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Cembre

Certified Quality Management System

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.

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 officies 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 9001:2000 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 homogeneous 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.

RoHS compliant 2002/95/EC

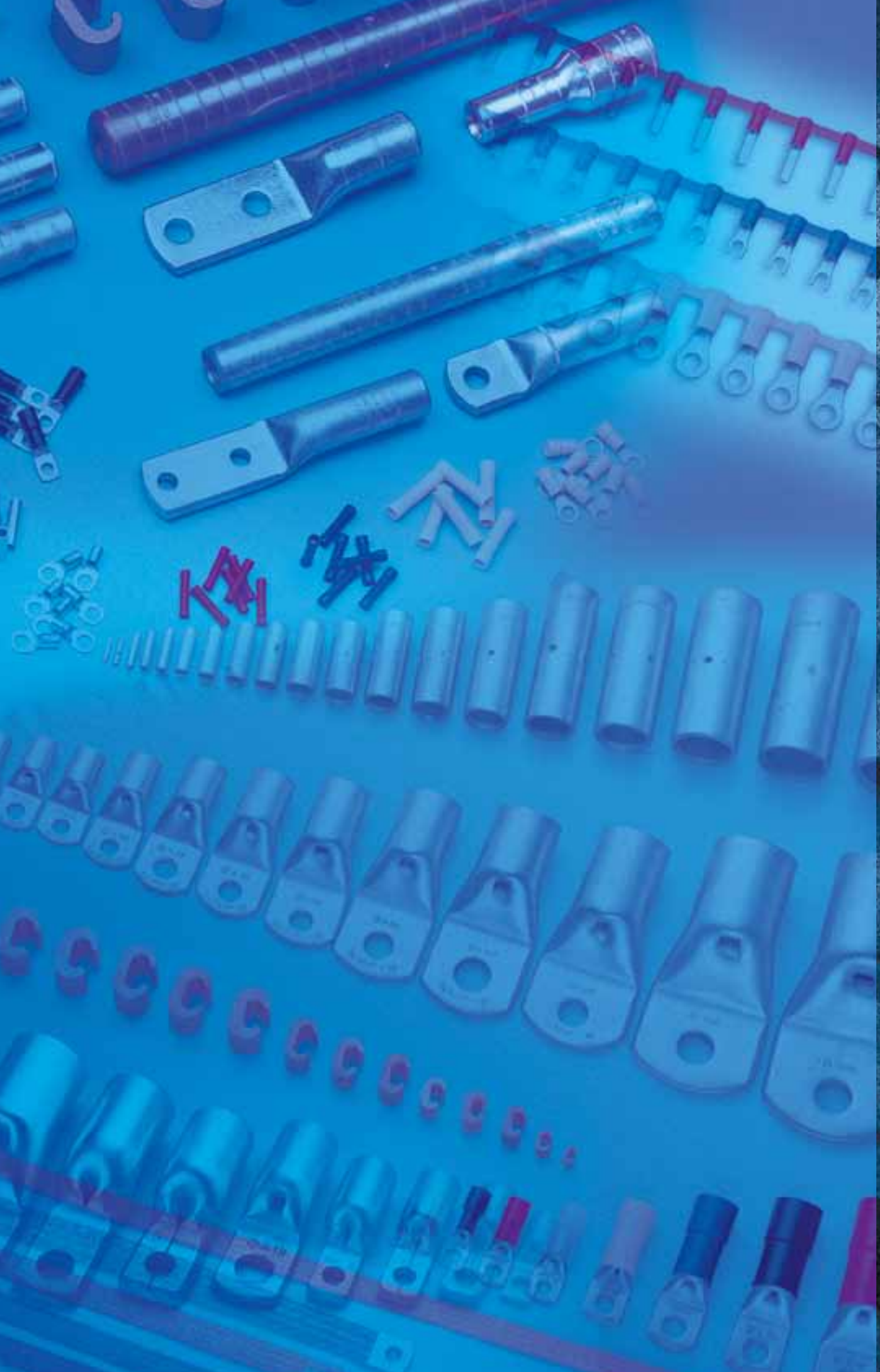
All Cembre products comply with Directive 2002/95/CE of the European Parliament and Council dated 27 January 2003 (and subsequent amendment).

Cembre S.p.A. *factory in Brescia (ITALY) covers an area of approximately 115.000 sqm*

Cembre Ltd. *factory in Curdworth (Birmingham)*

Production Units

Index



ELECTRICAL CONNECTORS

HALOGEN FREE INSULATED TERMINALS

VP RP BP GP

P range funnel entry

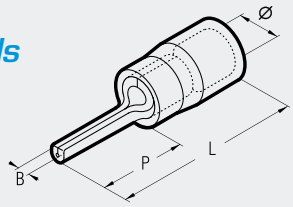
OPERATING TEMPERATURE UP TO 115° C

HALOGEN FREE

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 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.

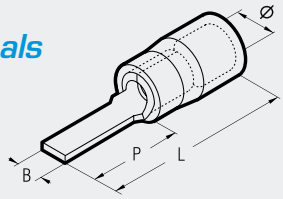
The operating temperature range is – 20 to + 115°C (Surge + 130°C). Recommended installation Tools are shown on pages 94 to 101, 127-128

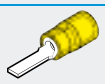
pin terminals



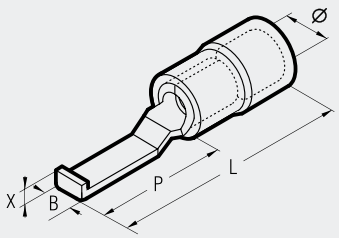
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,2÷0,5 (24÷20)	VP-P 10	3,0	1,0	9,8	20,2	4.000/100
 0,25÷1,5 (22÷16)	RP-P 8	4,0	1,6	7,8	17,9	3.500/100
	RP-P 10	4,0	1,6	9,8	19,9	3.500/100
	RP-P 12	4,0	1,6	12,0	22,1	3.000/100
 1,5÷2,5 (16÷14)	BP-P 8	4,9	1,7	7,8	17,9	3.000/100
	BP-P 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	1.500/100
	GP-P 12	6,6	2,2	12,6	26,7	1.500/100
	GP-P 14	6,6	2,2	14,6	28,7	1.500/100

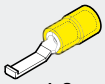
blade terminals



Conductor 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	3.500/100
	RP-PP 12/1	4,0	3,0	11,3	21,4	3.500/100
	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	3.500/100
	RP-PP 14	4,0	3,0	14,8	24,9	3.000/100
	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	2.500/100
	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



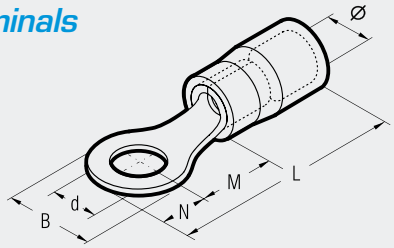
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RP-PPL 30	4,0	3,0	17,5	28,3	1,7	3.000/100
	RP-PPL 46	4,0	4,6	17,5	28,3	1,7	3.000/100
 1,5÷2,5 (16÷14)	BP-PPL 30	4,9	3,0	17,5	28,3	1,7	2.500/100
	BP-PPL 46	4,9	4,6	17,5	28,3	1,7	2.500/100
 4÷6 (12÷10)	GP-PPL 46	6,7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

HALOGEN FREE INSULATED TERMINALS

P range funnel entry

VP RP BP GP

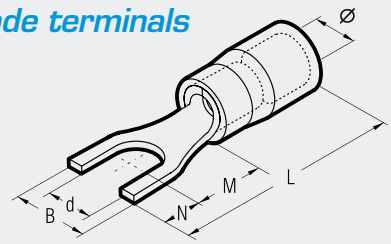
ring terminals



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

*Made to order

fork/spade terminals

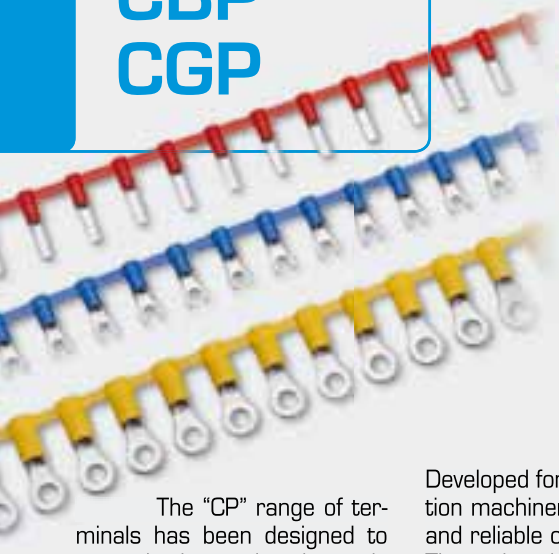


Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag
0,2÷0,5 (24÷20)	3	VP-U 3	3,0	5,5	5,5	4,0	18,7	3,2	4.000/100
	3,5	VP-U 3.5	3,0	6,0	6,5	3,8	19,5	3,7	4.000/100
	4	VP-U 4	3,0	6,5	7,5	3,7	20,4	4,3	4.000/100
0,25÷1,5 (22÷16)	3	RP-U 3	4,0	5,5	5,5	4,0	19,6	3,2	3.500/100
	3,5	RP-U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

INSULATED CHAIN TERMINALS

CRP
CBP
CGP

CP range with easy entry



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 machinery, to give a quick and reliable crimped joint.

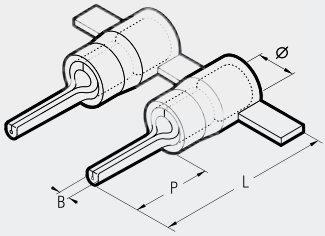
The polycarbonate insulation, is a halogen free, self extinguishing thermoplastic material class VO (UL 94).

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).

pin terminals

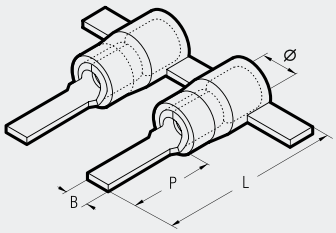
c UL us LISTED



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

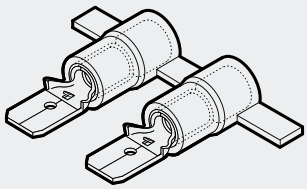
c UL us LISTED



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

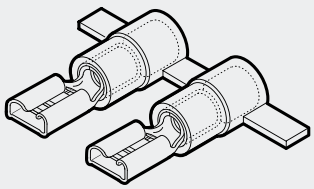
c UL us LISTED QUICK CONNECT CONNECTOR 28 JB



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

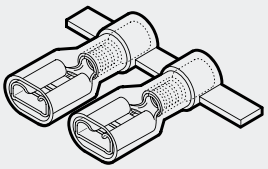
c UL us LISTED QUICK CONNECT CONNECTOR 28 JB



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 LISTED QUICK CONNECT CONNECTOR 28 JB



Conductor Size sqmm (AWG)	Ref.	Tab mm	Quantity
0,25÷1,5 (22÷16)	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

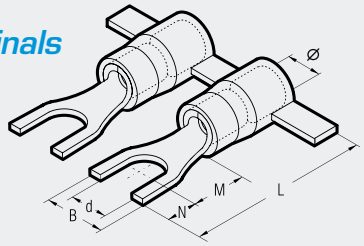
**Made to order*

INSULATED CHAIN TERMINALS

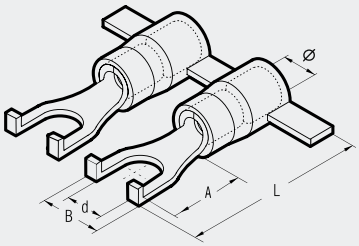
CP range with easy entry

CRP
CBP
CGP

fork/spade terminals

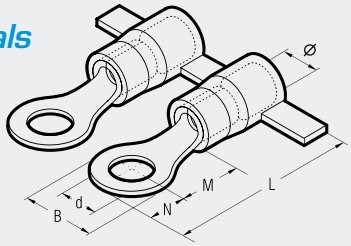


Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity
0,25÷1,5 (22÷16)	3	CRP-U 3	4,0	5,5	5,5	4,0	19,6	3,2	2.000
	3,5	CRP-U 3.5	4,0	6,0	6,5	3,8	20,4	3,7	2.000
	3,5	*CRP-U 3.5/2	4,0	6,4	6,5	3,8	20,4	3,7	2.000
	4	CRP-U 4	4,0	6,5	7,5	3,7	21,3	4,3	2.000
	4	*CRP-U 4/1	4,0	8,5	7,5	3,7	21,3	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



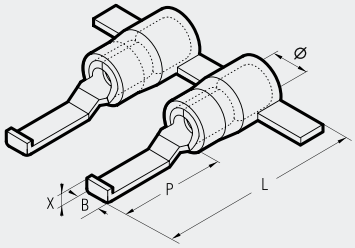
Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm Ø	B	A	L	d	Quantity
1,5÷2,5 (16÷14)	4	CBP-U 4/3L	4,9	6,5	9,5	14,5	4,3	1.750

ring terminals



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	1.250
	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

**Made to order*

Interchangeable application heads are available for the bench press ELB-3 to suit the crimping of these connectors (see page 102).

PVC INSULATED CRIMP TERMINALS

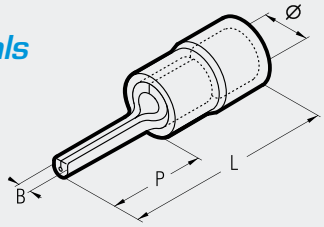
RF BF GF

F range funnel entry

VALSTAR V3-F
Comprising:
- An assortment of crimp terminals for conductor sizes 0,25 ÷ 6 sqmm
- Tool HP3

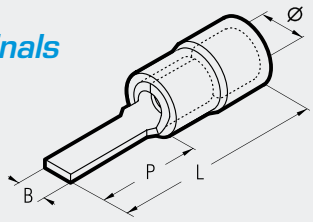
The unique funnel shape of PVC sleeve, guarantees total insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection.
The internal surface of the barrel is rifled to improve contact with conductor strands when crimped and to increase tensile strength.
The "F" range of terminals offers a wide selection of rings, forks, pins and blades, designed to meet the ever changing requirements of the end users.
The operating temperature range is – 20 to + 80°C (Surge + 90°C).
Recommended crimping tools are shown on pages 94 to 101, 127-128

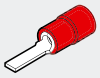
pin terminals



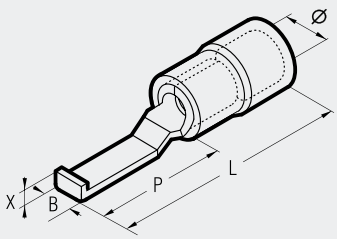
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RF-P 8	3,9	1,6	8,0	17,9	3.500/100
	RF-P 10	3,9	1,6	10,0	19,9	3.500/100
	RF-P 12	3,9	1,6	12,0	22,1	3.000/100
 1,5÷2,5 (16÷14)	BF-P 8	4,9	1,7	8,0	17,9	3.000/100
	BF-P 10	4,9	1,8	10,0	19,9	3.000/100
	BF-P 12	4,9	1,8	12,0	21,9	3.000/100
 4÷6 (12÷10)	GF-P 10	6,7	2,2	10,0	24,6	1.500/100
	GF-P 12	6,7	2,2	12,0	26,8	1.500/100
	GF-P 14	6,7	2,2	14,0	28,8	1.500/100

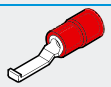
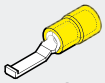
blade terminals



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	3.500/100
	RF-PP 12/1	3,9	3,0	11,3	21,4	3.500/100
	RF-PP 12/19	3,9	1,9	13,2	23,3	3.500/100
	RF-PP 12/23	3,9	2,3	13,2	23,3	3.000/100
	RF-PP 14	3,9	3,0	14,8	24,9	3.000/100
	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	2.500/100
	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



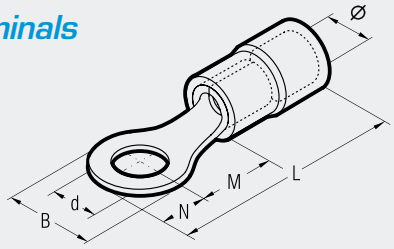
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RF-PPL 30	3,9	3,0	17,5	28,4	1,7	3.000/100
	RF-PPL 46	3,9	4,6	17,5	28,4	1,7	2.500/100
 1,5÷2,5 (16÷14)	BF-PPL 30	4,9	3,0	17,5	28,4	1,7	2.500/100
	BF-PPL 46	4,9	4,6	17,5	28,4	1,7	2.500/100
 4÷6 (12÷10)	GF-PPL 46	6,7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

PVC INSULATED CRIMP TERMINALS

F range funnel entry

RF BF GF

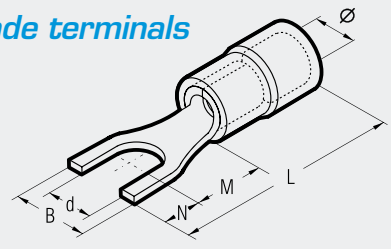
ring terminals



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	3.000/100
	6		RF-M 6	3,9	9,4	8,1	4,7	22,9	6,4	3.000/100
	6		RF-M 6/1	3,9	12,0	10,3	6,0	26,4	6,4	3.000/100
	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	2.500/100
	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	2.500/100
	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	18,0	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	1.500/100
	3,5		GF-M 3.5	6,7	8,0	8,1	4,0	26,3	3,7	1.500/100
	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	1.000/100
	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

**Made to order*

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	3.500/100
	3,5		RF-U 3.5	3,9	6,0	6,5	3,8	20,4	3,7	3.500/100
	3,5		RF-U 3.5/1	3,9	7,2	6,5	3,8	20,4	3,7	4.000/100
	3,5		RF-U 3.5/2	3,9	6,4	6,5	3,8	20,4	3,7	3.500/100
	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	2.500/100
	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	2.500/100
	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	2.500/100
	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	2.500/100
	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	2.000/100
	12		BF-U 12	4,9	20,0	15,5	9,0	34,6	13,0	1.000/100
4÷6 (12÷10)	3,5		GF-U 3.5	6,7	7,5	8,5	3,9	26,6	3,7	1.500/100
	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

REINFORCED PA 6.6 INSULATED TERMINALS

RKY
BKY
GKY

KY range

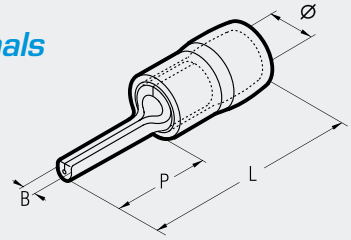
HALOGEN FREE

'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. The funnel shape of this sleeve is designed to provide 'easy entry' of stranded conductor by smoothing the internal path. 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).

