar max, (see pages 168-172).

The standard version must be operated by a single acting pump; possibility to convert from single to double acting by substitution of the breather valve with a female quick coupling.
RHU1000 will accept all semi-circular slotted dies common to most 100 ton heads as the Alcoa ones.
The die cap is removable for an easy connector positioning; the upper part of the cap automatically rotates during the die changing process to present the correct positioning of the die. Lifting eye included.

Insertion of the upper die:

After substitution of the dies, insert the die cap into the head.

Pull the pin.

The upper part of the cap automatically rotates...

...to the correct position.

INDUSTRIAL APPLICATION

HT-TC051

HYDRAULIC CUTTING TOOL

general features

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
50	497	129	4,38

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas Bag 010	545x160	0,15	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, Aluminium and Telecommunications cable having a max overall diameter of 50 mm. The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. The head can be easily opened to allow the cutting of running cables.
The head can rotate through 90 degrees, to enable the operator to work in the most comfortable position.
HT-TC051 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

INDUSTRIAL APPLICATION

TC 050

HYDRAULIC CUTTING HEAD

general features

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
50	700	325	112	3,2

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 011	360x137	0,13	❊	—

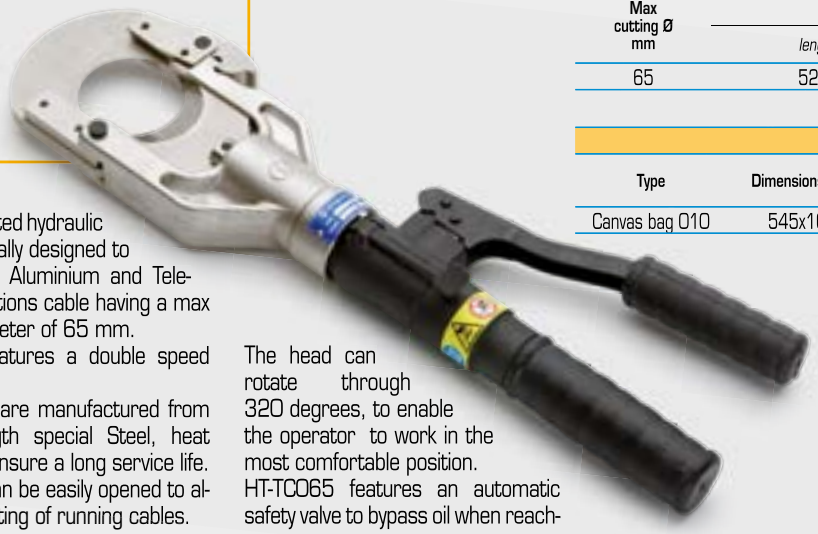
Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172)
TC050 features the same cutting capability as HT-TC051.

INDUSTRIAL APPLICATION

HT-TC065

HYDRAULIC CUTTING TOOL

general features



Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
65	523	129	5

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 010	545x160	0,15	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, Aluminium and Telecommunications cable having a max overall diameter of 65 mm.
The tool features a double speed action.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
The head can be easily opened to allow the cutting of running cables.
The head can rotate through 320 degrees, to enable the operator to work in the most comfortable position.
HT-TC065 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

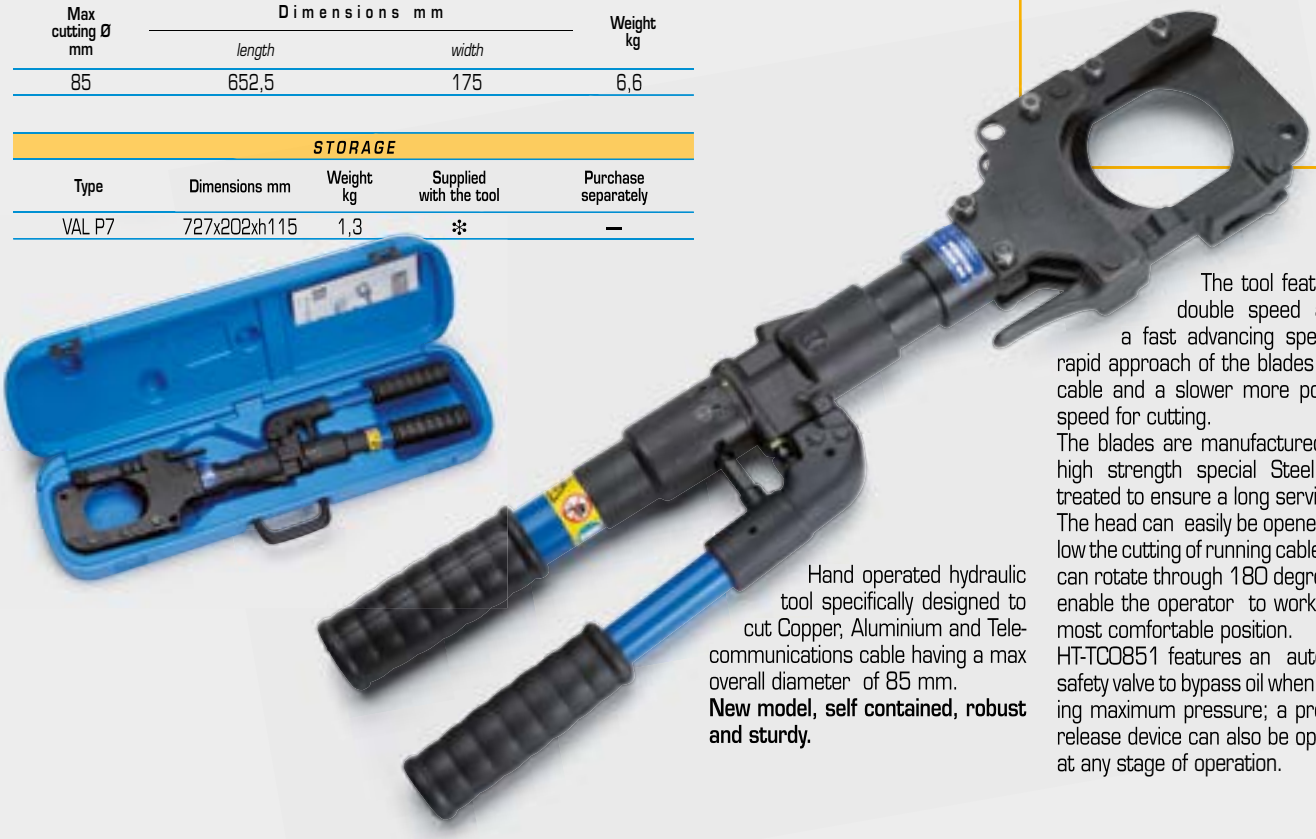
HYDRAULIC CUTTING TOOL

general features

INDUSTRIAL APPLICATION
HT-TC0851

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
85	652,5	175	6,6

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P7	727x202xh115	1,3	❊	—



Hand operated hydraulic tool specifically designed to cut Copper, Aluminium and Telecommunications cable having a max overall diameter of 85 mm.
New model, self contained, robust and sturdy.

The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
The head can easily be opened to allow the cutting of running cables, and can rotate through 180 degrees, to enable the operator to work in the most comfortable position.
HT-TC0851 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

HYDRAULIC CUTTING HEAD

CE

general features

INDUSTRIAL APPLICATION
TC 085

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight Kg
		length	*width*	
85	700	409	135	4,9

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL TC 085	465x155xh65	2,4	❊	—

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172)

TC085 features the same cutting capability as HT-TC0851.

INDUSTRIAL APPLICATION

TC 096

HYDRAULIC CUTTING HEAD

general features

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
95	700	397	249	7,9

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 096	450x265xh145	6,8	❊	—

Hydraulic cutting head specifically designed to cut Copper and Aluminium cable having a max overall diameter of 95 mm.

The head is complete with a quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

Handle designed for ease of operation

HYDRAULIC CUTTING HEAD

general features

INDUSTRIAL APPLICATION
TC 120

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
120	700	536	175	9,5

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL TC 120	590x209xh84	4,9	❊	—

Hydraulic cutting head specifically designed to cut Copper, Aluminium and Telecommunications cable having a max overall diameter of 120 mm.

The head can easily be opened to cut running cables, and the handle allows the most comfortable positioning of the head onto the cable to be cut.

The head is complete with a quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).

	TC 120 cutting capacity - a few examples:
Cable type	*3x150 mm² Steel armoured Ø80 mm*
	1000 mm² Cu - EPR rubber insulated; Ø85 mm
	1000 mm² Cu - EPR rubber insulated + lead sheath; Ø92 mm
	1000 mm² Cu - EPR rubber insulated + lead sheath + PE sheath; Ø100 mm
	240 mm² EPR rubber insulated

Handle designed for ease of operation

Opening head, to allow cutting of running cables

HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

HT-TC026

general features

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
25	382	129	3,2

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 001	430x155	0,15	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 25 mm.
The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
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 the cutting of running cables.
HT-TC026 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

CUTTING CAPACITY			
	MATERIAL	TENSILE STRENGTH (daN/mm²)	MAX CUTTING DIAMETER (mm) HT-TC026 TC 025 HT-TC026Y B-TC250E
ROPES & CONDUCTORS	COPPER	≤ 41	25
	ALUMINIUM	≤ 20	25
	ALMELEC	≤ 34	25
	STEEL	≤ 180	*INDICATIVE EXAMPLES:* 7 x 3,0 : Ø est. = 9,0 mm 19 x 2,1 : Ø est. = 10,5 mm 19 x 2,2 : Ø est. = 11,0 mm 19 x 2,3 : Ø est. = 11,5 mm
	MULTI STRANDS STEEL (STRANDS Qty ≥ 200)	≤ 180	18
	ACSR	≤ 180	25 *INDICATIVE 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	13
		≤ 42	16
	COPPER	≤ 30	20
		≤ 25	23
	ALUMINIUM	≤ 16	25

HYDRAULIC CUTTING HEAD

OVERHEAD LINE APPLICATION

TC 025

general features

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
25	700	213	82	2,0

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 007	350x105	0,13	❊	—

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172)

TC025 has the same cutting capability as HT-TC026.

HYDRAULIC CUTTING TOOL

general features

OVERHEAD LINE APPLICATION

HT-TC026Y

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
25	394,5	129	3,35

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas Bag 001	430x155	0,15	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, aldrey, Aluminum, Aluminum-Steel cables, **stay wire and Steel ropes having a max overall diameter of 25 mm and Steel earthing rod up to 16 mm**. The tool features a double speed action.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
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 the cutting of running cables.
HT-TC026Y features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

Ideal for earthing rod and stay wire

HT-TC026Y cutting capacity - a few examples:		
Ø		EARTHING RODS AND STAY WIRES
mm	in.	
12,7	1/2"	*STEEL EARTHING ROD, COPPER PLATED; Tensile strength = 79 daN/mm²*
14,2	/	*STEEL EARTHING ROD, COPPER PLATED; Tensile strength = 69 daN/mm²*
15,6	/	*STEEL EARTHING ROD; Tensile strength = 69 daN/mm²*
15,9	5/8"	*STEEL EARTHING ROD, COPPER PLATED (CON ED - ILLINOIS); Tensile strength = 57 daN/mm²*
15,9	5/8"	*STEEL EARTHING ROD, COPPER PLATED (CON ED - STATEN ISLAND); Tensile strength = 78 daN/mm²*
19	3/4"	*STEEL EARTHING ROD, COPPER PLATED; Tensile strength = 74 daN/mm²*
9,15 (3,05x7)	/	*STAY WIRE*
10,8 (3,6x7)	/	*STAY WIRE (PORTLAND GENERAL ELECTRIC)*
11,1 (3,7x7)	/	*STAY WIRE (PORTLAND GENERAL ELECTRIC)*
12,3 (4,1x7)	/	*STAY WIRE (PORTLAND GENERAL ELECTRIC)*
12,6 (4,2x7)	/	*STAY WIRE (PORTLAND GENERAL ELECTRIC)*

HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

HT-TC041

general features

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
40	550	144	5,8

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P7	727x202xh115	1,3	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 40 mm.

New model, even more self contained, robust and sturdy.

The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. 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.

HT-TC041 features an automatic safety valve to bypass oil when reaching maximum pressure; a pressure release device can also be operated at any stage of operation.

CUTTING CAPACITY			
	MATERIAL	TENSILE STRENGTH (daN/mm²)	MAX CUTTING DIAMETER (mm) HT-TC 041 B-TC450E / TC 04 B-TC04
ROPES & CONDUCTORS	COPPER	≤ 41	40
	ALUMINIUM	≤ 20	40
	ALMELEC	≤ 34	40
	STEEL	≤ 180	*INDICATIVE 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
	MULTI STRANDS STEEL (STRANDS Q.TY ≥ 200)	≤ 180	18
	ACSR	≤ 180	40 *INDICATIVE 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 54 x 3,50 + 19 x 2,10 : Ø est. = 31,50 54 x 4,36 + 19 x 2,62 : Ø est. = 39,20
RODS	STEEL	≤ 60	18
		≤ 42	20
	COPPER	≤ 30	30
		≤ 25	32
	ALUMINIUM	≤ 16	40

HYDRAULIC CUTTING HEAD

OVERHEAD LINE APPLICATION

TC 04

general features

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
40	700	311	100	4,0

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL 04	350x125xh68	2,0	❊	—

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172)

TC04 has the same cutting capability as HT-TC041.

HYDRAULIC CUTTING TOOL

general features

OVERHEAD LINE APPLICATION

HT-TC051Y

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
50	503	129	4,7

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas Bag 010	545x160	0,15	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, Aluminum, Aluminum-Steel cables (ACSR) having a max overall diameter of 50 mm.
The HT-TC051Y is provided with a two stage hydraulic system, which advances the blades quickly to the cable. This proven system saves operator time and effort.
The HT-TC051Y is provided with an automatic safety valve to bypass oil when reaching max pressure.
This means safety to the operator and protection to the blades.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
The shape of the blades provides a "clean" cut.
The head can be opened to allow cutting of running cables and ropes.
The head rotates 90 degrees allowing the operator to perform the cut in the most comfortable position.
The tool is supplied complete with canvas bag 010 for protection and storage when not in use.

Not suitable for cutting stay wire, Steel rope or earthing rod.

HYDRAULIC CUTTING HEAD

CE

general features

OVERHEAD LINE APPLICATION

TC 050Y

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
50	700	331	112	3,3

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
Canvas bag 011	360x137	0,13	❊	—

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172).
TC 050Y features the same cutting capability as HT-TC051Y.

Not suitable for cutting stay wire, Steel rope or earthing rod.

HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

HT-TC055

general features

Max cutting Ø mm	Dimensions mm		Weight kg
	length	*width*	
55	595	144	8,3

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P7	727x202xh115	1,3	❊	—

Hand operated hydraulic tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 55 mm.
The HT-TC055 is provided with a two stage hydraulic system, which advances the blades quickly to the cable. This proven system saves operator time and effort.
The HT-TC055 is provided with an automatic safety valve to bypass oil when reaching max pressure.
This means safety to the operator and protection to the blades.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
The shape of the blades provides a "clean" cut.

The head can be opened to allow cutting of running cables and ropes.
The head rotates 330 degrees allowing the operator to perform the cut in the most comfortable position.
The tool is supplied complete with plastic case VAL P7 for protection and storage when not in use.

CUTTING CAPACITY			
	MATERIAL	TENSILE STRENGTH (daN/mm²)	MAX CUTTING DIAMETER (mm) HT-TC055 TC 055 B-TC055
ROPES & CONDUCTORS	COPPER	≤ 41	55
	ALUMINIUM	≤ 20	55
	ALMELEC	≤ 34	55
	STEEL	≤ 180	*INDICATIVE 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
	MULTI STRANDS STEEL (STRANDS Q.TY ≥ 200)	≤ 180	22
	ACSR	≤ 180	50 *INDICATIVE 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 (GW15-9/16-188)	Extra high strenght grade	7 x 4,77 : Ø est. =14,30 mm
RODS	STEEL	≤ 60	20
		≤ 42	22
	COPPER	≤ 30	34
		≤ 25	38,5
	ALUMINIUM	≤ 16	50

HYDRAULIC CUTTING HEAD

OVERHEAD LINE APPLICATION

TC 055

general features

CE

Max cutting Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
55	700	357	134	6,6

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL TC055	384x231x145	3,7	❊	—

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 168-172)
TC055 has the same cutting capability as HT-TC055.

general features

Frame-type hole punching head RH-FC48N

Type	Max piercing Ø mm	Max centre of hole to edge of trunking (mm)	Max operating pressure bar	Dimensions mm		Weight kg
				length	*width*	
RH-FC 48N	47,2	53,5	700	259,5	147,5	3,7

Storage type	Dimensions mm	Weight kg
VAL P30*	315x300xh95	0,93

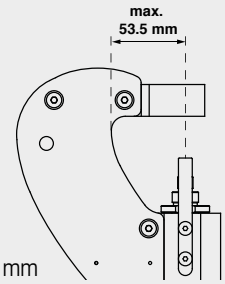
**Supplied with the head*

Hole Dimensions					Maximum thickness of mild Steel (mm)	Code
Nominal		Pg	ISO	Inch		
Ø (mm)	Ø (inch)					
15,5	.610	Pg9	-	-		**RD 15.5 SS-FC**
16,2	.638	-	ISO-16	-		**RD 16.2 SS-FC**
17,5	.689	-	-	-		**RD 17.5 SS-FC**
18,8	.740	Pg11	-	-		**RD 18.8 SS-FC**
19,1	.752	-	-	-		**RD 19.1 SS**
20,5	.807	Pg 13,5	ISO-20	-		**RD 20.5 SS**
22,6	.890	Pg16	-	-		**RD 22.6 SS**
23,8	.937	-	-	5/8"		**RD 23.8 SS**
25,4	1.000	-	ISO-25	-		**RD 25.4 SS**
27,0	1.063	-	-	3/4"		**RD 27.0 SS**
28,5	1.122	Pg21	-	-		**RD 28.5 SS**
30,5	1.201	-	-	7/8"	2	**RD 30.5 SS**
31,8	1.252	-	-	-		**RD 31.8 SS**
32,5	1.279	-	ISO-32	-		**RD 32.5 SS**
34,6	1.362	-	-	-		**RD 34.6 SS**
37,2	1.464	Pg29	-	-		**RD 37.2 SS**
38,1	1.500	-	-	-		**RD 38.1 SS**
40,5	1.594	-	ISO-40	-		**RD 40.5 SS-FC**
41,3	1.626	-	-	-		**RD 41.3 SS-FC**
42,5	1.673	-	-	1"1/4"		**RD 42.5 SS-FC**
43,2	1.701	-	-	-		**RD 43.2 SS-FC**
44,5	1.752	-	-	-		**RD 44.5 SS-FC**
47,2	1.858	Pg36	-	-		**RD 47.2 SS-FC**

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild Steel, fibreglass or plastic material, up to 2 mm thick.

VAL P30
Supplied in a robust plastic case.

Hydraulic head complete with automatic quick coupler, designed for punching holes from 15,5 up to 47,2 mm diameter in the side wall of trunking without the need for pre drilling. For operation, the head must be joined to a hydraulic pump developing a pressure of 700 bar (see page 168-172).



Max centre of hole to edge of trunking: 53,5 mm

Piercing heads RHT

Type	Max piercing Ø mm	Max hole distance from bar edge (mm)	Max operating pressure bar	Dimensions mm		Weight kg
				length	*width*	
RHT 160	21	30	700	240	153	6,5
RHT 160-60N	21	60	700	240	181	9,2

Storage type	Dimensions mm	Weight kg
VAL 160*	283x180xh100	2,3

**Supplied with the head*

Hydraulic head complete with automatic quick coupler, for piercing holes of various diameters in Copper, Aluminium and Steel bars with max. thickness of 10 mm.
This compact and handy tool is widely used for transformer room connections, control switch boards and power plants.
For operation the head must be joined to a hydraulic pump developing a pressure of 700 bar (see page 168-172).

Available accessories (to be ordered separately):												
Piercing Ø mm	**6,5**	**8,5**	**9**	**10,5**	**11**	**13**	**13,5**	**14**	**15**	**17**	**19**	**21**
Set die - indentor	RT 6,5	RT 8,5	RT 9	RT 10,5	RT 11	RT 13	RT 13,5	RT 14	RT 15	RT 17	RT 19	RT 21

MAX. THICKNESS												
Hole diameter (mm)	6,5	8,5	9	10,5	11	13	13,5	14	15	17	19	21
Max thickness strep in Copper	10	10	10	10	10	10	10	10	10	10	8	8
Max thickness strep in Steel	10	10	10	10	10	9	9	9	8	7	6	4
Punch die/set	RT 6,5	RT 8,5	RT 9	RT 10,5	RT 11	RT 13	RT 13,5	RT 14	RT 15	RT 17	RT 19	RT 21

Puller-type hole punching tool HT-FL75

general features

New

Max punching Ø mm	Dimensions mm		Weight kg
	length	*width*	
140	452	129	3,67

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P28	620x360xh138	2,4	❊	—

Hand operated hydraulic tool specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 3,5 mm thickness.
Compact, lightweight and easy to handle.
The balanced punching head pivots 180deg through a full 360deg rotation for ease of use in confined spaces.
The tool is supplied complete with plastic case VAL P28 for protection and storage when not in use.
Supplied with Pullers TD-11, TD-19 and spiral bit Ø 11,5 mm.

For the punch-die selection chart see page 166.

Universal joint allows punching head to pivot 180deg over a full 360deg rotation.

Puller-type hole punching head RH-FL75

Max punching Ø mm	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
140	700	163	106	1,9

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P29	448x288xh105	1,4	❊	—

Hydraulic head, for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 3,5 mm thickness.
Compact and lightweight, easy to handle in confined spaces due to a rotating 90deg quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max (see page 168-172).

Supplied with Pullers TD-11, TD-19 and spiral bit Ø 11,5 mm.

For the punch-die selection chart see page 166.

SPECIAL TOOLS

general features

Nut splitting heads RHTD

Hydraulic nut splitting head complete with automatic quick coupler. For operating the head must be joined to a hydraulic pump developing a pressure of 700 bar (see page 168-172).

RHTD 1724

Suitable for splitting nuts mm	Max operating pressure bar	Weight kg
16 (M10) ÷ 27 (M18)	700	1,76

RHTD 3241

Suitable for splitting nuts mm	Max operating pressure bar	Weight kg
27 (M18) ÷ 41 (M27)	700	4,6

RHTD 3241-T

Suitable for splitting square and hexagonal nuts or fastening bushes mm	Max operating pressure bar	Weight kg
27 (M18) ÷ 41 (M27)	700	4,9

STORAGE

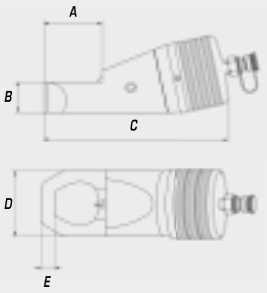
Type	Dimensions mm	Weight kg
VAL P4*	315x300x95	0,93

*Supplied with the head

VAL P4
Supplied in a robust plastic case.

DIMENSIONS mm:

	RHTD 3241	RHTD 1724	RHTD 3241T
A	66	40,5	77
B	36	25	41
C	208	150,5	222
D	75,5	54	75,5
E	16	7,5	21,5



TOOL SETTING FOR RHTD

DOUBLE BLADE – Moving blade and fixed blade marked "B"				DOUBLE BLADE – Moving blade and fixed blade marked "A"		SINGLE BLADE – Moving blade marked "B" - Blind plated marked "C"			
Hexagonal Nuts		Square Nuts		Fastening Bushes*		Hexagonal Nuts		Square Nuts	
mm	Ø	mm	Ø	ØA	ØB	mm	Ø	mm	Ø
27	M 18	27	M18	1/2"	.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"				

*Blades for cutting FASTENING BUSHES are specially shaped.

ACCESSORIES

Flexible hoses

TF 300-Q 38 FM
3 m length flexible hose fitted with an automatic female quick coupler and a male quick coupler.

TF 600-Q 38 FM
6 m length flexible hose fitted with an automatic female quick coupler and a 3/8" NPT male threaded bush.

TF 300-Q 38 F
3 m length flexible hose equipped with automatic female quick coupler at one end and male threading at the other end.

High pressure flexible hoses for joining hydraulic heads to pumps.
In addition to the standard versions listed below alternative hose lengths are available, please consult us:

Quick couplers

Q 38-M
Male automatic coupler for hydraulic heads.

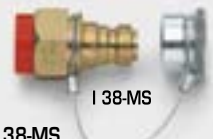
Q 38-F
Female automatic coupler for hydraulic pumps and flexible hoses.

Q 38-MS
Male automatic coupler for flexible hoses.

STANDARD VERSIONS

I 38-M
Male automatic coupler for insulated hydraulic heads.

I 38-F
Female automatic coupler for insulated hydraulic pumps and flexible hoses.



I 38-MS
Male automatic coupler for insulated flexible hoses.

INSULATED VERSIONS

PRESSURE TEST DEVICE FOR HYDRAULIC PUMPS AND TOOLS

MPC 1

Pressure checking device MPC 1

The MPC1 device, complete with test adapter set, is used to measure the maximum oil pressure on all Cembre tools.

MPC 2

Crimping force gauge MPC 2

The MPC2 device, complete with test die set, to measure the maximum force developed by Cembre tools:
HT 131-C, HT 131LN-C, HT 120, HT 120-KV, RHC 131, RHC 131-KV, RHC 131LN, B 131-C, B 131-C-KV, B 131LN-C, B 131LN-C-KV, B 135-C, B 135-C-KV, B 135LN-C, B 135LN-C-KV.

MPC 4

Crimping force gauge MPC 4

The MPC4 device, complete with test die set, to measure the maximum force developed by Cembre tools:
ECW-H3D, RHU240-3D-850, RHU 300-3D

MPC 7

Crimping force gauge MPC 7

The MPC7 device, complete with test die set, to measure the maximum force developed by Cembre tools:
HT45, HT 51, HT 51-KV, HT 51L, HT 51L-KV, RH 50, HT 61, RH 61, B15D (use adaptor available separately), B 35-45D, B 35-50D, B 46, B 51, B 51-KV, B 51L, B 51L-KV, B 54D, B 55, B 55-KV, B 62.

CORDLESS HYDRAULIC TOOLS

18.0 V CORDLESS TOOL FEATURES

1. Head rotates through 180°.
2. Switch protected against accidental operation.
3. Pressure release button.
4. Slot-in battery with release button.
5. LED lighting of the working area.
6. Motor ventilation.
7. Bi-component body for increased impact resistance.
8. Multifunction OLED display with touch button.
9. Improved balance for better handling.
10. Anatomically shaped grip for greater comfort.
11. 18.0 V - 4.0 Ah Li-Ion high power batteries.

18.0V 4.0Ah Li-Ion

NEW 18V Li-Ion BATTERY

DOUBLE ACTION SPEED

New

LED lighting of the working area

Anatomical shape for improved comfort grip

Automatic slot-in battery with release button

Multifunction OLED display with touch button

18.0 V CORDLESS TOOL FEATURES

Multifunction OLED display:

Crimping pressure and force being generated for confirmation of adherence to norms and best practice

Battery power availability

Tool service required to maintain optimum condition

General operating information

SUPPLIED WITH

1. **CB 1840L,** 18.0 V - 4.0 Ah Li-Ion high power battery (2 pcs.)
2. **ASC 30-36 GB 27045000** Battery charger.
   (INPUT 220-240 V / 50-60 Hz; OUTPUT 12-42 V DC / 3.0 A max.)
3. Shoulder strap.
4. Plastic carrying case.

B 500 Acoustic Noise

(Directive 2006/42/EC, annexe 1, point 1.7.4.2 letter u)

- *The weighted continuous acoustic pressure level equivalent A at the workplace L_{pA} is equal to* ***73 dB (A)***
- *The maximum value of the weighted acoustic displacement pressure C at the workplace L_{pCpeak} is less than* ***< 94,5 dB (C)***
- *The acoustic power level emitted by the machine L_{WA} is equal to* ***79 dB (A)***

Risks due to vibration

(Directive 2006/42/EC, annexe 1, point 2.2.1.1)

Tests performed in accordance with specifications UNI ENV 25349 and UNI EN 28662 pt. 1, in operating conditions more severe than normal, ***certify that the weighed root mean square, in frequency of the acceleration the upper limbs are exposed to, for each biodynamic reference axis, does not exceed 0,575 m/sec²***.

14.4 V CORDLESS TOOL FEATURES

- *Cordless tooling can be operated with one hand.*
- *Balanced tool for greater control.*
- *Head rotates for ease of operation in confined spaces.*
- *Battery condition displayed after every crimping operation and battery insertion to show the residual battery power.*
- *The tools are fitted with a maximum pressure valve to indicate a correct crimping operation or the full extent of the blade travel.*
- *Extremely quiet in operation with very little vibration.*
- *Durable moulded body offering high resistance to wear and damage in all operating conditions.*

- *The plastic or Steel carrying case can accomodate the tool and all the accessories.*

- ***Common features:***

double speed action: a rapid approach speed and a slower more powerful speed for crimping or cutting.

new more powerful Li-Ion battery 14.4V - 3.0Ah; reduced memory effect, better environmental compatibility, lighter.

SUPPLIED WITH

1. **CB 1430L** 14.4 V 3.0 Ah Li-Ion high power battery (2 pcs.).
2. **CFC 230N** Battery charger. (INPUT 230 V/50-60 Hz; OUTPUT 7.2-18 V DC)
3. Shoulder strap.

- Plastic/Metal carrying case suitable for storage of the tool, accessories and dies (depending on tool type).

OPTIONAL ACCESSORIES

4. **BPS 230.14** mains power supply.
   Main features: INPUT 230V~ 50-60Hz; OUTPUT 14,4V⎓ thermal and short circuit protection.
   Current supply: up to 5A extended use; 23A for 50 s; 30A for 8 s.
5. **ESC 600** cable for connection to a 12V DC external power supply/vehicle battery length 6 m (suitable only for tools with 12V DC socket).
6. **CFC 12-24ICN** car battery charger. (INPUT 12-24 V DC; OUTPUT 7.2-18 V DC)

B-55 Acoustic Noise

(Directive 2006/42/EC, annexe 1, point 1.7.4.2 letter u)

- *The weighted continuous acoustic pressure level equivalent A at the workplace L_{pA} is equal to **75 dB (A)***
- *The maximum value of the weighted acoustic displacement pressure C at the workplace L_{pCpeak} is less than **< 130 dB (C)***
- *The acoustic power level emitted by the machine L_{WA} is equal to **85.3 dB (A)***

B-TC041 Acoustic Noise

(Directive 2006/42/EC, annexe 1, point 1.7.4.2 letter u)

- *The weighted continuous acoustic pressure level equivalent A at the workplace L_{pA} is equal to **72.4 dB (A)***
- *The maximum value of the weighted acoustic displacement pressure C at the workplace L_{pCpeak} is less than **< 130 dB (C)***
- *The acoustic power level emitted by the machine L_{WA} is equal to **83.1 dB (A)***

Risks due to vibration

(Directive 2006/42/EC, annexe 1, point 2.2.1.1)

*Tests performed in accordance with specifications UNI ENV 25349 and UNI EN 28662 pt. 1, in operating conditions more severe than normal, **certify that the weighted root mean square, in frequency of the acceleration the upper limbs are exposed to, for each biodynamic reference axis, does not exceed 2.5 m/sec²**.*

9.6 V CORDLESS TOOL FEATURES

- *Cordless tooling can be operated with one hand.*
- *Balanced tool for greater control.*
- *Head rotates for ease of operation in confined spaces.*
- *Battery condition displayed after every crimping operation and battery insertion to show the residual battery power.*
- *The tools are fitted with a maximum pressure valve to indicate a correct crimping operation or the full extent of the ram travel.*
- *Extremely quiet in operation with very little vibration.*
- *Durable moulded body offering high resistance to wear and damage in all operating conditions.*
- *The plastic carrying case can accomodate the tool and all the accessories.*

SUPPLIED WITH

1. **CB 9620H** 9.6 V 2.0 Ah Ni-MH high power battery (2 pcs.) or **CB 9630H** 9.6 V 3.0 Ah Ni-MH high power battery, only for B54D-D6 (2 pcs.).
2. **CFC 230N** Battery charger. (INPUT 230 V/50-60 Hz; OUTPUT 7.2-18 V DC)
3. **Adaptor CBA 96-144**.

- **VAL P22** Plastic carrying case suitable for storing the tool and accessories.

OPTIONAL ACCESSORIES

4. **CFC 12-24ICN** car battery charger. (INPUT 12-24 V DC; OUTPUT 7.2-18 V DC)
5. **Adaptor CBA 96-144.**
6. **BPS 230.96**, mains power supply. **Main features**: INPUT 230V~ 50-60Hz; OUTPUT 9,6V⎓ thermal and short circuit protection. **Current supply**: up to 8A extended use; 25A for 50 s; 30A for 8 s

B 15D Acoustic Noise

(Directive 2006/42/EC, annexe 1, point 1.7.4.2 letter u)

- *The weighted continuous acoustic pressure level equivalent A at the workplace L_{pA} is equal to **66.8 dB (A)***
- *The maximum value of the weighted acoustic displacement pressure C at the workplace L_{pCpeak} is less than **< 130 dB (C)***
- *The acoustic power level emitted by the machine L_{WA} is equal to **75 dB (A)***

Risks due to vibration

(Directive 2006/42/EC, annexe 1, point 2.2.1.1)

*Tests performed in accordance with specifications UNI ENV 25349 and UNI EN 28662 pt. 1, in operating conditions more severe than normal, **certify that the weighed root mean square, in frequency of the acceleration the upper limbs are exposed to, for each biodynamic reference axis, does not exceed 2.5 m/sec²**.*

9.6 V CORDLESS HYDRAULIC CRIMPING TOOL

B 15D

general features

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
15	320	117	66	9.6 V 2.0 Ah	1,68

9.6V 2.0Ah Ni-MH

Can be operated with one hand.
Balanced for greater control.
Head rotates 340° for ease of operation in confined spaces.
Fitted with a maximum pressure valve.
Extremely quiet, minimal vibration.
Durable moulded body offering high resistance to wear and damage in all operating conditions.
Ni-MH battery; powerful, better environmental compatibility.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.

Supplied in a robust plastic case to accommodate the tool and all the accessories.
Two batteries and charger included.
Many different interchangeable crimping dies available.

MAIN APPLICATIONS - max section mm²		
Copper lugs and splices	Insulated terminals	End sleeves
0,25 - 16	0,25 - 16	0,3 - 35

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315xh116	1,5	❊	—

The tool is supplied as:
- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger*
- *Battery adapter*

- *Plastic carrying case suitable for storing the tool and accessories*

Head rotates 340° for ease of operation

Durable moulded body offering high resistance to wear and damage in all operating conditions

Sculptured body for optimum comfort

Many different interchangeable crimping dies available

CRIMPING DIES AVAILABLE				
Conductor size mm²	(AWG)	Connector type	DIE SET	
0,25 ÷ 16	22 ÷ 6	A... ; L...-M ; L...-P ; S... ; RN... ; BN... ; GN...	MA03/3-15	
1,5 ÷ 10	16 ÷ 8	A... ; L...-M ; L...-P	ME03/2-15	
10 ÷ 16	8 ÷ 6	A...; 2A... ; L...-M ; L...-P	ME2/3-15	
4 ÷ 10	12 ÷ 8	T... (NF C 20130 style) ; L...-T	MS4/10-15	
10 ÷ 16	8 ÷ 6	T... (NF C 20130 style) ; L...-T	MS10/16-15	
10 ÷ 16	8 ÷ 6	HR... ; HSV...	MH10/16-15	
6 ÷ 16	10 ÷ 6	DR... (DIN 46235 style) ; DSV... (DIN 46267 T1 style)	MK5/8-15	
10 ÷ 16	8 ÷ 6	ANE... ; AN... ; IN... ; EN...	NN4-15	
0,25 ÷ 6	22 ÷ 10	R... ; B... ; G... (not suffix P); PL... ; NL...	RBG-15	
0,25 ÷ 6	22 ÷ 10	R... ; B... ; G... (not suffix P, RF/BF-BF)	RBY-15 with positioner	
0,3 ÷ 4	22 ÷ 12	PKE ; PKC ; PKD ; PKT ; KE	KE4-15	
4 ÷ 16	12 ÷ 6	PKE ; PKC ; PKD ; PKT ; KE	KE16-15	
16 ÷ 35	6 ÷ 2	PKE ; PKC ; PKD ; PKT ; KE	KE35-15	
2,5 - 4 - 6	14 -12 -10	CS4 (per impianti fotovoltaici) ✳	MCS4-15	

Battery condition display

Interchangeable die sets

Ergonomically designed operating switch

Automatic slot-in battery

9.6 V CORDLESS HYDRAULIC CRIMPING TOOL

B 35-45D

general features

9.6V 2.0Ah Ni-MH

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
35	342	108	66	9.6 V 2.0 Ah	2,1

MAIN APPLICATIONS - max section mm²		
L.V. lugs and splices	"C" sleeve Connectors	H.V. lugs and splices
150	35	70

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315xh116	1,5	❄	—

The tool is supplied as:

- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger*
- *Battery adapter*
- *Plastic carrying case suitable for storing the tool and accessories*

Wide-opening head, ideal for derivations from running conductors

Can be operated with one hand.
Balanced for greater control.
Head rotates 180° for ease of operation in confined spaces.
Fitted with a maximum pressure valve.
Extremely quiet, minimal vibration.
Durable moulded body offering high resistance to wear and damage in all operating conditions.
Ni-MH battery; powerful, better environmental compatibility.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Supplied in a robust plastic case to accommodate the tool and all the accessories.
Two batteries and charger included.
B35-45D accepts many of the dies common to 45 kN Cembre crimping tools. B35-45D specific dies avaiable for crimping 120 mm² and 150 mm².
Application field as shown in the table above. For further details please refer to tables of page 176-185.

Motor ventilation

Head rotates 180° for ease of operation

Pressure release button

Sculptured body for optimum comfort

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

9.6 V CORDLESS HYDRAULIC CRIMPING TOOL

B 35-50D

general features

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
35	372	108	66	9.6 V 2.0 Ah	2,4

9.6V 2.0Ah Ni-MH

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
150	50	95	35

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315xh116	1,5	❄	—

Can be operated with one hand.
Balanced for greater control.
Head rotates 180° for ease of operation in confined spaces.
Fitted with a maximum pressure valve.
Extremely quiet, minimal vibration.
Durable moulded body offering high resistance to wear and damage in all operating conditions.
Ni-MH battery; powerful, better environmental compatibility.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Supplied in a robust plastic case to accommodate the tool and all the accessories.
Two batteries and charger included.
B35-50D accepts many of the dies common to 50 kN Cembre crimping tools.

B35-50D specific dies avaiable for crimping 120 mm² and 150 mm². Application field as shown in the table above. For further details please refer to tables of page 176-185.

The tool is supplied as:

- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger*
- *Battery adapter*
- *Plastic carrying case suitable for storing the tool and accessories*

Head rotates by 180° for ease of operation

Sculptured body for optimum confort

Durable moulded body offering high resistance to wear and damage in all operating conditions

Wide-opening head, ideal for derivations from running conductors

Switch ergonomically designed

Battery condition display

Automatic slot-in battery

Cembre

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

9.6 V CORDLESS HYDRAULIC CRIMPING TOOL

B 54D-D6

general features

9.6V 3.0Ah Ni-MH

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
54	450	119	66	9.6 V 3.0 Ah	2,9

MAIN APPLICATIONS - max section AWG		
Copper lugs and splices	Aluminum lugs and splices	Aluminum H taps
300 MCM	4/0	4/0 - 4/0

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P25	497x370x137	2,3	❄	–
VAL MAT-W	175x96x45	0,93	–	❄

The professional tool ideal for OH lines and residential service applications.

The tool is supplied as:

- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger*
- *Battery adapter*
- *Plastic carrying case suitable for storing the tool and accessories*

VAL P25

VAL MAT-W

Available as optional accessories:
VAL MAT-W *metal case for storing 12 Index die sets, fits into VAL-P25.*

Extremely quiet, minimal vibration.
Durable moulded body offering high resistance to wear and damage in all operating conditions.
Ni-MH battery; powerful, better environmental compatibility.
Supplied in a robust plastic case for storing the tool and all accessories.
Two batteries and charger included.
Standard interchangeable crimping jaw: **CDD6** with "D3" groove to accept all "W" style crimping dies + "BG" fixed groove.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.

Can be operated with one hand.
Balanced for greater control.
Jaws rotate 180° for ease of operation in confined spaces.
Fitted with a maximum pressure valve.

INTERCHANGEABLE CRIMPING JAWS			
CAT. No	GROOVES	CRIMPING DIE COMPATIBILITY	
CDD6	"D3" TO ACCEPT ALL "W" STYLE CRIMPING DIES + "BG" FIXED GROOVE	**FCI Burndy** **Green lee** **Ilsco**	W, X Series KD6 Series ND Series
CDD6-8	"D3" TO ACCEPT ALL "W" STYLE CRIMPING DIES + "O" FIXED GROOVE	**Huskie** **Panduit**	HT-58 Series CD-2001 series
CMB1	**Cutting jaws for:** one-time disposable lock hasps; 4AWG Alumoweld; ACSR 4/0		
CMB2	**Cutting jaws for:** # 8 Copperweld; 4/0 Cu.; 336 MCM Aluminium; 477 MCM ACSR (Str. 26/7)		
CMB3	**Cutting jaws for:** 1/4" Guy Wire ; 5/16" Guy Wire		

CDD6 jaws

With "D3" groove to accept all "W" style crimping dies + "BG" fixed groove.

CDD6-8 jaws

With "D3" groove to accept all "W" style crimping dies + "O" fixed groove.

CMB1 jaws

Cutting jaws for:
one-time disposable lock hasps,
4AWG Alumoweld; ACSR 4/0

CMB2 jaws

Cutting jaws for:
- # 8 Copperweld
- 4/0 Cu.
- 336 MCM Aluminium
- 477 MCM ACSR (Str. 26/7)

CMB3 jaws

Cutting jaws for:
- 1/4" Guy Wire
- 5/16" Guy Wire

Canvas Bag 013
Sturdy canvas bag, suitable for storing the cutting jaws

Jaws rotate 180°

Detail of the quick jaw change device.

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 500E

New

general features

Nominal Compression Force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
63	300	343	83	18 V 4.0 Ah	4,2

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
240	120	120	70

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP35	500x480x128	3,1	❊	–

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 20 die sets*

The next generation of Cembre cordless hydraulic tools represents a significantly advantageous evolution from current models.
Born of the renowned B51 type crimping tool, the 63 kN B500E is suitable for a wide range of connectors up to 240 sqmm using die sets common to the Cembre 50 kN tooling range.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.
The OLED display provides essential real time tool operating information data including:
- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B500E is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature:
-15 to +50 ° C

New

B 500E-KV
version also available for Power Supply Companies

LED lighting of the working area

Anatomically shaped grip for improved comfort

Multifunction OLED display with touch button

Slot-in battery with release button

Cembre

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 55

general features

DOUBLE ACTION SPEED

14.4V 3.0Ah Li-Ion

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
55	358	302	94	14.4 V 3.0 Ah	4,7

MAIN APPLICATIONS - max section mm²

Copper lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
240	120	120	70

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412xh130	2,2	❊	—

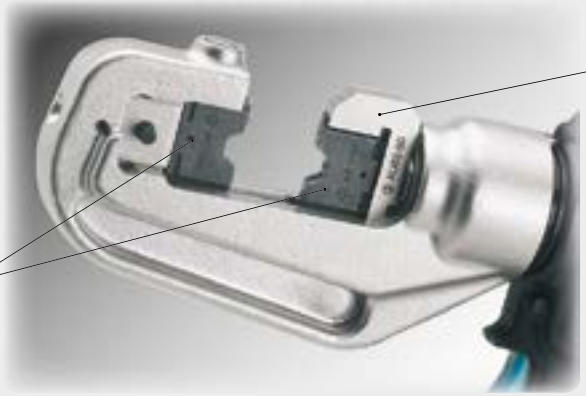
The tool is supplied as:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

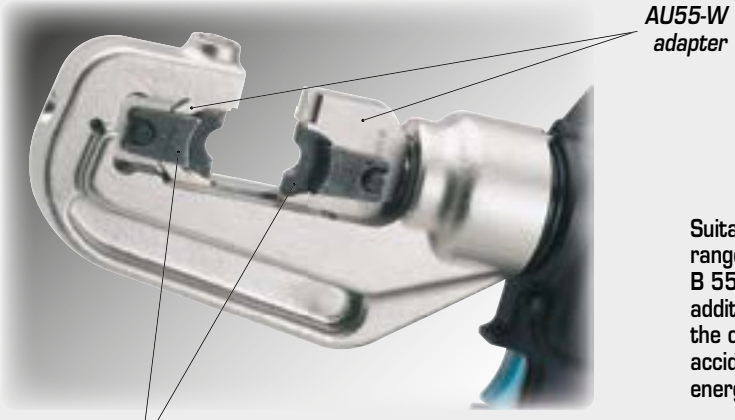
14.4 V cordless hydraulic crimping tool, lightweight and balanced for single hand operation.
The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.
The crimping head can rotate through 180° for ease of operation.

The B 55, with adapter AU55-50, will accept all Cembre 50 kN dies; with adapter AU55-W it will accept "W" dies.
Fitted with a maximum hydraulic pressure valve.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Extremely quiet in operation, with very little vibration.
Ergonomically designed with a sculptured body for operator comfort.

With adapter AU55-50 for accepting Cembre dies.



With adapter AU55-W for accepting "W" dies.



Suitable for installing the same range of connectors of B 55, B 55-KV tool is provided with additional coatings to protect the operator and tool against accidental brush contact with energised conductors.

Particularly suitable for Power Supply Companies.

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1350-CE

New

general features

Nominal Compression Force kN	Dimensions mm			Jaw Opening mm	Battery	Weight kg (with battery)
	length	*height*	*width*			
132	338	344	83	25	18,0 V 4.0 Ah	6,4

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

MAIN APPLICATIONS - max section mm²					
L.V. lugs	L.V. splices	Insulated terminals	"C" sleeve connectors	H.V. lugs	H.V. splices
400	240	240	185	400	240

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP36	500x480x128	3,1	❊	—

The tool is supplied as:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 7 die sets*

The next generation of Cembre cordless hydraulic tools represents a significantly advantageous evolution from current models. Born of the renowned B135-C type crimping tool, B1350-CE is suitable for a wide range of connectors up to 400 sqmm using die sets common to the Cembre 130 kN tooling range. New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.
A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.
The OLED display provides essential real time tool operating information data including:
- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1350-CE is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature:
-15 to +50 ° C

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1350L-CE

New

general features

Crimping force kN	Dimensions mm			Jaw Opening mm	Battery	Weight kg (with battery)
	length	*height*	*width*			
132	395	372	83	42	18,0 V 4.0 Ah	8,2

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

B1350L-CE version, featuring a large 42 mm jaw opening, for an easier introduction/removal of large size compression terminations and joints.

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	"C" sleeve Connectors	H.V. lugs and splices
400	240	185	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP36	500x480x128	3,1	❊	—

The tool is supplied as:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 7 die sets*

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1350-UCE

New

general features

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
132	351	369	83	18,0 V 4.0 Ah	5,9

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	"C" sleeve Connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP36	500x480x128	3,1	❄	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 7 die sets*

The next generation of Cembre cordless hydraulic tools represents a significantly advantageous evolution from current models.
Born of the renowned B135-UC type crimping tool, B1350-UCE will accept the accessories for performing the "Deep Stepped Indent" system of crimping on Aluminium cables. The B1350-UCE will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.
A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.
The OLED display provides essential real time tool operating information data including:

- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1350-UCE is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.

Operating temperature:
-15 to +50 ° C

LED lighting of the working area

Multifunction OLED display with touch button

Anatomically shaped grip for improved comfort

Slot-in battery with release button

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1300-CE

New

general features

Crimping force kN	Dimensions mm			Jaw Opening mm	Battery	Weight kg (with battery)
	length	*height*	*width*			
132	406	239	102,5	25	18.0 V - 4.0 Ah	6,5

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

MAIN APPLICATIONS - max section mm²					
L.V. lugs	L.V. splices	Insulated terminals	"C" sleeve connectors	H.V. lugs	H.V. splices
400	240	240	185	400	240

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P41	691x456x176	4,0	❊	–

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 12 die sets*

The next generation of Cembre cordless hydraulic tools represents a significantly advantageous evolution from current models.
Born of the renowned B131-C type crimping tool, B1300-CE is suitable for a wide range of connectors up to 400 sqmm using die sets common to the Cembre 130 kN tooling range.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.