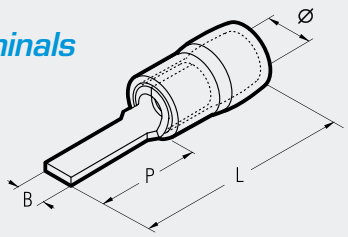
Recommended crimping tools are shown on pages 94 to 101, 127-128

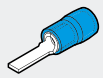
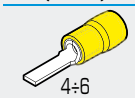
pin terminals



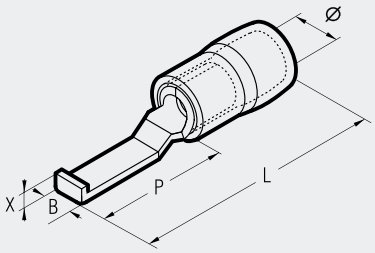
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RKY-P 8	4,5	1,9	9,0	19,8	3.500/100
	RKY-P 10	4,5	1,9	10,0	20,8	3.500/100
	RKY-P 12	4,5	1,9	12,0	22,8	3.000/100
 1,5÷2,5 (16÷14)	BKY-P 8	5,2	1,9	9,0	19,8	3.000/100
	BKY-P 10	5,2	1,9	10,0	20,8	3.000/100
	BKY-P 12	5,2	1,9	12,0	22,8	3.000/100
 4÷6 (12÷10)	GKY-P 14	7,0	2,8	14,0	27,0	1.500/100

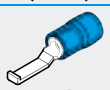
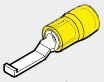
blade terminals



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	3.500/100
	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	2.500/100
	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



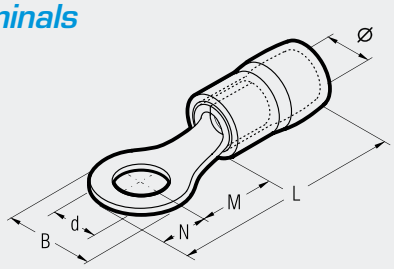
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Ø	B	P	L	X	Quantity Box/Bag
 0,25÷1,5 (22÷16)	RKY-PPL 30	4,5	3,0	16,8	28,2	2,1	3.000/100
	RKY-PPL 46	4,5	4,6	16,8	28,2	2,1	3.000/100
 1,5÷2,5 (16÷14)	BKY-PPL 30	5,2	3,0	16,8	28,2	2,1	2.500/100
	BKY-PPL 46	5,2	4,6	16,8	28,2	2,1	2.500/100
 4÷6 (12÷10)	GKY-PPL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

REINFORCED PA 6.6 INSULATED TERMINALS

KY range

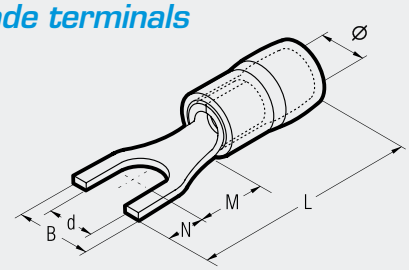
RKY
BKY
GKY

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	*2.500/100*
	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*

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	*3.000/100*
	3,5	**RKY-U 3.5**	4,5	5,7	6,5	4,5	22,0	3,7	*3.000/100*
	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	*3.000/100*
	6	**RKY-U 6/1**	4,5	12,0	11,0	6,0	28,0	6,4	*3.000/100*
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	*2.500/100*
	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 94 to 101, 127-128

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	3.500/100
	RF-F 308	2,8 x 0,8	3.500/100
	RF-F 405	4,8 x 0,5	3.000/100
	RF-F 408	4,8 x 0,8	3.000/100
	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	3.000/100
	BF-F 408	4,8 x 0,8	2.500/100
	BF-F 608	6,35 x 0,8	2.000/100
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	2.500/100
	RF-F 308P	2,8 x 0,8	2.500/100
	RF-F 405P	4,8 x 0,5	2.000/100
	RF-F 408P	4,8 x 0,8	2.000/100
	RF-F 608P	6,35 x 0,8	1.500/100
1,5÷2,5 (16÷14)	BF-F 405P	4,8 x 0,5	2.000/100
	BF-F 408P	4,8 x 0,8	2.000/100
	BF-F 608P	6,35 x 0,8	1.500/100
4÷6 (12÷10)	GF-F 608P	6,35 x 0,8	1.000/100

PVC insulated terminals - fully reinforced with copper sleeve

Manufactured from brass strip
- Electrolytically tin plated
- The operating temperature range is – 20 to + 80°C (Surge + 90°C).
- Recommended crimping tool: HP 3

Cond. Size sqmm (AWG)	Ref.	Tab Size	Quantity Box/Bag
0,25÷1,5 (22÷16)	RKF-F 608	6,35 x 0,8	2.500/100
1,5÷2,5 (16÷14)	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

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 94 to 101, 127-128

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

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 94 to 101, 127-128

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	1.500/100
1,5÷2,5 (16÷14)	BF-FM 608	6,35 x 0,8	1.500/100

BULLET AND SOCKET CONNECTORS

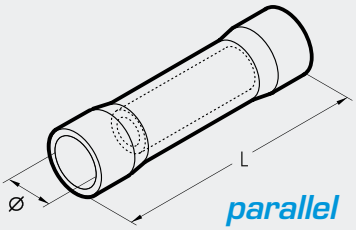
polycarbonate insulated terminals - partially reinforced with copper sleeve

Cond. Size sqmm (AWG)	Ref.	Øi 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

BUTT AND PARALLEL CONNECTORS

PVC insulated

butt connectors



parallel connectors

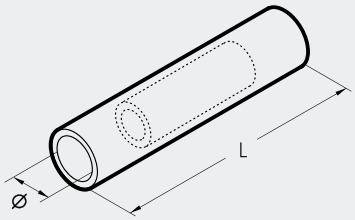
Cond. Size sqmm (AWG)		Ref.	Ø mm	L mm	Quantity Box/Bag
0,2÷0,5 (24÷20)		PL 01-M	3,0	25	3.000/100
0,25÷1,5 (22÷16)		PL 03-M	4,0	25	2.000/100
1,5÷2,5 (16÷14)		PL 06-M	5,0	25	1.500/100
4÷6 (12÷10)		PL 1-M	6,5	32	500/100
0,25÷1,5 (22÷16)		PL 03-P	4,0	20	3.000/100
1,5÷2,5 (16÷14)		PL 06-P	5,0	16	2.000/100

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 94 to 101, 127-128

BUTT CONNECTORS

Polyamide PA6.6 insulated

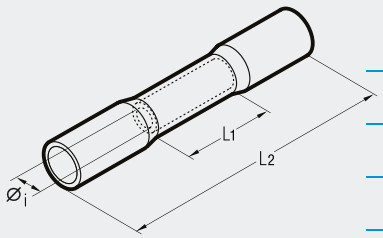


Cond. Size sqmm (AWG)		Ref.	Øi mm	L mm	Quantity Box/Bag
0,25÷1,5 (22÷16)		NL 03-M	4,0	25,0	2.000/100
1,5÷2,5 (16÷14)		NL 06-M	5,4	25,5	1.500/100
4÷6 (12÷10)		NL 1-M	5,4	32,0	1.000/100
10 (8÷7)		NL 2-M	6,8	43,0	500/100
16 (6÷5)		NL 3-M	7,9	44,0	500/100

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 94 to 101, 127-128

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

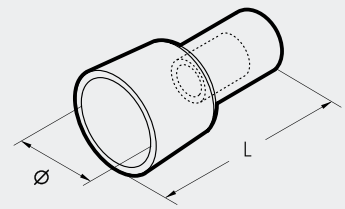
Max operating voltage: 600 V
Shrink temperature: 150 °C
Temperature range: -40 °C to + 105 °C

WL-M

Manufactured from copper tube
- Electrolytically tin plated
- Heat shrink sleeve with sealant
- Recommended crimping tools are shown on pages 94 to 101

CLOSE END CONNECTORS

PA6.6 insulated



Cond. Size sqmm (AWG)		Ref.	Øi mm	L mm	Quantity Box/Bag
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

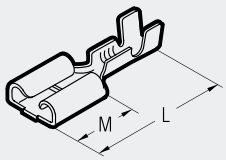
NL-P

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 94 to 101, 127-128

FEMALE CONNECTORS

RN-FA
BN-FA

open barrel



- Manufactured from brass strip
- Recommended crimping tools are shown on pages 94 and 95

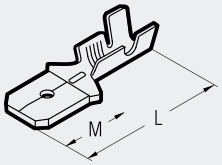
Conductor Size sqmm (AWG)	Ref.	Tab mm	M mm	L mm	Quantity Box/Bag
0,5÷1 (20÷17)	RN-FA 305	2,8 x 0,5	6,3	15,0	6.000/100
	RN-FA 405	4,8 x 0,5	6,3	15,0	5.000/100
	RN-FA 608	6,3 x 0,8	7,7	19,0	3.000/100
1÷2,5 (17÷14)	BN-FA 608	6,3 x 0,8	7,7	19,0	3.000/100
1÷2,5 (17÷14)	* BN-FAB 608	6,3 x 0,8	7,7	15,5	1.000/100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

*flag type **with retainer

MALE CONNECTORS

RN-MA
BN-MA

open barrel



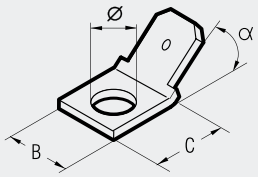
- Manufactured from brass strip
- Recommended crimping tool is shown on page 95

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

MALE TABS

MP
MPD

for board mounting

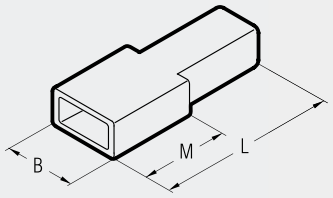


- Manufactured from brass strip

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	4	8	14	0°	5.000/100

*double tab

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	-	19	Polyamide 6.6	*1.000/100*
***CMA 600**	Male 6,3	12,0	11	22	Polyethylene	*1.000/100*

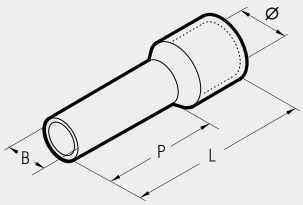
* *For a single cable.*
Colours available:
Transparent: no suffix
Red: add suffix R
Black: add suffix N

** *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 the 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 94 to 101, 105, 127-128.

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

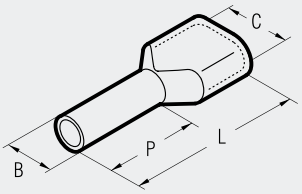
Conductor Size sqmm	Ref.	Dimensions mm Ø	B	P	L	Insulation Colour	Quantity Box/Bag
0,1÷0,3	**PKC 306**	1,9	1,3	6,0	10,4	light blue	25.000/500
	PKC 308	1,9	1,3	8,0	12,4		25.000/500
0,3÷0,5	**PKC 508**	2,6	1,3	8,0	14,0	orange	10.000/500
	PKC 510	2,6	1,3	10,0	16,0		10.000/500
0,75	**PKC 7508**	3,4	1,6	8,2	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

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

"TWIN" POLYPROPYLENE INSULATED END SLEEVES



for fine stranded cables

HALOGEN FREE

PKET
PKCT

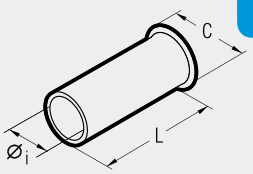
Type PKET, PKCT ranges of twin end sleeves are manufactured from tin plated electrolytic copper.
Designed to accomodate two cables terminating in the same sleeve they are ideal for looping conductors.
The operating temperature range is – 20 to + 105°C (Surge + 110°C).

Recommended crimping tools are shown on pages 94 to 101, 105, 127-128.

Conductor Size sqmm	Ref.	Dimensions mm C	B	P	L	Insulation Colour	ND#1,ND#2,ND#3 and HNKE 50 Compression Aperture	Quantity Bag
2 x 0,5	PKET 508	4,6x2,6	1,5	8,0	15,0	white	1,5	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	1,5	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#1,ND#2,ND#3 and HNKE 50 Compression Aperture	Quantity Bag
2 x 0,5	PKCT 508	4,6x2,6	1,5	8,0	15,0	orange	1,5	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	1,5	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

UNINSULATED END SLEEVES



for flexible copper cables

KE

KE series end sleeves is manufactured from tin plated electrolytic copper.
Designed and developed for use with flexible cables.

Recommended crimping tools are shown on pages 94 to 101, 105, 127-128.

Conductor Size sqmm	Ref.	Dimensions mm Øi	L	C	Quantity Box/Bag
0,5	*KE 506 ST	1,0	6	2,1	50.000/500
	KE 508 ST	1,0	8	2,1	50.000/500
0,75	*KE 7506 ST	1,2	6	2,3	50.000/500
	KE 7508 ST	1,2	8	2,3	50.000/500
1	*KE 106 ST	1,4	6	2,5	25.000/500
	*KE 110 ST	1,4	10	2,5	25.000/500
1,5	*KE 1508 ST	1,8	7	2,8	25.000/500
	*KE 1510 ST	1,8	10	2,8	25.000/500
2,5	*KE 2508 ST	2,3	7	3,4	25.000/500
	*KE 2510 ST	2,3	10	3,4	20.000/500
4	*KE 410 ST	2,8	9	4,0	12.500/500
	*KE 412 ST	2,8	12	4,0	12.500/500
6	*KE 610 ST	3,5	10	4,7	10.000/500
	*KE 612 ST	3,5	12	4,7	7.500/500
	*KE 616 ST	3,5	15	4,7	5.000/500
10	*KE 1016 ST	4,5	15	5,8	4.000/250
16	*KE 1616 ST	5,8	15	7,5	3.000/250
25	KE 25012 ST	7,3	12	9,5	2.500/100
	*KE 25018 ST	7,3	18	9,5	1.500/100
35	KE 35012 ST	8,3	12	11,0	1.500/100
	*KE 35018 ST	8,3	18	11,0	1.000/100

**To DIN standard 46 228/1*

UNINSULATED TERMINALS

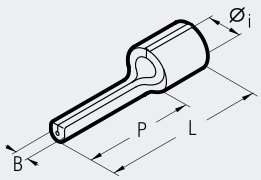
S

S range - brazed seam

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.

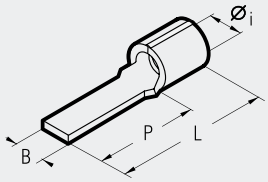
Recommended crimping tools are shown on pages 94 to 101, 127-128.

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*

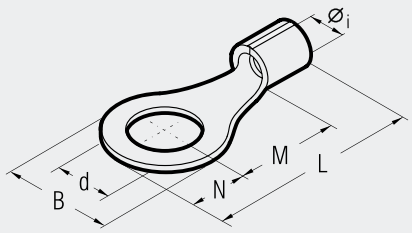
blade terminals



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*

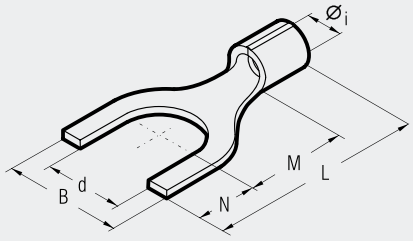
ring terminals



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)	2	*S 2.5-M 2	2,4	5,6	5,0	2,8	12,0	2,2	8.000/100
	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	2.000/100
	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	5.000/100
	4	S 1.5-U 4/2	1,8	7,5	7,5	3,7	15,4	4,3	5.000/100
	5	S 1.5-U 5	1,8	8,5	7,5	3,7	15,4	5,3	5.000/100
	5	*S 1.5-U 5/1	1,8	9,4	7,5	3,7	15,4	5,3	5.000/100
	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	5.000/100
	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	5.000/100
	4	*S 2.5-U 4/2	2,4	7,5	7,5	3,7	15,4	4,3	5.000/100
	5	S 2.5-U 5	2,4	8,5	7,5	3,7	15,4	5,3	5.000/100
	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

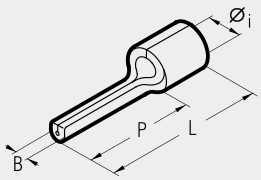
UNINSULATED TERMINALS

RN BN GN

RN, BN, GN range - unbrazed

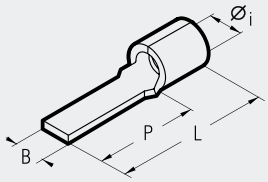
RN, BN. GN range terminals are manufactured from electrolytic copper strip and tin plated.
The seam is unbrazed.
The terminal barrel is rifled to enhance electrical contact and to improve mechanical strength.
Recommended crimping tools are shown on pages 94 to 101, 127-128.

pin terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm Øi	B	P	L	Quantity Box/Bag
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



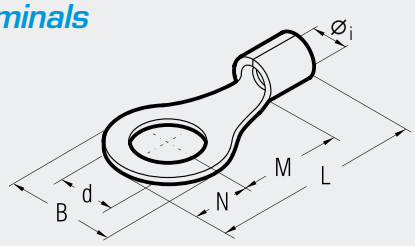
Conductor Size sqmm (AWG)	Ref.	Dimensions mm Øi	B	P	L	Quantity Box/Bag
0,25÷1,5 (22÷16)	**RN-PP 12**	1,8	3,0	12,8	17,0	*8.000/100*
	RN-PP 12/1	1,8	3,0	11,3	15,5	*8.000/100*
	RN-PP 12/19	1,8	1,9	13,2	17,4	*8.000/100*
	RN-PP 12/23	1,8	2,3	13,2	17,4	*8.000/100*
	RN-PP 14	1,8	3,0	14,8	19,0	*8.000/100*
	RN-PP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

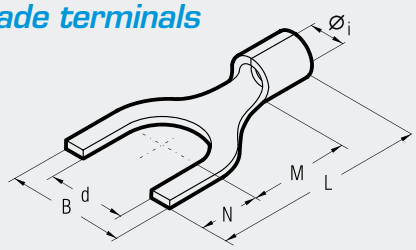
ring terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Øi	B	M	N	L	d	
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	6.000/100
	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	5.000/100
	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	2.000/100
	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*

fork/spade terminals

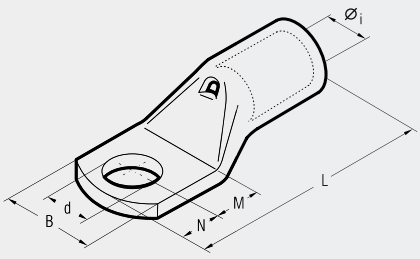


Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Øi	B	M	N	L	d	
0,25÷1,5 (22÷16)	3	RN-U 3	1,8	5,5	5,5	4,0	13,7	3,2	7.000/100
	3,5	RN-U 3.5	1,8	6,0	6,5	3,8	14,5	3,7	7.000/100
	3,5	RN-U 3.5/2	1,8	6,4	6,5	3,8	14,5	3,7	7.000/100
	4	RN-U 4	1,8	6,5	7,5	3,7	15,4	4,3	7.000/100
	4	RN-U 4/1	1,8	8,5	7,5	3,7	15,4	4,3	5.000/100
	4	RN-U 4/2	1,8	7,5	7,5	3,7	15,4	4,3	5.000/100
	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	6.000/100
	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	5.000/100
	4	BN-U 4	2,4	6,5	7,5	3,7	15,4	4,3	5.000/100
	4	BN-U 4/1	2,4	8,5	7,5	3,7	15,4	4,3	5.000/100
	4	BN-U 4/2	2,4	7,5	7,5	3,7	15,4	4,3	5.000/100
	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	2.500/100
	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



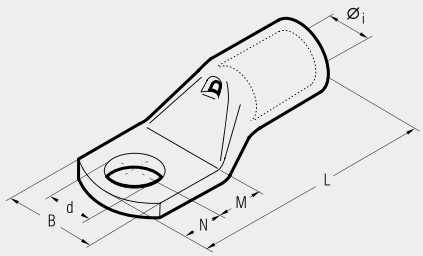
A-M series lugs are manufactured from electrolytic copper tube.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.
Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity 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, 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 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 150 to 156, whilst 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 / flexible*)	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: HN 1	HN 5	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	B 55	RH 50	B 51	HT 51	RHU 81	HT 81-U	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																	
	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																	
	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	40,5	6,4	200/50																	
	8	A 10-M 8	10,0	19,0	9,0	8,0	42,5	8,4	200/50																	
	10	A 10-M 10	10,0	20,0	11,0	10,0	46,5	10,5	200/50																	
	12	A 10-M 12	10,0	21,0	14,0	12,0	51,5	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																	

COPPER TUBE CRIMPING LUGS

for copper conductors

A-M



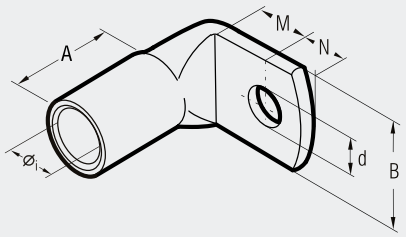
Cond. Size sqmm low stranded	Cond. Size sqmm flexible*	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: TN 120 SE	Hydraulic Tools: B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
95	70 95	6	**A 19-M 6**	13,5	25,0	8,0	7,0	50,5	6,4	*100/25*	●	●	●	●	●	●	●	●	●	●	●	●	●
		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	*15/5*											●	●	●
		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	*15/5*												●	●
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	*10/5*												●	●
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	*6/2*													●
		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.*

A-L

COPPER TUBE CRIMPING LUGS ANGLED 90°

for copper conductors



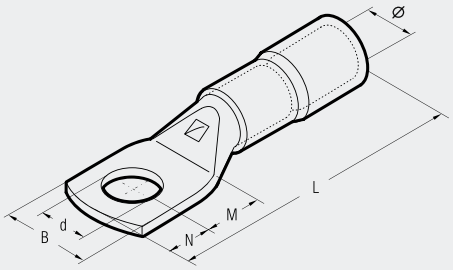
Cond. Size sqmm low stranded	Cond. Size sqmm flexible*	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	A	d	Quantity Box/Bag	Mechanical Tools HN 1	HN 5	TN 70 SE	TN 120 SE	Hydraulic Tools B 15D	B 35-45D	B 35-50D	HT 45-E	B 51	B 55	HT 51	RH 50	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	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*																	
	35	8	**A 7-L 8**	8,9	17,0	9,0	8,0	15,5	8,4	*300/100*																	
		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	18,5	6,4	*300/100*																	
	50	8	**A 10-L 8**	10,0	19,0	9,0	8,0	18,5	8,4	*300/100*																	
		10	**A 10-L 10**	10,0	20,0	11,0	10,0	18,5	10,5	*200/50*																	
		12	**A 10-L 12**	10,0	21,0	14,0	12,0	18,5	13,2	*200/50*																	
70	50	8	**A 14-L 8**	11,3	21,0	9,0	8,0	20,0	10,5	*200/100*																	
	70	10	**A 14-L 10**	11,3	21,0	11,0	10,0	20,0	13,2	*200/100*																	
		12	**A 14-L 12**	11,3	22,0	14,0	12,0	20,0	10,5	*150/50*																	
95	70	8	**A 19-L 8**	13,5	25,0	9,0	8,0	24,5	8,4	*100/25*																	
	95	10	**A 19-L 10**	13,5	25,0	11,0	10,0	24,5	10,5	*100/25*																	
		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*																	

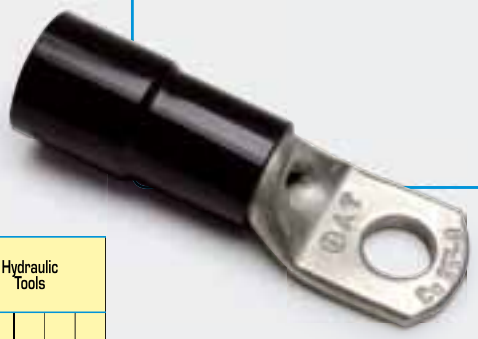
**Actual conductor section may require a larger lug eg for 120mm² size use A30-... lug.*

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.

POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS

ANE-M





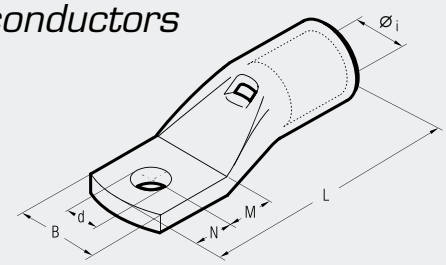
Conductor Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools HNN 3	HNN 4	TNN 70	TNN 120	Hydraulic Tools B 15D	B 35-50D	HT 51	RH 50	B 51	B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	4	**ANE 2-M 4**	8,0	10,0	5,0	4,0	34,1	4,3	500/100	●	●	●	●	●	●						
	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	200/100			●	●		●						
	8	**ANE 7-M 8**	13,6	17,0	9,0	8,0	54,0	8,4	200/100			●	●		●						
	10	**ANE 7-M 10**	13,6	19,0	11,0	10,0	58,0	10,5	200/100			●	●		●						
	12	**ANE 7-M 12**	13,6	21,0	14,0	12,0	63,0	13,2	200/100			●	●		●						
50	6	**ANE 10-M 6**	13,8	19,0	8,0	7,0	55,0	6,4	200/50			●	●		●						
	8	**ANE 10-M 8**	13,8	19,0	9,0	8,0	57,0	8,4	200/50			●	●		●						
	10	**ANE 10-M 10**	13,8	20,0	11,0	10,0	61,0	10,5	200/50			●	●		●						
	12	**ANE 10-M 12**	13,8	21,0	14,0	12,0	66,0	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				●							●	●

ANE-M series terminals are manufactured from electrolytic copper tube annealed and tin plated.
The interior of the PA6.6 insulation sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.
The PA6.6 insulated sleeve eliminates the need to insulate the terminal by either taping or using heat shrinkable tubes.
Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance.
The items tabulated all feature black insulated sleeves, other coloured sleeves are available against specific request.
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.

RING TONGUE TERMINALS WITH CONTAINED PALM

A-M

for L.V. circuit breakers
for copper conductors

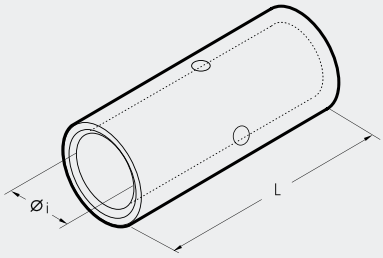


This range of lugs features contained palm width.
Our lugs have been specifically developed for application on L.V. circuit breakers with reduced space terminal blocks. In fact the contained palm width allows an immediate and easier installation. Our lugs are manufactured from electrolytic copper tube.
The specifically designed section of the barrel and the choice of principal dimensions are optimising the best combination of mechanical strength and electrical conductivity.
Our lugs 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 lug palm is marked with the Cembre logo and part number.

Conductor Size 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 15D	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	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*														

THROUGH CONNECTORS

L-M

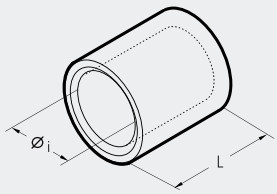


Conductor Size sqmm low stranded	Conductor Size sqmm Flexible	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Mechanical Tools: HN 1	HN 5	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
0,25÷1,5	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	*12/6*				●	●	●	●	●	●	●	●	●	●	●	●	●	
800	600	**L 160-M**	38,0	112	*9/3*				●	●	●	●	●	●	●	●	●	●	●	●	●	●
1000	800	**L 200-M**	44,0	120	*6/1*				●	●	●	●	●	●	●	●	●	●	●	●	●	●

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.

PARALLEL CONNECTORS

L-P



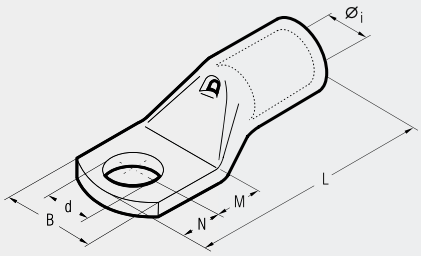
Total Conductor Size sqmm low stranded	Total Conductor Size sqmm Flexible	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Mechanical Tools: HN 1	HN 5	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
0,25÷1,5	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*				●	●	●	●										

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.

COPPER TUBE CRIMPING LUGS

A-M

for extra flexible copper conductors



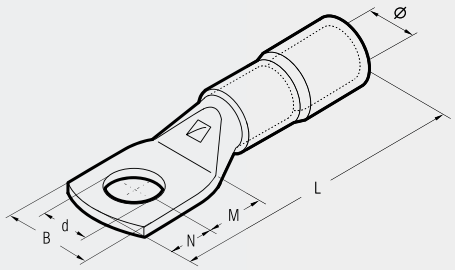
These terminals are particularly recommended for use with extra flexible conductors on for instance, welding machines.
A-M series lugs are designed to suit panel applications.
The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist 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.

Conductor Size Extra Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
			Øi	B	M	N	L	d			
35	6	**A 9-M 6/15**	9,3	15,0	8,0	7,0	38,5	6,4	*400/100*	TN 70 SE	B 35-45D
	8	**A 9-M 8**	9,3	17,0	9,0	8,0	40,5	8,4	*400/100*	TN 120 SE	B 35-50D
	10	**A 9-M 10**	9,3	18,5	11,0	10,0	44,5	10,5	*400/100*		HT 45-E
	12	**A 9-M 12**	9,3	21,0	14,0	12,0	49,5	13,2	*300/50*		HT 51 RH 50 B 51 B 55
50	6	**A 12-M 6/15**	11,0	15,0	8,0	7,0	40,5	6,4	*200/50*		HT 81-U RHU 81
	8	**A 12-M 8**	11,0	19,8	9,0	8,0	42,5	8,4	*200/50*		HT 120 and tools and heads with 130 kN crimping force
	10	**A 12-M 10**	11,0	19,8	11,0	10,0	46,5	10,5	*200/50*		EDW-H3D
	10	**A 12-M 10/19**	11,0	19,0	11,0	10,0	46,5	10,5	*200/50*		RHU 520
	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	*50/25*		
	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	*50/25*		
	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	*50/25*		

POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS

for extra flexible copper conductors

ANE-M

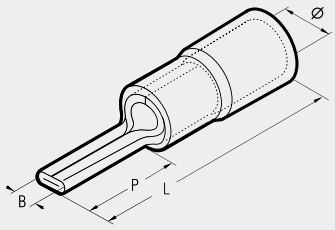


Conductor Size Extra Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: TNN 70	Mechanical Tools: TNN 120	Hydraulic Tools: B 35-50D	Hydraulic Tools: B 55	Hydraulic Tools: B 51	Hydraulic Tools: RH 50	Hydraulic Tools: HT 51	Hydraulic Tools: HT 120 and tools and heads with 130 kN crimping force	Hydraulic Tools: ECWH3D
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	30/15		●						●	●
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								●	●

These terminals are particularly recommended for use with extra flexible conductors on for instance, welding machines.
ANE-M series terminals are manufactured from electrolytic copper tube annealed and tin plated.
The interior of the PA6.6 insulation sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.
The PA6.6 insulated sleeve eliminates the need to insulate the terminal by either taping or using heat shrinkable tubes.
Furthermore the PA6.6 sleeve avoids the possibility of conductor breakage at the barrel entrance.
The items tabulated all feature black insulated sleeves, other coloured sleeves are available against specific request.
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.

POLYAMIDE PA6.6 INSULATED PIN TERMINALS

ANE-P

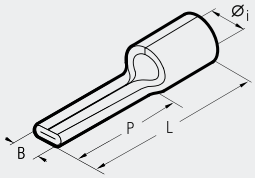


ANE-P series terminals are made from electrolytic copper, rolled, tin plated and brazed. The interior of the PA6.6 insulation sleeve is funnel shaped so as to ensure complete and easy introduction of the conductor strands.
The operating temperature range is – 20 to + 115°C (Surge + 130°C).
In order to 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				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools					
		Ø	B	P	L		HNN 3	HNN 4	TNN 70	TNN 120	B 15D	B 35-50D	HT 51 B 51 RH 50 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*										

UNINSULATED PIN CONNECTORS

A-P

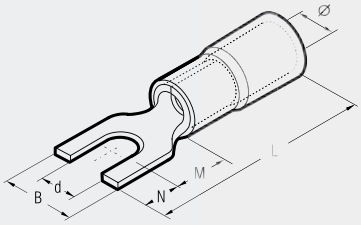


A-P series pin connectors are designed to terminate conductors into contact blocks.
They are manufactured from copper strip, rolled, brazed and tin plated.

Conductor Size sqmm	Ref.	Dimensions mm				Quantity Box/Bag	Mechanical Tools				Hydraulic Tools						
		Øi	B	P	L		HN 1	HN 5	TN 70 SE	TN 120 SE	B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51 RH50 B 51 B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	**A 2-P 12**	4,8	4,3	14,5	23,5	*1.500/100*											
16	**A 3-P 14**	5,9	5,5	18,0	28,0	*1.500/100*											
25	**A 5-P 16**	7,0	7,0	20,3	32,0	*1.000/100*											
35	**A 7-P 20**	8,9	8,0	24,5	39,0	*500/100*											
50	**A 10-P 25**	10,0	9,5	26,0	45,0	*250/50*											
70	**A 14-P 30**	11,5	11,0	31,0	55,0	*200/50*											

POLYAMIDE PA6.6 INSULATED FORK TERMINALS

ANE-U

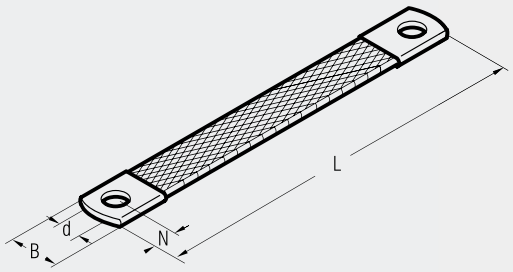


Conductor Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm Ø	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools HNN 3	HNN 4	TNN 70	TNN 120	Hydraulic Tools B 15D	B 35-50D	HT 51 B 51 RH 50 B 55	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
10	4	**ANE 2-U 4**	8,0	9,8	7,5	7	35,1	4,3	*500/100*			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

FLEXIBLE BRAIDS

FL



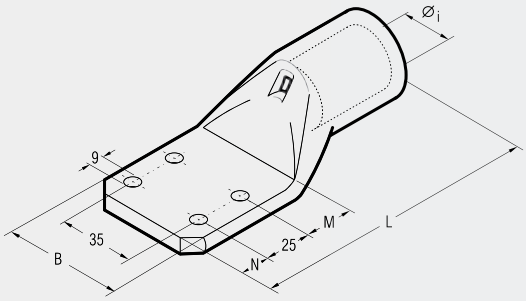
Size sqmm	Ø Stud mm	Ref.	Dimensions mm B	N	L	d	Quantity
10	8	**FL 10-150**	17	10	150	8,5	*50*
	8	**FL 10-200**	17	10	200	8,5	*50*
	8	**FL 10-250**	17	10	250	8,5	*50*
16	8	**FL 16-150**	17	10	150	8,5	*50*
	8	**FL 16-200**	17	10	200	8,5	*50*
	8	**FL 16-250**	17	10	250	8,5	*50*
	8	**FL 16-320**	17	10	320	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)

COPPER TUBE LUGS 4-ESI FIXING

A-4ESI

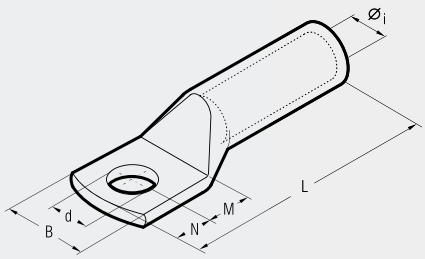


A-4ESI series lugs are made from high purity electrolytic copper tube, annealed and tin plated. The four hole stud fixing in accordance with E.A. specifications ensure compatibility with most transformer fixing arrangements.

Conductor Size sqmm	Ref.	Dimensions mm					Quantity Box/Bag	Hydraulic Tools				
		Øi	B	M	N	L						
185	**A 37-4ESI**	19,2	61	20	15	124	*20/10*	HT 51 RH 50 B 51 B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
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*					

HEAVY DUTY COPPER TUBE TERMINALS

2A-M



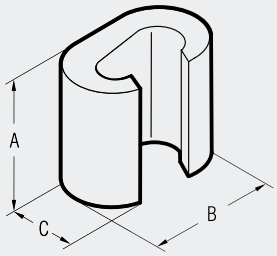
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm Øi	B	M	N	L	d	Quantity Box/Bag	Mechanical Tools: HN 5	TN 70 SE	TN 120 SE	Hydraulic Tools: B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
16	8	**2 A 3-M 8**	5,8	15,0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

2A-M series 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.
2A-2M series terminals with double stud hole palm are available against specific requirements.

SLEEVE CONNECTORS

C

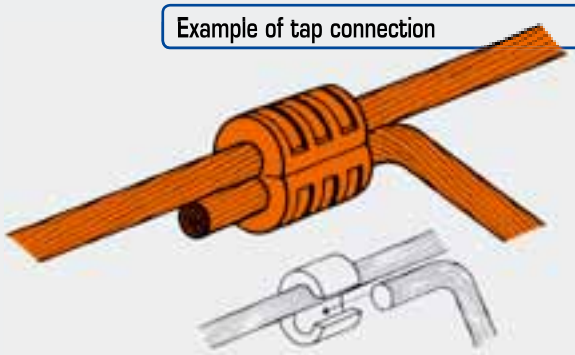
Tin plated version



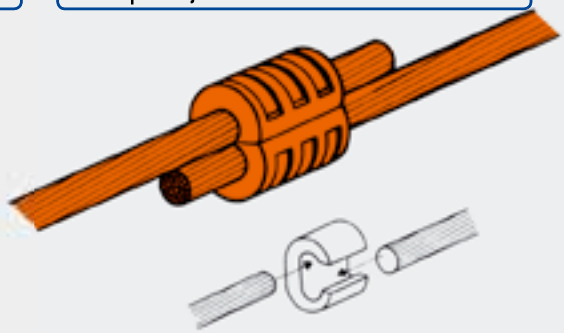
"C" connectors are manufactured from high purity copper profiles and are suitable for a variety of uses either to create an earthing network or tapping off from overhead distribution lines.
Each connector is marked as follows:
- Cembre trade mark
- Reference number
- Conductor size-Run
- Conductor size-Tap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

Conductor Size sqmm Run	Conductor Size sqmm 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 35-50D, HT 45-E, B 51, B 55, HT 51, RH 50, RHU 81, HT 81-U, 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-C 35 ST**	21,0	26,6	15,6	*200/25*		
50	25÷10							
50	25÷4	**C 50-C 25 ST**	25,0	32,9	21,0	*200/25*		
50	50÷35	**C 50-C 50 ST**	26,0	33,0	21,0	*100/25*		
70÷63	25÷1,5	**C 70-C 25 N ST**	21,0	26,4	17,5	*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*		

Example of tap connection

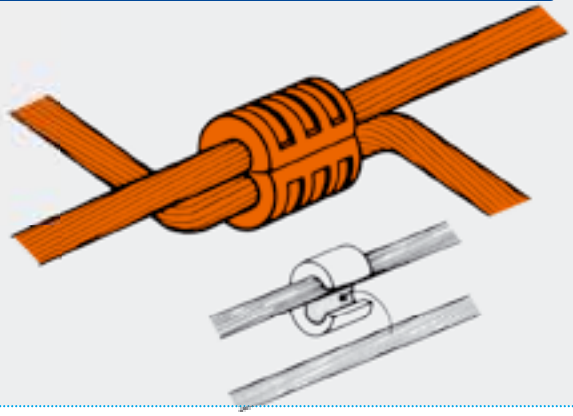


Example of joint connection



Example of joining two running conductors

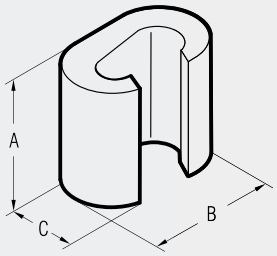
Conductor Size sqmm	Ref.
25-25	**C 35-C 16 ST**
35-35	**C 35-C 35 ST**
50-50	**C 70-C 70 ST**
63-63	**C 95-C 70 ST**
70-70	
95-95	**C 150-C 120 ST**
120-120	
125-125	**C 150-C 150**
120-120	**C 185-C 95 ST**
125-125	



SLEEVE CONNECTORS

Bright surface version

C

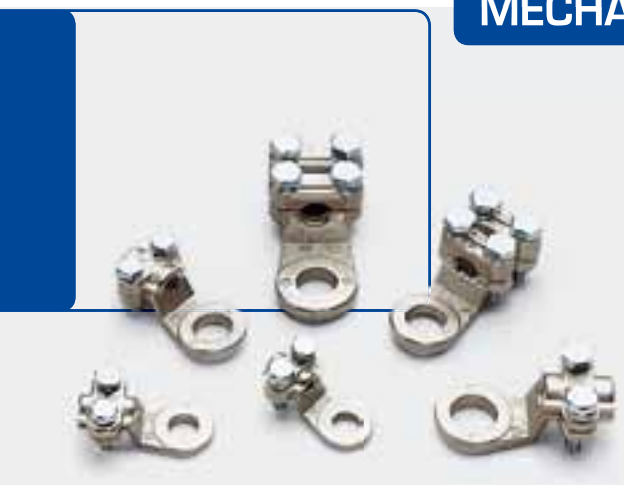


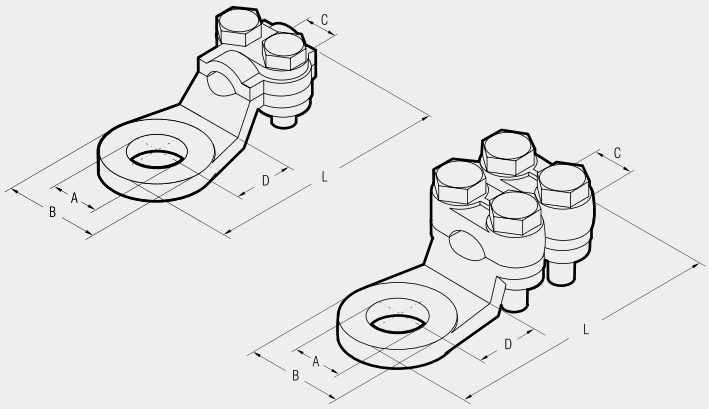
Conductor Size sqmm Run	Tap	Ref.	Dimensions mm A	B	C	Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
6÷2,5	6÷1,5	**C 6-C 6**	9,0	9,8	6,4	*1.000/100*	HP4-C10	
10	10÷1,5	**C 10-C 10**	12,0	12,6	8,4	*500/100*		
16	16÷1,5	**C 16-C 16**	17,0	19,4	12,0	*500/100*		
25÷16	10÷1,5	**C 25-C 10**	17,0	19,8	13,0	*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-C 35**	21,0	26,6	15,6	*200/25*		
50	25÷10							
50	25÷4	**C 50-C 25**	25,0	32,9	21,0	*200/25*		
50	50÷35	**C 50-C 50**	26,0	33,0	21,0	*100/25*		
70÷63	25÷1,5	**C 70-C 25 N**	21,0	26,4	17,5	*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*		

Hydraulic Tools: B 35-45D; B 35-50D; HT 45-E; B 51; B 55; RH 50; RHU 81; HT 81-U; HT 51; HT 120 and tools and heads with 130 kN crimping force; ECW-H3D

Featuring same characteristics of tin plated version, (see opposite page).