A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.
The OLED display provides essential real time tool operating information data including:
- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1300-CE is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.
Operating temperature: -15 to +50 ° C

B 1300-CE-KV version also available for Power Supply Companies

LED lighting of the working area

Anataomically shaped grip for improved comfort

B 1300L-CE-KV version also available for Power Supply Companies

Slot-in battery with release button

Multifunction OLED display with touch button

Cembre

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1300L-CE

general features

New

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Crimping force kN	Dimensions mm			Jaw Opening mm	Battery	Weight kg (with battery)
	length	*height*	*width*			
132	471	239	102,5	42	18.0 V - 4.0 Ah	8,0

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	"C" sleeve Connectors	H.V. lugs and splices
400	240	185	400

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P41	691x456x176	4,0	❇	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 12 die sets*

Also available in the B1300L-CE version, featuring a large 42 mm jaw opening, for an easier introduction/ removal of large size compression terminations and joints.

18.0 V CORDLESS HYDRAULIC CRIMPING TOOL

B 1300-UCE

general features

New

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
132	423	239	102,5	18.0 V - 4.0 Ah	6,5

MAIN APPLICATIONS - max section mm²				
L.V. lugs and splices	Insulated terminals	"C" sleeve Connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P41	691x456x176	4,0	❇	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 12 die sets*

The next generation of Cembre cordless hydraulic tools represents a significantly advantageous evolution from current models.
Born of the renowned B131-UC type crimping tool, B1300-UCE will accept the accessories for performing the "Deep Stepped Indent" system of crimping on Aluminium cables.
The B1300-UCE will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).

New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater crimping speed and crimping force result from a revitalised hydraulic system with double speed action: a rapid approach of the dies to the connector then a slower, more powerful speed for crimping.
A maximum pressure sensor and pressure relief valve assure greater precision and repeatability of the pressure cycle and double the provision for operator safety.

The OLED display provides essential real time tool operating information data including:
- Crimping pressure and force being generated, for confirmation of adherence to norms and best practice
- Battery power availability
- Tool identification, LED work light state, reset, no. of operational and service crimping cycles
- Tool service required to maintain optimum condition.

Designed with improved balance, B1300-UCE is easily manageable during the crimping process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Crimping cycle data (up to 200,000 events) is automatically stored on a memory card for transfer to PC by USB interface.
Operating temperature:
-15 to +50 ° C

These tools are supplied without dies. For die selection, please refer to chart on pages 176 to 185

9.6 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B35-TC025

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
25	377	114	66	9.6 V 2.0 Ah	3,0

9.6V 2.0Ah Ni-MH

Can be operated with one hand. Balanced for greater control.
Head rotates 180° for ease of operation in confined spaces.
Fitted with a maximum pressure valve. Extremely quiet, minimal vibration.
Durable moulded body offering high resistance to wear and damage in all operating conditions.
Ni-MH battery; powerful, better environmental compatibility.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Supplied in a robust plastic case to accommodate the tool and all the accessories.
Two batteries and charger included.

The tool is supplied as:
- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger* • *Battery adapter*
- *Plastic carrying case suitable for storing the tool and accessories*

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315xh116	1,5	❊	—

CUTTING CAPACITY

	MATERIAL	TENSILE STRENGTH (daN/mm²)	MAX CUTTING DIAMETER (mm) B35-TC025
ROPES & CONDUCTORS	COPPER	≤ 41	25
	ALUMINIUM	≤ 20	25
	ALMELEC	≤ 34	25
	STEEL	≤ 180	*INDICATIVE EXAMPLES:* 19 x 2,1 : Ø est. = 10,5 mm 19 x 2,2 : Ø est. = 11,0 mm
	MULTI STRANDS STEEL (STRANDS Qty ≥ 200)	≤ 180	-
	ACSR	≤ 180	25 *INDICATIVE 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	10
		≤ 42	-
	COPPER	≤ 30	-
		≤ 25	16
	ALUMINIUM	≤ 16	25

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC250E

New

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
25	300	337	83	18.0 V 4.0 Ah	4,65

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP37	500x480x128	3,1	❊	—

The tool is supplied as:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 25 mm.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button. 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. Fitted with a maximum hydraulic pressure valve. Designed with improved balance, B-TC250E is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. For cutting capacity data see page 136.
Operating temperature: -15 to +50 °C

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC450E

New

NEW 18V Li-Ion BATTERY

general features

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
45	407	401	88	18.0 V 4.0 Ah	6,7

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP37	500x480x128	3,1	❇	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery* • *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 45 mm. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button. 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.
Fitted with a maximum hydraulic pressure valve.
Designed with improved balance, B-TC450E is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area. For cutting capacity data see page 138.

Operating temperature:
-15 to +50 ° C

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC04

general features

DOUBLE ACTION SPEED

14.4V 3.0Ah Li-Ion

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
40	492	250	100	14.4 V 3.0 Ah	7,3

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL BTC04/B150	566x410xh130	6,7	❇	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Metal carrying case suitable for storing the tool and accessories*

- 14.4 V cordless hydraulic cutting tool specifically designed to cut Copper, aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 40 mm.
- Lightweight and balanced for single hand operation.
- The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.
- For ease of operation and comfort of the operator the tool head can be rotated through 180 degrees.
- The tool is powered by 14.4 V dc Li-Ion battery.
- A balanced tool for optimum control.
- Quiet in operation with very little vibration.
- Lightweight construction enables the operator to hold the tool in one hand and to position the cable with the other hand.
- The operating buttons, cut/release, are mechanically interlocked, to prevent accidental operation of the tool.
- A microprocessor controls the tool operation and automatically cuts out the motor, on completion of the cutting operation, saving energy and extending battery life.
- The residual battery capacity is automatically displayed after every operation and battery insertion.
- Fitted with an integral socket, for connection to a 12 V dc external power supply/vehicle battery.
- The tool is provided with a maximum pressure valve.

For cutting capacity data see page 138.

Li-Ion BATTERY

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC500YE

New

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
50	405	398	83	18.0 V 4.0 Ah	5,8

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

NEW 18V Li-Ion BATTERY

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminium, Aluminum-Steel cables (ACSR) having a max overall diameter of 50 mm.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action.

The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button.
The head can rotate through 90 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP37	500x480x128	3,1	❊	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Fitted with a maximum hydraulic pressure valve.
Designed with improved balance, B-TC500YE is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.

Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Operating temperature:
-15 to +50 ° C

Not suitable for cutting stay wire, Steel rope or earthing rod.

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC055

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
55	483	298	94	14.4 V 3.0 Ah	9,1

DOUBLE ACTION SPEED

14.4V 3.0Ah Li-Ion

Li-Ion BATTERY

14.4 V cordless hydraulic cutting tool, lightweight and balanced for single hand operation. Specifically designed cut Copper, Aldrey, Aluminium, Aluminium-Steel cables and Steel ropes, Aluminium and Steel rods having a max overall diameter of 55 mm.
The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life.

The head can be easily opened to allow the cutting of running cables.
The head can rotate through 320 degrees, to enable the operator to work in the most comfortable position.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL B-TC095	565x410x132	6,7	❊	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery* • *Battery charger*
- *Metal carrying case suitable for storing the tool and accessories*

Fitted with a maximum hydraulic pressure valve.
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.
For cutting capacity data see page 140.

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

INDUSTRIAL APPLICATION
B-TC500E

New

NEW 18V Li-Ion BATTERY

general features

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
50	405	398	83	18.0 V 4.0 Ah	5,8

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP37	500x480x128	3,1	❊	—

The tool is supplied as:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminium and telecommunication cable having a max overall diameter of 50 mm. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button.
The head can rotate through 90 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.
Designed with improved balance, B-TC500E is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Operating temperature:
-15 to +50 ° C

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

INDUSTRIAL APPLICATION
B-TC650E

New

NEW 18V Li-Ion BATTERY

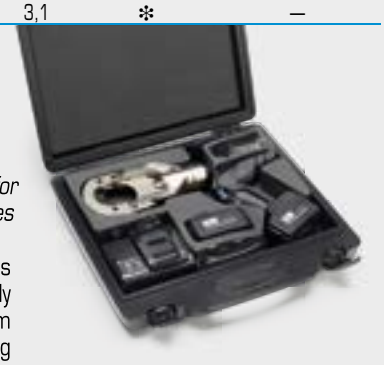
general features

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
65	429	415	83	18.0 V 4.0 Ah	6,4

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VALP37	500x480x128	3,1	❊	—



The tool is supplied as:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminium and telecommunication cable having a max overall diameter of 65 mm. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button.
The head can rotate through 335 degrees, to enable the operator to work in the most comfortable position, and can easily be opened to allow cutting of running cables.

Fitted with a maximum hydraulic pressure valve.
Designed with improved balance, B-TC650E is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage.
Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Operating temperature:
-15 to +50 ° C

18.0 V CORDLESS HYDRAULIC CUTTING TOOL

INDUSTRIAL APPLICATION

B-TC650-SCE

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
65	503	464	105	18.0 V 4.0 Ah	7,7

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

STORAGE				
Type	Dimensions in.	Weight kg	Supplied with the tool	Purchase separately
VAL B-TC950	565x410x132	6,7	❊	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Metal carrying case suitable for storing the tool and accessories*

Next generation of 18.0 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminium and telecommunication cable having a max overall diameter of 65 mm. The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. The open head and the "scissor" movement of the blades facilitate the cutting of running cables.
New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater cutting speed and cutting force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button. 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. Fitted with a maximum hydraulic pressure valve.
Designed with improved balance, B-TC650-SCE is easily manageable during the cutting process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.
Operating temperature:
-15 to +50 ° C

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

INDUSTRIAL APPLICATION

B-TC095

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
95	527	305	94	14.4 V 3.0 Ah	7,06

DOUBLE ACTION SPEED

14.4V 3.0Ah Li-Ion

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL B-TC095	565x410x132	6,7	❊	—

The tool is supplied as:

- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Metal carrying case suitable for storing the tool and accessories*

14.4 V cordless hydraulic cutting tool specifically designed to cut Copper, Aluminium and telecommunication cable having a max overall diameter of 95 mm.
The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting.
The blades are manufactured from high strength special Steel, heat treated to ensure a long service life. The head can be easily opened to allow the cutting of running cables.
The head can rotate through 335 degrees, to enable the operator to work in the most comfortable position. Fitted with a maximum hydraulic pressure valve. Complete with a display which, after every operation and battery insertion, indicates the residual battery power.
Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.

14.4 V CORDLESS HYDRAULIC FRAME-TYPE HOLE PUNCHING TOOL

B-FC48N

New

general features

DOUBLE ACTION SPEED

14.4V 3.0Ah Li-Ion

Max hole punch Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
47,2	354	302	94	14.4 V 3.0 Ah	5,6

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412xh130	2,2	❇	—

The tool is supplied as:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

14.4 V cordless hydraulic tool for punching holes from 15,5 up to 47,2 mm diameter in the side wall of trunking without the need for pre drilling. Lightweight and balanced for single-hand operation.

The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the material and a slower, more powerful speed for punching.

The punching head can rotate through 180° for ease of operation.

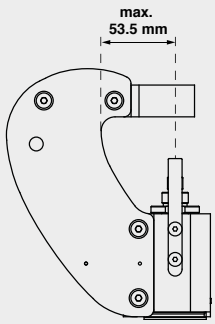
Complete with a display which, after every operation and battery insertion, indicates the residual battery power.

Extremely quiet in operation, with very little vibration.

Ergonomically designed with a sculptured body for operator comfort.

Also available in the hand operated mechanical version MT-FC48N.

For the punch/die set reference see table.



Max centre of hole to edge of trunking: 53,5 mm

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild Steel, fibreglass or plastic material, up to 2 mm thick.

Hole Dimensions					Maximum thickness of mild Steel (mm)	Code
Nominal Ø (mm)	Ø (inch)	Pg	ISO	Inch		
15,5	.610	Pg9	-	-	2	RD 15.5 SS-FC
16,2	.638	-	ISO-16	-		RD 16.2 SS-FC
17,5	.689	-	-	-		RD 17.5 SS-FC
18,8	.740	Pg11	-	-		RD 18.8 SS-FC
19,1	.752	-	-	-		RD 19.1 SS
20,5	.807	Pg 13,5	ISO-20	-		RD 20.5 SS
22,6	.890	Pg16	-	-		RD 22.6 SS
23,8	.937	-	-	5/8"		RD 23.8 SS
25,4	1.000	-	ISO-25	-		RD 25.4 SS
27,0	1.063	-	-	3/4"		RD 27.0 SS
28,5	1.122	Pg21	-	-		RD 28.5 SS
30,5	1.201	-	-	7/8"		RD 30.5 SS
31,8	1.252	-	-	-		RD 31.8 SS
32,5	1.279	-	ISO-32	-		RD 32.5 SS
34,6	1.362	-	-	-		RD 34.6 SS
37,2	1.464	Pg29	-	-		RD 37.2 SS
38,1	1.500	-	-	-		RD 38.1 SS
40,5	1.594	-	ISO-40	-		RD 40.5 SS-FC
41,3	1.626	-	-	-		RD 41.3 SS-FC
42,5	1.673	-	-	1"1/4"		RD 42.5 SS-FC
43,2	1.701	-	-	-		RD 43.2 SS-FC
44,5	1.752	-	-	-		RD 44.5 SS-FC
47,2	1.858	Pg36	-	-		RD 47.2 SS-FC

18.0 V CORDLESS HYDRAULIC PULLER-TYPE HOLE PUNCHING TOOL

B-FL750E

general features

Max punching Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
Ø 140	363	366	83	18.0 V 4.0 Ah	5,1

DOUBLE ACTION SPEED

18.0V 4.0Ah Li-Ion

New

NEW 18V Li-Ion BATTERY

Next generation of 18.0 V cordless hydraulic tool specifically designed for hole punching stainless Steel, mild Steel, fibreglass and plastic sheet materials up to 3,5 mm thickness.

New Li-Ion 18 V 4 Ah batteries offer a higher capacity than 14.4 V 3 Ah, while greater punch speed and punching force result from a revitalised hydraulic system with double speed action. The battery is equipped with LED indicators to show the remaining battery life at any time by pressing the adjacent button. The balanced punching head pivots 180deg through a full 360deg rotation for ease of use in confined spaces. Fitted with a maximum hydraulic pressure valve.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL FCL	565x410x132	6,7	❊	—

The tool is supplied as:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Puller TD-11*
- *Puller TD-19*
- *Spiral bit Ø 11,5 mm*

Designed with improved balance, B-FL750E is easily manageable during the punching process and, by the use of bi-component plastics, has a shell with high resistance to wear and damage. Rubber grip inserts, low noise and minimal vibration aid operator comfort while additional convenience and safety are provided by LED lighting of the working area.

- *Metal carrying case suitable for storing the tool and accessories*

Operating temperature: -15 to +50 ° C

PUNCHING ACCESSORIES AVAILABLE

ROUND PUNCH

Hole diameter					Material max thickness		Pilot hole Ø	Code			
Nominal		Pg	ISO	Inch	Stainless Steel	Mild Steel		KIT (Punch+die)	Punch	Die	Puller
Ø (mm)	Ø (inch)						(mm)				
15,5	.610	Pg9	-	-	2,5 mm (0.1 in.) Rm= 700 N/mm²	3,5 mm (0.14 in.) Rm= 510 N/mm²	11,5	**RD 15.5SS**	P-RD15.5SS	M-RD15.5SS	TD-11
16,2	.638	-	ISO-16	-				**RD 16.2SS**	P-RD16.2SS	M-RD16.2SS	
17,5	.689	-	-	-				**RD 17.5SS**	P-RD17.5SS	M-RD17.5SS	
18,8	.740	Pg11	-	-				**RD 18.8SS**	P-RD18.8SS	M-RD18.8SS	
19,1	.752	-	-	-				**RD 19.1SS**	P-RD19.1SS	M-RD19.1SS	
20,5	.807	Pg 13,5	ISO-20	-				**RD 20.5SS**	P-RD20.5SS	M-RD20.5SS	
22,6	.890	Pg16	-	-				**RD 22.6SS**	P-RD22.6SS	M-RD22.6SS	
23,8	.937	-	-	5/8"				**RD 23.8SS**	P-RD23.8SS	M-RD23.8SS	
25,4	1.000	-	ISO-25	-				**RD 25.4SS**	P-RD25.4SS	M-RD25.4SS	
27,0	1.063	-	-	3/4"				**RD 27SS**	P-RD27SS	M-RD27SS	
28,5	1.122	Pg21	-	-				**RD 28.5SS**	P-RD28.5SS	M-RD28.5SS	
30,5	1.201	-	-	7/8"				**RD 30.5SS**	P-RD30.5SS	M-RD30.5SS	
28,5	1.122	Pg 21	-	-			20,0	**RD 28.5SS-19**	P-RD28.5SS-19	M-RD28.5SS-19	TD-19
30,5	1.201	-	-	7/8"				**RD 30.5SS-19**	P-RD30.5SS-19	M-RD30.5SS-19	
31,8	1.252	-	-	-				**RD 31.8SS**	P-RD31.8SS	M-RD31.8SS	
32,5	1.279	-	ISO-32	-				**RD 32.5SS**	P-RD32.5SS	M-RD32.5SS	
34,6	1.362	-	-	-				**RD 34.6SS**	P-RD34.6SS	M-RD34.6SS	
37,2	1.464	Pg29	-	-				**RD 37.2SS**	P-RD37.2SS	M-RD37.2SS	
38,1	1.500	-	-	-				**RD 38.1SS**	P-RD38.1SS	M-RD38.1SS	
40,5	1.594	-	ISO-40	-				**RD 40.5SS**	P-RD40.5SS	M-RD40.5SS	
41,3	1.626	-	-	-				**RD 41.3SS**	P-RD41.3SS	M-RD41.3SS	
42,5	1.673	-	-	1"1/4"				**RD 42.5SS**	P-RD42.5SS	M-RD42.5SS	
43,2	1.701	-	-	-				**RD 43.2SS**	P-RD43.2SS	M-RD43.2SS	
44,5	1.752	-	-	-				**RD 44.5SS**	P-RD44.5SS	M-RD44.5SS	
47,2	1.858	Pg36	-	-				**RD 47.2SS**	P-RD47.2SS	M-RD47.2SS	
50,5	1.988	-	ISO-50	-				**RD 50.5SS**	P-RD50.5SS	M-RD50.5SS	
54,2	2.134	Pg42	-	1"3/4"				**RD 54.2SS**	P-RD54.2SS	M-RD54.2SS	
60,0	2.362	Pg48	-	2"				**RD 60SS**	P-RD60SS	M-RD60SS	
64,0	2.520	-	ISO-63	-				**RD 64SS**	P-RD64SS	M-RD64SS	
65,0	2.559	-	-	-				**RD 65SS**	P-RD65SS	M-RD65SS	
76,0	2.992	-	-	2"1/2"				**RD 76SS**	P-RD76SS	M-RD76SS	
80,5	3.169	-	-	-				**RD 80.5SS**	P-RD80.5SS	M-RD80.5SS	
100,0	3.937	-	-	-	2	3	29,0	**RD 100SS**	P-RD100SS	M-RD100SS	TD-28.5*
120,0	4.724	-	-	-	1,5	2		**RD 120SS**	P-RD120SS	M-RD120SS	

* Puller included in the kit

SQUARE PUNCH

Hole size		Material max thickness (mm)		Pilot hole Ø	Code
Nominal		Stainless Steel	Mild Steel		KIT (Punch+die + Puller)
(mm)	(inch)			(mm)	
21,0 x 21,0	.827 x .827	2,0	2,0	12,0	**RD 21X21**
46,0 x 46,0	1.811 x 1.811			22,5	**RD 46X46**
68,0 x 68,0	2.677 x 2.677	1,5			**RD 68X68**
92,0 x 92,0	3.622 x 3.622	1,0	1,5	28,5	**RD 92X92**
126,0 x 126,0	4.960 x 4.960				**RD 126X126**
138,0 x 138,0	5.433 x 5.433				**RD 138X138**

RECTANGULAR PUNCH

Hole size		Material max thickness (mm)		Pilot hole Ø	Code
Nominal		Stainless Steel	Mild Steel		KIT (Punch+die + Puller)
(mm)	(inch)			(mm)	
18,0 x 46,0	.709 x 1.811	2,0	2,0	16,5	**RD 18X46**
22,0 x 46,0	.866 x 1.811				**RD 22X46**
35,0 x 86,0	1.377 x 3.385				**RD 35X86**
35,0 x 112,0	1.377 x 4.409				**RD 35X112**
36,0 x 46,0	1.417 x 1.811	1,5		22,5	**RD 36X46**
37,0 x 54,0	1.456 x 2.125			16,5	**RD 37X54**
37,0 x 67,0	1.456 x 2.637				**RD 37X67**
37,0 x 88,0	1.456 x 3.464			26,5	**RD 37X88**
37,0 x 104,0	1.456 x 4.094				**RD 37X104**
46,0 x 54,0	1.811 x 2.126			22,5	**RD 46X54**
46,0 x 72,0	1.811 x 2.835				**RD 46X72**
46,0 x 107,0	1,811 x 4.212				**RD 46X107**

Stainless Steel = Rm= 700 N/mm² - **Mild Steel** = Rm= 500 N/mm²

USE OF NON-CEMBRE PUNCHING ACCESSORIES

Code	Punch & Die	Pilot hole Ø mm
KIT TRD-9,4C (*)	KLAUKE, GREENLEE 3/8" - 24 UNF	Ø 9.7
KIT TRD-M11C (*)	IMB, BM, COSMEC (M11x1.5)	Ø 11.5
TD-M16C	IMB, BM, COSMEC (M16x1.5)	Ø 16.5 or KIT RD17.5SS

(*) The washer supplied with the KIT must be threaded onto the draw stud and positioned between the head and the die to allow the die to rest correctly.

Universal joint allows punching head to pivot 180deg over a full 360deg rotation.




HYDRAULIC PUMPS AND UNITS

PO 7000

Foot operated double speed pump, developing a maximum pressure of 700 bar.
The pump is supplied with 3 m long high pressure flexible hose complete with female self-lock quick coupler.
Pressure can be withdrawn at any time during operation by depressing the release lever.
A solid shaped stand gives the pump stability during operation.

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	680	200	163	9,8

Storage type	Dimensions mm	Weight kg
VAL P21*	820x430xh290	6,74

**Supplied with the pump*

CPP-0

The CPP-0 air hydraulic power unit intensifies an air supply of 6÷8 bar (87-115 psi) to a power crimping or cutting force of up to 700 bar (10.000 psi) depending upon the input pressure.
The control pedal allows for advancing and pressure release at any stage of the operation.
The unit is provided with a 2 m high pressure flexible hose, including a 3/8" NPT female self-lock quick coupler.

CE

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	320	150	200	6,8

CPE-1

CPE-1-110

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	372	223	482	21

Electrically driven hydraulic pump, powered by a 230V / 50-60Hz single-phase electric motor.
The remote hand controller allows advancement and pressure release on completion of the crimping operation.
The mechanically actuated emergency button located on the pump body allows the pressure release at any time in case of power shortage.

Also available **CPE-1-110** version for 110-115V / 50-60Hz.
Both models are IP 55 rated.

The pump is supplied with:

- high pressure flexible hose with male and female automatic quick coupler
- remote hand controller
- external supply connection cable

Available as optional accessories:

- Remote foot controller **RCP-B70**.
- Transportation trolley **CS-CPE-1**
- Control handle integrated with 3 m length flex hoses **ERCH-WH**

ERCH-WH

RCP-B70

CS-CPE-1

PORTABLE ELECTRO-HYDRAULIC PUMPS B70M-P24 RANGE

BATTERY OPERATED

Easily accessible oil top-up inlet

Remote electrical hand or foot controller connection (not KV version)

Remote pneumatic hand controller connection (KV version only)

24V dc external power supply socket with protective cap

24V 3.1Ah Ni-MH

Powerful 24V Ni-MH rechargeable battery

Battery residual power level display

Manual pressure release button

High pressure hose connects to automatic self-lock quick coupling with protective cap

Variously supplied with different versions:

B70M-P24

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	390	163	323	9,2*

**without accessories*

B70M-P24

1. Portable electro-hydraulic pump, 24V dc battery for independent use, developing 700 bar pressure; equipped with an integral socket for connection to an external 24 V dc supply
2. **BH2433** Battery 24V dc 3.1Ah
3. **DC24** External battery charger
4. Shoulder strap
5. Canvas holdall for carrying accessories
6. 3 m flexible hose complete with male + female 3/8" NPT self-lock quick couplers
7. **ERCH** Remote control

B70M-P24-CH

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	390	163	323	9,2*

**without accessories*

B70M-P24-CH

1. Portable electro-hydraulic pump, 24V dc battery for independent use, developing 700 bar pressure; equipped with an integral socket for connection to an external 24 V dc supply
2. **BH2433** Battery 24V dc 3.1Ah
3. **DC24** External battery charger
4. Shoulder strap
5. Canvas holdall for carrying accessories
9. **ERCH-WH** Remote hand controller integrated with 3 m length flexible hose complete with male + female 3/8" NPT self-lock quick couplers

B70M-P24-KV

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	390	163	323	9,2*

**without accessories*

B70M-P24-KV

1. Portable electro-hydraulic pump, 24V dc battery for independent use. Equipped with high dielectric insulated oil and automatic "insulated" lock quick coupler to allow connection only with insulated hoses.
2. **BH2433** Battery 24V dc 3.1Ah.
3. **DC24** External battery charger.
4. Shoulder strap
5. Canvas holdall for carrying accessories.
8. **PRCH** Remote pneumatic hand controller

Insulated heads suitable for use with this pump are generally supplied complete with high pressure insulated hoses; if necessary the hose can be purchased separately.

ACCESSORIES FOR B70M-P24

ESC 300CEE
CONNECTING CABLE WITH 24V dc CEE TYPE PLUG
(for power from an external source, length 3 meters)

ESC 600
CONNECTING CABLE WITH CROCODILE CLIPS
(for power from an external source, length 6 meters)

BPS 230.24
network power supply
INPUT 230V ac 50-60Hz; OUTPUT 24V dc
thermal and short circuit protection.
Current supply*: up to 4A extended use;*
18A for 50 s; 25A for 8 s.

EPS 115-230.24
network power supply
SUPPLY IN: 110/240V
ac autorange
50-60Hz; 700W
SUPPLY OUT: 24V dc; 30A max

ERCH-WH
Remote hand controller
integrated with 3 m
length flexible hose

Operating
push-button

Pressure release button

TRS-B70
CANVAS RUCKSACK
(for carrying the pump)

SH-B70
HOOK
(for hanging the pump
from a ladder)

VAL-P18
Durable transport
case for pump and
accessories.

RCP-B70
PORTABLE REMOTE
FOOT CONTROL

HYDRAULIC UNITS

Hydraulic units are obtained by combining the double stage hydraulic foot pump with the various hydraulic press heads featured on previous pages.
The use of the double speed pump considerably reduces operating time.

CP 1131

*(pump **PO 7000** + head **RHC 131**)*

Crimping force kN	Dimensions pump mm	Dimensions head mm	Weight kg
130	680x200xh163	232x124	13,6

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
400	240	185	400

Storage type	Dimensions mm	Weight kg
VAL P21*	820x430xh290	6,74

**Supplied with the unit, suitable for storage of 24 semi-circular slotted dies*

CPU 1131-C

*(pump **PO 7000** + head **RHU 131-C**)*

Crimping force kN	Dimensions pump mm	Dimensions head mm	Weight kg
130	680x200xh163	245x89	13,5

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

Storage type	Dimensions mm	Weight kg
VAL P21*	820x430xh290	6,74

**Supplied with the unit, suitable for storage of 24 semi-circular slotted dies and accessories for crimping Aluminium connectors*

CPU 1230-3D

*(pump **PO 7000** + head **ECW-H3D**)*

Crimping force kN	Dimensions pump mm	Dimensions head mm	Weight kg
230	680x200xh163	290x120	15,3

MAIN APPLICATIONS - max section mm²

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
630	300	240	630

Storage type	Dimensions mm	Weight kg
VAL P21*	820x430xh290	6,74

**Supplied with the unit, suitable for storage of 24 semi-circular slotted dies and adaptors and dies specific for head ECW-H3D*

HYDRAULIC CUTTING UNITS

CP 1096

*(pump **PO 7000** + head **TC 096**)*

Max cutting Ø mm	Dimensions pump mm	Dimensions head mm	Weight kg
95	680x200xh163	397x249	17,7

Storage type	Dimensions mm	Weight kg
VAL CP 096*	785x430xh175	14,0

**Supplied with the unit*

Units CP-W-KV

GS approval n. ET 13045

Meets the requirements of EN 50340 VDE 0682 part 661 and GS-ET-23

Hydraulic units provide protection against short circuit when cutting accidentally live L.V. / M.V. cables with nominal voltage up to 60 kV.

Unit Type	Max cutting Ø mm	Dimensions pump	Dimensions head	Weight kg
CP 1086-W-1000-KV	85	680x200x163	405x143	16,6
CP 1096-W-1000-KV	95	680x200x163	407x245	19,0
CP 1120-W-1000-KV	120	680x200x163	556x185	20,2

Storage case type	Dimensions mm	Weight kg
VAL CP096-W*	785x430xh175	12,6

Supplied with the **unit*

Available as optional accessories:

- EK100 earth cable for the pump (1 m length)
- EK500P earth cable for the head (5 m length) with earth rod and canvas bag

EK 500P

EK 100

DIE SELECTOR CHART

DIE SELECTOR CHART

COPPER CONDUCTORS

APPLICATION	CONDUCTOR		CONNECTOR			HYDRAULIC TOOLS																																
						B 15D	B 35-45D			B 35-50D			HT 45-E				HT 51 B 500E RH 50 B 55			HT 81-U RHU 81		HT 120 and tools and heads with 130 kN crimping force			ECW-H3D			RHU 520										
	Conductor Size sqmm		TERMINAL		SPLICE	DIE SET	NEST	INDEN-TOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET		NEST	INDENTOR	DIE SET	DIE SET	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET							
	Low str.	*Flex*																																				
	0,25 ÷ 2,5		A 03-M.. A 06-M..		L 03-M / L 03-P L 06-M / L 06-P	ME03/2-15 ① MA03/3-15 Ⓨ																																		
A..-M..	4 ÷ 6		A 1-M.. A 1-L..		L 1-M L 1-P	ME03/2-15 ① MA03/3-15 Ⓨ	MA 1 Ⓨ	PA 1	ME 1 ①	MA 1-50 Ⓨ	PA 1-50	ME 1-50 ①	MA 1 Ⓨ	PA 1	ME 1 ①		MA 1-50 Ⓨ	PA 1-50	ME 1-50 ①																				
	10		A 2-M.. A 2-L.. A 2-P12		L 2-M L 2-P	ME03/2-15 ① ME2/3-15 ① MA03/3-15 Ⓨ	MA 2.3 Ⓨ	PA 5	ME 2 ①	MA 2.3-50 Ⓨ	PA 5-50	ME 2-50 ①	MA 2.3 Ⓨ	PA 5	ME 2 ①		MA 2.3-50 Ⓨ	PA 5-50	ME 2-50 ①		ME 2.19-U ①	MA 2-C Ⓨ	PA 10-C	ME 2-C ①															
	16		A 3-M.. A 3-L.. A 3-P14	2A 3-M..	L 3-M L 3-P	ME2/3-15 ① MA03/3-15 Ⓨ			ME 3 ①			ME 3-50 ①			ME 3 ①				ME 3-50 ①	MA 3.5-U Ⓨ	ME 3.14-U ①	MA 3-C Ⓨ		ME 3-C ①														
A..-P..	25		A 5-M.. A 5-L.. A 5-P16	2A 5-M..	L 5-M L 5-P		MA 5 Ⓨ		ME 5 ①	MA 5-50 Ⓨ		ME 5-50 ①	MA 5 Ⓨ		ME 5 ①		MA 5-50 Ⓨ		ME 5-50 ①		ME 5.7-U ①	MA 5-C Ⓨ		ME 5-C ①														
	35	25* 35	A 7-M.. A 7-L.. A 7-P20	2A 7-M..	L 7-M L 7-P		MA 7 Ⓨ	PA 10	ME 7 ①	MA 7-50 Ⓨ	PA 10-50	ME 7-50 ①	MA 7 Ⓨ	PA 10	ME 7 ①		MA 7-50 Ⓨ	PA 10-50	ME 7-50 ①	MA 7.14-U Ⓨ		MA 7-C Ⓨ		ME 7-C ①														
	50	35* 50	A 10-M.. A 10-L.. A 10-P25	2A 10-M..	L 10-M L 10-P		MA 10 Ⓨ		ME 10 ②	MA 10-50 Ⓨ		ME 10-50 ②	MA 10 Ⓨ		ME 10 ②		MA 10-50 Ⓨ		ME 10-50 ②	MA 10.19-U Ⓨ	ME 10.24-U ②	MA 10-C Ⓨ		ME 10-C ①	Adaptor AU 230-130 D with die set MA..-C and indentor PA..-C		Adaptor AU 230-130 D with die set ME..-C	Adaptor AU 520-130 C with die set MA..-C and indentor PA..-C		Adaptor AU 520-130 C with die set ME..-C			
	70	50* 70	A 14-M.. A 14-L.. A 14-P30	2A 14-M..	L 14-M L 14-P				ME 14 ②	MA 14-50 Ⓨ	PA 19-50	ME 14-50 ②			ME 14 ②		MA 14-50 Ⓨ	PA 19-50	ME 14-50 ②	MA 7.14-U Ⓨ	ME 3.14-U ②	MA 14-C Ⓨ	PA 24-C	ME 14-C ①														
L..-M..	95	70* 95	A 19-M.. A 19-L..	2A 19-M..	L 19-M L 19-P				ME 19 ②	MA 19-50 Ⓨ		ME 19-50 ②			ME 19 ②		MA 19-50 Ⓨ		ME 19-50 ②	MA 10.19-U MA 19-U Ⓨ	ME 2.19-U ②	MA 19-C Ⓨ		ME 19-C ①														
	120	95* 120	A 24-M.. A 24-L..	2A 24-M..	L 24-M L 24-P				ME 24L ②	MA 24-50 Ⓨ	PA 24-50	ME 24L-50 ②			ME 24 ②		MA 24-50 Ⓨ	PA 24-50	ME 24-50 ②	MA 24-U Ⓨ	ME 10.24-U ②	MA 24-C Ⓨ		ME 24-C ①														
	150	120* 150	A 30-M.. A 30-L..	2A 30-M..	L 30-M L 30-P				ME 30L ③			ME 30L-50 ③			ME 30 ③				ME 30-50 ③	MA 30.80-U Ⓨ	ME 30-U ②	MA 30-C Ⓨ		ME 30-C ①														
L..-P..	185	150* 185	A 37-M.. A 37-L.. A 37-4ESI	2A 37-M..	L 37-M L 37-P														ME 37-50 ③	MA 37-U ②	ME 37-U ②	MA 37-C Ⓨ	PA 48-C	ME 37-C ①													
	240	185* 240	A 48-M.. A 48-L.. A 48-4ESI	2A 48-M..	L 48-M L 48-P														ME 48-50 ③	MA 48-U ③	ME 48-U ③	MA 48-C Ⓨ		ME 48-C ②													
	300	240 300	A 60-M.. A 60-L.. A 60-4ESI	2A 60-M..	L 60-M L 60-P																	MA 60-C Ⓨ	PA 60-C	ME 60-C ③													
2A..-M..	400	300 400	A 80-M.. A 80-4ESI	2A 80-M..	L 80-M																			ME 80-C ③	MA 80-3D Ⓨ	PA 100-3D	ME 80-3D ②	MA 80-520 Ⓨ	PA 120-520	ME 80-520 ②								
	500	400 500	A 100-M.. A 100-4ESI	2A 100-M..	L 100-M																				MA 100-3D Ⓨ		ME 100-3D ②	MA 100-520 Ⓨ		ME 100-520 ②								
A..-4ESI	630	500 630	A 120-M.. A 120-4ESI	2A 120-M..	L 120-M																				MA 120-3D Ⓨ	PA 120-3D	ME 120-3D ②	MA 120-520 Ⓨ		ME 120-520 ②								
	800	630	A 160-M.. A 160-4ESI	2A 160-M..	L 160-M																							MA 160-520 Ⓨ	PA 200-520	ME 160-520 ②								
	1000	800	A 200-M..	2A 200-M..	L 200-M																							MA 200-520 Ⓨ		ME 200-520 ②								

EXTRA FLEXIBLE COPPER CONDUCTORS

	35		A 9-M..				MA 9 Ⓨ	PA 10	ME 9 ①	MA 9-50 Ⓨ	PA 10-50	ME 9-50 ①	MA 9 Ⓨ	PA 10	ME 9 ①		MA 9-50 Ⓨ	PA 10-50	ME 9-50 ①	MA 9.17-U Ⓨ	ME 9.20-U ①	MA 9-C Ⓨ	PA 10-C	ME 9-C ①														
	50		A 12-M..						ME 12 ②	MA 12-50 Ⓨ		ME 12-50 ②			ME 12 ②		MA 12-50 Ⓨ		ME 12-50 ②	MA 12.20-U Ⓨ	ME 12.17-U ②	MA 12-C Ⓨ		ME 12-C ①														
	70		A 17-M..						ME 17 ②	MA 17-50 Ⓨ	PA 19-50	ME 17-50 ②			ME 17 ②		MA 17-50 Ⓨ	PA 19-50	ME 17-50 ②	MA 9.17-U Ⓨ	ME 12.17-U ②	MA 17-C Ⓨ	PA 24-C	ME 17-C ①														
A..-M..	95		A 20-M..						ME 20 ②	MA 20-50 Ⓨ		ME 20-50 ②			ME 20 ②		MA 20-50 Ⓨ		ME 20-50 ②	MA 12.20-U Ⓨ	ME 9.20-U ②	MA 20-C Ⓨ		ME 20-C ①	Adaptor AU 230-130 D with die set MA..-C and indentor PA..-C		Adaptor AU 230-130 D with die set ME..-C	Adaptor AU 520-130 C with die set MA..-C and indentor PA..-C		Adaptor AU 520-130 C with die set ME..-C			
	120		A 29-M..						ME 29 ③			ME 29-50 ③			ME 29 ③				ME 29-50 ③	MA 29.80-U Ⓨ	ME 29-U ②	MA 29-C Ⓨ		ME 29-C ①														
	150		A 35-M..																ME 35-50 ③	MA 35-U ②	ME 35-U ②	MA 35-C Ⓨ	PA 48-C	ME 35-C ①													
	185		A 40-M..																ME 40-50 ③	MA 40-U ②	ME 40-U ③	MA 40-C Ⓨ		ME 40-C ①													

⬡ Hexagonal crimp (use one size up with fine stranded conductors, E.G.: 95▭ fine stranded use A19-.. + ME 19 or A 20-.. + ME 20)

Ⓨ Indent crimp

** Contact Cembre for appropriate die set*

N.B.: *Number inside symbol indicates the number of crimps on A-M barrel*

DIE SELECTOR CHART

COPPER CONDUCTORS

APPLICATION	CONDUCTOR	CONNECTOR							HYDRAULIC TOOLS									
									B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51 RH 50 B 500E B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force			ECW-H3D	
	Conductor Size Flex sqmm	TERMINAL							DIE SET		DIE SET		DIE SET		NEST	INDENTOR	DIE SET	NEST	INDENTOR
ANE..-M..	10	ANE 2-M..	ANE 2-P12	ANE 2-U..					NN4-15		MN 2 RF-50		MN 2 RF-50		MN 2-C	PN 7-C	MN 2 RF-C	Adaptor AU 230-130 D with die set MN..-C and indentor PN..-C or with die set MN..-RF-C and die set MN..F-C	
	16	ANE 3-M..	ANE 3-P14	ANE 3-U..							MN 3 RF-50		MN 3 RF-50		MN 3-C		MN 3 RF-C		
	25	ANE 5-M..	ANE 5-P16								MN 5 RF-50		MN 5 RF-50		MN 5-C		MN 5 RF-C		
	35	ANE 7-M..	ANE 7-P20								MN 7 RF-50		MN 7 RF-50		MN 7-C		MN 7 RF-C		
	50	ANE 10-M..									MN 10 RF-50		MN 10 RF-50		MN 10-C	PN 14-C	MN 10 RF-C		
ANE..-P..	70	ANE 14-M..											MN 14 RF-50		MN 14-C		MN 14 RF-C		
	95	ANE 19-M..											MN 19 RF-50		MN 19-C	PN 24-C	MN 19 RF-C		
	120	ANE 24-M..											MN 24 RF-50		MN 24-C		MN 24 RF-C		
	150	ANE 30-M..													MN 30-C	PN 37-C	MN 30 RF-C		
ANE..-U..																			
	35	ANE 9-M..									MN 7 RF-50		MN 7 RF-50		MN 9-C	PN 14-C	MN 7 RF-C	Adaptor AU 230-130 D with die set MN..-C and indentor PN..-C or with die set MN..-RF-C and die set MN..F-C	
	50	ANE 12-M..									MN 12 F-50		MN 12 F-50		MN 12-C		MN 12 F-C		
ANE..-M..	70	ANE 17-M..											MN 17 F-50		MN 17-C	PN 24-C	MN 17 F-C		
	95	ANE 20-M..											MN 20 F-50		MN 20-C		MN 20 F-C		
	120	ANE 29-M..													MN 29-C	PN 37-C	MN 29 F-C		
	150	ANE 35-M..													MN 35-C		MN 35 F-C		

COPPER CONDUCTORS

	Conductor Size Flex sqmm	TERMINAL							DIE SET		DIE SET		DIE SET						
	0,3 ÷ 4	PKD 506 ÷ PKD 418	PKE 508 ÷ PKE 418	PKC 508 ÷ PKC 418	KE 506 ÷ KE 412				KE 4-15										
	4 ÷ 16	PKD 410 ÷ PKD 1618	PKE 410 ÷ PKE 1618	PKC 410 ÷ PKC 1618	KE 410 ÷ KE 1616				KE 16-15										
PK ...	16	PKD 16..	PKE 16..	PKC 16..	KE 16..				KE 35-15		MTT 16-50		MTT 16-50						
	25	PKD 25..	PKE 25..	PKC 25..	KE 25..						MTT 25-50		MTT 25-50						
KE ...	35	PKD 35..		PKC 35..	KE 35..						MTT 35-50		MTT 35-50						
	50	PKD 50..		PKC 50..							MTT 50-50		MTT 50-50						
	70			PKC 70..							MTT 70-50		MTT 70-50						
	95			PKC 95..							MTT 95-50		MTT 95-50						
	120			PKC 120..									MTT 120-50						

	Conductor Size Flex sqmm	TERMINAL							DIE SET	COMP. APERTURE		DIE SET		DIE SET						
	2 x 0,5	PKT 508 PKT 510							KE 4-15	1										
	2 x 0,75	PKT 7508 PKT 7512								1,5										
PKT ...	2 x 1	PKT 108 PKT 112								2,5										
	2 x 1,5	PKT 1508 PKT 1512								2,5										
	2 x 2,5	PKT 2510 PKT 2512							KE 4-15 KE 16-15	4										
	2 x 4	PKT 412							KE 16-15	6										
	2 x 6	PKT 614								10										
	2 x 10	PKT 1014							KE 16-15 KE 35-15	16		MTT 16-50		MTT 16-50						
	2 x 16	PKT 1614							KE 35-15	35		MTT 35-50		MTT 35-50						

Indent crimp Radial crimp Trapezium crimp

DIE SELECTOR CHART

TAP-OFF ON COPPER CONDUCTOR

APPLICATION	CONDUCTOR		CONNECTORS				HYDRAULIC TOOLS							
							B 35-45D	B 35-50D	HT 45-E	HT 51 RH 50 B 500E B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
	Conductor Size sqmm		CONNECTOR	CONNECTOR			DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET
	Run	*Tap*												
	6 ÷ 2,5	6 ÷ 1,5	C 6 - C 6 ST	C 6 - C 6			MC 6 (1)	MC 6-50 (1)	MC 6 (1)	MC 6-50 (1)	MC 6.25-U (1)			
	10	10 ÷ 1,5	C 10 - C 10 ST	C 10 - C 10			MC 10 (1)	MC 10-50 (1)	MC 10 (1)	MC 10-50 (1)	MC 10-U (1)	MC 10-C (1)		
	16	16 ÷ 1,5	C 16 - C 16 ST	C 16 - C 16										
	25 ÷ 16	10 ÷ 1,5	C 25 - C 10 ST	C 25 - C 10			MC 25 (2)	MC 25-50 (2)	MC 25 (2)	MC 25-50 (2)	MC 6.25-U (1) MC 25-U	MC 25-C (1)	Adaptor AU 230-130 D with die set MC..-C	
	25	25 ÷ 16	C 25 - C 25 ST	C 25 - C 25										
	40 ÷ 35	16 ÷ 1,5	C 35 - C 16 ST	C 35 - C 16										
	40 ÷ 35	40 ÷ 25	C 35 - C 35 ST	C 35 - C 35			MC 35 (2)	MC 35-50 (2)	MC 35 (2)	MC 35-50 (2)	MC 35-U (1)	MC 35-C (1)		
	50	25 ÷ 10												
	70 ÷ 63	25 ÷ 1,5	C 70 - C 25N ST	C 70 - C 25N										Adaptor AU 520-130 C with die set MC..-C
	50	25 ÷ 4	C 50 - C 25 ST	C 50 - C 25										
	*50	50 ÷ 35	C 50 - C 50 ST	C 50 - C 50										
	*70 ÷ 50	40 ÷ 4	C 70 - C 35 ST	C 70 - C 35						*MC 70-50 (3)	MC 70-80-U (3)	MC 70-C (3)	MC 70-3D (1)	
	*70 ÷ 50	70 ÷ 35	C 70 - C 70 ST	C 70 - C 70										
	100 ÷ 95	40 ÷ 4	C 95 - C 35 ST	C 95 - C 35										
	100 ÷ 95	70 ÷ 40	C 95 - C 70 ST	C 95 - C 70							MC 95-80-U (3)	MC 95-C (3)	MC 95-3D (1)	
	100 ÷ 95	100 ÷ 63	C 95 - C 95 ST	C 95 - C 95										
	125 ÷ 110	125 ÷ 25	C 120 - C 120 ST	C 120 - C 120										
	160 ÷ 150	125 ÷ 25	C 150 - C 120 ST	C 150 - C 120										
	150	150 ÷ 63	C 150 - C 150 ST	C 150 - C 150								MC 185-C (3)	MC 185-3D (1)	
	185	100 ÷ 16	C 185 - C 95 ST	C 185 - C 95										
	185 ÷ 120	185 ÷ 120	C 185 - C 185 ST	C 185 - C 185										
	240 ÷ 150	120 ÷ 95	C 240 - C 120 ST	C 240 - C 120									MC 240-3D (1)	

H.V. COPPER CONDUCTORS

Conductor Size sqmm	TERMINALS		TERMINALS				DIE SET		DIE SET	DIE SET	DIE SET	DIE SET	DIE SET
25 R	MT 25 - TD	MT 25 - GC	CA 25 - M..	CA 25 - 2M..	MT 25 - C..		MMT 25-50 ◯			MMT 25-50 ◯	MMT 25-U ◯	MMT 25-C ◯	
35 RC/S ÷ 40 S	MT 40 S - TD	MT 40 S - GC	CA 40 S - M..	CA 40 S - 2M..	MT 40 S - C..								
50 RC	MT 50 R - TD	MT 50 R - GC	CA 50 R - M..	CA 50 R - 2M..	MT 50 R - C..		MMT 50-50 ◯			MMT 50-50 ◯	MMT 50-U ◯	MMT 50-C ◯	
50 S	MT 50 S - TD	MT 50 S - GC	CA 50 S - M..	CA 50 S - 2M..	MT 50 S - C..								
63 S ÷ 70 S	MT 70 S - TD	MT 70 S - GC	CA 70 S - M..	CA 70 S - 2M..	MT 70 S - C..								
80 S ÷ 95 RC	MT 95 R - TD	MT 95 R - GC	CA 95 R - M..	CA 95 R - 2M..	MT 95 R - C..					MMT 95-50 ◯	MMT 95-U ◯	MMT 95-C ◯	Adaptor AU 230-130 D with die set MMT..-C
95 S ÷ 100 S	MT 95 S - TD	MT 95 S - GC	CA 95 S - M..	CA 95 S - 2M..	MT 95 S - C..								
120 RC/S ÷ 150 RC	MT 150 R - TD	MT 150 R - GC	CA 150 R - M..	CA 150 R - 2M..	MT 150 R - C..								
150 S ÷ 160 RC	MT 150 S - TD	MT 150 S - GC	CA 150 S - M..	CA 150 S - 2M..	MT 150 S - C..					MMT 200-50 ◯	MMT 200-U ◯	MMT 200-C ◯	
160 S ÷ 200 RC	MT 200 R - TD	MT 200 R - GC	CA 200 R - M..	CA 200 R - 2M..	MT 200 R - C..								
185 BR/BS	MT 185 - TD	MT 185 - GC	CA 185 - M..	CA 185 - 2M..	MT 185 - C..								
200 S ÷ 240 RC	MT 240 R - TD	MT 240 R - GC	CA 240 R - M..	CA 240 R - 2M..	MT 240 R - C..								
240 S ÷ 315 RC	MT 315 R - TD	MT 315 R - GC	CA 315 R - M..	CA 315 R - 2M..	MT 315 R - C..							MMT 315-C ◯	
315 S	MT 315 S - TD	MT 315 S - GC	CA 315 S - M..	CA 315 S - 2M..	MT 315 S - C..								
400 R	MT 400 - TD		2A 80 - M..	2A 80 - 2M..								ME 80-C ◯	ME 80-3D ◯	ME 80-520 ◯
500 R	MT 500 - TD		2A 100 - M..	2A 100 - 2M..									ME 100-3D ◯	ME 100-520 ◯
600 R ÷ 630 R	MT 630 - TD		2A 120 - M..	2A 120 - 2M..									ME 120-3D ◯	ME 120-520 ◯