MECHANICAL FIXING LUGS





Material:
Brass OT 58 UNI 5705 nickel-plated.
Zinc plated steel bolts.

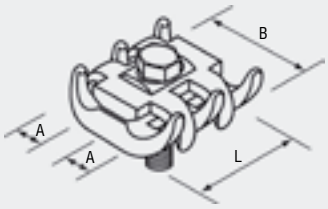
2 bolt fixing lugs

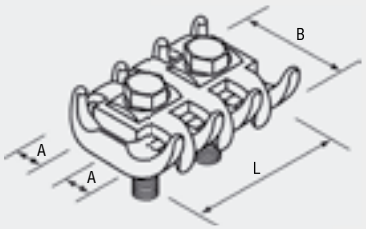
Conductor Size sqmm	Ref.	A bolt	Dimensions mm				Quantity
			B	C	D	L	
16	**2155**	M8	18,0	4,5	12,5	40	*100*
16	**2171**	M10	18,0	4,5	12,5	40	*100*
25	**2156**	M8	19,5	6,0	13,0	43	*100*
25	**2172**	M10	19,5	6,0	13,0	43	*100*
35	**2157**	M12	23,0	7,0	15,0	49	*50*
35	**2173**	M14	23,0	7,0	15,0	49	*50*
50	**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*

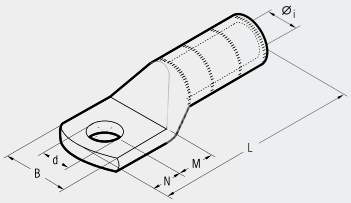
2 bolt fixing

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**	18÷22	70	70	*5*

Material:
Brass OT 58 UNI 5705.
Zinc plated steel bolts.
Zinc plated steel nut.

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.

Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools						
			Øi	B	M	N	L	d								
25 R/BR/BS*	8	**CA 25-M 8**	6,8	14,0	9	8	65,0	8,4	*300/50*	B35-50D	HT 51	RH 50	B 51	B 55	HT 81-J	RHU 81
	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*							
	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*							
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	*10/5*							
	20	**2 A 100-M 20**	30,3	56,5	24	23	153,0	21,0	*10/5*							
600 R ÷ 630 R	16	**2 A 120-M 16**	33,4	61,5	22	19	159,0	17,0	*20/5*							
	20	**2 A 120-M 20**	33,4	61,5	24	23	165,0	21,0	*20/5*							

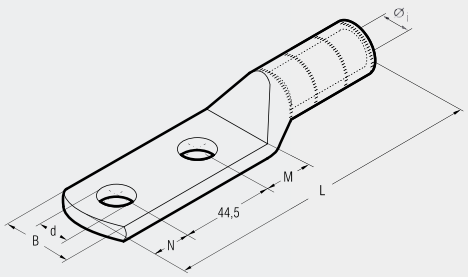
HT 120 and tools and heads with 130 kN crimping force | ECW-H3D | RHU 520

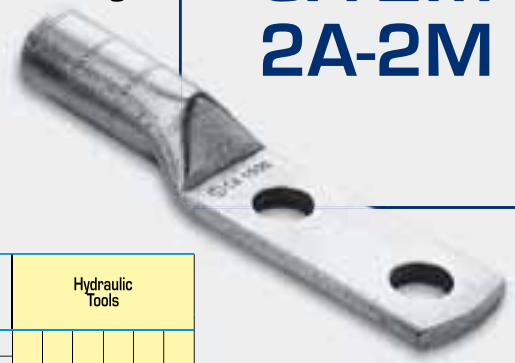
Conductor Format: R = Round, RC = Round Compact, S = Sector, BR = IEC228 (BS6360) Round, BS = IEC228 (BS6360) Sector*
** = Pre-rounding required, consult Cembre for appropriate die set*

HIGH VOLTAGE TERMINALS

CA-2M
2A-2M

two hole fixing



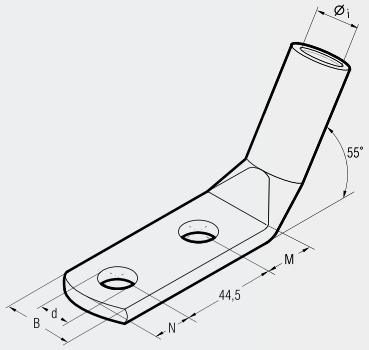


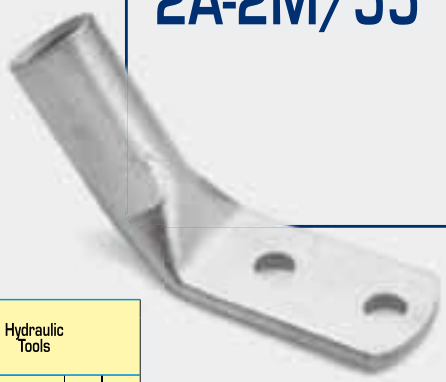
Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools							
			Øi	B	M	N	L	d		B35-50D	HT 51	RH 50	B 51	B 55	HT 81-U	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
25 R	8	**CA 25-2 M 8**	6,8	14,0	10	11	113,5	8,4	*200/50*	●			●	●					
	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.

2A-2M/55°





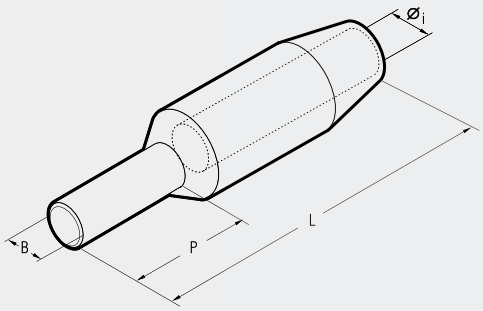
Conductor Size (sqmm) & Format	Ø Stud mm	Ref.	Dimensions mm					Quantity Box/Bag	Hydraulic Tools		
			Øi	B	M	N	d		HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
400 R	14	**2 A 80 - 2 M 14/55°**	27,0	51,0	22	16	15	*10/5*	●	●	●
600 R ÷ 630 R	14	**2 A 120 - 2 M 14/55°**	33,4	61,5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



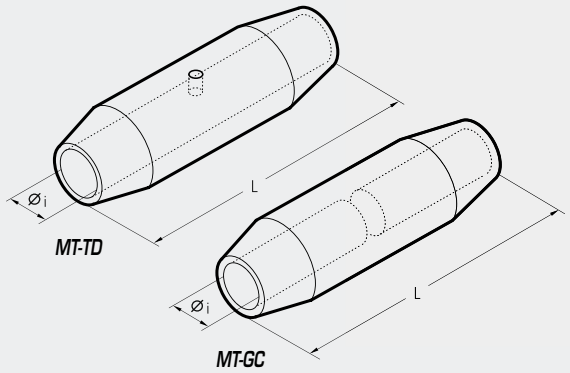
MT-C series connectors are designed for high voltage applications up to 33 kV. They are manufactured from high purity copper, annealed and tin plated.
The extended barrel enhances both electrical and mechanical performance.
The stalk or pin makes these connectors ideal for terminating conductors into contact blocks.

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, HT 51, RH 50, B 51, B 55, HT 81-U, RHU 81, HT 120 and tools and heads with 130 kN crimping force, ECW-H3D, RHU 520
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	
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	HT 120 and tools and heads with 130 kN crimping force, ECW-H3D, RHU 520
	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

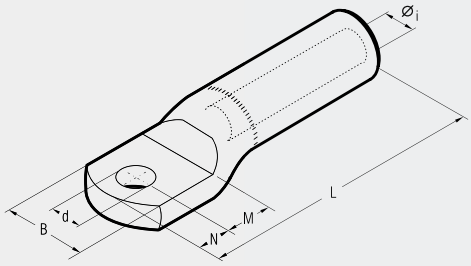


Conductor Size (sqmm) & Format	Ref.	Ref.	Dimensions mm		Quantity Box/Bag	Hydraulic Tools						
			Øi	L		B35-50D	HT 51 RH 50 B 51 B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
25 R/BR/BS*	**MT 25-TD**	**MT 25-GC**	6,8	60	*90/3*						
30 RC/S ÷ 40 S	**MT 40 S-TD**	**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.

AA-M



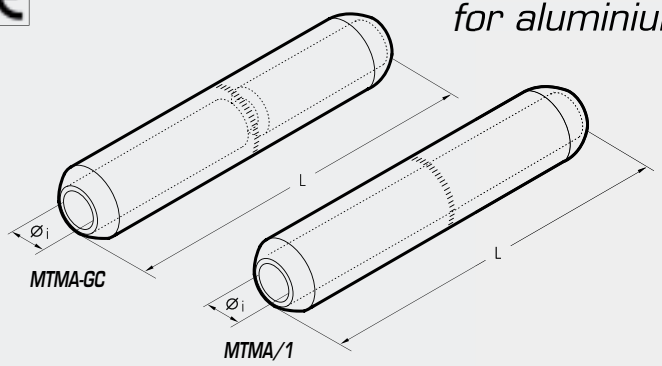
AA-M series terminals are made from aluminium of a purity equal to or greater than 99,5%.
They are designed to accept a variety of conductor forms especially low stranded compacted conductors.
Non circular conductors may require pre-rounding prior to introduction to the terminal.
Barrels are capped and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

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 131-UC
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*	

THROUGH CONNECTORS

for aluminium conductors

MTMA-GC
MTMA/1



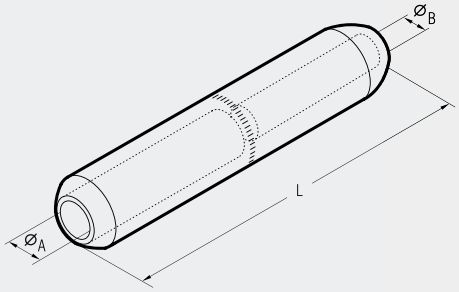
Conductor Size sqmm	Ref.	Ref.	Dimensions mm Øi	Dimensions mm L	Quantity Box/Bag	Hydraulic Tools
10	MTMA 10-GC		4,3	90,5	60/3	HT 131-UC RHU 131-C B 131-UC
16	MTMA 16-GC	MTMA 16/1	5,5	90,5	60/3	
25	MTMA 25-GC	MTMA 25/1	6,5	90,5	60/3	
35	MTMA 35-GC	MTMA 35/1	8,0	90,5	60/3	
50	MTMA 50-GC	MTMA 50/1	9,0	106,5	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	
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	
		MTMAD 300/1	22,5	135,0	15/3	

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.

REDUCER THROUGH CONNECTORS

for aluminium conductors

MTMA-GC



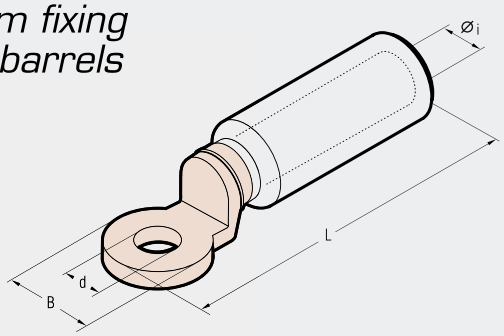
Conductor Size sqmm Side A Al	Side B Al/Cu	Ref.	Dimensions mm ØA	Dimensions mm ØB	Dimensions mm L	Quantity Box/Bag	Hydraulic Tools
16	10	MTMA 16-10-GC	5,5	4,3	90,5	60/3	HT 131-UC RHU 131-C B 131-UC
25	10	MTMA 25-10-GC	6,5	4,3	90,5	60/3	
	16	MTMA 25-16-GC	6,5	5,5	90,5	60/3	
50	25	MTMA 50-25-GC	9,0	6,5	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	145,6	15/3	
	185	MTMA 240-185-GC	19,5	17,0	143,5	15/3	
300	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	

Reducer connectors are manufactured to the same construction as series MTMA-GC.
If used to join an aluminium conductor to a copper conductor care should be taken to ensure that the joint is sealed against outside elements which would cause oxidation.

BIMETALLIC CONNECTORS

CAA-M

copper palm fixing
aluminium barrels



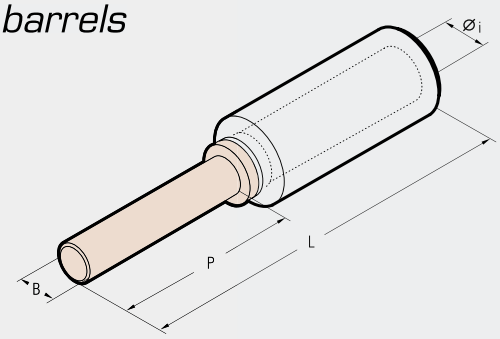
The barrel of series CAA-M connectors are made from aluminium of a purity equal to or greater than 99,5%. The barrel is friction welded to the palm thus achieving the best possible transition between the copper palm and aluminium barrel.
Barrels are capped and filled with grease so as to avoid oxidation of the aluminium.

Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm				Quantity Box/Bag	Hydraulic Tools
			Øi	B	L	d		
10	12	**CAA 10-M 12**	4,3	24	87	13	*90/3*	HT 131-UC RHU 131-C B 131-UC
16	12	**CAA 16-M 12**	5,5	24	87	13	*90/3*	
25	12	**CAA 25-M 12**	6,5	24	87	13	*90/3*	
35	12	**CAA 35-M 12**	8,0	24	87	13	*90/3*	
50	12	**CAA 50-M 12**	9,0	24	87	13	*60/3*	
70	12	**CAA 70-M 12**	11,0	24	87	13	*60/3*	
95	12	**CAA 95-M 12**	12,5	24	87	13	*60/3*	
120	12	**CAA 120-M 12**	13,7	31	111	13	*30/3*	
150	12	**CAA 150-M 12**	15,5	31	111	13	*30/3*	
185	12	**CAA 185-M 12**	17,0	35	116	13	*24/3*	
240	12	**CAA 240-M 12**	19,5	35	116	13	*18/3*	
300	12	**CAA 300-34-M 12**	22,5	35	120	13	*15/3*	

BIMETALLIC CONNECTORS

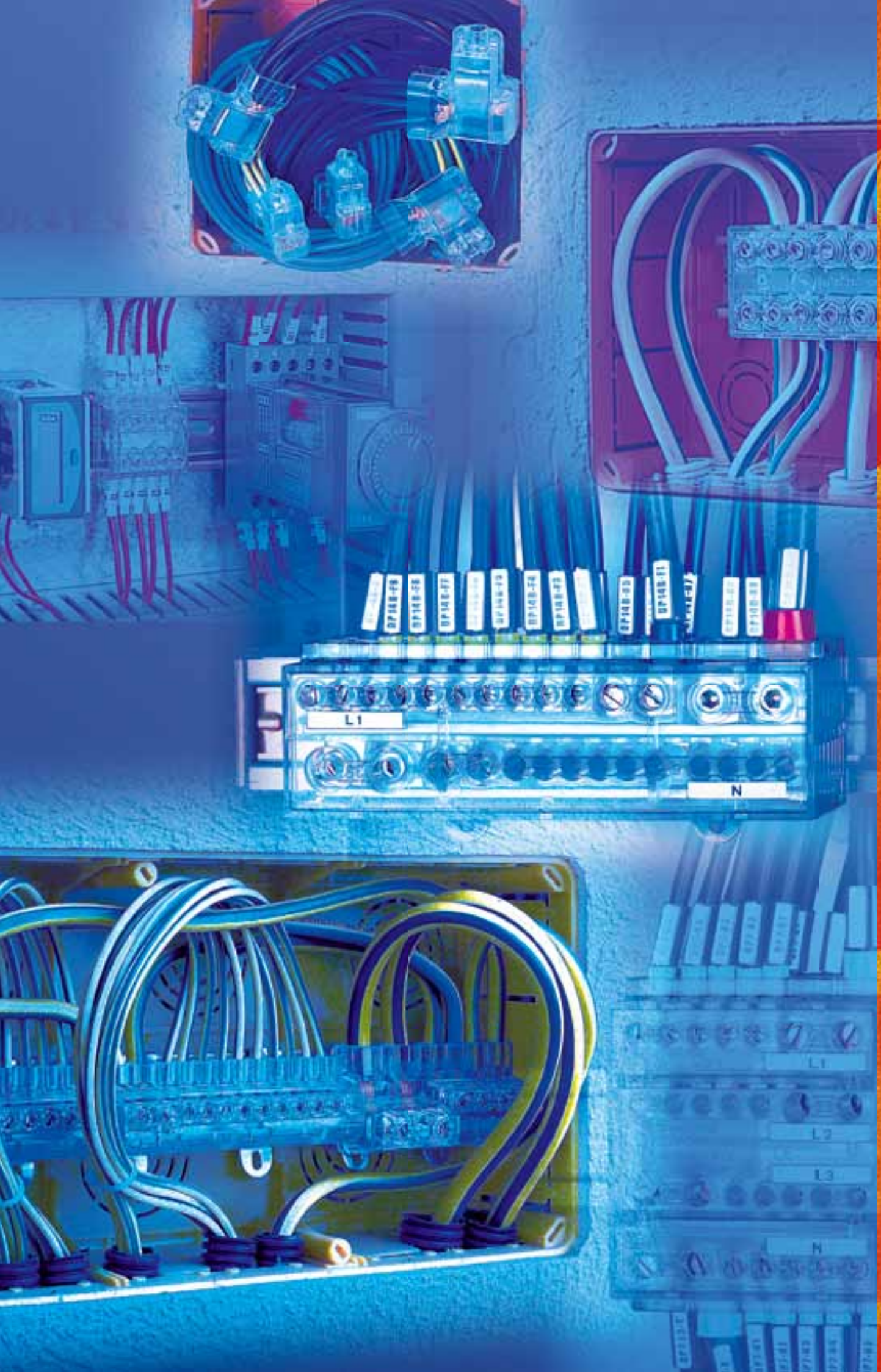
MTA-C

copper pin
aluminium barrels



The barrel 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.

Conductor Size sqmm	Ref.	Dimensions mm				Quantity Box/Bag	Hydraulic Tools
		Øi	B	P	L		
16	**MTA 16-C**	5,5	8	30	82	*90/3*	HT 131-UC RHU 131-C B 131-UC
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							23x53xh34	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***
- ***Electrolyticaly tin plated copper connection plate***

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)	53x48,5xh47	110	*10*
Z35-3D							53x54xh56	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

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*
Z35-26D	26 (2+24)	*(2 way)* 35 + *(24 way)* 10	85	V-0 (UL 94)	151x50xh50	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, CSA, EAC
Z6-5 Z6-5D	6 mm²	5 x 6 mm²		
Z6-6 Z6-6D	6 mm²	6 x 6 mm²		CE, 6 sqmm 450 V T 85°C
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, CSA, 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	

*Various cable sizes may be connected to the terminal block provided that the sum of cable sections is less than the nominal section.

R = Rigid cable F = Flexible cable

CONNECTING CAPACITY OF TERMINAL BLOCKS

TERMINAL BLOCKS TYPE "ZETApiù"

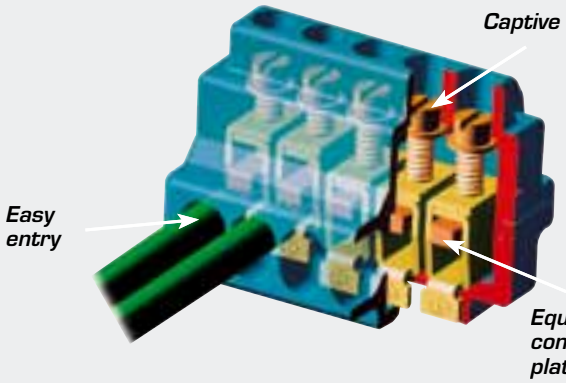
TYPE	NOMINAL SECTION	No. OF WAYS X NOMINAL SECTION	CONNECTING CAPACITY OF EACH WAY* No. of Conductors x Section	MARKINGS
Z35-3 Z35-3D	35 mm²	3 x 35 mm²	1 x 35 mm² R/F 1 x 25 mm² R/F 1÷2 x 16 mm² R/F 1÷3 x 10 mm² R/F 1÷5 x 6 mm² R/F	CE, 35 sqmm 450 V T 85°C
Z35-4 Z35-4D	35 mm²	4 x 35 mm²	1 x 35 mm² F 1 x 25 mm² F 1÷2 x 16 mm² F 1÷3 x 10 mm² F 1÷6 x 6 mm² F	CE, 35 sqmm 450 V T 85°C
Z35-6 Z35-6D	35 mm²/16 mm²	2 x 35 mm²	1 x 35 mm² R/F 1 x 25 mm² R/F 1÷2 x 16 mm² R/F 1÷3 x 10 mm² R/F 1÷6 x 6 mm² F	CE, 35-16 sqmm 450 V T 85°C, LR, RINA
		4 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÷5 x 2,5 mm² F	
Z35T-11	35 mm²/6 mm²	1 x 35 mm²	1 x 35 mm² R/F 1 x 25 mm² R/F 1 x 16 mm² R/F 1 x 10 mm² R/F	CE, 35-6 sqmm T 85°C
		10 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	
Z35-26D	35 mm²/10 mm²	2 x 35 mm²	1 x 35 mm² R/F 1 x 25 mm² R/F 1÷2 x 16 mm² R/F 1÷3 x 10 mm² R/F 1÷6 x 6 mm² R/F	CE, 35-10 sqmm T 85°C, LR, RINA
		24 x 10 mm²	1 x 10 mm² R/F 1 x 6 mm² R/F 1÷2 x 4 mm² R/F 1÷4 x 2,5 mm² R/F	
Z50-10D	50 mm²/25 mm²	2 x 50 mm²	1 x 50 mm² R/F 1 x 35 mm² R/F 1÷2 x 25 mm² R/F 1÷4 x 16 mm² R/F	CE, **, 50-25 sqmm T 85°C
		8 x 25 mm²	1 x 25 mm² R/F 1÷2 x 16 mm² R/F 1÷3 x 10 mm² R/F 1÷6 x 6 mm² R/F 1÷9 x 4 mm² R/F	

*Various cable sizes may be connected to the terminal block provided that the sum of cable sections is less than the nominal section.

R = Rigid cable F = Flexible cable

MARKINGS:

- CE — Directives 2006/95/CE
- EN 60998-1: 2004 and EN 60998-2-1: 2004 Norms
- Lloyd's Register of Shipping type approval
- Registro Italiano Navale type approval
- ** EN 60947-7-1: 2002 and EN 60947-7-2: 2002 Norms



POWER DISTRIBUTION BLOCK

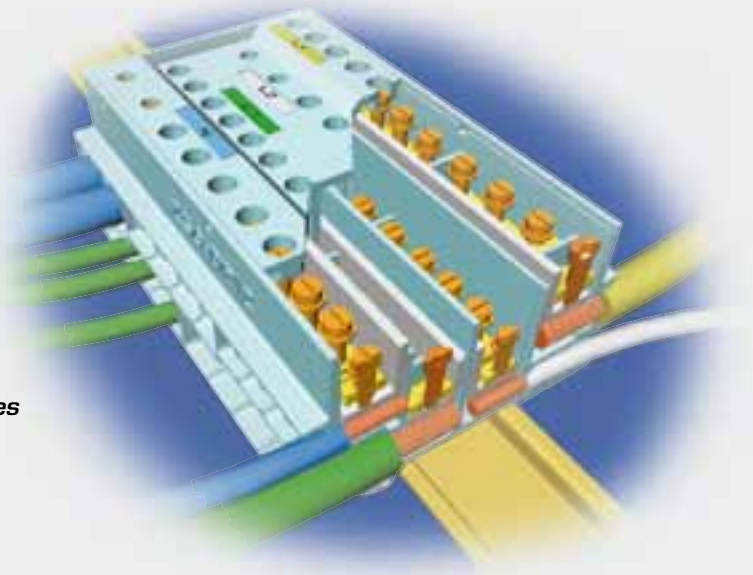
type ZETAblock®

Z-DP

indirect clamping

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***
- ***Electrolyticaly tin plated copper connection plate***

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	25²/6²	2 x 25²	1 x 25² F 1 x 16² F 1÷2 x 10² F	CE 25÷6 sqmm
		5 x 6²	1 x 6² F 1 x 4² F 1÷2 x 2,5² F 1÷2 x 1,5² F 1÷4 x 1² F	
Z35-DP14-125 Z35-DP14B-125	35²/16²/6²	2 x 35²	1 x 35² F 1 x 25² F 1÷2 x 16² F 1÷3 x 10² F	CE 35÷16÷6 sqmm
		2 x 16²	1 x 16² F 1 x 10² F 1÷2 x 6² F 1÷3 x 4² F 1÷4 x 2,5² F	
		10 x 6²	1 x 6² F 1 x 4² F 1÷2 x 2,5² F 1÷2 x 1,5² F 1÷4 x 1² F	
Z50-DP12-160	50²/25²/16²	2 x 50²	1 x 50² F 1 x 35² F 1÷2 x 25² F	CE 50÷25÷16 sqmm
		4 x 25²	1 x 25² F 1 x 16² F 1÷2 x 10² F	
		6 x 16²	1 x 16² F 1 x 10² F 1÷2 x 6² F	

F = Flexible cable

MARKINGS: CE *Directives 2006/95/CE*

EN 60947-7-1: 2002 and EN 60947-7-2: 2002 Norms

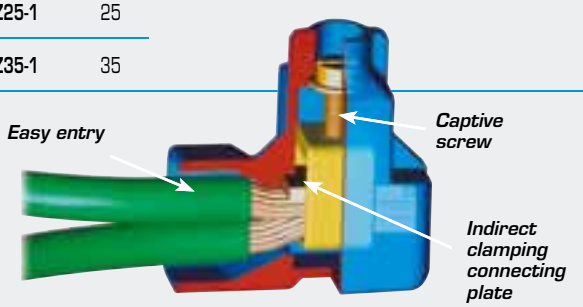
ONE WAY TERMINAL BLOCKS

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, EN, LR, RINA
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, EN, LR, RINA
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, EN, LR, RINA
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, EN, LR, RINA
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, EN, LR, RINA
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, EN, LR, RINA

**Various cable sizes may be connected to the terminal block provided that the sum of cable sections is less than twice the nominal section.*

R = Rigid cable *F = Flexible cable*

MARKINGS:

CE *Directives 2006/95/CE*

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

LR *Lloyd's Register of Shipping type approval*

RINA *Registro Italiano Navale type approval*

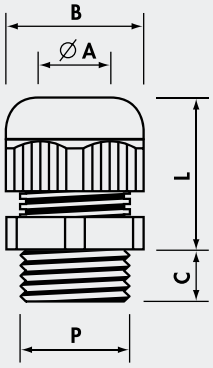
CABLE GLANDS AND ACCESSORIES

MAXIblock® CABLE GLANDS

1900

Polyamide PA6.6

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 min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1900.M12	M12X1,5	12,5	3,5- 7	15	8	18-22	100
1900.M16	M16X1,5	16,5	5 -10	19	8	22-27	100
1900.M20	M20X1,5	20,5	7 -13	25	9	24-30	100
1900.M25	M25X1,5	25,5	10 -17	30	10	28-39	50
1900.M32	M32X1,5	32,5	13 -21	36	10	33-44	25
1900.M40	M40X1,5	40,5	19 -28	46	10	36-45	15
1900.M50	M50X1,5	50,5	27 -35	55	12	43-52	10
1900.M63	M63X1,5	63,5	34 -45	66	12	45-55	5

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 min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1910.M12	M12X1,5	12,5	**2- 5**	15	8	18-22	100
1910.M16	M16X1,5	16,5	**3- 7**	19	8	22-27	100
1910.M20	M20X1,5	20,5	**5-10**	25	9	24-30	100
1910.M25	M25X1,5	25,5	**7-13**	30	10	28-39	50
1910.M32	M32X1,5	32,5	**8-14**	36	10	33-44	25
1910.M40	M40X1,5	40,5	**15-23**	46	10	36-45	15
1910.M50	M50X1,5	50,5	**21-29**	55	12	43-52	10
1910.M63	M63X1,5	63,5	**27-39**	66	12	45-55	5

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 min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1901.M12	M12X1,5	12,5	3,5- 7	15	**15**	18-22	100
1901.M16	M16X1,5	16,5	5 -10	19	**15**	22-27	100
1901.M20	M20X1,5	20,5	7 -13	25	**15**	24-30	50
1901.M25	M25X1,5	25.5	10 -17	30	**15**	30-41	50
1901.M32	M32X1,5	32,5	13 -21	36	**15**	33-44	25
1901.M40	M40X1,5	40,5	19 -28	46	**18**	36-45	15
1901.M50	M50X1,5	50,5	27 -35	55	**18**	43-52	10
1901.M63	M63X1,5	63,5	34 -45	66	**18**	45-55	5

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

Technical data pages 171 to 174

Polyamide PA6.6

1900

MAXIblock® *standard*

Pg thread DIN 40 430

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

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

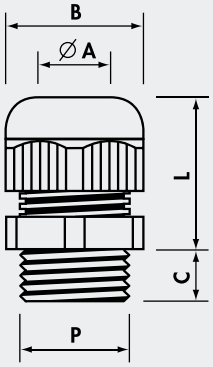
Material: POLYAMIDE PA6.6
self-extinguishing class V2 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: NEOPRENE® 50 sh A
Protection: IP 68
Colour: RAL 7035 light grey.
RAL 9005 black, RAL 7001 dark grey

MAXIblock® *reduced cable entry*

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1910.07	Pg 7	12,5	**2- 5**	15	8	18-22	100
1910.09	Pg 9	15,5	**2- 6**	19	8	22-26	100
1910.11	Pg11	19	**4- 7**	22	8	23-28	100
1910.13	Pg13,5	20,5	**5-10**	24	9	24-29	100
1910.16	Pg16	22,5	**6-12**	27	10	26-31	50
1910.21	Pg21	29	**9-15**	33	12	30-35	50
1910.29	Pg29	37	**12-20**	42	12	33-39	25
1910.36	Pg36	47	**18-26**	53	14	42-49	10
1910.42	Pg42	54	**25-31**	60	14	42-50	5
1910.48	Pg48	60	**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 min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	*Quantity*
1901.07	Pg 7	12,5	3,5- 7	15	**15**	18-22	100
1901.09	Pg 9	15,5	5 - 8	19	**15**	22-26	100
1901.11	Pg11	19	5 -10	22	**15**	23-28	100
1901.13	Pg13,5	20,5	7 -12	24	**15**	24-29	100
1901.16	Pg16	22,5	10 -14	27	**15**	26-31	50
1901.21	Pg21	29	13 -18	33	**15**	30-35	50
1901.29	Pg29	37	18 -25	42	**15**	33-39	25
1901.36	Pg36	47	20 -32	53	**18**	42-49	10
1901.42	Pg42	54	28 -38	60	**18**	42-50	5
1901.48	Pg48	60	37 -45	66	**18**	45-55	5

Add to Ref: N for Black

Technical data pages 171 to 174

MAXIblock® CABLE GLANDS

1900/X

Polyamide PA6.6

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

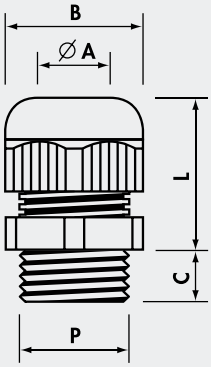
Ref.	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
1900.M12/X	M12X1,5	12,5	3,5- 7	15	8	18-22	100/10
1900.M16/X	M16X1,5	16,5	5 -10	19	8	22-27	100/10
1900.M20/X	M20X1,5	20,5	7 -13	25	9	24-30	50/10
1900.M25/X	M25X1,5	25,5	10 -17	30	10	28-39	30/10
1900.M32/X	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	15/5
1900.M50/X	M50X1,5	50,5	27 -35	55	12	43-52	10/5
1900.M63/X	M63X1,5	63,5	34 -45	66	12	45-55	5/5

Pg thread DIN 40 430

Ref.	P	Fixing Hole (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
1900.07/X	Pg 7	12,5	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	19	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	22,5	10 -14	27	10	26-31	30/10
1900.21/X	Pg21	29	13 -18	33	12	30-35	20/10
1900.29/X	Pg29	37	18 -25	42	12	33-39	20/10
1900.36/X	Pg36	47	20 -32	53	14	42-49	10/5
1900.42/X	Pg42	54	28 -38	60	14	42-50	5/5
1900.48/X	Pg48	60	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 min-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	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	13-18	33	12	30-35	50

Add to Ref: N for Black

MAXIblock® *specials*

Pg thread DIN 40 430

Ref. Grey	P Light	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
○*1920.09	Pg 9	15,5	5- 8	19	8	22-26	100
○*1921.09	Pg 9	15,5	5- 8	19	15	22-26	100
△ 1902.13N	Pg13.5	20,5	7-12	24	10	24-29	100
○ 1920.36	Pg36	47	20-32	53	14	42-49	25
○ 1921.36	Pg36	47	20-32	53	18	42-49	25

* Add to Ref: N for Black △ Add to Ref: N for Black ○ PVC sealing ring

Technical data pages 171 to 174

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 min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity*
1500.M12	M12X1,5	12,5	3,5- 7	15	8	57	100
1500.M16	M16X1,5	16,5	5 -10	19	8	79	50
1500.M20	M20X1,5	20,5	7 -13	25	9	90	25
1500.M25	M25X1,5	25,5	10 -17	30	10	120	20
1500.M32	M32X1,5	32,5	13 -21	36	10	140	10

Add to Ref: N for Black

spiralblock® *standard*

Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity*
1500.07	Pg 7	12,5	3,5- 7	15	8	57	100
1500.09	Pg 9	15,5	5 - 8	19	8	68	100
1500.11	Pg11	19	5 -10	22	8	80	50
1500.13	Pg13.5	20,5	7 -12	24	10	90	50
1500.16	Pg16	22,5	10 -14	27	10	100	25
1500.21	Pg21	29	13 -18	33	12	112	20

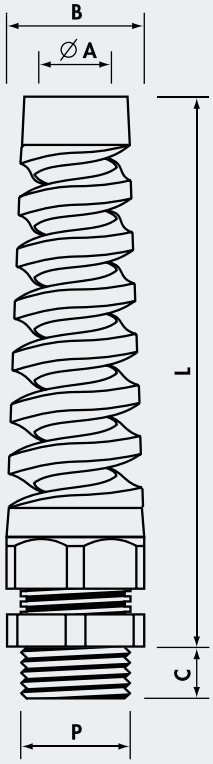
Add to Ref: N for Black

spiralblock® *standard*

BSP thread ISO 228/1

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

Add to Ref: N for Black



Technical data pages 171 to 174

CABLE GLANDS WITH INCREASED SAFETY

4900

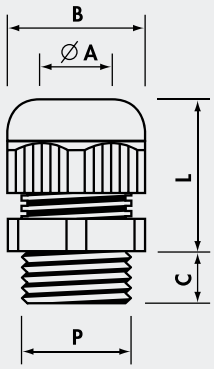
Polyamide PA6.6

Material: POLYAMIDE PA6.6
Safety level: EEx e II according to EN 50014 and EN 50019
Areas of utilisation: 1 & 2, 21 & 22
Temperature range: –25°C to +90°C (continuous)
–25°C to +110°C (short period)

CE Ex II 2 G D

Certificate No LOM 01ATEX2038X

Sealing ring: NEOPRENE®
Protection: IP 65
Colour: RAL 9005 black, RAL 5015 blue



Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Black	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4900.M16N	M16X1,5	16,5	6 -10,5	22	8	23-28	100
4900.M20N	M20X1,5	20,5	7 -12	24	10	24-29	100
4900.M25N	M25X1,5	25,5	13 -18	33	11	30-35	50

Pg thread DIN 40 430

Ref. Black	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L min-max (mm)	Quantity
4900.07N	Pg 7	12,5	4- 6,5	15	8	18-22	100
4900.09N	Pg 9	15,5	6- 8	19	8	22-26	100
4900.11N	Pg11	19	6-10,5	22	8	23-28	100
4900.13N	Pg13.5	20,5	7-12	24	8	24-29	100
4900.16N	Pg16	22,5	10-14	27	10	26-31	50
4900.21N	Pg21	29	13-18	33	11	30-35	50
4900.29N	Pg29	37	20-25	42	11	33-39	25

In Ref: change N to B for Blue

COMPRESSION CABLE GLANDS

Polyamide PA6

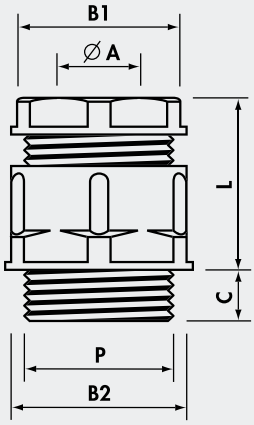
1700
1400

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	12,5	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	19	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	22,5	11 -14	23	27	10	24-33	50/50
1704	Pg21	29	14,5-18	30	33	11	25-32	50/25
1705	Pg29	37	19 -26	40	42	11	27-32	20/10
1706	Pg36	47	30 -34	50	53	14	33-42	10/10
1707	Pg42	54	30 -38	55	60	13	37-48	10/5
1708	Pg48	60	38 -44	60	65	14,5	37-48	5/5

*Add to Ref: N for Black

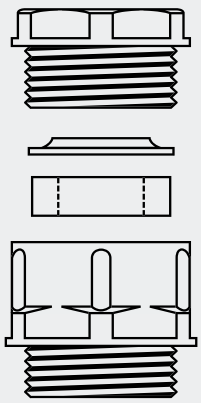
Material: POLYAMIDE PA6
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)
Sealing ring: PVC 50 sh A
Protection: IP 54
Colour: RAL 7035 light grey,
RAL 9005 black



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	6,5- 8,5	17	20	8	19-22	200/100
* **1401B**	G3/8"	17	8 -10	19	22	8	18-24	100/100
* **1401C**	G3/8"	17	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	14,5-18	30	33	11	25-32	50/25
1405	G1"	34	17 -22	34	38	11,5	27-35	20/10
1407	G1"1/2	48	30 -34	50	53	14	33-42	10/10
1408	G2"	60	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*
1730M20	M20X1,5	20,5	8-11	21	24	9	22-26	100

Add to Ref: N for Black

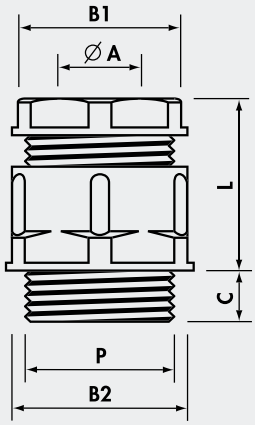
Technical data pages 171 to 174

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	19	8 -10	19	22	8	21-25	100/100
* **1702T**	Pg13,5	20,5	8 -11	21	24	9	22-26	100/100
1703T	Pg16	22,5	11 -14	23	27	10	24-33	50/50

*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

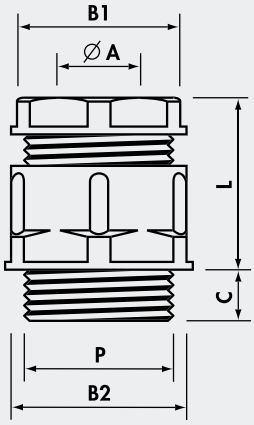
Sealing ring: PVC 50 sh A - Protection: IP 54

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	19	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	22,5	11 -14	24	27	10	24-33	50/50
1704P	Pg21	29	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

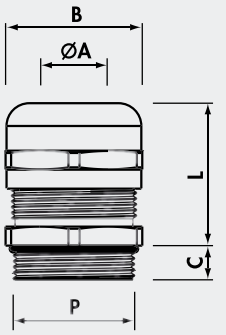


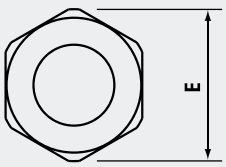
MAXIbrass® CABLE GLANDS

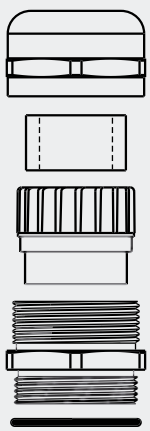
2900

Nickel Plated Brass

Material:
NICKEL PLATED BRASS
(CuZn 40 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

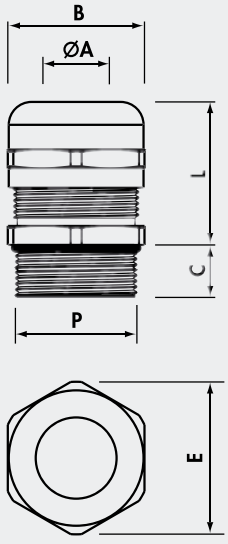
Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

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	12,5	3 - 7	16	18	6,5	16-20	100
2900.M16N	M16X1,5	16,5	4,5-10	20	23	7,0	20-25	100
2900.M20N	M20X1,5	20,5	7 -13	24	27	8,0	20-27	50
2900.M25N	M25X1,5	25,5	10 -17	29	32	8,0	24-30	50
2900.M32N	M32X1,5	32,5	11 -21	36	40	9,0	27-34	25
2900.M40N	M40X1,5	40,5	19 -28	45	50	9,0	34-42	10
2900.M50N	M50X1,5	50,5	26 -35	54	60	10,0	35-43	8
2900.M63N	M63X1,5	63,5	34 -45	67	74	15,0	40-52	5