◯ = Hexagonal crimp ◯ = Oval crimp ◯ = circular crimp

** When using die set type MC70-50, the conductors marked with a star must be annealed.*

DIE SELECTOR CHART FOR DEEP STEPPED INDENTING WITH CONTAINING DIES

ALUMINIUM CONDUCTORS

APPLICATIONS	CONDUCTOR	CONNECTORS			HYDRAULIC TOOLS				
					HYDRAULIC TOOLS	HT 131-UC	RHU 131-C	B 1350-UCE	B 1300-UCE
	Conductor Size sqmm	LUGS			DIE HOLDER	DIE			INDENTOR
CAA..-M..	10	CAA 10 - M..			AU 130-150	MV 35		MUA 35	PS 130-35/E
	16	CAA 16 - M..	MTA 16 - C						
	25	CAA 25 - M..	MTA 25 - C						
	35	CAA 35 - M..	MTA 35 - C						
	50	CAA 50 - M..	MTA 50 - C			MV 95		MUA 95	PS 130-95/E
	70	CAA 70 - M..	MTA 70 - C..						
MTA..-C	95	CAA 95 - M..	MTA 95 - C..						
	120	CAA 120 - M..	MTA 120 - C..			MV 150		MUA 150	PS 130-150/E
	150	CAA 150 - M..	MTA 150 - C..						
	185	CAA 185 - M..	MTA 185 - C..		AU 130-240	MV 240		MUA 240	PS 130-240/E
	240	CAA 240 - M..	MTA 240 - C..			MUA 300-34			
	300	CAA 300 - 34 - M..							
	Conductor Size sqmm	LUGS			DIE HOLDER	DIE			INDENTOR
	16	AA 16 - M..			AU 130-150	MUA 35			PS 130-35/E
	25	AA 25 - M..							
	35	AA 35 - M..							
	50	AA 50 - M..				MUA 95			PS 130-95/E
	70	AA 70 - M..							
AA..-M..	95	AA 95 - M..							
	120	AA 120 - M..				MUA 150			PS 130-150/E
	150	AA 150 - M..							
	185	AA 185 - M..			AU 130-240	MUA 240			PS 130-240/E
	240	AA 240 - M..							
	300	AA 300 - 34 - M..				MUA 300-34			

Indent crimp

DIE SELECTOR CHART FOR DEEP STEPPED INDENTING WITH CONTAINING DIES


MTMA..-..GC

Conductor Size sqmm	SPLICES		Conductor Size sqmm Al	Conductor Size sqmm Al/Cu	SPLICES	HYDRAULIC TOOLS HT 131-UC RHU 131-C B 1350-UCE B 1300-UCE		
						DIE HOLDER	DIE	INDENTOR
10	MTMA 10-GC					AU 130-150	MVM 35 / MUA 35	PS 130-35/E
16	MTMA 16-GC	MTMA 16/1	16	10	MTMA 16-10 GC			
25	MTMA 25-GC	MTMA 25/1	25	10	MTMA 25-10 GC			
			25	16	MTMA 25-16 GC			
35	MTMA 35-GC	MTMA 35/1						
50	MTMA 50-GC	MTMA 50/1	50	25	MTMA 50-25 GC		MVM 95 / MUA 95	PS 130-95/E
			50	35	MTMA 50-35 GC			
70	MTMA 70-GC	MTMA 70/1	70	35	MTMA 70-35 GC			
			70	50	MTMA 70-50 GC			
95	MTMA 95-GC	MTMA 95/1	95	50	MTMA 95-50 GC			
			95	70	MTMA 95-70 GC			
120	MTMA 120-GC	MTMA 120/1	120	70	MTMA 120-70 GC		MVM 150 / MUA 150	PS 130-150/E
			120	95	MTMA 120-95 GC			
150	MTMA 150-GC	MTMA 150/1	150	70	MTMA 150-70 GC			
			150	95	MTMA 150-95 GC			
			150	120	MTMA 150-120 GC			
185	MTMA 185-GC	MTMA 185/1	185	120	MTMA 185-120 GC	AU 130-240	MVM 240 / MUA 240	PS 130-240/E
			185	150	MTMA 185-150 GC			
240	MTMA 240-GC	MTMA 240/1	240	150	MTMA 240-150 GC			
			240	185	MTMA 240-185 GC			
300	MTMAD 300-GC	MTMAD 300/1	300	185	MTMAD 300-185 GC		MUA 300-34	
			300	240	MTMAD 300-240 GC			

PRE-ROUNDERS SELECTION

ALUMINIUM CONDUCTOR SIZE sqmm	PRE-ROUNDER	DIE-SUPPORT
25	UP 130-25	AC 130-P
35	UP 130-35	
50	UP 130-50	
70	UP 130-70	
95	UP 130-95	
120	UP 130-120	
150	UP 130-150	
185	UP 130-185	
240	UP 130-240	

DIES DESCRIPTION

1) AU 130-.. DIE-HOLDER
Used to house dies and pre-rounders.

2) UP 130-.. PRE-ROUNDERS
Used to round Aluminium sectoral conductors in order to introduce them into circular connectors.
Each pre-rounder is made of two parts: the upper part is housed in die-holder **AU 130-..** and the lower part is locked onto **AC 130-P..** die support.

3) AC 130-P.. DIE SUPPORT
Houses lower part of pre-rounder **UP 130-..**

4) MUA... DIES
Containing dies.

5) PS 130-../E INDENTORS
Such indentors are specifically engineered for deep indentation of Aluminium conductors of any stranding configuration.

DIES SEQUENCE

CONDUCTOR ROUNDING	CRIMPING
1	1
2	4
3	5

Indent crimp

DIE SELECTOR CHART

ALUMINIUM CONDUCTORS

APPLICATIONS	CONDUCTOR	CONNECTORS				HYDRAULIC TOOLS							
						HT 120 and tools and heads with 130 kN crimping force	HT 131-UC B 1350-UCE RHU 131-C B 1300-UCE			ECW-H3D	RHU 230-630		
						HEXAGONAL CRIMP	INDENT CRIMP			HEXAGONAL CRIMP	INDENT CRIMP		
	Conductor Size sqmm	LUGS				DIE SET	DIE HOLDER	DIE	INDENTOR	DIE SET	ADAPTOR	DIE	INDENTOR
CAA..-M.. 	300	CAA 300-34 - M..				MK34L-C	AU 130-240	MUA 300-34	PS 130-240/E	MK34-3D			
	300	CAA 300 - M16								MK38-3D	AU 230-630	MV 230-400 MC5E	PS 230-400 5E
	400	CAA 400 - M16											
	500	CAA 500 - M16 TNBD											
	630	CAA 630 - 4M8								MK46-3D		MV 230-630 MC6E	PS 230-630 6E
	Conductor Size sqmm	LUGS				DIE SET	DIE HOLDER	DIE	INDENTOR	DIE SET	ADAPTOR	DIE	INDENTOR
AA..-M.. 	300	AA 300 - 34 - M..				MK34L-C	AU 130-240	MUA 300-34	PS 130-240/E	MK34-3D			
	300	AA 300 - M16								MK38-3D	AU 230-630	MUA 230-630-400	PS 230-400 5E
	400	AA 400 - M16											
	500	AA 500 - 40 - M16											
	630	AA 630 - M16								MK46-3D		MUA 230-630-630	PS 230-630 6E
	Conductor Size sqmm	SPLICES	Conductor Size sqmm Al	Al/Cu	SPLICES	DIE SET	DIE HOLDER	DIE	INDENTOR	DIE SET	ADAPTOR	DIE	INDENTOR
	300	MTMAD 300/1	300	95	MTMAD 300-95-GC	MK34L-C	AU 130-240	MUA 300-34	PS 130-240/E	MK34-3D			
				150	MTMAD 300-150-GC								
		MTMAD 300-GC		185	MTMAD 300-185-GC								
				240	MTMAD 300-240-GC								
MTMA.. 	300	MTMA 300-GC								MK38-3D	AU 230-630	MVM 230-400 MJ5E	PS 230-400 5E
	400	MTMA 400/1	400	240	MTMA 400-240-GC								
				300	MTMA 400-300-GC								
	500	MTMA 500-40/1											
	500	MTMA 500-GC	500	300	MTMA 500-300-GC					MK46-3D		MVM 230-630 MJ6E	PS 230-630 6E
				400	MTMA 500-400-GC								
	630	MTMA 630/1											

Indent crimp Hexagonal crimp

DIE SELECTOR CHART

COPPER CONDUCTORS

APPLICATIONS	CONDUCTOR			CONECTOR			HYDRAULIC TOOLS									
							B 15D	B35-50D		HT 51 RH 50 B 500E		HT 120 and tools and heads with 130 kN crimping force		ECW-H3D	RHU 520	
	Conductor Size sqmm	Conductor Size AWG	Conductor Size Navy	LUGS		SPLICES	DIE SET		DIE SET		DIE SET		DIE SET	DIE SET	DIE SET	
C..-..	10	8	23	C8-..	CL8-..	BSCL8	ME03/2-15 (1) ME2/3-15 (1) MA03/3-15		MY 2-50 (1)		MY 2-50 (1)		MY 2-C (1)			
	16	6		C6-..	CL6-..	BSCL6	ME2/3-15 (1) MA03/3-15		MY 3-50 (1)		MY 3-50 (1)		MY 3-C (1)			
	25	4	40	C4-..	CL4-..	BSCL4			MY 4-50 (1)		MY 4-50 (1)		MY 4-C (1)			
		3	50	C3-..	CL3-..	BSCL3			MY 5-50 (1)		MY 5-50 (1)		MY 5-C (1)			
	35	2	60	C2-..	CL2-..	BSCL2			MY 6-50 (1)		MY 6-50 (1)		MY 6-C (1)			
CL..-..		1	75	C1-..	CL1-..	BSCL1			MY 7-50 (1)		MY 7-50 (1)		MY 7-C (1)			
	50	1/0	100	C1/0-..	CL1/0-..	BSCL1/0			MY 10-50 (2)		MY 10-50 (2)		MY 10-C (1)	Adaptador	Adaptador	
	70	2/0	125	C2/0-..	CL2/0-..	BSCL2/0			MY 14-50 (2)		MY 14-50 (2)		MY 14-C (1)	AU 230-130 D	AU 520-130 C	
	95	3/0	150	C3/0-..	CL3/0-..	BSCL3/0			MY 16-50 (2)		MY 16-50 (2)		MY 16-C (1)	con matriz	con matriz	
		4/0	200	C4/0-..	CL4/0-..	BSCL4/0			MY 19-50 (2)		MY 19-50 (2)		MY 19-C (1)	MY..-C	MY..-C	
CL..-..	120	250 MCM	250	C250-..	CL250-..	BSCL250			MY 24-50 (2)		MY 24-50 (2)		MY 24-C (1)			
	150	300 MCM	300	C300-..	CL300-..	BSCL300			MY 30L-50 (2)		MY 30-50 (2)		MY 30-C (1)			
	185	350 MCM	350	C350-..	CL350-..	BSCL350					MY 36-50 (2)		MY 36-C (1)			
		400 MCM	400	C400-..	CL400-..	BSCL400					MY 37-50 (2)		MY 37-C (1)			
BSCL..	240	500-MCM		C500-..	CL500-..	BSCL500					MY 48-50 (3)		MY 48-C (2)			
	300	600 MCM		C600-..	CL600-..	BSCL600							MY 60-C (2)			
		750 MCM		C750-..	CL750-..	BSCL750							MY 76-C (2)			

Circular crimp Hexagonal crimp Indent crimp

N.B.: *Number inside symbol indicates the number of crimps for C short barrel lugs only*

DIE SELECTOR CHART

DIN 46235 - 46267 T.1

APPLICATIONS	CONDUCTOR	CONNECTORS		HYDRAULIC TOOLS							
				B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51 RHM 50 B 500E	HT 81-U RHU 81 ◊	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
		LUGS	SPLICES	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET
	6	DR6-..	DSV6	MK5/8-15 (1)	MK5 (1)	MK5-50 (1)	MK5 (1)	MK5-50 (1)	MK5-50 (1)	MK5-C (1)	Adaptor AU 230-130 D with die set MK..-C
	10	DR10-..	DSV10		MK6 (1)	MK6-50 (1)	MK6 (1)	MK6-50 (1)	MK6-50 (1)	MK6-C (1)	
	16	DR16-..	DSV16		MK8 (2)	MK8-50 (2)	MK8 (2)	MK8-50 (2)	MK8-50 (2)	MK8-C (1)	
	25	DR25-..	DSV25		MK10 (2)	MK10-50 (2)	MK10 (2)	MK10-50 (2)	MK10-50 (2)	MK10-C (1)	
	35	DR35-..	DSV35		MK12 (2)	MK12-50 (2)	MK12 (2)	MK12-50 (2)	MK12-50 (2)	MK12-C (1)	
	50	DR50-..	DSV50		MK14 (3)	MK14-50 (3)	MK14 (3)	MK14-50 (3)	MK14-50 (3)	MK14-C (2)	MK14-3D (2)
	70	DR70-..	DSV70		MK16 (3)	MK16-50 (3)	MK16 (3)	MK16-50 (3)	MK16-50 (3)	MK16-C (2)	MK16-3D (2)
	95	DR95-..	DSV95		MK18 (4)	MK18-50 (4)	MK18 (4)	MK18-50 (4)	MK18-50 (4)	MK18-C (2)	MK18-3D (2)
	120	DR120-..	DSV120		MK20 (4)	MK20-50 (4)	MK20 (4)	MK20-50 (4)	MK20-50 (4)	MK20-C (2)	MK20-3D (2)
	150	DR150-..	DSV150		MK22L (4)	MK22L-50 (4)	MK22L (4)	MK22-50 (4)	MK22-50 (4)	MK22-C (2)	MK22-3D (2)
	185	DR185-..	DSV185					MK25-50 (5)	MK25-50 (5)	MK25-C (2)	MK25-3D (2)
	240	DR240-..	DSV240					MK28-50 (5)	MK28-50 (5)	MK28-C (4)	MK28-3D (2)
	300	DR300-..	DSV300							MK32-C (4)	MK32-3D (2)
	400	DR400-..	DSV400								MK38-3D (3)
	500	DR500-..	DSV500								MK42-3D (3)
	625	DR625-..	DSV625								MK44-3D (3)

Hexagonal crimp Indent crimp

NB: *for through connectors this is the number of crimps per conductor*

◊ Tools type HT 81-U and RHU 81 with adaptor type 6780232 can use the same dies of HT 51 but are equipped with spring type 6522051.

APPENDIX

REFERENCE/CODE CROSS-REFERENCE CHART

Ref.	Code
1052007	3005900
1052007N	3005901
1052009	3005903
1052009N	3005904
1052011	3005906
1052011N	3005907
1052013	3005909
1052013N	3005910
1052016	3005912
1052016N	3005913
1052021	3005915
1052021N	3005916
1052029	3005918
1052029N	3005919
1052036	3005921
1052036N	3005922
1052042	3005924
1052042N	3005925
1052048	3005927
1052048N	3005928
1053M12	3005958
1053M12N	3005959
1053M16	3005961
1053M16N	3005962
1053M20	3005964
1053M20N	3005965
1053M25	3005967
1053M25N	3005968
1053M32	3005970
1053M32N	3005971
1053M40	3005973
1053M40N	3005974
1053M50	3005976
1053M50N	3005977
1053M63	3005979
1053M63N	3005980
1112	3005715
1112N	3005716
1116	3005720
1116N	3005721
1120	3005725
1120N	3005726
1125	3005730
1125N	3005731
1132	3005735
1132N	3005736
1140	3005740
1140N	3005741
1141012	3005120
1141012N	3005121
1141112	3005155
1141112N	3005156
1141200	3005170
1141200N	3005171
1142007	3005010
1142007G	3005012
1142007N	3005011
1142009	3005015
1142009G	3005017
1142009N	3005016
1142011	3005020
1142011G	3005022
1142011N	3005021
1142013	3005025
1142013G	3005027
1142013N	3005026
1142016	3005030
1142016G	3005032
1142016N	3005031
1142021	3005035
1142021G	3005037
1142021N	3005036
1142029	3005040
1142029G	3005042
1142029N	3005041
1142036	3005045
1142036G	3005047
1142036N	3005046

Ref.	Code
1142042	3005050
1142042G	3005052
1142042N	3005051
1142048	3005055
1142048G	3005057
1142048N	3005056
1143M12	3005215
1143M12G	3005217
1143M12N	3005216
1143M16	3005220
1143M16G	3005222
1143M16N	3005221
1143M20	3005225
1143M20G	3005227
1143M20N	3005226
1143M25	3005230
1143M25G	3005232
1143M25N	3005231
1143M32	3005235
1143M32G	3005237
1143M32N	3005236
1143M40	3005240
1143M40G	3005242
1143M40N	3005241
1143M50	3005245
1143M50G	3005247
1143M50N	3005246
1143M63	3005250
1143M63G	3005252
1143M63N	3005251
1150	3005745
1150N	3005746
1163	3005750
1163N	3005751
1253M12	3006750
1253M12N	3006751
1253M16	3006755
1253M16N	3006756
1253M20	3006760
1253M20N	3006761
1253M25	3006765
1253M25N	3006766
1253M32	3006770
1253M32N	3006771
1253M40	3006775
1253M40N	3006776
1253M50	3006780
1253M50N	3006781
1253M63	3006785
1253M63N	3006786
1400	3003110
1401	3003114
1401B	3003116
1401BN	3003117
1401C	3003118
1401CN	3003119
1401N	3003115
1402	3003120
1402N	3003121
1403	3003125
1404	3003130
1405	3003135
1407	3003155
1408	3003170
1410	3005610
1410N	3005611
1411	3005615
1411N	3005616
1412	3005620
1412N	3005621
1413	3005625
1413N	3005626
1414	3005630
1414N	3005631
1415	3005635
1415N	3005636
1500.07	3002010
1500.07N	3002011

Ref.	Code
1500.09	3002015
1500.09N	3002016
1500.11	3002020
1500.11N	3002021
1500.12	3002120
1500.12N	3002121
1500.13	3002025
1500.13N	3002026
1500.14	3002110
1500.14N	3002111
1500.16	3002030
1500.16N	3002031
1500.21	3002035
1500.21N	3002036
1500.34	3002130
1500.34N	3002131
1500.38	3002115
1500.38N	3002116
1500.M12	3002205
1500.M12N	3002206
1500.M16	3002210
1500.M16N	3002211
1500.M20	3002215
1500.M20N	3002216
1500.M25	3002220
1500.M25N	3002221
1500.M32	3002225
1500.M32N	3002226
1700	3003015
1700.2	3004015
1700.2N	3004016
1700N	3003016
1700P	3006015
1700T	3003515
1700TN	3003516
1701	3003020
1701.2	3004020
1701.2N	3004021
1701N	3003021
1701P	3006020
1701PN	3006021
1701T	3003517
1701TN	3003518
1702	3003025
1702.2	3004025
1702.2N	3004026
1702.5	3004425
1702.5N	3004426
1702CONC	3003523
1702CONCN	3003524
1702N	3003026
1702P	3006025
1702PN	3006026
1702T	3003519
1702TN	3003520
1703	3003030
1703.2	3004030
1703.5	3004430
1703P	3006030
1704	3003035
1704.2	3004035
1704P	3006035
1705	3003040
1705.2	3004040
1706	3003045
1707	3003050
1708	3003055
1709	3003010
1710	3005515
1710N	3005516
1711	3005520
1711N	3005521
1712	3005525
1712N	3005526
1713	3005530
1713N	3005531
1714	3005535
1714E34	3005572

Ref.	Code
1714N	3005536
1715	3005540
1715N	3005541
1719	3005510
1719E17	3005581
1719E17N	3005580
1719N	3005511
1730M20	3003225
1730M20N	3003226
180709	3017610
180911	3017620
180913	3017625
181113	3017630
181116	3017640
181316	3017650
181321	3017655
181621	3017660
182129	3017670
182936	3017680
1830	3004110
1830N	3004111
1831	3004115
1831N	3004116
1832	3004120
1832N	3004121
1835G	3004222
1836	3004225
183642	3017690
1836N	3004226
1840	3006610
1840N	3006611
1841	3006615
1841N	3006616
1842	3006620
184248	3017700
1842N	3006621
1843	3006625
1843N	3006626
1844	3006630
1844N	3006631
1845	3006635
1845N	3006636
1846	3006640
1846N	3006641
1847	3006645
1847N	3006646
1848	3006650
1848N	3006651
1849	3006655
1849N	3006656
1861	3004515
1861N	3004516
1862	3004520
1862N	3004521
1866	3004615
1866N	3004616
1880	3016215
1881	3016220
1882	3016225
1883	3016230
1884	3016235
1884A	3016236
1885	3016240
1886	3016245
1887	3016250
1888	3016255
1888/5	3016256
1889	3016405
1890	3016410
1890A	3016420
1891	3016430
1891A	3016431
1892	3016440
1892A	3016450
1892B	3016451
1893	3016460
1893A	3016461
1894	3016480

Ref.	Code
1895	3016490
1896	3016500
1897	3016510
1898	3016520
1899	3016530
1899A	3016535
1899B	3016540
1900.07	3001010
1900.07G	3001012
1900.07N	3001011
1900.07/X	3001077
1900.09	3001015
1900.09G	3001017
1900.09N	3001016
1900.09/X	3001080
1900.11	3001020
1900.11G	3001022
1900.11N	3001021
1900.11/X	3001083
1900.12	3001120
1900.12N	3001121
1900.13	3001025
1900.13G	3001027
1900.13N	3001026
1900.13/X	3001086
1900.14	3001110
1900.14N	3001111
1900.16	3001030
1900.16G	3001032
1900.16N	3001031
1900.16/X	3001089
1900.21	3001035
1900.21G	3001037
1900.21N	3001036
1900.21/X	3001092
1900.29	3001040
1900.29G	3001042
1900.29N	3001041
1900.29/X	3001095
1900.34	3001130
1900.34N	3001131
1900.36	3001045
1900.36G	3001047
1900.36N	3001046
1900.36/X	3001098
1900.38	3001115
1900.38N	3001116
1900.42	3001050
1900.42G	3001052
1900.42N	3001051
1900.42/X	3001101
1900.48	3001055
1900.48G	3001057
1900.48N	3001056
1900.48/X	3001104
1900.M12	3001215
1900.M12G	3001217
1900.M12N	3001216
1900.M12/X	3001310
1900.M16	3001220
1900.M16G	3001222
1900.M16N	3001221
1900.M16/X	3001313
1900.M20	3001225
1900.M20G	3001227
1900.M20N	3001226
1900.M20/X	3001316
1900.M25	3001230
1900.M25G	3001232
1900.M25N	3001231
1900.M25/X	3001319
1900.M32	3001235
1900.M32G	3001237
1900.M32N	3001236
1900.M32/X	3001322
1900.M40	3001240
1900.M40G	3001242
1900.M40N	3001241