MAXIbrass® reduced cable entry

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

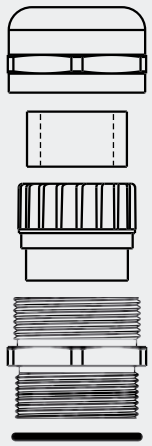
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2910.M12N	M12X1,5	12,5	**1 - 5**	16	18	6,5	16-20	100
2910.M16N	M16X1,5	16,5	**2,5- 7**	20	23	7,0	20-25	100
2910.M20N	M20X1,5	20,5	**5 -10**	24	27	8,0	20-27	50
2910.M25N	M25X1,5	25,5	**6 -13**	29	32	8,0	24-30	50
2910.M32N	M32X1,5	32,5	**7 -14**	36	40	9,0	27-34	25
2910.M40N	M40X1,5	40,5	**13 -23**	45	50	9,0	34-42	10
2910.M50N	M50X1,5	50,5	**20 -29**	54	60	10,0	35-43	8
2910.M63N	M63X1,5	63,5	**27 -39**	67	74	15,0	40-52	5



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	12,5	3 - 7	16	18	**12**	16-20	100
2901.M16N	M16X1,5	16,5	4,5-10	20	23	**12**	20-25	100
2901.M20N	M20X1,5	20,5	7 -13	24	27	**12**	20-27	50
2901.M25N	M25X1,5	25,5	10 -17	29	32	**12**	24-30	50
2901.M32N	M32X1,5	32,5	11 -21	36	40	**15**	27-34	25
2901.M40N	M40X1,5	40,5	19 -28	45	50	**15**	34-42	10
2901.M50N	M50X1,5	50,5	26 -35	54	60	**15**	35-43	8



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	12,5	**1 - 5**	16	18	**12**	16-20	100
2911.M16N	M16X1,5	16,5	**2,5- 7**	20	23	**12**	20-25	100
2911.M20N	M20X1,5	20,5	**5 -10**	24	27	**12**	20-27	50
2911.M25N	M25X1,5	25,5	**6 -13**	29	32	**12**	24-30	50
2911.M32N	M32X1,5	32,5	**7 -14**	36	40	**15**	27-34	25
2911.M40N	M40X1,5	40,5	**13 -23**	45	50	**15**	34-42	10
2911.M50N	M50X1,5	50,5	**20 -29**	54	60	**15**	35-43	8

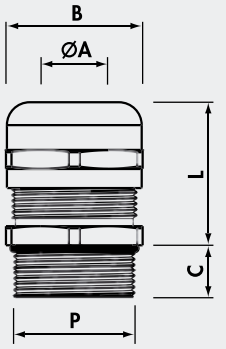
Technical data pages 171 to 174

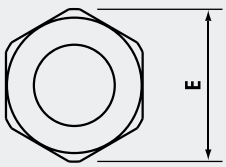
MAXIbrass® CABLE GLANDS

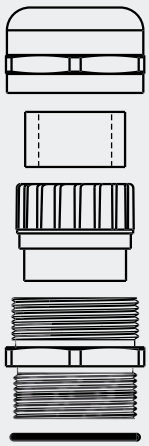
2900

Nickel Plated Brass

Material:
NICKEL PLATED BRASS
(CuZn 40 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	12,5	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	19,0	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	22,5	7 -13	24	27	6,5	20-27	50
2900.21N	Pg21	29,0	10 -17	30	33	7,0	24-30	50
2900.29N	Pg29	37,0	17 -25	40	45	8,0	30-37	25
2900.36N	Pg36	47,0	20 -32	50	55	8,0	38-48	10
2900.42N	Pg42	54,0	28 -38	57	63	10,0	36-46	5
2900.48N	Pg48	60,0	34 -45	67	74	15,0	40-52	5

MAXIbrass® reduced cable entry

Pg thread DIN 40 430

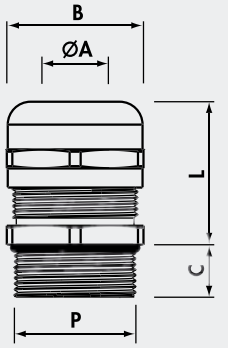
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2910.07N	Pg 7	12,5	**1 - 5**	16	18	5,0	16-20	100
2910.09N	Pg 9	15,5	**2 - 6**	17	19	6,0	17-23	100
2910.11N	Pg11	19,0	**2,5- 7**	20	23	6,0	20-25	100
2910.13N	Pg13,5	20,5	**4 -10**	22	25	6,5	20-26	50
2910.16N	Pg16	22,5	**5 -10**	24	27	6,5	20-27	50
2910.21N	Pg21	29,0	**6 -13**	30	33	7,0	24-30	50
2910.29N	Pg29	37,0	**11 -20**	40	45	8,0	30-37	25
2910.36N	Pg36	47,0	**18 -26**	50	55	8,0	38-48	10
2910.42N	Pg42	54,0	**24 -31**	57	63	10,0	36-46	5
2910.48N	Pg48	60,0	**27 -39**	67	74	15,0	40-52	5

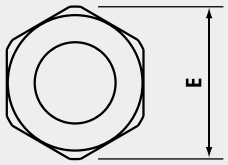
Technical data pages 171 to 174

MAXIbrass® extended thread

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole ∅ (mm)	∅A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2901.07N	Pg 7	12,5	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	19,0	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	22,5	7 -13	24	27	**12**	20-27	50
2901.21N	Pg21	29,0	10 -17	30	33	**12**	24-30	50
2901.29N	Pg29	37,0	17 -25	40	45	**15**	30-37	25
2901.36N	Pg36	47,0	20 -32	50	55	**15**	38-48	10
2901.42N	Pg42	54,0	28 -38	57	63	**15**	36-46	5

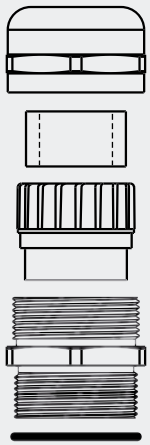




MAXIbrass® extended thread and reduced cable entry

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole ∅ (mm)	∅A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2911.07N	Pg 7	12,5	**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	19,0	**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	22,5	**5 -10**	24	27	**12**	20-27	50
2911.21N	Pg21	29,0	**6 -13**	30	33	**12**	24-30	50
2911.29N	Pg29	37,0	**11 -20**	40	45	**15**	30-37	25
2911.36N	Pg36	47,0	**18 -26**	50	55	**15**	38-48	10
2911.42N	Pg42	54,0	**24 -31**	57	63	**15**	36-46	5



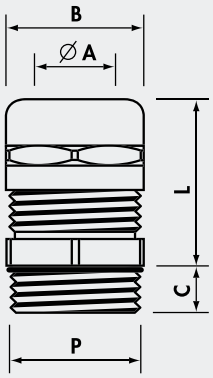
Technical data pages 171 to 174

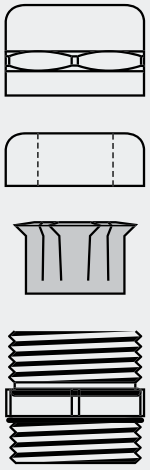
COMPRESSION CABLE GLANDS

2082
20E2

Nickel Plated Brass

Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: NEOPRENE®
Cable grip insert: POLYCARBONATE
O-Ring: NITRILE 70 sh A (factory fitted)
Protection: IP 68
Temperature range:
-25°C to +120°C (continuous),
for Pg36, Pg42 and Pg48
-30°C to +95°C (continuous)





Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole ∅ (mm)	∅ A min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	Quantity
208200711N	Pg 7	12,5	3 - 6	14	5	19	50
208200911N	Pg 9	15,5	5 - 8	17	6	19	50
208201111N	Pg11	19	6 -10	20	6	20	50
208201311N	Pg13,5	20,5	8 -12	22	6,5	21,5	50
208201611N	Pg16	22,5	9,5-14	24	6,5	23,5	50
208202111N	Pg21	29	11,5-18	30	7	28	20
208202911N	Pg29	37	15 -24	40	8	35	20
208203611N	Pg36	47	23 -30	50	9	41	10
208204211N	Pg42	54	26 -35	58	10	47	5
208204811N	Pg48	60	35 -40	64	10	49	5

extended thread

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole ∅ (mm)	∅ A min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	Quantity
20E200711N	Pg 7	12,5	3 - 6	14	**15**	19	50
20E200911N	Pg 9	15,5	5 - 8	17	**15**	19	50
20E201111N	Pg11	19	6 -10	20	**15**	20	50
20E201311N	Pg13,5	20,5	8 -12	22	**15**	21,5	50
20E201611N	Pg16	22,5	9,5-14	24	**15**	23,5	50
20E202111N	Pg21	29	11,5-18	30	**15**	28	20
20E202911N	Pg29	37	15 -24	40	**15**	35	20
20E203611N	Pg36	47	23 -30	50	**18**	41	10
20E204211N	Pg42	54	26 -35	58	**18**	47	5
20E204811N	Pg48	60	35 -40	64	**18**	49	5

Technical data pages 171 to 174

EMC CABLE GLANDS

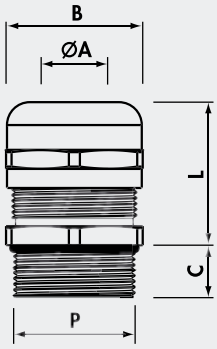
Nickel Plated Brass

20M3

Material: NICKEL PLATED BRASS
(CuZn 40 Pb 3)
Sealing-ring: Cloroprene (CR)
Cable grip insert: PA 6
O-Ring: (NBR) (factory fitted)
Protection: IP 68, 5 bar
Temperature range:
-30°C to +120°C (continuous)

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Nickel Plated Brass	P	Fixing Hole ∅ (mm)	∅ A min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity Box/Bag*
20M3M1261N	M12X1,5	12,5	3 - 6,5	14	5	22	300/100
20M3M1661N	M16X1,5	16,5	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	25,5	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	63,5	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.

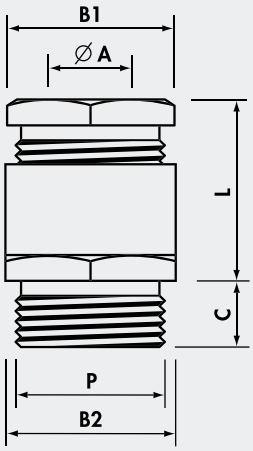
Technical data pages 171 to 174

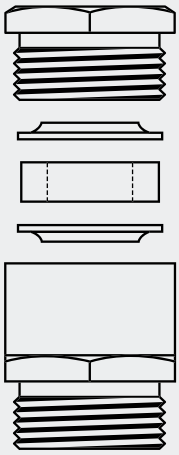
COMPRESSION CABLE GLANDS

Brass

2003
2002
2001

Material: Metric & Pg threads
NICKEL PLATED BRASS
(CuZn 40 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





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 (mm)	Quantity Box/Bag
2003M1221N	M12X1,5	12,5	4- 6	13	14	5	13-16	500/100
2003M1621N	M16X1,5	16,5	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	25,5	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	63,5	43-45	60	66/68	10	30-36	10/5

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 (mm)	Quantity Box/Bag
200200721N	Pg 7	12,5	5- 7	13	14	5	13-16	100/100
200200921N	Pg 9	15,5	8-10	15	17	6	14-17	300/100
200201121N	Pg11	19	8-10	18	20	6	14-18	100/50
200201321N	Pg13,5	20,5	10-12	20	22	6,5	16-19	100/50
200201621N	Pg16	22,5	12-14	22	24	6,5	17-20	50/50
200202121N	Pg21	29	17-19	28	30	7	19-23	50/50
200202921N	Pg29	37	26-28	37	40	8	21-25	15/15
200203621N	Pg36	47	33-35	47	50	9	24-30	10/10
200204221N	Pg42	54	39-41	54	57	10	28-34	10/10
200204821N	Pg48	60	43-45	60	64	10	30-36	10/10

BSP thread ISO 228/1

Ref. Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L (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	Ø15	6,5	14-17	400/100
200103841	G3/8"	17	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	14,5-17,5	27	29	9	20-26	50/50
200110041	G1"	34	18 -22	34	36	10	23-28	25/25
200111841	G1"1/8	38	21 -26	38	40	10,5	23-28	25/25
200111441	G1"1/4	42	28 -32	42	45	11,5	25-31	20/20
200111241	G1"1/2	48	32 -36	48	50	11,5	28-35	20/20
200120041	G2"	60	38 -42	60	64	13,5	31-37	10/10
• **200121221**	G2"1/2	76	44 -57	80	80	20	32-37	5/5
• **200130021**	G3"	89	67 -69	95	95	20	42-52	5/5

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

MAXI*inox* CABLE GLANDS

Stainless Steel 303 (X 12 Cr Ni S 18.8)

Stainless Steel 316L (X 2 Cr Ni Mo 18.10)

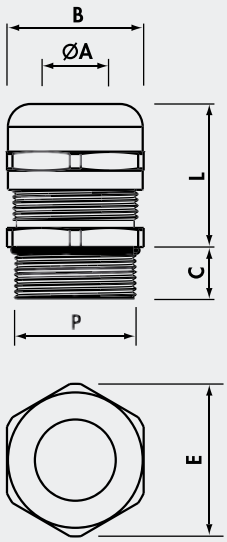
7900
7900A

MAXI*inox*

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Stainless Steel AISI 303	Stainless Steel AISI 316L	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C min-max (mm)	L (mm)	Quantity
7900.M12	7900A.M12	M12X1,5	12,5	3 - 7	16	18	6,5	16-20	100
7900.M16	7900A.M16	M16X1,5	16,5	4,5-10	20	23	7,0	20-25	100
7900.M20	7900A.M20	M20X1,5	20,5	7 -13	24	27	8,0	20-27	50
7900.M25	7900A.M25	M25X1,5	25,5	10 -17	29	32	8,0	24-30	50
7900.M32	7900A.M32	M32X1,5	32,5	11 -21	36	40	9,0	27-34	25
7900.M40	7900A.M40	M40X1,5	40,5	19 -28	45	50	9,0	34-42	10
7900.M50	7900A.M50	M50X1,5	50,5	26 -35	54	60	10,0	35-43	8
7900.M63	7900A.M63	M63X1,5	63,5	34 -45	67	74	15,0	40-52	5

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



MAXI*inox*

Pg thread DIN 40 430

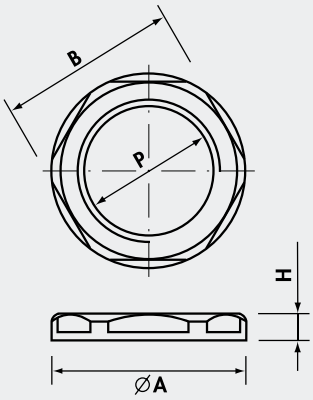
Stainless Steel AISI 303	Stainless Steel AISI 316L	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C min-max (mm)	L (mm)	Quantity
7900.07	7900A.07	Pg 7	12,5	3 - 7	16	18	5,0	16-20	100
7900.09	7900A.09	Pg 9	15,5	4 - 8	17	19	6,0	17-23	100
7900.11	7900A.11	Pg11	19,0	4,5-10	20	23	6,0	20-25	100
7900.13	7900A.13	Pg13,5	20,5	5 -12	22	25	6,5	20-26	50
7900.16	7900A.16	Pg16	22,5	7 -13	24	27	6,5	20-27	50
7900.21	7900A.21	Pg21	29,0	10 -17	30	33	7,0	24-30	50
7900.29	7900A.29	Pg29	37,0	17 -25	40	45	8,0	30-37	25
7900.36	7900A.36	Pg36	47,0	20 -32	50	55	8,0	38-48	10
7900.42	7900A.42	Pg42	54,0	28 -38	57	63	10,0	36-46	5
7900.48	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

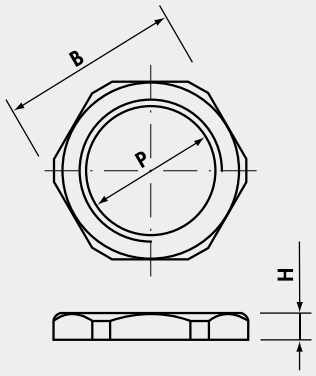
Pg thread DIN 40 430 - Dimensions DIN 46 320

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	100
1714	Pg21	36	7	100
1715	Pg29	46	7,5	50

Add to Ref: N for Black

△ Light Grey only

* Not DIN 46 320



BSP thread ISO 228/1

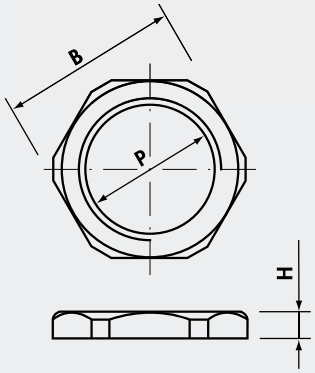
Ref. Light Grey	P	B Spanner (mm)	H (mm)	*Quantity* *Box/Bag*
1410	G1/4"	19	5	800/100
1411	G3/8"	23	6	600/100
1412	G1/2"	27	6	400/100
1413	G5/8"	30	6	100
1414	G3/4"	34	7	100
1415	G1"	40	7	50

Add to Ref: N for Black

LOCKNUTS

Brass

2033
2032
2031

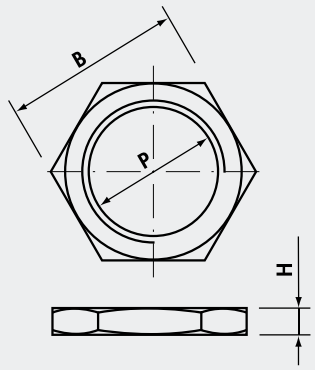


Metric thread M 1.5 pitch CEI EN 60423

Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2033M12N	M12X1,5	15	2,8	2.000/100
2033M16N	M16X1,5	19	2,8	1.000/100
2033M20N	M20X1,5	24	3	1.000/100
2033M25N	M25X1,5	29	3,5	500/100
2033M32N	M32X1,5	36	4	400/100
2033M40N	M40X1,5	46	4,5	150/50
2033M50N	M50X1,5	55	5	100/50
2033M63N	M63X1,5	70	5,5	50/50

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	15	2,8	2.400/100
2032009N	Pg 9	18	2,8	2.000/100
2032011N	Pg11	21	3	1.600/100
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	100/50
2032036N	Pg36	51	5	100/10
2032042N	Pg42	60	5	50/10
2032048N	Pg48	64	5,5	50/10



BSP thread ISO 228/1

Ref. Plain Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2031014	G1/4"	15	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	200/25
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

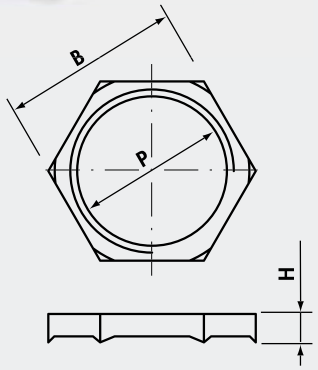
20N3

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	1.000/100
20N3M16N	M16X1,5	19	4,2	1.000/100
20N3M20N	M20X1,5	24	4,2	600/100
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

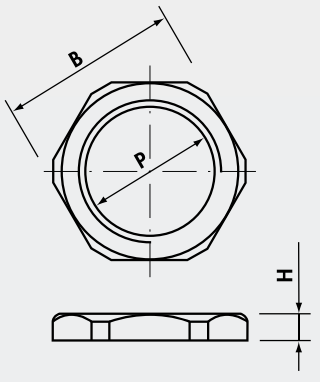
Stainless Steel 303 (X 12 Cr Ni S 18.8)

Stainless Steel 316L (X 2 Cr Ni Mo 18.10)

7032
7033

Pg thread DIN 40 430 - Dimensions DIN 46 320

Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner (mm)	H (mm)	*Quantity*
7032007	7032A007	Pg 7	16	2,8	100
7032009	7032A009	Pg 9	20	2,8	100
7032011	7032A011	Pg11	22	3	100
7032013	7032A013	Pg13,5	22	3	50
7032016	7032A016	Pg16	27	3	50
7032021	7032A021	Pg21	32	3,5	50
7032029	7032A029	Pg29	41	4	10
7032036	7032A036	Pg36	50	5	10
7032042	7032A042	Pg42	60	5	10
7032048	7032A048	Pg48	64	5,5	10



Metric thread M 1.5 pitch CEI EN 60423

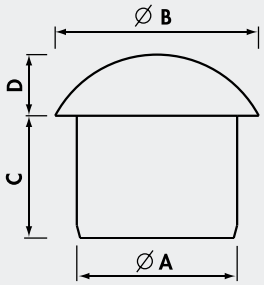
Stainless Steel AISI 303	Stainless Steel AISI 316L	P	B Spanner (mm)	H (mm)	*Quantity*
7033M12	7033AM12	M12X1,5	16	2,8	100
7033M16	7033AM16	M16X1,5	20	2,8	100
7033M20	7033AM20	M20X1,5	24	3,5	50
7033M25	7033AM25	M25X1,5	29	4	50
7033M32	7033AM32	M32X1,5	36	4	50
7033M40	7033AM40	M40X1,5	45	5	10
7033M50	7033AM50	M50X1,5	57	5	10
7033M63	7033AM63	M63X1,5	70	5,5	10

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**®, **MAXI***brass*® and **MAXI***inox* cable glands and maintaining IP 68.



Plugs

Ref.	Suitable for MAXIblock®	Suitable for MAXIbrass® MAXIinox	∅ A (mm)	∅ 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 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	M40R	22	30	20	10	100/50
TCP50	M40 + M50R	M40 + M50R	27,5	38	25	12	50/25
TCP55	Pg36	-	31,5	36,5	23,5	12	50/25
TCP60	M50	M50	34,5	40	23,5	12	50/25
TCP65	M63R + Pg42	M63R	37,5	48	26,5	12	30/15
TCP70	M63 + Pg48	M63	43	48	26,5	12	30/15

R: reduced cable entry

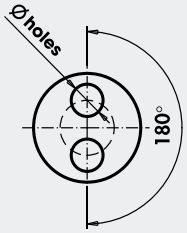
36 TGM

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

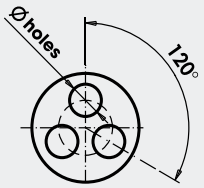
Multi-entry seals

Ref.	Suitable for MAXIblock®	Suitable for MAXIbrass® MAXIinox	n° entries	∅ 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
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

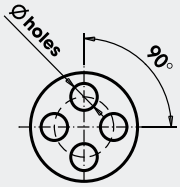
2 ENTRIES



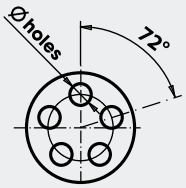
3 ENTRIES



4 ENTRIES



5 ENTRIES

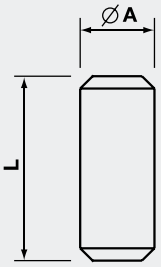


Material: POLYAMIDE PA6.6
Temperature range:
–20°C to +90°C (continuous)
Colour: RAL 7035 light grey

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

Multi-entry seal plugs

Ref.	Suitable for Seal	∅ A (mm)	L (mm)	Quantity Box/Bag
TGM38	36A3M1623	3	8	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)

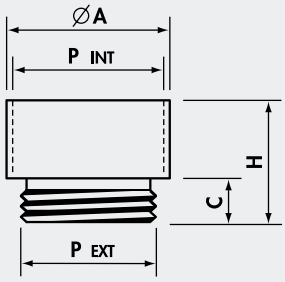


Fig. 1

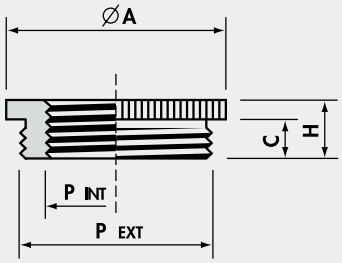


Fig. 2

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	50/50
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

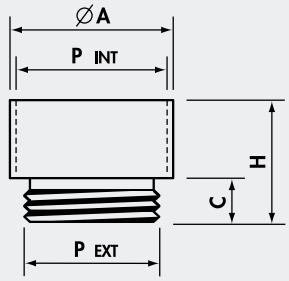
1800 2042

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	200/50
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

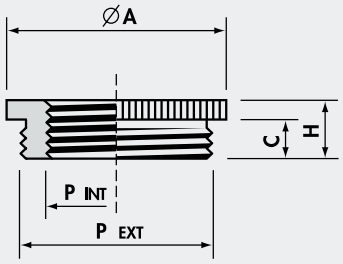
Material: NICKEL PLATED BRASS (CuZn 40 Pb 3)



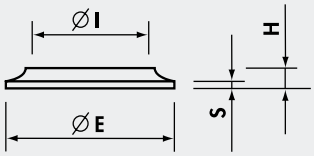
Entry thread reducers

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	100/25
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	44,5	39	2	0,5	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

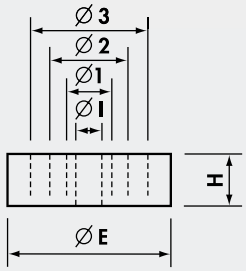
1880
1890

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	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	18,3	–	12,5	10	7,5	6	800/100
1883	Pg16	20,4	15	12,5	10	7,5	7	600/100
1884	Pg21	25,9	19	16	13	10	8	300/100
***1885**	Pg29	34,7	27	24	21	18	9,5	150/50
1886	Pg36	44,7	33	30	27	24	12	100/50
***1887**	Pg42	51,7	39	36	33	30	14	50/25
***1888**	Pg48	56,9	45	42	39	36	14	50/25

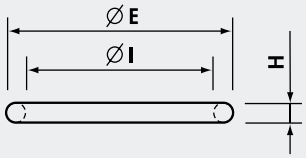
***Dimensions DIN 46 320-7; material: CHLOROPRENE**



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

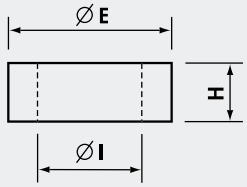


SPARES SEALING RINGS

PVC 50 sh A

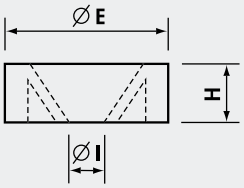
341
342
343
344

Material: PVC 50 sh A



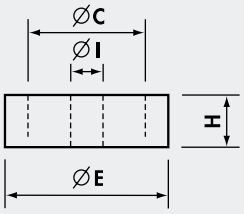
Cylindrical sealing rings

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"	-	14,5	8,5	6	1.000/100
3411012	Pg13,5 + G1/2"	-	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	-	26	18	8,5	300/100
3422021	Pg21	-	26	13	8,5	250/50
3412029	Pg29 + G1"1/8	-	35	26	10	200/100



Membrane sealing rings

Ref.	Fits thread	C (mm)	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
3431038	G3/8"	-	15	6	6	1.000/100
3431100	G1"	-	29	15	9,5	200/100



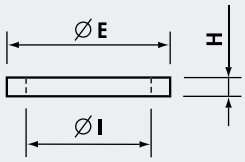
Double sealing rings

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

357 FD

Material: BUTADIENE-STIRENE SBR 65 sh A
Temperature range: -20°C to +70°C
Colour: 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: black

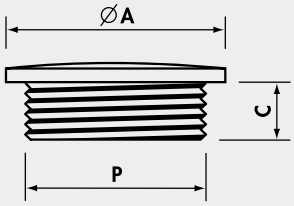
Ref.	Fits thread	∅ E (mm)	∅ I (mm)	H (mm)	*Quantity Box/Bag*
FDM 12	M12	15	10	1,2	50
FD 7	Pg7 + G1/4"	17	11,3	1,2	50
FD 9	Pg9 + M16 + G3/8"	20	13,9	1,2	50
FD 11	Pg11	23	17,1	1,2	50
FDM 20	M20	24	18	1,2	50
FD 13,5	Pg13,5 + G1/2"	25	19	1,2	50
FD 16	Pg16 + G5/8"	27	21	1,2	50
FDM 25	M25	30	23	1,2	20
FD 21	Pg21 + G3/4"	34	26,6	1,5	25
FDM 32	M32 + G1"	40	30	1,5	20
FD 29	Pg29 + G1"1/8"	45	35,2	1,5	25
FDM 40	M40 + G1"1/4	48	38	1,5	20
FD 36	Pg36 + G1"1/2"	56	45,2	1,5	25
FDM 50	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
FDM 63	M63	68	60,5	1,0	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	100/50
1052029	Pg29	44	9	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

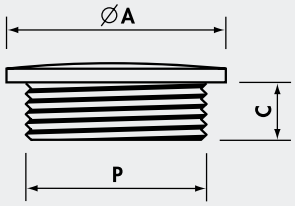
Protection: IP 54

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

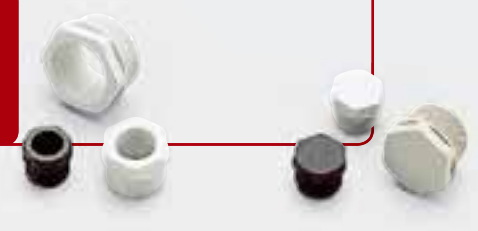
Ref. Light Grey	P	∅ A (mm)	C (mm)	*Quantity* *Box/Bag*
1840	Pg 7	15	6	100
1841	Pg 9	19	6	100
1842	Pg11	22	7	100
1843	Pg13,5	25	7	100
1844	Pg16	27	7	100
1845	Pg21	33	9	50
1846	Pg29	44	9	100/50
1847	Pg36	55	10	20
1848	Pg42	62	10	10
1849	Pg48	69	12	10

Add to Ref: N for Black

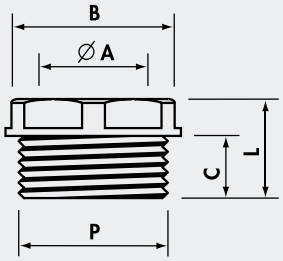
ENTRY BUSHES

1700

Polyamide PA6



Material: POLYAMIDE PA6
self-extinguishing class VO (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

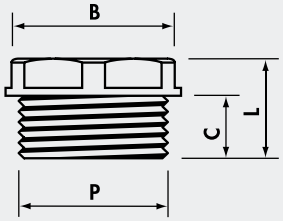
BSP thread ISO 228/1

* **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

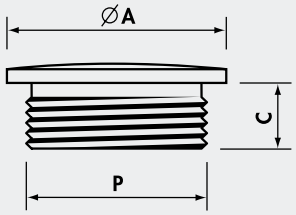
Metric thread M 1.5 pitch CEI EN 60423

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	150/50
2053M40N	M40X1,5	44	8,5	100/50
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	50/50
2052042N	Pg42	57	10	25/25
2052048N	Pg48	64	10	25/25

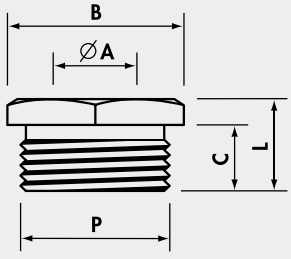


Entry bushes

BSP thread ISO 228/1

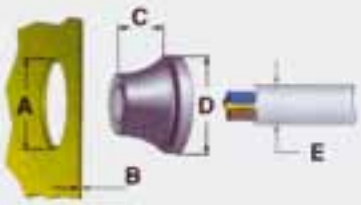
Ref. Brass	P	∅ A (mm)	B Spanner (mm)	C (mm)	L (mm)	*Quantity Box/Bag*
2021014	G1/4"	10	13	6	8,5	1,000/100
2021038	G3/8"	12	17	7,5	10,5	800/100
2021012	G1/2"	16	21	9,5	13	400/100
2021058	G5/8"	18	23	10	13,5	250/50
2021034	G3/4"	21	27	10	14	200/50
2021100	G1"	26,5	34	11	15,5	100/50
2021118	G1"1/8	31	38	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 - 12	3,000/50
RS1117.M25	M25	25,5	1 - 4	15,3	30,5	11 - 16	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

CABLE & CONDUIT ACCESSORIES

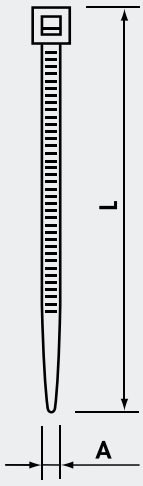
CABLE TIES

G

G series, PA6.6 Polyamide

HALOGEN FREE

Material: PA6.6 Polyamide
Self-extinguishing V2 (UL 94)
Humidity absorption:
2,5% (at 50% relative humidity)
Operating temperature:
From –40°C to +85°C (continuous)
From –40°C to +120°C (short periods)
Resistant to:
oils, greases, oil products, chlorinated solvents.
Colour: Natural or Black (Ral 2005)



Black ties have higher UV resistance due to increased carbon black loading

Natural ties offer rapid installation due to the low friction coefficient of the material

Cable Ties in PA6.6

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
G80X2.4	80	2,4	15	8	100
G80X2.4N					
G80X2.4/M					1000
G80X2.4N/M					
G90X2.4	90		16		100
G90X2.4N					
G100X2.5	100	2,5	22		
G100X2.5N					
G100X2.5/M					1000
G100X2.5N/M					
G120X2.5	120		30		100
G120X2.5N					
G140X2.5	140		33		
G140X2.5N					
G140X2.5/M					1000
G140X2.5N/M					1000
G160X2.5	160		40		100
G160X2.5N					
G160X2.5/M					1000
G160X2.5N/M					
G200X2.5	200		53		100
G200X2.5N					
G200X2.5/M					1000
G200X2.5N/M					
G250X2.8	250	2,8	65	14	100
G250X2.8N					
G300X2.8	300		76		
G300X2.8N					
G120X3.6	120	3,6	30	18	
G120X3.6N					
G140X3.6	140		33		
G140X3.6N					
G140X3.6/M					1000
G140X3.6N/M					
G150X3.6	150		35		100
G150X3.6N					
G180X3.6	180		44		
G180X3.6N					
G200X3.6	200		53		
G200X3.6N					
G200X3.6/M					1000
G200X3.6N/M					
G250X3.6	250		65		100
G250X3.6N					
G300X3.6	300		76		
G300X3.6N					
G300X3.6/M					1000
G300X3.6N/M					
G370X3.6	370		102		100
G370X3.6N					
G120X4.8	120	4,8	24	22	
G120X4.8N					
G160X4.8	160		38		
G160X4.8N					
G190X4.8	190		46		
G190X4.8N					
G190X4.8/M					1000
G190X4.8N/M					
G200X4.8	200		50		100
G200X4.8N					
G200X4.8/M					1000
G200X4.8N/M					
G250X4.8/M	250		60		
G250X4.8N/M					
G250X4.8	250		60		100
G250X4.8N					
G280X4.8	280		70		
G280X4.8N					
G300X4.8	300		76		
G300X4.8N					
G370X4.8	370		102		
G370X4.8N					
G390X4.8	390		105		
G390X4.8N					
G430X4.8	430		110		
G430X4.8N					

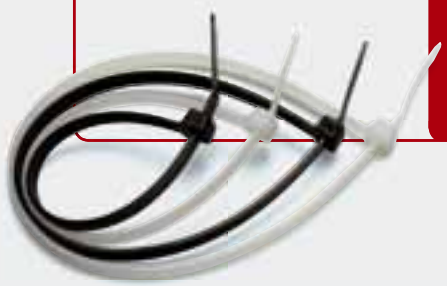
Recommended tools are shown on page 98

HALOGEN FREE

CABLE TIES

G series, PA6.6 Polyamide

G



Cable Ties in PA6.6

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
G450X4.8	450	4,8	116	22	100
G450X4.8N					
G530X4.8	530		140		
G530X4.8N					
G150X7.6	150	7,6	33	55	
G150X7.6N					
G200X7.6	200		50		
G200X7.6N					
G250X7.6	250		65		
G250X7.6N					
G300X7.6	300		76		
G300X7.6N					
G370X7.6	370		102		
G370X7.6N					
G430X7.6	430		125		
G430X7.6N					
G530X7.6	530		140		
G530X7.6N					
G430X9.0	430	9,0	110	80	
G430X9.0N					
G530X9.0	530		140		
G530X9.0N					
G710X9.0	710		190		
G710X9.0N					
G780X9.0	780		228		
G780X9.0N					
G830X9.0	830		239		
G830X9.0N					
G920X9.0	920		263		
G920X9.0N					
G1020X9.0	1020		295		
G1020X9.0N					
G1220X9.0	1220		365		
G1220X9.0N					
G230X12.6	230	12,6	50	115	
G230X12.6N					
G380X12.6	380		106		
G380X12.6N					
G480X12.6	480		120		
G480X12.6N					
G580X12.6	580		152		
G580X12.6N					
G730X12.6	730		204		
G730X12.6N					
G880X12.6	880		248		
G880X12.6N					
G1030X12.6	1030		295		
G1030X12.6N					

Note: In Type, N = Black

Angled tongue to facilitate easy introduction into the buckle

Rounded corners for increased safety

HALOGEN FREE

CABLE TIES

G series, PA6.6 Polyamide, VO (UL94)

G VO

Cable Ties in PA6.6 - VO (UL94)

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
G90X2.4 VO	90	2,4	16	8	100
G100X2.5/M VO	100	2,5	22		1000
G140X2.5/M VO	140		33		1000
G200X2.5/M VO	200		53		1000
G150X3.6 VO	150	3,6	35	18	100
G200X4.8/M VO	200	4,8	50	22	1000
G370X4.8 VO	370		102		100
G430X4.8 VO	430		110		100
G710X9.0 VO	710	9,0	190	80	100

Same features as G series except:
self-extinguishing VO (UL 94)

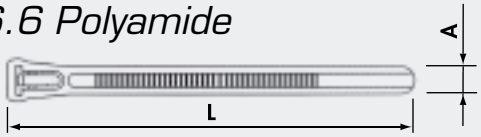
Recommended tools are shown on page 98

CABLE TIES

GR

Same features as G series.
Easy installation without tools.
Released by pressure on the tongue.
Suitable for temporary locking.

GR series, PA6.6 Polyamide



HALOGEN FREE

Releasable cable ties in PA6.6

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GR100X7.6N	100	7,6	20	22,2	100
GR120X7.6N	120		30		
GR150X7.6N	150		35		
GR200X7.6N	200		50		
GR250X7.6N	250		66		
GR300X7.6N	300		80		
GR370X7.6N	370		102		

GFH

Same features as G series.
Quick and easy identification of bundled conductors.
Write on panel with Felt tip pen.

GFH series, PA6.6 Polyamide

HALOGEN FREE

Markable cable ties in PA6.6

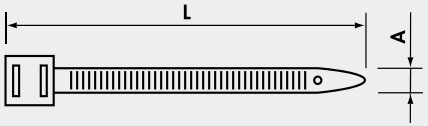
Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GFH100X2.5	100	2,5	18	8,1	100
GFHT112X2.5	112				

1600

Material: PA12 Polyamide
Self-extinguishing HB (UL94)
Halogen free
Operating temperature:
From –45°C to + 85°C (continuous)
From –45°C to + 120°C (short periods)

1600 series, PA12 Polyamide

Resistant to:
UV, salt atmosphere, oils, greases, oil products
Colour: Black



HALOGEN FREE

Cable Ties in PA12 Polyamide

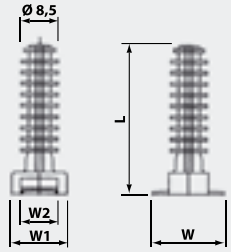
Type	L (mm)	A (mm)	Min. Bundle Ø (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
1618.90	180	9	15	45	35	5.000/100
1626.90	265	9	30	65	51	2.500/100
1636.90	360	9	30	93	51	1.500/100
1651.90	510	9	70	140	54	100/100
1676.90	760	9	70	220	54	100/100

ACCESSORIES

GH8

Same features as G series.
Push into Ø 8 mm hole.
Cable tie inserted through slot in head.