REFERENCE/CODE CROSS-REFERENCE CHART

Ref.	Code
1900.M40/X	3001325
1900.M50	3001245
1900.M50G	3001247
1900.M50N	3001246
1900.M50/X	3001328
1900.M63	3001250
1900.M63G	3001252
1900.M63N	3001251
1900.M63/X	3001331
1901.07	3001503
1901.07N	3001504
1901.09	3001515
1901.09N	3001516
1901.11	3001520
1901.11N	3001521
1901.13	3001535
1901.13N	3001536
1901.16	3001550
1901.16N	3001551
1901.21	3001568
1901.21N	3001569
1901.29	3001575
1901.29N	3001576
1901.36	3001582
1901.36N	3001583
1901.42	3001590
1901.42N	3001591
1901.48	3001596
1901.48N	3001597
1901.M12	3001650
1901.M12G	3001652
1901.M12N	3001651
1901.M16	3001655
1901.M16G	3001657
1901.M16N	3001656
1901.M20	3001660
1901.M20G	3001662
1901.M20N	3001661
1901.M25	3001665
1901.M25G	3001667
1901.M25N	3001666
1901.M32	3001670
1901.M32G	3001672
1901.M32N	3001671
1901.M40	3001675
1901.M40G	3001677
1901.M40N	3001676
1901.M50	3001680
1901.M50G	3001682
1901.M50N	3001681
1901.M63	3001685
1901.M63G	3001687
1901.M63N	3001686
1910.07	3001501
1910.07N	3001502
1910.09	3001509
1910.09N	3001510
1910.11	3001526
1910.11N	3001527
1910.13	3001539
1910.13N	3001540
1910.16	3001552
1910.16N	3001553
1910.21	3001565
1910.21N	3001566
1910.29	3001578
1910.29N	3001579
1910.36	3001588
1910.36N	3001589
1910.42	3001592
1910.42N	3001593
1910.48	3001598
1910.48N	3001599
1910.M12	3001705
1910.M12G	3001707
1910.M12N	3001706
1910.M16	3001710
1910.M16G	3001712

Ref.	Code
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A60B-M12/31	2350072
A7-M10	2200190
A7-M12	2200230
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A7-M8	2200150
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A9-M10	2210270
A9-M12	2210310
A9-M6/15	2210210
A9-M8	2210230
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AA630-M16	2743370
AA70-M12	2740510
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ANE3-M8	2415830
ANE3-P14	2415860

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ANE35-M16	2460050
ANE35-M20	2460070
ANE5-M10	2418540
ANE5-M12	2418550
ANE5-M4	2418500
ANE5-M5	2418510
ANE5-M6	2418520
ANE5-M8	2418530
ANE5-P16	2418560
ANE7-M6	2422300
ANE7-M8	2422310
ANE7-M10	2422320
ANE7-M12	2422330
ANE7-P20	2422360
ANE9-M10	2430170
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ANE9-M8	2430160
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AU130-240	2615590
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B-TC650-SCE	2599432
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B35-45D	2599894
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B35-TC025	2599510
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BF-BM5	2053660
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BF-F405P	2053565
BF-F408	2053570
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BF-M3	2052030
BF-M3,5	2052070
BF-M3,5/1	2052110

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BF-M6/2	2052280
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BF-M8	2052350
BF-P10	2053250
BF-P12	2053290
BF-P8	2053210
BF-PP12	2053330
BF-PP12/25	2053370
BF-PP12/29	2053380
BF-PP16/25	2053410
BF-PPL30	2053460
BF-PPL46	2053465
BF-U10	2052910
BF-U12	2052950
BF-U3	2052630
BF-U3,5	2052670
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BF-U4	2052710
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BF-U4/2	2052730
BF-U5	2052750
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BF-U8	2052870
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BKF-BF4	2053632
BKF-BM4	2053662
BKF-F405	2053562
BKF-F405P	2053567
BKF-F408	2053572
BKF-F408P	2053577
BKF-F608	2053612
BKF-F608P	2053622
BKF-FM608	2053692
BKF-M608	2053652
BKY-M3	2145842
BKY-M3.5	2145845
BKY-M3.5/1	2145847
BKY-M4	2145853
BKY-M5	2145856
BKY-M6/1	2145862
BKY-M8	2145871
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BKY-P10	2145932
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BP-M4	2046320
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BSCL250	2489560
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BSCL350	2489570
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C1-516	2396040
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C2/0-916	2396500
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C2-38	2395880
C250-12	2397080
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C250-34	2397140
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C250-58	2397120
C250-78	2397160
C250-916	2397100
C2-516	2395860
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C4-10	2395440
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C4-516	2395480
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C6-14	2395260
C6-38	2395300
C6-516	2395280
C6-8	2395220
C750-12	2398320
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C750-58	2398360
C750-78	2398400
C8-10	2395040
C8-12	2395120
C8-14	2395060
C8-38	2395100
C8-516	2395080
C8-8	2395020
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C120-C120	2490630
C150-C120	2490670
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C185-C185	2490745
C185-C95	2490710
C240-C120	2490760
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CA1852M12	8005786
CA252M10	2530170
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CA502M12	8005736
CA952M12	8005756
CA120M12	8005566
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CA25-2M12	2530210
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CA25-M10	2530050
CA25-M12	2530090
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CA40S-M12	2530450
CA40S-M16	2530490
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CA50SM12	2531110
CA50SM16	2531150
CA50R-2M12	2530870
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CA50S-2M12	2531190
CA50S-M12	2531110
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CAA240-M12	2760590
CAA25-M12	2760030
CAA300-M16	2760710
CAA300-34-M12	2760680
CAA300-34-M16	2760715
CAA35-M12	2760070
CAA35ADN	2762260
CAA400-M16	2760750
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CAA630-4M8	2760950
CAA70-M12	2760150

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CBP-M4	2076325
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CDD6-8	2599941
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CFA300	3031900
CFA400	3031914
CFA600	3031928
CFAB600	3031970
CFAR600	3031956
CFC230N	2598490
CFC12-24ICN	2598492
CGP-F608	2076845
CGP-F608P	2076850
CGP-M3	2076610
CGP-M3,5	2076615
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CGP-M6	2076640
CGP-M6/1	2076645
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CGP-M8	2076660
CGP-M8/1	2076665
CGP-P10	2076755
CGP-P12	2076760
CGP-P14	2076765
CGP-PP12	2076780
CGP-PP17	2076790
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CL1/0-38	2396394
CL1/0-516	2396391
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CL1/0IH-14	2396407
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CL1-516	2396187
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CL1-D141	2396161
CL1-D38	2396170
CL1-DN	2396175
CL1IH-10	2396205
CL1IH-12	2396217
CL1IH-14	2396208
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CL2-DN38	2395971
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CL3-38	2395794
CL350-12	2397688
CL350-D141	2397661
CL350-D38	2397670
CL350-DN	2397675

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CL350IH-12	2397708
CL350IH-34	2397717
CL350IH-38	2397705
CL350IH-58	2397714
CL350IH-916	2397711
CL3-516	2395791
CL3-D38	2395770
CL3-DN	2395775
CL3IH-10	2395805
CL3IH-12	2395817
CL3IH-14	2395808
CL3IH-38	2395814
CL3IH-516	2395811
CL4/0-12	2396994
CL4/0-38	2396991
CL4/0-D141	2396961
CL4/0-D38	2396970
CL4/0-DN	2396975
CL4/0-DN38	2396971
CL4/0IH-12	2397011
CL4/0IH-14	2397005
CL4/0IH-34	2397017
CL4/0IH-38	2397009
CL4/0IH-516	2397007
CL4/0IH-58	2397015
CL4/0IH-916	2397013
CL400-12	2397888
CL400-58	2397894
CL400-D141	2397861
CL400-D38	2397870
CL400-DN	2397875
CL400IH-12	2397908
CL400IH-34	2397917
CL400IH-38	2397905
CL400IH-58	2397914
CL400IH-916	2397911
CL4-10	2395585
CL4-12	2395597
CL4-14	2395588
CL4-38	2395594
CL4-D14	2395560
CL4-D141	2395561
CL4-D38	2395570
CL4-DN	2395575
CL4IH-10	2395605
CL4IH-12	2395617
CL4IH-14	2395608
CL4IH-38	2395614
CL4IH-516	2395611
CL500-12	2398088
CL500-58	2398094
CL500-D141	2398061
CL500-D38	2398070
CL500-DN	2398075
CL500IH-12	2398108
CL500IH-34	2398117
CL500IH-38	2398105
CL500IH-58	2398114
CL500IH-916	2398111
CL600-12	2398285
CL600-58	2398291
CL600-D38	2398270
CL600-DN	2398275
CL600IH-12	2398305
CL600IH-34	2398314
CL600IH-58	2398311
CL600IH-916	2398308
CL6-10	2395385
CL6-12	2395397
CL6-14	2395388
CL6-D14	2395360
CL6-D141	2395361
CL6-D38	2395370
CL6-DN	2395375
CL6IH-10	2395405
CL6IH-12	2395417
CL6IH-14	2395408
CL6IH-38	2395414

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CL6IH-516	2395411
CL750-12	2398485
CL750-58	2398488
CL750-D38	2398470
CL750-DN	2398475
CL750-DN38	2398471
CL750IH-12	2398505
CL750IH-34	2398511
CL750IH-58	2398508
CL8-10	2395183
CL8-14	2395186
CL8-38	2395192
CL8-D14	2395160
CL8-D141	2395161
CL8-D38	2395170
CL8IH-10	2395203
CL8IH-12	2395215
CL8IH-14	2395206
CL8IH-38	2395212
CL8IH-516	2395209
CMA600	3031984
CMB1	2599943
CMB2	2599945
CP1086-W-1000-KV	2597905
CP1096	2597700
CP1096-W-1000-KV	2597695
CP1120-W-1000-KV	2597958
CP1131	2610120
CPE-1	2592751
CPE-1-110	2592752
CPKD108	2808582
CPKD1508	2808587
CPKD2508	2808592
CPKD508	2808573
CPKD7508	2808578
CPP-0	2592671
CPU1131-C	2610150
CPU1230-3D	2630200
CRP-F305	2076225
CRP-F308	2076230
CRP-F405	2076235
CRP-F405P	2076237
CRP-F408	2076240
CRP-F408P	2076242
CRP-F608	2076245
CRP-F608P	2076250
CRP-M3	2076010
CRP-M3,5	2076015
CRP-M3,5/1	2076020
CRP-M4	2076025
CRP-M4/3	2076030
CRP-M5	2076035
CRP-M6	2076040
CRP-M6/1	2076045
CRP-M608	2076260
CRP-M7	2076050
CRP-M8	2076055
CRP-P10	2076155
CRP-P12	2076160
CRP-P8	2076150
CRP-PP12	2076180
CRP-PP12/1	2076185
CRP-PP12/23	2076190
CRP-PP14	2076195
CRP-PPL30	2076205
CRP-U3	2076080
CRP-U3,5	2076085
CRP-U3,5/2	2076090
CRP-U4	2076095
CRP-U4/1	2076100
CRP-U4/2	2076105
CRP-U5	2076110
CRP-U6	2076115
CRP-U6/1	2076120
CRP-U8	2076125
CS411	3032100
CS411-F	3032150
CS411-M	3032151

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CS412	3032115
CS412-F	3032160
CS412-M	3032161
CS420	3032130
CS420-F	3032180
CS420-M	3032181
CS4-GR	3032070
CS4-KEY	3032010
CS4-MFC	3032058
CS-CPE-1	2592748
DC24	2596100
DR6-5	2387910
DR6-6	2387920
DR6-8	2387930
DR10-5	2388000
DR10-6	2388005
DR10-8	2388010
DR10-10	2388015
DR16-5	2388025
DR16-6	2388030
DR16-8	2388040
DR16-10	2388050
DR16-12	2388060
DR25-6	2388110
DR25-8	2388120
DR25-10	2388130
DR25-12	2388140
DR25-16	2388160
DR35-6	2388210
DR35-8	2388220
DR35-10	2388230
DR35-12	2388240
DR35-16	2388246
DR50-6	2388250
DR50-8	2388255
DR50-10	2388260
DR50-12	2388270
DR50-14	2388280
DR50-16	2388290
DR70-8	2388320
DR70-10	2388330
DR70-12	2388340
DR70-14	2388350
DR70-16	2388360
DR70-20	2388380
DR95-8	2388390
DR95-10	2388395
DR95-12	2388400
DR95-14	2388410
DR95-16	2388420
DR95-20	2388430
DR120-8	2388450
DR120-10	2388460
DR120-12	2388470
DR120-16	2388490
DR120-20	2388500
DR150-10	2388530
DR150-12	2388540
DR150-16	2388560
DR150-20	2388570
DR185-10	2388600
DR185-12	2388610
DR185-16	2388620
DR185-20	2388630
DR240-10	2388710
DR240-12	2388720
DR240-16	2388730
DR240-20	2388740
DR300-10	2388780
DR300-12	2388790
DR300-16	2388810
DR300-20	2388820
DR400-12	2388870
DR400-16	2388890
DR400-20	2388900
DR500-12	2388950
DR500-16	2388970
DR500-20	2388980

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DR625-12	2389030
DR625-16	2389050
DR625-20	2389060
DSV6	2489010
DSV10	2489015
DSV16	2489020
DSV25	2489025
DSV35	2489030
DSV50	2489035
DSV70	2489040
DSV95	2489045
DSV120	2489050
DSV150	2489055
DSV185	2489060
DSV240	2489065
DSV300	2489070
DSV400	2489075
DSV500	2489080
DSV625	2489085
ECT-KE2.5	8030200
ECW-H3D	2630073
ELB-3	2598422
ERCH	2596112
ERCH-WH	2596114
ES03-BU	2470410
ES06-BU	2470411
ES1-BU	2470412
ES2-BU	2470413
ES3-BU	2470414
ES5-BU	2470415
ES10-BU	2470416
ES14-BU	2470417
ES19-BU	2470418
ES24-BU	2470419
ES30-BU	2470420
ES37-BU	2470421
ES40-BU	2470422
ES48-BU	2470423
ES80-BU	2470424
ES03-GY	2470430
ES06-GY	2470431
ES1-GY	2470432
ES2-GY	2470433
ES3-GY	2470434
ES5-GY	2470435
ES10-GY	2470436
ES14-GY	2470437
ES19-GY	2470438
ES24-GY	2470439
ES30-GY	2470440
ES37-GY	2470441
ES40-GY	2470442
ES48-GY	2470443
ES80-GY	2470444
ES03-BR	2470450
ES06-BR	2470451
ES1-BR	2470452
ES2-BR	2470453
ES3-BR	2470454
ES5-BR	2470455
ES10-BR	2470456
ES14-BR	2470457
ES19-BR	2470458
ES24-BR	2470459
ES30-BR	2470460
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ES40-BR	2470462
ES48-BR	2470463
ES80-BR	2470464
ES03-BK	2470470
ES06-BK	2470471
ES1-BK	2470472
ES2-BK	2470473
ES3-BK	2470474
ES5-BK	2470475
ES10-BK	2470476
ES14-BK	2470477
ES19-BK	2470478

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ES24-BK	2470479
ES30-BK	2470480
ES37-BK	2470481
ES40-BK	2470482
ES48-BK	2470483
ES80-BK	2470484
ES03-WH	2470490
ES06-WH	2470491
ES1-WH	2470492
ES2-WH	2470493
ES3-WH	2470494
ES5-WH	2470495
ES10-WH	2470496
ES14-WH	2470497
ES19-WH	2470498
ES24-WH	2470499
ES30-WH	2470500
ES37-WH	2470501
ES40-WH	2470502
ES48-WH	2470503
ES80-WH	2470504
ES03-RE	2470510
ES06-RE	2470511
ES1-RE	2470512
ES2-RE	2470513
ES3-RE	2470514
ES5-RE	2470515
ES10-RE	2470516
ES14-RE	2470517
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ES48-RE	2470523
ES80-RE	2470524
ES03-GN	2470530
ES06-GN	2470531
ES1-GN	2470532
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ES3-GN	2470534
ES5-GN	2470535
ES10-GN	2470536
ES14-GN	2470537
ES19-GN	2470538
ES24-GN	2470539
ES30-GN	2470540
ES37-GN	2470541
ES40-GN	2470542
ES48-GN	2470543
ES80-GN	2470544
ES03-YE	2470550
ES06-YE	2470551
ES1-YE	2470552
ES2-YE	2470553
ES3-YE	2470554
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ES14-YE	2470557
ES19-YE	2470558
ES24-YE	2470559
ES30-YE	2470560
ES37-YE	2470561
ES40-YE	2470562
ES48-YE	2470563
ES80-YE	2470564
ES03-PK	2470570
ES06-PK	2470571
ES1-PK	2470572
ES2-PK	2470573
ES3-PK	2470574
ES5-PK	2470575
ES10-PK	2470576
ES14-PK	2470577
ES19-PK	2470578
ES24-PK	2470579
ES30-PK	2470580
ES37-PK	2470581

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ES48-PK	2470583
ES80-PK	2470584
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ESC600	2599001
F1-15	2599865
FD11	3017354
FD13,5	3017356
FD16	3017358
FD21	3017360
FD29	3017362
FD36	3017364
FD42	3017366
FD48	3017368
FD7	3017350
FD9	3017352
FDM12	3017375
FDM16	3017374
FDM20	3017377
FDM25	3017379
FDM32	3017381
FDM40	3017383
FDM50	3017385
FDM63	3017387
FL10-150	2510070
FL10-200	2510150
FL10-250	2510190
FL16-150	2510470
FL16-200	2510550
FL16-250	2510590
FL16-320	2510670
FL16-350	2510690
FL16-420	2510710
FL16-570	2510750
FL16-660	2510790
FL25-150	2510950
FL25-200	2511070
FL25-250	2511110
FL25-300	2511190
GA-3	2598429
GF-F608	2055630
GF-F608P	2055650
GF-M10	2054250
GF-M10/1	2054290
GF-M12	2054330
GF-M14	2054370
GF-M16	2054410
GF-M3	2054010
GF-M3,5	2054030
GF-M4	2054070
GF-M5	2054110
GF-M6	2054150
GF-M6/1	2054160
GF-M608	2055670
GF-M7	2054170
GF-M8	2054210
GF-M8/1	2054220
GF-P10	2055310
GF-P12	2055350
GF-P14	2055370
GF-PP12	2055390
GF-PP17	2055430
GF-PPL46	2055465
GF-U10	2054810
GF-U10/1	2054850
GF-U12	2054890
GF-U14	2054930
GF-U16	2054970
GF-U3,5	2054610
GF-U4	2054650
GF-U5	2054690
GF-U6	2054730
GF-U8	2054770
GK-F608	2145500
GK-F608P	2145502
GKF-M608	2055672
GKY-M3.5	2145982
GKY-M4	2145985
GKY-M5	2145988
GKY-M6	2145991
GKY-M8	2145994
GKY-M10	2145997
GKY-M12	2146000
GKY-M14	2146003
GKY-M16	2146006
GKY-P14	2146040
GKY-PP12	2146045
GKY-PP17	2146047
GKY-PPL46	2146055
GKY-U3.5	2146020
GKY-U4	2146023
GKY-U5	2146026
GKY-U6	2146029
GKY-U8	2146032
GN-M10	2154250
GN-M10/1	2154290
GN-M12	2154330
GN-M14	2154370
GN-M16	2154410
GN-M3	2154010
GN-M3,5	2154030
GN-M4	2154070
GN-M5	2154110
GN-M6	2154150
GN-M6/1	2154160
GN-M7	2154170
GN-M8	2154210
GN-M8/1	2154220
GN-P10	2155250
GN-P12	2155290
GN-P14	2155310
GN-PP12	2155330
GN-PP17	2155370
GN-U10	2154850
GN-U10/1	2154890
GN-U12	2154930
GN-U14	2154970
GN-U16	2155010
GN-U3,5	2154650
GN-U4	2154690
GN-U5	2154730
GN-U6	2154770
GN-U8	2154810
GP-M10	2046645
GP-M10/1	2046646
GP-M12	2046650
GP-M14	2046655
GP-M16	2046660
GP-M3	2046610
GP-M3,5	2046615
GP-M4	2046620
GP-M5	2046625
GP-M6	2046630
GP-M6/1	2046631
GP-M7	2046635
GP-M8	2046640
GP-M8/1	2046641
GP-P10	2046715
GP-P12	2046720
GP-P14	2046725
GP-PP12	2046740
GP-PP17	2046750
GP-PPL46	2046755
GP-U10	2046865
GP-U10/1	2046866
GP-U12	2046870
GP-U14	2046875
GP-U16	2046880
GP-U3,5	2046825
GP-U4	2046830
GP-U5	2046845
GP-U6	2046855
GP-U8	2046860
HB1-U	2598062
HB29-U	8060030
HB40-U	8060035
HB11	2591343
HB12N	2591345
HB13UE	2591347
HF1	2590900
HF2	2590905
HN1	2590300
HN5	2590291
HNA25	2590401
HNCS4	2590024
HND25	2590403
HNKE4	2590299
HNKE16	2590329
HNKE50	2590342
HNN3	2590296
HNN4	2590292
HP1	2590500
HP1-1	2590502
HP3	2590531
HP3-1	2590532
HP4-B	2590032
HP4-C10	2590040
HP4-G	2590033
HP4-R	2590031
HPH-1	2590029
HT-FL75	2665030
HT-TC026	2591406
HT-TC026Y	2591408
HT-TC041	2591426
HT-TC051	2591472
HT-TC051Y	2591475
HT-TC055	2591445
HT-TC065	2591477
HT-TC0851	2591496
HT120	2610420
HT120-KV	2610430
HT131-C	2610416
HT131-UC	2610436
HT131LN-C	2610419
HT45-E	2650040
HT51	2670610
HT51-KV	2670611
HT81-U	2600036
HWE-1	8420010
I38-F	2593863
I38-M	2593858
I38-MS	2593862
IT6	8420016
KE0,75-1	2591050
KE10-1	2591049
KE1016ST	2803150
KE106ST	2802310
KE110ST	2802390
KE1508ST	2802510
KE1510ST	2802550
KE16-15	2599861
KE1616ST	2803190
KE1A-3	2598430
KE2,5-1	2598459
KE2,5A-3	2598432
KE25015ST	2803455
KE25018ST	2803460
KE2508ST	2802670
KE2510ST	2802710
KE35-15	2599862
KE35012ST	2803470
KE35015ST	2803475
KE35018ST	2803480
KE4-15	2599860
KE410ST	2802870
KE412ST	2802910
KE506ST	2802030
KE508ST	2802070
KE610ST	2802990
KE612ST	2803030
KE616ST	2803070
KE7506ST	2802110
KE7508ST	2802150
KITHWE1	8420012
KITTRD-9.4C	2685015
KITTRD-M11C	2685016
KT1	2591319
KT2	2591320
KT3	2591330
KT4	2598060
KT5	2591279
KTS1632	2590700
L03-M	2480020
L03-P	2485010
L06-M	2480050
L06-P	2485040
L10-M	2480330
L10-P	2485270
L100-M	2480930
L120-M	2481010
L14-M	2480410
L14-P	2485350
L160-M	2481050
L19-M	2480490
L19-P	2485430
L1-M	2480090
L1-P	2485070
L200-M	2481090
L24-M	2480570
L24-P	2485510
L2-M	2480130
L2-P	2485100
L30-M	2480650
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L37-M	2480730
L37-P	2485670
L3-M	2480170
L3-P	2485130
L48-M	2480810
L48-P	2485680
L5-M	2480210
L5-P	2485160
L60-M	2480850
L60-P	2485690
L7-M	2480250
L7-P	2485190
L80-M	2480890
M108-520	2648752
M108-C	2611860
M108.215-U	2603723
M110-520	2648754
M113	2651130
M113-50	2675855
M113-C	2611870
M113.173-U	2603730
M118	2651150
M118-50	2675860
M118-C	2611910
M118.158-U	2603725
M140	2651170
M140-50	2675870
M140-C	2612010
M140.190-U	2603800
M145-520	2648770
M158	2651200
M158-50	2675880
M158-C	2612130
M160-520	2648771
M173	2651210
M173-50	2675890
M173-C	2612230
M173L-C	2612240
M190-50	2675900
M190-520	2648772
M190-C	2612330
M208-C	2612420
M208-U	2603780
M215-50	2675910
M215-520	2648773
M215-C	2612490
M220-520	2648774
M232-C	2612590
M255-520	2648776
M295-520	2648780
M340-520	2648784
M440-520	2648840
M540-520	2648910
M70	2651090
M70-50	2675800
M70-C	2611590
M70.140-U	2603710
M75	2651100
M75-50	2675805
M75-C	2611650
M75.96-U	2603715
M96	2651110
M96-50	2675850
M96-C	2611800
MA03/3-15	2599870
MA1	2650110
MA10	2650190
MA10-50	2675666
MA10-C	2610860
MA10.19-U	2600290
MA100-3D	2631790
MA100-520	2645690
MA12-C	2610870
MA12.20-U	2600310
MA120-3D	2631810
MA120-520	2645711
MA14-50	2675670
MA14-C	2610880
MA160-520	2645731
MA17-50	2675672
MA17-C	2610890
MA19-50	2675674
MA19-C	2610900
MA19-U	2600320
MA2-C	2610810
MA2.3	2650130
MA2.3-50	2675660
MA20-50	2675675
MA20-C	2610910
MA200-520	2645750
MA24-50	2675676
MA24-C	2610920
MA24-U	2600330
MA29-C	2610930
MA29.80-U	2600360
MA3-C	2610820
MA3.5-U	2600210
MA30-80-U	2600380
MA30-C	2610940
MA35-C	2610950
MA35-U	2600390
MA37-C	2610960
MA37-U	2600410
MA40-C	2610970
MA40-U	2600430
MA48-C	2610980
MA48-U	2600450
MA5	2650150
MA5-50	2675662
MA5-C	2610830
MA60-C	2610990
MA7	2650170
MA7-50	2675664
MA7-C	2610840
MA7.14-U	2600250
MA80-3D	2631770
MA80-520	2645671
MA9	2650180
MA9-50	2675665
MA9-C	2610850
MA9.17-U	2600270
MB2-80U	2604350
MB3-80U	2604400
MC0	2650490
MC0-U	2603510
MC02-U	2603550

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MC10	2650530
MC10-50	2675610
MC10-C	2611100
MC10-U	2600610
MC185-3D	2632030
MC185-C	2611150
MC2	2650500
MC240-3D	2632035
MC25	2650550
MC25-50	2675620
MC25-C	2611110
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MC4	8420019
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MC6-50	2675605
MC6.25-U	2600630
MC70-3D	2632010
MC70-50	2675640
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MC70-C	2611130
MC95-3D	2632020
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MC95-C	2611140
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MCCC25-C	2617070
MCCC35-C	2617090
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ME03/2-15	2599875
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ME10.24-U	2604830
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ME100-520	2648552
ME12	2652150
ME12-50	2676070
ME12-C	2614213
ME12.17-U	2604850
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ME120-520	2648554
ME14	2652170
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ME160-520	2648556
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ME17-C	2614217
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ME2.19-U	2604750
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ME200-520	2648558
ME20-C	2614221
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ME24-50	2676120
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ME29-50	2676130
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ME48-U	2604970
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ME5-C	2614205
ME5.7-U	2604790
ME60-C	2614237
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ME7-C	2614207
ME80-3D	2634930
ME80-520	2648550
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MK25-3D	2634788
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MK34-3D	2634810
MK38-3D	2634830
MK42-3D	2634850
MK44-3D	2634870
MK46-3D	2634880
MK5/8-15	2599890
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MK12	2651670
MK14	2651700
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MK8-50	2675390
MK10-50	2675410
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MK12-C	2614280
MK14-C	2614290
MK16-C	2614300

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MMT25-50	2676380
MMT25-C	2611160
MMT25-U	2601050
MMT315-C	2611200
MMT50-50	2676382
MMT50-C	2611170
MMT50-U	2601090
MMT95-50	2676384
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MN12F-50	2676260
MN12F-C	2610770
MN14-C	2610580
MN14RF-50	2676270
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MN17-C	2610591
MN17F-50	2676280
MN17F-C	2610774
MN19-C	2610600
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MN20-C	2610610
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MN20F-C	2610778
MN24-C	2610620
MN24RF-50	2676295
MN24RF-C	2610780
MN29-C	2610625
MN29F-C	2610782
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MN2RF-C	2610760
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MN30-C	2610630
MN30RF-C	2610784
MN35-C	2610635
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MN37RF-C	2610788
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MN48RF-C	2610790
MN5-C	2610530
MN5RF-50	2676230
MN5RF-C	2610764
MN60-C	2610660
MN7-C	2610540
MN7RF-50	2676240
MN7RF-C	2610766
MN80-3D	2631450
MN9-C	2610551
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MP608/90	3031820
MP608D	3031830
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MPC7	2595221
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MQ16-50	2675013
MQ25-50	2675016

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MQM16-C	2610662
MQM25-C	2610663
MQM35-C	2610664
MQM50-C	2610665
MQM70-C	2610666
MQM95-C	2610667
MQM120-C	2610668
MQM150-C	2610669
MQM185-C	2610670
MQM240-C	2610671
MQS16-C	2610752
MQS35-C	2610753
MQS70-C	2610754
MQS150-C	2610755
MQS240-C	2610756
MS4/10-15	2599880
MS10/16-15	2599881
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MT120C16	8006258
MT150C10	8006252
MT150C12	8006264
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MT150C16	8006268
MT185C10	8006262
MT185C16	8006278
MT240C12	8006284
MT240C16	8006288
MT300C16	8006298
MT35C8	8006210
MT35C10	8006212
MT35C1480	8006216
MT50C8	8006220
MT50C10	8006222
MT50C1480	8006226
MT70C10	8006232
MT95C10	8006242
MT95C12	8006244
MT95C1480	8006246
MT120GC	8006150
MT150GC	8006160
MT185GC	8006170
MT240GC	8006180
MT300GC	8006190
MT35GC	8006110
MT400GC	8006195
MT50GC	8006120
MT70GC	8006130
MT95GC	8006140
MT120TD	8006050
MT150TD	8006060
MT185TD	8006070
MT240TD	8006080
MT300TD	8006090
MT35TD	8006010
MT50TD	8006020
MT70TD	8006030
MT95TD	8006040
MT150R-C12	2545010
MT150R-C16	2545090
MT150R-GC	2541870
MT150R-TD	2540550
MT150S-C12	2545310
MT150S-C14-80	2546270
MT150S-C16	2545350
MT150S-GC	2541910
MT150S-TD	2540630
MT200R-C10	2545540
MT200R-C16	2545550
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MT200R-TD	2540670
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MT240R-GC	2542110

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MT25-C8	2543030
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MT25-TD	2540150
MT315R-C16	2545950
MT315R-GC	2542150
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MT315S-C16	2545990
MT315S-GC	2542290
MT315S-TD	2540790
MT400-TD	2540830
MT40S-C10	2543410
MT40S-C14-80	2546070
MT40S-C8	2543400
MT40S-GC	2541610
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MT95R-GC	2541770
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MT95S-C12	2544570
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MT95S-GC	2541850
MT95S-TD	2540470
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MTA25-C	2770020
MTA35-C	2770030
MTA50-C	2770310
MTA70-C	2770550
MTA95-C	2770830
MTA120-C	2771510
MTA150-C	2771710
MTA185-C	2772150
MTA240-C	2773010
MTMA10-GC	2720025
MTMA120-70-GC	2721410
MTMA120-95-GC	2721450
MTMA120-GC	2720272
MTMA150-120-GC	2721630
MTMA150-70-GC	2721550
MTMA150-95-GC	2721590
MTMA150-GC	2720330
MTMA16-10-GC	2720560
MTMA16-GC	2720035
MTMA185-120-GC	2721900
MTMA185-150-GC	2721910
MTMA185-GC	2720360
MTMA240-GC	2720410
MTMA240-150-GC	2722050
MTMA240-185-GC	2722090
MTMA25-10-GC	2720575
MTMA25-16-GC	2720580
MTMA25-GC	2720090
MTMA300-GC	2720430
MTMA35-20-GC	2720135
MTMA35-GC	2720130
MTMA400-240-GC	2722245
MTMA400-300-GC	2722250
MTMA50-25-GC	2720650
MTMA50-35-GC	2720660
MTMA50-GC	2720152
MTMA500-GC	2720515
MTMA500-300-GC	2722260

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MTMA70-50-GC	2720980
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MTMA95-50-GC	2721030
MTMA95-70-GC	2721070
MTMA95-GC	2720232
MTMA16/1	2720031
MTMA25/1	2720071
MTMA35/1	2720111
MTMA50/1	2720160
MTMA70/1	2720191
MTMA95/1	2720250
MTMA120/1	2720280
MTMA150/1	2720320
MTMA185/1	2720370
MTMA240/1	2720400
MTMAD300/1	2720460
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MTMA500-40/1	2720509
MTMA630/1	2720530
MTMAD300-GC	2720440
MTMAD300-95-GC	2722121
MTMAD300-150-GC	2722140
MTMAD300-185-GC	2722160
MTMAD300-240-GC	2722220
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MTT95-50	2677270
MTT120-50	2677275
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MUA300-34	2616090
MUA95	2616030
MV150	2616170
MV230-400 MC5E	2680860
MV230-630 MC6E	2680870
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MVM230-400 MJ5E	2680910
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MY14-C	2613385
MY16-50	2677350
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MY19-C	2613395
MY24-50	2677360
MY24L-50	2677362
MY24-C	2613400
MY2-50	2677310
MY2-C	2613350
MY30-50	2677365
MY30L-50	2677366
MY30-C	2613405
MY3-50	2677315
MY36-50	2677370
MY36-C	2613410
MY37-50	2677375
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MY3-C	2613355
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MY48-50	2677380
MY48-C	2613420
MY4-C	2613360
MY5-50	2677325

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MY6-C	2613370
MY7-50	2677335
MY76-C	2613430
MY7-C	2613375
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PA120-3D	2631950
PA120-520	2645600
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PA24-C	2611020
PA48-C	2611030
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PA5-50	2675682
PA60-C	2611040
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PN24-C	2610720
PN37-C	2610730
PN48-C	2610740
PN60-C	2610750
PN7-C	2610700
PN80-3D	2631460
PNB-1	2591040
PNB-3F/M	2591088
PNB-3N1	2591092
PNB-3N5	2591096
PNB-3NN3	2591094
PNB-3NN4	2591095
PNB-3P	2591090
PNB-3P1	2591084
PNB-3PD	2591091
PNB-4KE	2591251
PNB-6KE	2591260
PNB-6KE-T	2591262
PNB-7KE	2591268
PNB-7KE-T	2591270
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PR-1	2591045
PRCH	2596113
PS130-150/E	2616371
PS130-240/E	2616381
PS130-35/E	2616351
PS130-95/E	2616361
PS230-400 5E	2680186
PS230-630 6E	2680189
Q38-F	2593861
Q38-M	2593859
Q38-MS	2593860
RA-3	2598428
RBG-15	2599850

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RD126X126	2685669
RD138X138	2685670
RD15.5SS	2685560
RD15.5SS-FC	2685550
RD16.2SS	2685562
RD16.2SS-FC	2685552
RD17.5SS	2685564
RD17.5SS-FC	2685554
RD18.8SS	2685566
RD18.8SS-FC	2685556
RD18X46	2685654
RD19.1SS	2685568
RD20.5SS	2685570
RD21X21	2685650
RD22.6SS	2685572
RD22X46	2685656
RD23.8SS	2685574
RD25.4SS	2685576
RD27SS	2685578
RD28.5SS	2685580
RD30.5SS	2685582
RD28.5SS-19	2685584
RD30.5SS-19	2685586
RD31.8SS	2685588
RD32.5SS	2685590
RD34.6SS	2685592
RD35X86	2685657
RD35X112	2685659
RD36X46	2685658
RD37.2SS	2685594
RD37X104	2685674
RD37X54	2685671
RD37X67	2685672
RD37X88	2685673
RD38.1SS	2685596
RD40.5SS	2685598
RD40.5SS-FC	2685627
RD41.3SS	2685600
RD41.3SS-FC	2685628
RD42.5SS	2685602
RD42.5SS-FC	2685629
RD43.2SS	2685604
RD43.2SS-FC	2685630
RD44.5SS	2685606
RD44.5SS-FC	2685632
RD46X107	2685652
RD46X46	2685660
RD46X54	2685662
RD46X72	2685664
RD47.2SS	2685608
RD47.2SS-FC	2685634
RD50.5SS	2685610
RD54.2SS	2685612
RD60SS	2685614
RD64SS	2685616
RD65SS	2685618
RD68X68	2685666
RD76SS	2685620
RD80.5SS	2685622
RD92X92	2685668
RF-BF4	2051630
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RF-F405	2051600
RF-F405P	2051605
RF-F408	2051590
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RF-F608	2051610
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RF-FM608	2051690
RF-M10	2050390

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RF-M4/3	2050170
RF-M5	2050190
RF-M6	2050230
RF-M6/1	2050270
RF-M608	2051650
RF-M608P	2051655
RF-M7	2050310
RF-M8	2050350
RF-P10	2051250
RF-P12	2051290
RF-P8	2051210
RF-PP12	2051330
RF-PP12/1	2051340
RF-PP12/19	2051370
RF-PP12/23	2051380
RF-PP14	2051410
RF-PP16/23	2051450
RF-PPL30	2051460
RF-PPL46	2051465
RF-U10	2050950
RF-U12	2050990
RF-U3	2050630
RF-U3,5	2050670
RF-U3,5/1	2050680
RF-U3,5/2	2050681
RF-U4	2050710
RF-U4/1	2050730
RF-U4/2	2050750
RF-U5	2050790
RF-U5/1	2050791
RF-U6	2050830
RF-U6/1	2050870
RF-U8	2050910
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RHC131LN	2619021
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RH-FL75	2592597
RHM132	2619410
RHM50	2670035
RHT160	2592422
RHT160-60N	2592584
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RHTD3241T	2682517
RHU131-C	2619210
RHU230-630	2680075
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RHU520	2640151
RHU600	2640250
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RKF-F308	2051582
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RKF-F408	2051592
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RKF-F608	2051612
RKF-F608P	2051622
RKF-FM608	2051692
RKF-M608	2051652
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RKY-M3.5/1	2145687
RKY-M4	2145690
RKY-M5	2145699
RKY-M6/1	2145705
RKY-M8	2145711
RKY-M10	2145715

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Ref.	Code
RKY-M12	2145718
RKY-P8	2145782
RKY-P10	2145783
RKY-P12	2145784
RKY-PP12	2145790
RKY-PP12/19	2145792
RKY-PP16/23	2145793
RKY-PPL30	2145795
RKY-PPL46	2145798
RKY-U3	2145730
RKY-U3.5	2145733
RKY-U4	2145736
RKY-U5	2145739
RKY-U6	2145742
RKY-U6/1	2145743
RN-FA305	3031610
RN-FA405	3031615
RN-FA608	3031620
RN-M10	2150430
RN-M12	2150470
RN-M2	2150010
RN-M3	2150030
RN-M3,5	2150070
RN-M3,5/1	2150110
RN-M4	2150150
RN-M4/3	2150170
RN-M5	2150190
RN-M6	2150230
RN-M6/1	2150270
RN-M7	2150350
RN-M8	2150390
RN-MA305	3031710
RN-MA405	3031715
RN-MA608	3031720
RN-P10	2151270
RN-P12	2151310
RN-P8	2151230
RN-PP12	2151350
RN-PP12/1	2151370
RN-PP12/19	2151390
RN-PP14	2151400
RN-PP16/23	2151410
RN-U10	2150990
RN-U12	2151030
RN-U3	2150670
RN-U3,5	2150710
RN-U3,5/2	2150720
RN-U4	2150750
RN-U4/1	2150760
RN-U4/2	2150790
RN-U5	2150830
RN-U5/1	2150840
RN-U6	2150870
RN-U6/1	2150910
RN-U8	2150950
RP-M10	2046045
RP-M12	2046050
RP-M2	2046005
RP-M3	2046010
RP-M3,5	2046015
RP-M3,5/1	2046016
RP-M4	2046020
RP-M4/3	2046023
RP-M5	2046025
RP-M6	2046030
RP-M6/1	2046031
RP-M7	2046035
RP-M8	2046040
RP-P10	2046115
RP-P12	2046120
RP-P8	2046110
RP-PP12	2046140
RP-PP12/1	2046145
RP-PP12/19	2046150
RP-PP12/23	2046155
RP-PP14	2046160
RP-PP16/23	2046165
RP-PPL30	2046180

Ref.	Code
RP-PPL46	2046185
RP-U10	2046265
RP-U12	2046270
RP-U3	2046210
RP-U3,5	2046215
RP-U3,5/2	2046217
RP-U4	2046230
RP-U4/1	2046231
RP-U4/2	2046240
RP-U5	2046245
RP-U5/1	2046246
RP-U6	2046255
RP-U6/1	2046256
RP-U8	2046260
RS0305.07	3008006
RS0407.M12	3008050
RS0507.09	3008008
RS0509.M16	3008052
RS0710.11	3008010
RS0813.M20	3008054
RS1014.16	3008012
RS1117.M25	3008056
RS1420.21	3008014
RS1520.M32	3008058
RS1928.M40	3008060
RS2026.29	3008016
RS2635.36	3008018
RS2735.M50	3008062
RT11	2592480
RT10.5	2592470
RT21	2592550
RT13	2592490
RT13,5	2592495
RT14	2592500
RT15	2592510
RT17	2592530
RT6.5	2592430
RT8.5	2592450
RT9	2592460
S10-M4	2165130
S10-M5	2165150
S10-M6	2165190
S10-M7	2165230
S1,5-M10	2160390
S1,5-M12	2160430
S1,5-M2	2160010
S1,5-M3	2160030
S1,5-M3,5	2160070
S1,5-M3,5/1	2160110
S1,5-M4	2160150
S1,5-M4/3	2160160
S1,5-M5	2160190
S1,5-M6	2160230
S1,5-M6/1	2160270
S1,5-M7	2160310
S1,5-M8	2160350
S1,5-P10	2161190
S1,5-P12	2161230
S1,5-P8	2161150
S1,5-PP12	2161310
S1,5-PP12/1	2161330
S1,5-PP12/19	2161350
S1,5-PP14	2161360
S1,5-U10	2160950
S1,5-U12	2160990
S1,5-U3	2160630
S1,5-U3,5	2160670
S1,5-U3,5/2	2160682
S1,5-U4	2160710
S1,5-U4/1	2160730
S1,5-U4/2	2160750
S1,5-U5	2160790
S1,5-U5/1	2160800
S1,5-U6	2160830
S1,5-U6/1	2160870
S1,5-U8	2160910
S2,5-M10	2162170
S2,5-M12	2162210

Ref.	Code
S2,5-M2	2161800
S2,5-M3	2161810
S2,5-M3,5	2161850
S2,5-M3,5/1	2161890
S2,5-M4	2161930
S2,5-M5	2161970
S2,5-M6	2162010
S2,5-M6/1	2162050
S2,5-M7	2162090
S2,5-M8	2162130
S2,5-P10	2163050
S2,5-P12	2163090
S2,5-P8	2163010
S2,5-PP12	2163170
S2,5-PP12/25	2163210
S2,5-PP16/25	2163250
S2,5-U10	2162730
S2,5-U12	2162770
S2,5-U3	2162410
S2,5-U3,5	2162450
S2,5-U3,5/1	2162460
S2,5-U4	2162490
S2,5-U4/1	2162510
S2,5-U4/2	2162530
S2,5-U5	2162570
S2,5-U6	2162610
S2,5-U6/1	2162650
S2,5-U8	2162690
S6-M10	2163830
S6-M10/1	2163850
S6-M12	2163890
S6-M14	2163930
S6-M16	2163970
S6-M3	2163510
S6-M3,5	2163550
S6-M4	2163590
S6-M5	2163630
S6-M6	2163670
S6-M6/1	2163710
S6-M7	2163750
S6-M8	2163790
S6-M8/1	2163800
S6-P10	2164710
S6-P12	2164750
S6-P14	2164790
S6-PP12	2164830
S6-PP17	2164870
S6-U10	2164370
S6-U10/1	2164390
S6-U12	2164430
S6-U14	2164470
S6-U16	2164510
S6-U3,5	2164170
S6-U4	2164210
S6-U5	2164250
S6-U6	2164290
S6-U8	2164330
SC1	2591261
SC3X	2591264
SC4X	2591265
SH-B70	2596080
SUB-D050	8420033
SUB-D075	8420032
TC025	2591895
TC04	2591396
TC050	2597050
TC050Y	2597056
TC055	2591860
TC085	2597150
TC096	2597360
TC120	2597250
TCP10	3019220
TCP12	3019225
TCP15	3019230
TCP18	3019235
TCP20	3019240
TCP25	3019250
TCP30	3019260

Ref.	Code
TCP35	3019270
TCP40	3019280
TCP45	3019290
TCP5	3019210
TCP50	3019300
TCP55	3019305
TCP60	3019310
TCP65	3019315
TCP70	3019320
TD-M16C	2685010
TF300-Q38F	2592862
TF300-Q38FM	2592863
TF600-Q38FM	2592981
TGM38	3016155
TGM48	3016157
TGM513	3016165
TGM58	3016159
TGM613	3016167
TGM713	3016169
TGM817	3016171
TN120S	2590270
TN70	2590230
TNN120	2590290
TNN70	2590240
TNN71	2590241
TRS-B70	2593280
UP130-120	2616520
UP130-150	2616530
UP130-185	2616550
UP130-240	2616560
UP130-50	2616470
UP130-70	2616490
UP130-95	2616500
VAL04	2593310
VAL096	2593669
VAL1000	2593426
VAL130	2610450
VAL130-U	2610451
VAL160	2593405
VAL22	2593370
VAL22-3	2593406
VAL22-C	2593402
VAL450	2593424
VAL520	2593410
VAL600	2593425
VAL75	2600110
VALB-TC04	2593705
VALB-TC095	2593703
VALB-TC950	2593704
VALCP096	2593671
VALECW-H3D	2593421
VALFCL	2593709
VALMAT520	2593411
VALP1	2590595
VALP3	2590610
VALP4	2590612
VALP7	2590616
VALP9	2590619
VALP19	2590629
VALP21	2874156
VALP22	2874157
VALP26	2590635
VALP27	2590638
VALP28	2590639
VALP30	2590642
VALP35	2590647
VALP36	2590648
VALP37	2590646
VALP41	2590645
VALSTAR V3-F	2590577
VALTC085	2593323
VALTC120	2593322
VP-M2	2048010
VP-M3	2048030
VP-M3,5	2048070
VP-M4	2048150
VP-M5	2048190
VP-M6	2048210

Ref.	Code
VP-P10	2049210
VP-PP12/19	2049370
VP-U3	2048630
VP-U3,5	2048670
VP-U4	2048710
WF6	8420030
WF16	8420015
WF35	8420031
WL03-M	8440100
WL06-M	8440101
WL1-M	8440102
WT2-3D	2636970
Z10-1	2845030
Z16-1	2845040
Z16-12	2844156
Z16-12D	2844157
Z16-3	2844115
Z16-3D	2844116
Z16-4	2844130
Z16-4D	2844131
Z16-5N	2844122
Z16-5ND	2844123
Z16-8	2844140
Z16-8D	2844141
Z25-1	2845050
Z25-DP7-100	2845180
Z2,5-1	2845010
Z35-1	2845060
Z35-26D	2844216
Z35-3	2844205
Z35-3D	2844206
Z35-4	2844201
Z35-4D	2844202
Z35-6	2844210
Z35-6D	2844211
Z35-DP14-125	2845210
Z35-DP14B-125	2845212
Z35T-11	2844220
Z35T-11D	2844221
Z50-10D	2844230
Z50-DP12-160	2845220
Z6-1	2845020
Z6-10	2844106
Z6-10D	2844107
Z6-3	2844080
Z6-3D	2844081
Z6-5	2844100
Z6-5D	2844101
Z6-6	2844108
Z6-6D	2844109
ZKE2	2590710
ZKE610	2590718
ZKE6-F	2590716
ZS-B16	2842185
ZS-B4	2842115
ZS-B6	2842155
ZS-T16	2842190
ZS-T4	2842120
ZS-T6	2842160
ZS-U16	2842180
ZS-U4	2842110
ZS-U6	2842150

COMPARISON OF AWG, MCM AND METRIC CONDUCTOR CROSS SECTIONS

AWG comparison to Metric		
AWG	Actual conductor csa mm²	Comparable metric csa mm²
27	0,10	
26	0,13	0,14
25	0,16	-
24	0,21	0,2
23	0,26	0,25
22	0,33	0,34
21	0,41	-
20	0,52	0,5
19	0,65	-
18	0,82	0,75
17	1,04	1
16	1,31	-
15	1,65	1,5
14	2,08	-
13	2,63	2,5
12	3,31	-
11	4,15	4
10	5,27	6
9	6,62	-
8	8,35	-
7	10,6	10
6	13,3	-
5	16,8	16
4	21,2	-
3	26,7	25
2	33,6	35
1	42,4	-
1/0	53,4	50
2/0	67,5	70
3/0	85,0	95
4/0	107,2	120

MCM comparison to Metric		
MCM	Actual conductor csa mm²	Comparable metric csa mm²
250	127	120
300	152	150
350	177	185
400	203	-
500	253	240
600	304	300
700	355	-
800	405	400
900	456	-
1000	507	500
1250	633	625
1500	760	800
1750	887	-
2000	1010	1000

MAXIMUM DIAMETERS OF CIRCULAR COPPER CONDUCTORS: SOLID, NON COMPACTED STRANDED AND FLEXIBLE

Cross sectional area [mm²]	Conductors in cables for fixed installations		Flexible conductors (Classes 5 and 6) Maximum diameter [mm]
	Solid (Class 1) Maximum diameter [mm]	Stranded (Class 2) Maximum diameter [mm]	
0,5	0,9	1,1	1,1
0,75	1,0	1,2	1,3
1	1,2	1,4	1,5
1,5	1,5	1,7	1,8
2,5	1,9	2,2	2,4
4	2,4	2,7	3,0
6	2,9	3,3	3,9
10	3,7	4,2	5,1
16	4,6	5,3	6,3
25 [a]	5,7	6,6	7,8
35 [a]	6,7	7,9	9,2
50 [a]	7,8	9,1	11,0
70 [a]	9,4	11,0	13,1
95 [a]	11,0	12,9	15,1
120 [a]	12,4	14,5	17,0
150 [a]	13,8	16,2	19,0
185	15,4	18,0	21,0
240	17,6	20,6	24,0
300	19,8	23,1	27,0
400	22,2	26,1	31,0
500	-	29,2	35,0
630	-	33,2	39,0
800	-	37,6	-
1000	-	42,2	-

NOTE The values given for flexible conductors represent both class 5 and class 6 conductors.

[a] Solid Copper conductor shaving cross-sectional areas of 25 mm² and above are for particular types of cable, e.g. mineral insulated, and not for general purposes.

MINIMUM AND MAXIMUM DIAMETERS OF STRANDED COMPACTED CIRCULAR COPPER, ALUMINIUM AND ALUMINIUM ALLOY CONDUCTORS

Cross-sectional area [mm²]	Stranded compacted circular conductors (Class 2)	
	Minimum diameter [mm]	Maximum diameter [mm]
10	3,6	4,0
16	4,6	5,2
25	5,6	6,5
35	6,6	7,5
50	7,7	8,6
70	9,3	10,2
95	11,0	12,0
120	12,3	13,5
150	13,7	15,0
185	15,3	16,8
240	17,6	19,2
300	19,7	21,6
400	22,3	24,6
500	25,3	27,6
630	28,7	32,5

NOTES: - The dimensional limits of Aluminium conductors with cross-sectional areas above 630 mm² are not given as the compaction technology is not generally estabilished.
- The values are given for compacted Copper conductors in the size range 1,5 mm² to 6 mm².

MINIMUM AND MAXIMUM DIAMETERS OF CIRCULAR ALUMINIUM CONDUCTORS

Cross-sectional area [mm²]	Solid conductors (Class 1)	
	Minimum diameter [mm]	Maximum diameter [mm]
10	3,4	3,7
16	4,1	4,6
25	5,2	5,7
35	6,1	6,7
50	7,2	7,8
70	8,7	9,4
95	10,3	11,0
120	11,6	12,4
150	12,9	13,8
185	14,5	15,4
240	16,7	17,6
300	18,8	19,8
400	21,2	22,2
500	24,0	25,1
630	27,3	28,4
800	30,9	32,1
1000	34,8	36,0
1200	37,8	39,0

CLASS 1:

SOLID CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional [mm²]	Maximum resistance of conductor at 20 °C		
	Circular, annealed Copper conductors		Aluminium and Aluminium alloy conductors, circular or shaped [c] [ohm/km]
	Plain [ohm/km]	Metal [ohm/km]	
0,5	36	36,7	-
0,75	24,5	24,8	-
1	18,1	18,2	-
1,5	12,1	12,2	-
2,5	7,41	7,56	-
4	4,61	4,70	-
6	3,08	3,11	-
10	1,83	1,84	3,08 [a]
16	1,15	1,16	1,91 [a]
25	0,727 [b]	-	1,20 [a]
35	0,524 [b]	-	0,868 [a]
50	0,387 [b]	-	0,641
70	0,268 [b]	-	0,443
95	0,193 [b]	-	0,320 [d]
120	0,153 [b]	-	0,253 [d]
150	0,124 [b]	-	0,206 [d]
185	0,101 [b]	-	0,164 [d]
240	0,0775 [b]	-	0,125 [d]
300	0,0620 [b]	-	0,100 [d]
400	0,0465 [b]	-	0,0778
500	-	-	0,0605
630	-	-	0,0469
800	-	-	0,0367
1000	-	-	0,0291
1200	-	-	0,0247

[a] *Aluminium conductors 10 mm² to 35 mm² circular only*

[b] *Solid Copper conductors having nominal cross-sectional area of 25 mm² and above are for particular types of cable, e.g. mineral insulated, and not for general purposes.*

[c] *For solid Aluminium alloy conductors, having the same nominal cross-sectional area as an Aluminium conductor, the resistance value given in the table should be multiplied by a factor of 1,162 unless otherwise agreed between the manufacturer and the purchaser.*

[d] *For single core cables, four sectoral shaped conductors may be assembled into a single circular conductor. The maximum resistance of the assembled conductor shall be 25% of that of the individual component conductors.*

CLASS 2:

STRANDED CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional area [mm²]	Minimum number of wires in the conductor						Maximum resistance of conductor at 20 °C		
	Circular		Circular compacted		Shaped		Annealed Copper conductor		Aluminium or Aluminium alloy conductor [c] [ohm/km]
	Cu	Al	Cu	Al	Cu	Al	Plain wires [ohm/km]	Metal-coated wires [ohm/km]	
0,5	7	-	-	-	-	-	36,0	36,7	-
0,75	7	-	-	-	-	-	24,5	24,8	-
1,0	7	-	-	-	-	-	18,1	18,2	-
1,5	7	-	6	-	-	-	12,1	12,2	-
2,5	7	-	6	-	-	-	7,41	7,56	-
4	7	-	6	-	-	-	4,61	4,70	-
6	7	-	6	-	-	-	3,08	3,11	-
10	7	7	6	6	-	-	1,83	1,84	3,08
16	7	7	6	6	-	-	1,15	1,16	1,91
25	7	7	6	6	6	6	0,727	0,734	1,20
35	7	7	6	6	6	6	0,524	0,529	0,868
50	19	19	6	6	6	6	0,387	0,391	0,641
70	19	19	12	12	12	12	0,268	0,270	0,443
95	19	19	15	15	15	15	0,193	0,195	0,320
120	37	37	18	15	18	15	0,153	0,154	0,253
150	37	37	18	15	18	15	0,124	0,126	0,206
185	37	37	30	30	30	30	0,0991	0,100	0,164
240	61	61	34	30	34	30	0,0754	0,0762	0,125
300	61	61	34	30	34	30	0,0601	0,0607	0,100
400	61	61	53	53	53	53	0,0470	0,0475	0,0778
500	61	61	53	53	53	53	0,0366	0,0369	0,0605
630	91	91	53	53	53	53	0,0283	0,0286	0,0469
800	91	91	53	53	-	-	0,0221	0,0224	0,0367
1000	91	91	53	53	-	-	0,0176	0,0177	0,0291
1200	[b]						0,0151	0,0151	0,0247
1400 [a]	[b]						0,0129	0,0129	0,0212
1600	[b]						0,0113	0,0113	0,0186
1800 [a]	[b]						0,0101	0,0101	0,0165
2000	[b]						0,0090	0,0090	0,0149
2500	[b]						0,0072	0,0072	0,0127

[a] *Non-preferred sizes. Other non-preferred sizes are recognized for some specialized applications but are not within the scope of this standard.*

[b] *The minimum number of wires for these sizes is not specified. These sizes may be constructed from 4, 5 or 6 equal segments (Milliken).*

[c] *For stranded Aluminium alloy conductors having the same nominal cross-sectional area as an Aluminium conductor the resistance value should be agreed between the manufacturer and the purchaser.*

CLASS 5:

FLEXIBLE COPPER CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional [mm²]	Maximum diameter of wires in conductor [mm]	Maximum resistance of conductor at 20 °C	
		Plain wires [ohm/km]	Metal-coated wires [ohm/km]
0,5	0,21	39,0	40,1
0,75	0,21	26,0	26,7
1,0	0,21	19,5	20,0
1,5	0,26	13,3	13,7
2,5	0,26	7,98	8,21
4	0,31	4,95	5,09
6	0,31	3,30	3,39
10	0,41	1,91	1,95
16	0,41	1,21	1,24
25	0,41	0,780	0,795
35	0,41	0,554	0,565
50	0,41	0,386	0,393
70	0,51	0,272	0,277
95	0,51	0,206	0,210
120	0,51	0,161	0,164
150	0,51	0,129	0,132
185	0,51	0,106	0,108
240	0,51	0,0801	0,0817
300	0,51	0,0641	0,0654
400	0,51	0,0486	0,0495
500	0,61	0,0384	0,0391
630	0,61	0,0287	0,0292

CLASS 6:

FLEXIBLE COPPER CONDUCTORS FOR SINGLE-CORE AND MULTI-CORE CABLES

Nominal cross-sectional [mm²]	Maximum diameter of wires in conductor [mm]	Maximum resistance of conductor at 20 °C	
		Plain wires [ohm/km]	Metal-coated wires [ohm/km]
0,5	0,16	39,0	40,1
0,75	0,16	26,0	26,7
1.0	0,16	19,5	20,0
1,5	0,16	13,3	13,7
2,5	0,16	7,98	8,21
4	0,16	4,95	5,09
6	0,21	3,30	3,39
10	0,21	1,91	1,95
16	0,21	1,21	1,24
25	0,21	0,780	0,795
35	0,21	0,554	0,565
50	0,31	0,386	0,393
70	0,31	0,272	0,277
95	0,31	0,206	0,210
120	0,31	0,161	0,164
150	0,31	0,129	0,132
185	0,41	0,106	0,108
240	0,41	0,0801	0,0817
300	0,41	0,0641	0,0654

SYSTEM OF DENOMINATION OF HARMONISED CABLES ACCORDING TO CENELEC HD 361

REFERENCE TO THE STANDARDS

- **H** Cable conforming to harmonised standards
- **A** Recognised national type of cable
- **N** Other type of national cable

RATED VOLTAGE

- **00** Less than 100 / 100 V
- **01** Above 100 / 100 V and less than 300 / 300 V
- **03** 300 / 300 V
- **05** 300 / 500 V
- **07** 450 / 750 V
- **1** 0,6 / 1 kV

INSULATION AND SHEATH MATERIAL

- **B** Ethylenpropylene rubber for working temperature of 60° C
- **N** Polychloroprene
- **N2** Polychloroprene for welding cables
- **Q** Polyurethane
- **R** Rubber
- **V** Common-quality PVC
- **V2** PVC for working temperatures of 90° C
- **V3** PVC for low temperature cables
- **V4** Reticulate PVC
- **V5** Oil-resistant PVC
- **Z** Polyolefin mixture

SCREENS

- **C** Concentric Copper core
- **C4** Copper braid screen on multiple cores
- **C5** Copper braid screen on single cores
- **C7** Screen made of Copper straps or ribbons

ARMOURS

- **Z2** Round Steel strand armour
- **Z3** Steel strap armour
- **Z4** Steel ribbon armour
- **Z5** Steel strand braid

CONSTRUCTIVE FORM OF THE CABLE

- **H** Flat divisible cable with or without sheath
- **H2** Flat indivisible cable
- **H3** Flat cable with cores separated by a slat
- **H6** Flat cable with three or more cores
- **H7** Cable with double-layered insulation
- **H8** Extendable cord

CONDUCTOR FLEXIBILITY DEGREE

- **D** Flexible core for weldings cables
- **E** Very flexible core for welding cables
- **F** Flexible core for moving connections
- **H** Very flexible core for moving connections
- **K** Flexible core for fixed laying
- **R** Rigid round cord
- **U** Round rigid single strand

MAXIblock® - spiralblock®

Ref. Light Grey	Thread	COMPRESSION RANGE Ø min-max				IMPACT CATEGORY (*)	MARKING
		Nominal	UL 514B		EN 50262		
		[mm]	[mm]	[inches]	[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

*Add to Ref: **N** for Black, **G** for Dark Grey*

MAXIblock® - spiralblock®

Ref. Light Grey	Thread	COMPRESSION RANGE Ø min-max			MARKING
		Nominal	UL 514B		
		[mm]	[mm]	[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
1910.07	Pg 7	2-5	2-5	0.08-0.20	USR-CNR
1910.11	Pg 11	4-7	4-7	0.16-0.28	USR-CNR
1910.13	Pg 13	5-10	10	0.39	USR-CNR
1910.21	Pg 21	9-15	10-14	0.39-0.55	USR-CNR
1910.36	Pg 36	18-26	18-26	0.71-1.02	USR-CNR
1910.42	Pg 42	25-31	25-31	0.98-1.22	USL-CNL
1901.07	Pg 7	3.5-7	6.5	0.26	USR-CNR
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
1901.42	Pg 42	28-38	28	1.10	USL-CNL
1901.48	Pg 48	37-45	40-44	1.57-1.73	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
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

*Add to Ref: **N** for Black, **G** for Dark Grey*

MAXIbrass®

Tipo	Thread	COMPRESSION RANGE Ø min-max			MARKING
		Nominal	UL 514B		
		[mm]	[mm]	[inches]	
2900.07N	Pg 7	3-7	3-7	0.12-0.28	USR-CNR
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
2900.29N	Pg 29	17-25	18-25	0.71-0.98	USL-CNL
2900.36N	Pg 36	20-32	22-32	0.86-1.26	USL-CNL
2900.42N	Pg 42	28-38	28-35	1.10-1.38	USL-CNL
2900.48N	Pg 48	34-45	34-45	1.33-1.77	USL-CNL
2910.07N	Pg 7	1-5	1-5	0.04-0.20	USR-CNR
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
2910.29N	Pg 29	11-20	12-20	0.47-0.79	USR-CNR
2910.36N	Pg 36	18-26	19-26	0.75-1.02	USL-CNL
2910.42N	Pg 42	24-31	24-31	0.94-1.22	USL-CNL
2910.48N	Pg 48	27-39	31-39	1.22-1.54	USL-CNL
2901.07N	Pg 7	3-7	3-7	0.12-0.28	USR-CNR
2901.09N	Pg 9	4-8	4-8	0.16-0.31	USR-CNR
2901.11N	Pg 11	4,5-10	4,5-10	0.18-0.39	USR-CNR
2901.13N	Pg13,5	5-12	9-12	0.35-0.47	USL-CNL
2901.16N	Pg 16	7-13	10-13	0.39-0.51	USL-CNL
2901.21N	Pg 21	10-17	12-17	0.47-0.67	USL-CNL
2901.29N	Pg 29	17-25	18-25	0.71-0.98	USL-CNL
2901.36N	Pg 36	20-32	22-32	0.86-1.26	USL-CNL
2901.42N	Pg 42	28-38	28-35	1.10-1.38	USL-CNL
2911.07N	Pg 7	1-5	1-5	0.04-0.20	USR-CNR
2911.09N	Pg 9	2-6	3-8	0.12-0.31	USR-CNR
2911.11N	Pg 11	2,5-7	3,5-7	0.14-0.28	USR-CNR
2911.13N	Pg13,5	4-10	5,5-10	0.22-0.39	USR-CNR
2911.16N	Pg 16	5-10	6-10	0.24-0.39	USR-CNR
2911.21N	Pg 21	6-13	7-13	0.28-0.51	USR-CNR
2911.29N	Pg29	11-20	12-20	0.47-0.79	USR-CNR
2911.36N	Pg36	18-26	19-26	0.75-1.02	USL-CNL
2911.42N	Pg42	24-31	24-31	0.94-1.22	USL-CNL

MAXIbrass®

Tipo	Thread	COMPRESSION RANGE Ø min-max				IMPACT CATEGORY (*)	MARKING
		Nominal	UL 514B		EN 50262		
		[mm]	[mm]	[inches]	[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

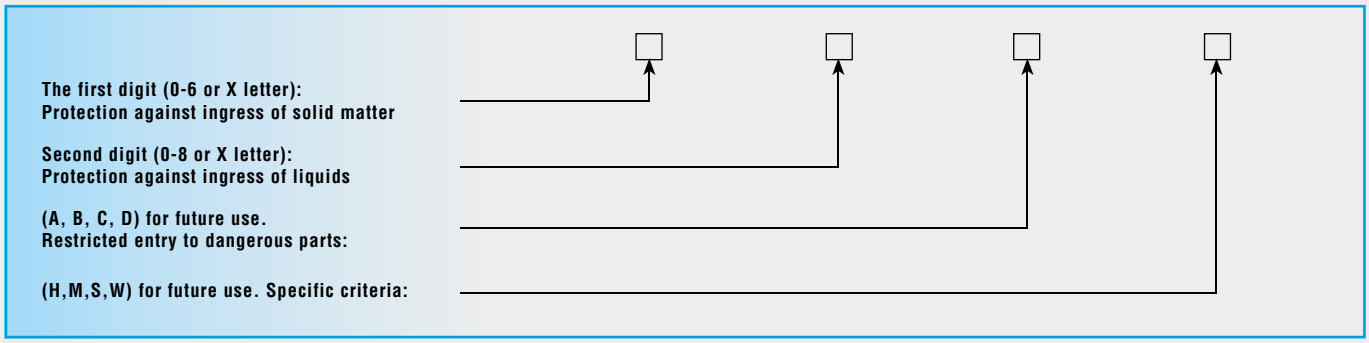
VDE: *Licence nos 40008472, 40008474, 40008475 and 40008476*

USL-CNL: *UL LISTING file no E220310; control no 48SB valid in USA & Canada*

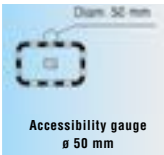
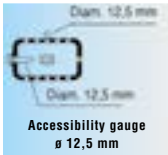
USR-CNR: *UL RECOGNITION file no E220310 valid in USA & Canada (with reduced tightening force)*

(*) *EN 50262 § 9.4*

INGRESS PROTECTION (IP) RATING ACCORDING TO EN 60529 - CEI 70-1



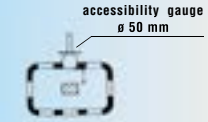
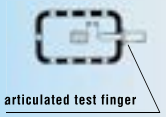
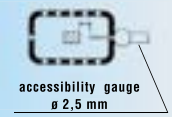
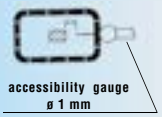
1st CHARACTERISTIC NUMBER:
PROTECTION AGAINST INGRESS OF SOLID MATTER

PROTECTION	0	1	2	3	4	5	6
Protection against ingress of solid matter caused by		solid bodies measuring over 50 mm	solid bodies measuring over 12,5 mm	solid bodies measuring over 2,5 mm	solid bodies measuring over 1 mm	powder in harmful quantities	Powder (completely protected)
Test method		 Accessibility gauge ø 50 mm	 Accessibility gauge ø 12,5 mm	 Accessibility gauge ø 2,5 mm	 Accessibility gauge ø 1 mm	 talcum powder	 talcum powder

2nd CHARACTERISTIC NUMBER:
PROTECTION AGAINST INGRESS OF LIQUIDS

PROTECTION	0	1	2	3	4	5	6	7	8
Protection against ingress of liquids caused by		Drops of water falling vertically	Vertical drops of water with inclination of casing up to 15°	Rain	Sprays of water	Jets of water	Powerful jets of water	Temporary Immersion	Permanent Immersion
Test method									Agreement between manufacturer and user but more severe than 7

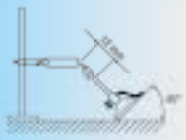
1st ADDITIONAL LETTER
RESTRICTED ENTRY TO DANGEROUS PARTS

RESTRICTED ENTRY	A	B	C	D
Restricted entry to dangerous parts caused by	back of hand	finger	tool	wire
Test method	 accessibility gauge ø 50 mm	 articulated test finger	 accessibility gauge ø 2,5 mm	 accessibility gauge ø 1 mm

2nd ADDITIONAL LETTER
MEANING OF THE SECOND ADDITIONAL LETTER

SPECIFIC CRITERIA	H	M	S	W
Specific criteria	High voltage equipment	Tested against negative effects of water penetration, when the moveable parts of the equipment (e.g. wheels of a revolving machine) are moving	Tested against the negative effects of water penetration, when the moveable parts of the equipment (e.g. wheels of a revolving machine) are stationary	Suitable for use in environmental conditions as specified and equipped with additional measures of protection

FLAMMABILITY TEST FOR PRODUCTS AND MATERIALS

TYPE OF TEST	TEST EQUIPMENT	COMPLIANCE WITH STANDARDS	OBJECTIVE OF TEST	TEST RESULTS	TEST CONDITIONS		
					heat source	length of test	characteristic features
CHARACTERISTIC FEATURES		IEC 695-2-1 CEI 50-11 DIN VDE 0471-2-1	Check that abnormal heating produced by overcurrent and bad contacts does not compromise the safety of the insulating material. Lighting test. The wire is pressed against the sample using force and penetrates up to 7 mm.	Any sign of flame starting must stop within 30 sec. of removing the glowing wire TEST TEMPERATURE • 650° for materials which do not support parts under tension • 750° for materials which support parts under tension of moving sockets and plugs • 850° for materials which support parts under tension of fixed sockets and switches	Glow-wire 4 mm in diameter	Wire applied for 30 seconds	Flame extinction time
NEEDLE FLAME		IEC 695-2-1 CEI 50-11	Simulates the effect small flames have which may occur due to internal faults of products in order to judge the fire risk.	• the sample does not catch fire • the flame and incandescent particles do not spread the fire • combustion lasts less than 30 seconds	Bunsen burner flame	Flame applied for (Ta) 5, 10, 20, 30, 60, 120 sec. According to particular standards	The degree of severity: flame application time (Ta)
UL *(UNDERWRITER' LABORATORIES)*		UL 94	Measuring of time the sample continues to burn after the direct flame has been removed	• V0 if the sample burns for less than 5 sec. before going out. • V1 if it burns for less than 25 sec. • V2 if it burns for less than 25 sec. With incandescent drops • HB if it burns for more than 25 sec. (horizontal sample and burning speed less than 38 mm per minute) Comparable to ASTM D-635	Bunsen burner flame	Flame applied for 10 seconds twice following	Length of combustion

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Torque ratio values apply to mounting in a threaded entry and to use with a locknut

THREAD CABLE GLAND	CABLE GLAND torque ratio Nm	
	metallic	non-metallic
M12 x 1,5	6	2,7
M16 x 1,5	6	5,0
M20 x 1,5	8	7,0
M25 x 1,5	8	7,5
M32 x 1,5	12	8,0
M40 x 1,5	18	8,0
M50 x 1,5	18	10,0
M63 x 1,5	18	10,0

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Torque ratio values apply to mounting in a threaded entry and to use with a locknut

THREAD CABLE GLAND	CABLE GLAND torque ratio Nm		
	metallic	non-metallic series	
		1900	1910
Pg 7	6.25	2.5	2.5
Pg 9	6.25	3.75	3.75
Pg 11	6.25	3.75	3.75
Pg 13,5	6.25	3.75	3.75
Pg 16	7.5	5.0	5.0
Pg 21	10.0	7.5	7.5
Pg 29	10.0	7.5	7.5
Pg 36	18.0	7.5	7.5
Pg 42	18.0	7.5	10.0
Pg 48	18.0	7.5	10.0

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to obtain IP68 with reduced tightening force for GAS threads

Torque ratio values apply to mounting in a threaded entry and to use with a locknut

THREAD CABLE GLAND	CABLE GLAND non-metallic torque ratio Nm
G1/4"	4
G3/8"	5
G1/2"	6
G3/4"	10

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