PA6.6 Polyamide



Stud fixing for cable ties in PA6.6

Type	W (mm)	W1 (mm)	W2 (mm)	L (mm)	Fixing hole Ø (mm)	Quantity
GH8	20	15	10	40,5	8	100

Recommended tools are shown on page 98

ACCESSORIES

PA6.6 Polyamide

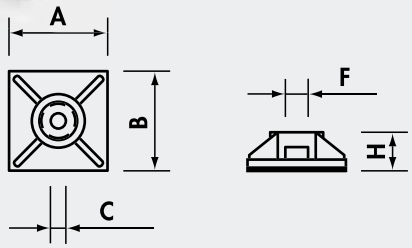
AB
CC
SS

Material: PA6.6 Polyamide
Self-extinguishing V2 (UL 94)
Humidity absorption:
2,5% (at 50% relative humidity)
Operating temperature:
From –40°C to +85°C (continuous)
From –40°C to +120°C (short periods)

Resistant to:
oils, bases, greases, oil products, chlorinated solvents.
Colour: Natural

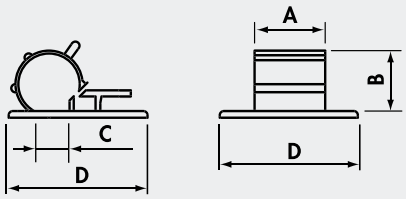
Self adhesive cable tie bases in PA6.6

Type	Max Tie (mm)	A (mm)	B (mm)	C (mm)	H (mm)	Fixing screw hole Ø (mm)	Quantity
AB 13	2,8	13,0	13,0	3,2	3,2	-	100
AB 19	3,6	19,0	19,0	4,0	4,4	3,1	100
AB 28	4,8	28,0	28,0	5,3	5,7	5,5	100



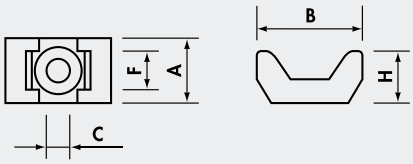
Self adhesive cable clips in PA6.6

Type	Cable Ø (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Quantity
CC 8.9	8-9	9,0	12,0	18,9	21,5	100
CC 9.12	9-12	12,0	15,0	17,0	21,5	100



Cable tie saddle clamps in PA6.6

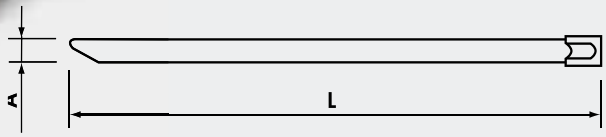
Type	Max Tie (mm)	A (mm)	B (mm)	C (mm)	F (mm)	H (mm)	Quantity
SS 4.8-3.7	4,8	9,5	15	3,7	5,0	7,2	100
SS 4.8-4.5	4,8	9,5	15	4,5	5,0	7,2	100
SS 9-4.5	9	16,0	22	4,5	9,2	9,7	100
SS 9-5	9	16,0	22	5,0	9,2	9,7	100
SS 9-6.4	9	16,0	22	6,4	9,2	9,7	100



CABLE TIES

in Stainless Steel AISI 304

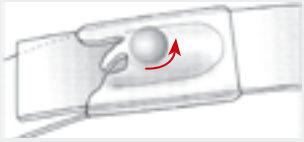
GX



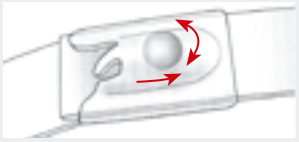
Cable Ties in Stainless Steel

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GX200X4.5	200	4,5	50	46	100
GX300X4.5	300		76		
GX370X4.5	370		102		
GX520X4.5	520		156		
GX370X7.9	370	7,9	102	114	
GX680X7.9	680		207		
GX1020X7.9	1020		312		

Material: Stainless Steel AISI 304
Unique ball locking mechanism that allows simple and rapid installation and secure locking.
Operating temperature:
From –80°C to +500°C
High tensile strength.
Non-flammability.
High resistance to acetic acid, alkalies, sulphuric acid, corrosion, etc.
In general very resistant to most hostile environments.



Insert the tongue into the buckle.
The internal locking ball rolls freely as the tie is tightened.



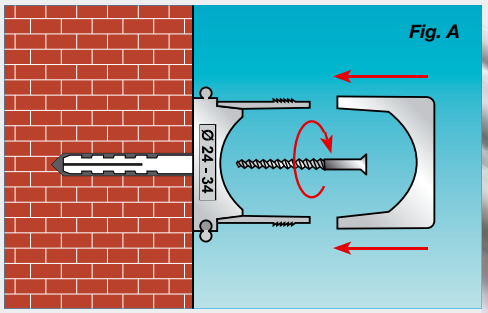
Once the correct tension is reached, use the specific tool to trim the tongue.
The ball then wedges into the buckle locking it tightly against both the top and bottom of the tie.

Recommended tools are shown on page 98

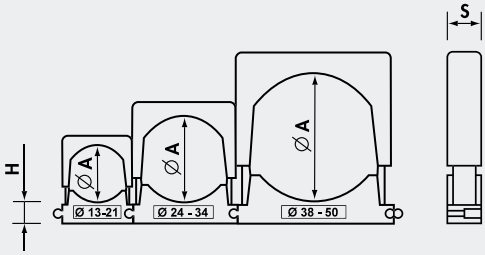
3600

modular retaining clips - ABS

Application: Fix SICURclip base to surface using dia. 5 - 6 mm screw (Ref. Fig. A).
Insert cable, tubing or flexible conduit.
Fit adjustable cover and press to secure.
Modular SICURclips of the same or different size may easily be joined together.



Material: ABS self-extinguishing class V0 (UL94) UV stabilised
Glow wire resistance: 750° C (CEI EN 60695-2-1)
Temperature range:
–20°C to +80°C (continuous)
Colour: RAL 7035 light grey



SICURclips *for cable, tubing & fexible conduit*

Ref.	Ø A min-max (mm)	H (mm)	S (mm)	Quantity
3601	13-21	8,5	16	100
3602	24-34	8,5	16	50
3603	38-50	8,5	16	25

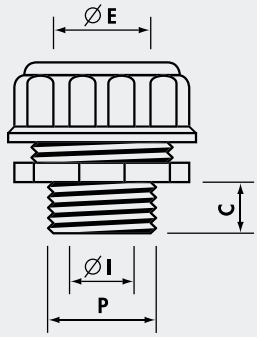
CONDUIT FITTINGS

1740

Polyamide PA6

Colour: RAL 7035 grey
For all conduits with metal protection: rigid, flexible, spiral, corrugated, etc.
High level of resistance: the action of sun, moisture or salinity does not affect the products, which are also impervious to fumes, acids, solvents and oils.
Suits outside diameters 13 - 40 mm .

Material: POLYAMIDE PA6
self-extinguishing class V0 (UL 94)
Temperature range:
–20°C to +90°C (continuous)



Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø E min-max (mm)	Ø I (mm)	C (mm)	Quantity *Box/Bag*
1740	Pg 9	15,5	13-15	9	9	100
* **1741**	Pg11	19	14-16,5	13	10	100
1742	Pg13,5	20,5	16-19	15	10	50
1743	Pg16	22,5	20-22	17	11	50
1744	Pg21	29	23-25,5	21	11	50/25
1745	Pg21	29	25-28,5	21	11	25
1746	Pg29	37	30-33	30	13	20/10
1747	Pg36	47	37-42	36	15	10

For nominal conduit diameters 16-20-25-32-40 mm

*Add to Ref: N for Black (RAL 9005)

MECHANICAL AND PNEUMATIC TOOLS

MECHANICAL TOOLS

nd® RANGE

A brand new 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.

Type	Application	Conductor Size sqmm	Dimensions mm	Weight g
ND#1	*insulated and uninsulated end sleeves*	*0,3÷1,5*	190x72x21	470
ND#2		*1÷6*	190x72x21	470
ND#3		*6÷16*	190x72x21	470
ND#4		*0,5÷4*	190x72x21	470

ZKE 6-F

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

ZKE 610

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

ZKE 2

For end sleeves
0,5 to 16 sqmm

MLL 90

Single aperture, ratchet controlled tool for crimping female connectors, open barrel, flag type
1 to 2,5 sqmm
side insertion

Crimpstar® RANGE

The ratchet controlled tools in the Crimpstar® range, are compact, lightweight and easy to use.

Features include:
- High precision investment cast jaws.
- Ratchet controlled to ensure precise and consistent crimping.
- Emergency release lever.
- Toggle action leverage to reduce operator effort.
- Automatic handle opening following completion of the crimping operation.
- Ergonomically designed moulded plastic grips.

HP

Insulated terminals and connectors
HP 1 for conductor sizes 0,2 to 2,5 sqmm
HP 3 for conductor sizes 0,25 to 6 sqmm
HP 1-1 same as HP 1 but with positioner
HP 3-1 same as HP 3 but with positioner

HNN

Nylon insulated terminals and connectors
HNN 3 for conductor sizes 1,5 to 10 sqmm
HNN 4 for conductor sizes 10 and 16 sqmm

HPH

End to end connectors
PE HD insulated, heat shrinkable.
HPH 1 for conductor sizes 0,5 to 6 sqmm

HNKE

End sleeves
HNKE 4 for conductor sizes 0,5 to 4 sqmm
HNKE 16 for conductor sizes 4 to 16 sqmm
HNKE 50 for conductor sizes 25 - 35 - 50 sqmm

HN

Uninsulated terminals and connectors
HN 1 for conductor sizes 0,25 to 10 sqmm
HN 5 for conductor sizes 10 and 16 sqmm

HF

Open barrel brass terminals:
HF 1 for conductors sizes 0,5 to 4 sqmm (not BN-FAB/FAR type)
HF 2 for conductors sizes 0,08 to 1,3 sqmm (28 to 16 AWG)

MECHANICAL TOOLS

HP4

Ratchet controlled tooling for crimping insulated connectors

HP4-R
for conductors sizes 0,25 to 1,5 sqmm

HP4-B
for conductor sizes 1,5 to 2,5 sqmm

HP4-G
for conductor sizes 4 to 6 sqmm

HP4-C10

For sleeve connectors type C6-C6 and C10-C10.

ZP2

For crimping insulated and uninsulated connectors, 0,25 to 6 sqmm

TN

TN 70 SE
TNN 70

TN 120 SE
TNN 120

Tool Type	Application	Cond. Size sqmm	Dimensions LxH mm	Weight kg
TN 70 SE	*uninsulated terminals and connectors*	*6÷70*	450 x 127	2
TNN 70	*Polyamide PA6.6 insulated terminals and connectors*	*10÷70*	450 x 127	2
TN 120 SE	*uninsulated terminals and connectors*	*10÷120*	700 x 170	3
TNN 120	*Polyamide PA6.6 insulated terminals and connectors*	*10÷120*	700 x 170	3

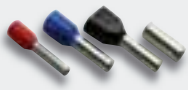
MECHANICAL TOOLS MARKETline RANGE

MLL 1

For crimping insulated terminals, 0,25 to 6 sqmm

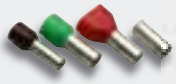
MLS 1

For crimping end sleeves 0,25 to 6 sqmm



MLS 2

For crimping end sleeves 6 to 16 sqmm



WIRE STRIPPERS

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

HB 1-U

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

HB 5

Wire stripper,
for PVC
insulated cables
0,25 to 6 sqmm

HB 7

A versatile tool
for cutting,
crimping,
and stripping.
Range: 0,2 to 6 sqmm

HB 8

New

Wire stripper,
for PVC
insulated cables
0,2 to 6 sqmm

New model with improved characteristics

CABLE CUTTERS

KT

KT 1
Hand operated tool
for cutting cables
up to a maximum Ø 15 mm

KT 2
Hand operated tool
for cutting cables
up to a maximum Ø 25 mm

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
6 to 250 sqmm
Weight: 1,5 kg
Length: 600 mm

5116660500
For cutting cables
6 to 500 sqmm
Weight: 3 kg
Length: 800 mm

CABLE TIE TOOLS

53130
55230

Type 5313022048
For plastic cable ties
from 2,2 to 4,8 mm
Automatic cutting
Weight : 0,2 kg
Length: 165 mm

Type 5523036090
For plastic cable ties
from 4,8 to 9 mm
Manual cutting
Weight : 0,3 kg
Length: 195 mm

55270

Type 5527030079
For stainless steel cable ties
width up to 7,9 mm
With cutting device
Weight: 0,56 kg
Length: 180 mm

HAND TOOL FOR CUTTING AND SEALING FLEXIBLE CONDUIT

KTS 1632

Cuts and seals flexibles 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: Ø6 to Ø42 mm.

Body: die-cast aluminium alloy
Blade material:
hardened carbon steel

MECHANICAL HOLE PUNCHING TOOL FOR CABLE TRUNKING

MT-FC47

Table denotes the punch/die set reference, for each hole size.
Suitable for punching holes in mild steel, fibreglass or plastic material, up to 3 mm thick.

Hole Dimensions					Maximum thickness of mild steel mm	Code
Ø mm	Ø inch	Pg	ISO	Tube		
15,2	.598	Pg 9	-	-		RD 15.2 S
16,2	.638	-	ISO-16	-		RD 16.2 S*
17,5	.688	-	-	-		RD 17.5 S*
18,6	.732	Pg 11	-	-		RD 18.6 S
19,1	.750	-	-	-		RD 19.1 S*
20,4	.803	Pg 13,5	ISO-20	-		RD 20.4 S
20,6	.812	-	-	-		RD 20.6 S*
22,5	.885	Pg 16	-	1/2"	2	RD 22.5 S
23,8	.937	-	-	-		RD 23.8 S*
25,4	1.000	-	ISO-25	-		RD 25.4 S*
27,0	1.063	-	-	-		RD 27 S*
28,3	1.115	Pg 21	-	3/4"		RD 28.3 S
28,6	1.125	-	-	-		RD 28.6 S*
30,5	1.210	-	-	-		RD 30.5 S*
31,8	1.250	-	-	-		RD 31.8 S*
32,5	1.280	-	ISO-32	-		RD 32.5 S*
34,6	1.357	-	-	1"		RD 34.6 S*
34,9	1.375	-	-	-		RD 34.9 S*
37,0	1.457	Pg 29	-	-		RD 37 S
38,1	1.500	-	-	-	3	RD 38.1 S*
40,5	1.594	-	ISO-40	-		RD 40.5 S*
41,3	1.625	-	-	-		RD 41.3 S*
43,2	1.699	-	-	1-1/4"		RD 43.2 S*
44,5	1.750	-	-	-		RD 44.5 S*
47,0	1.850	Pg 36	-	-		RD 47 S

**available upon request*

VAL P10
Supplied in a robust plastic case.

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

Max centre of hole to edge of trunking: 52 mm

Length : 247 mm
Width: 224 mm
Thickness : 66 mm
Weight: 2,78 kg

BENCH PRESS TOOLS

BENCH PRESS TOOLS

PNB-1

Hydro-pneumatic, production bench press, controlled by a foot operated pedal.
Extensive range of inter-changeable dies available for crimping a wide variety of connectors.
Producing a consistent and reliable crimped connection

Technical details:
- Nominal operating pressure: 7 bar
- Dimensions LxDxH: 180x320x700 mm
- Weight: 23 kg (without dies)

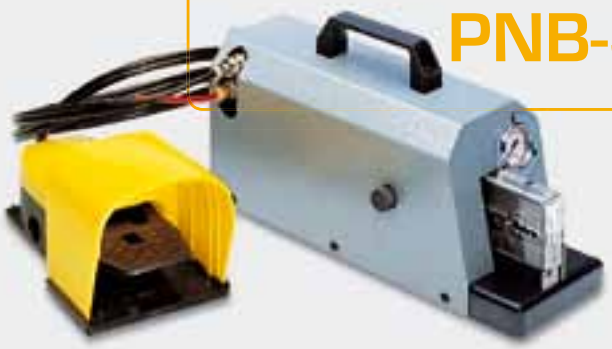
NOTE: for applications not listed, please contact Cembre.

INTERCHANGEABLE DIES (to be ordered separately)

Die Set	Guard*	Type of connector			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	*Bare 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*

PNB-3



Type	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. Compacted and efficient. Easy to operate, producing a secure and reliable crimped connection.

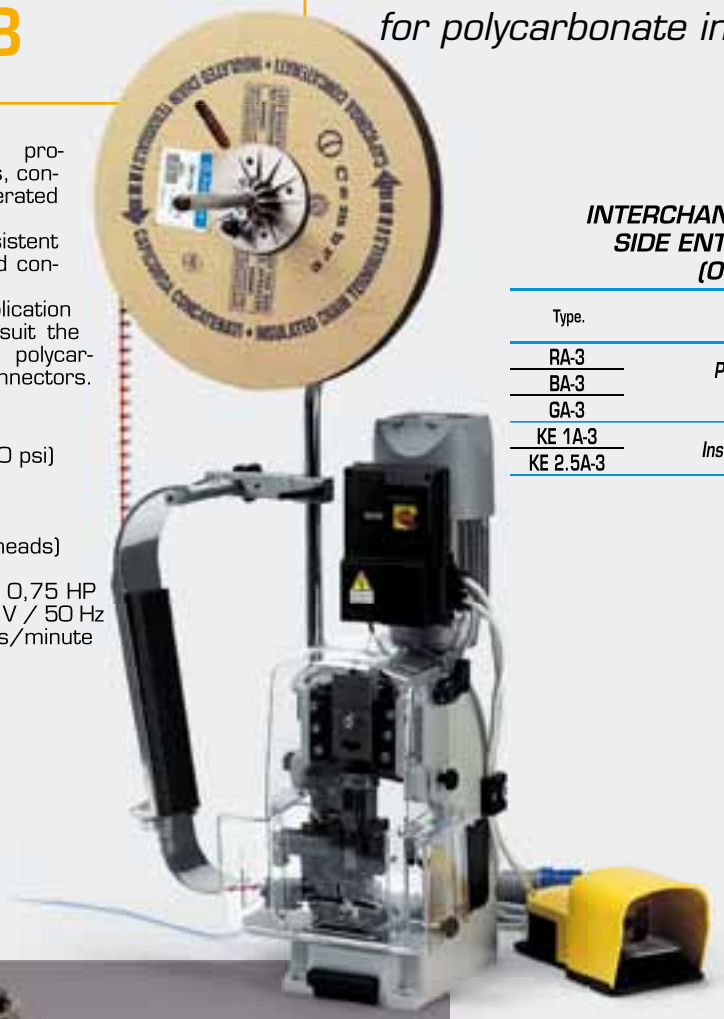
BENCH PRESS

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 applicator heads)
Motor:
- Power 0,55 kW / 0,75 HP
- Supply Voltage 220 V / 50 Hz
- Speed 2.800 turns/minute



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

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 150 to 156

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.*

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.

HT 51-KV version also available for Power Supply Companies

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 144-146) 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 144-146). RHM50 is suitable for installing the same range of connectors as RH50.

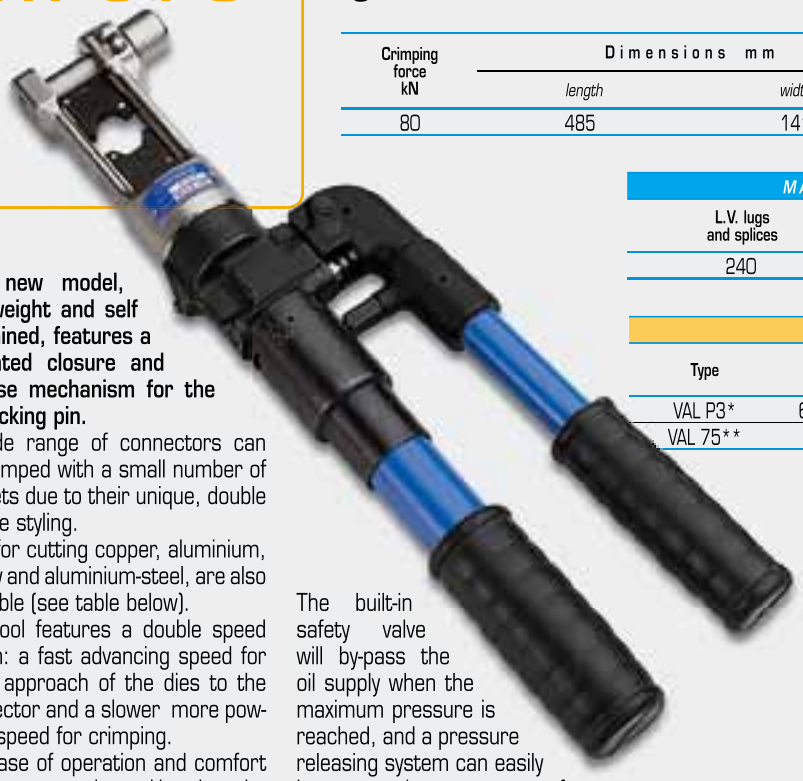
These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

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

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.*

This new model, lightweight and self contained, 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.

HYDRAULIC PRESSHEAD

RHU 81

general features

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

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

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146).
This new model, lightweight and self contained, 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.

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 150 to 156

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.*

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.

This lightweight 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.

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 150 to 156

HYDRAULIC CRIMPING TOOL

HT 131-C

general features

Crimping force kN	Dimensions mm		Weight kg
	length	*width*	
130	473	144	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

CE

Crimping force kN	Max operating pressure bar	Dimensions mm		Weight kg
		length	*width*	
130	700	232	124	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 144-146) **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 P8*	445x290xh115	1,2	—	❊

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

RHM 132

general features

CE

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 press-head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146).

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 P8*	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 150 to 156

HYDRAULIC CRIMPING TOOL

HT 131LN-C

general features

Crimping force kN	Dimensions mm		Weight kg
	length	*width*	
130	538	144	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*

New

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		Weight kg
		length	*width*	
130	700	298	122	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*

New

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 144-146). Is suitable for installing the same range of connectors as HT 131LN-C.

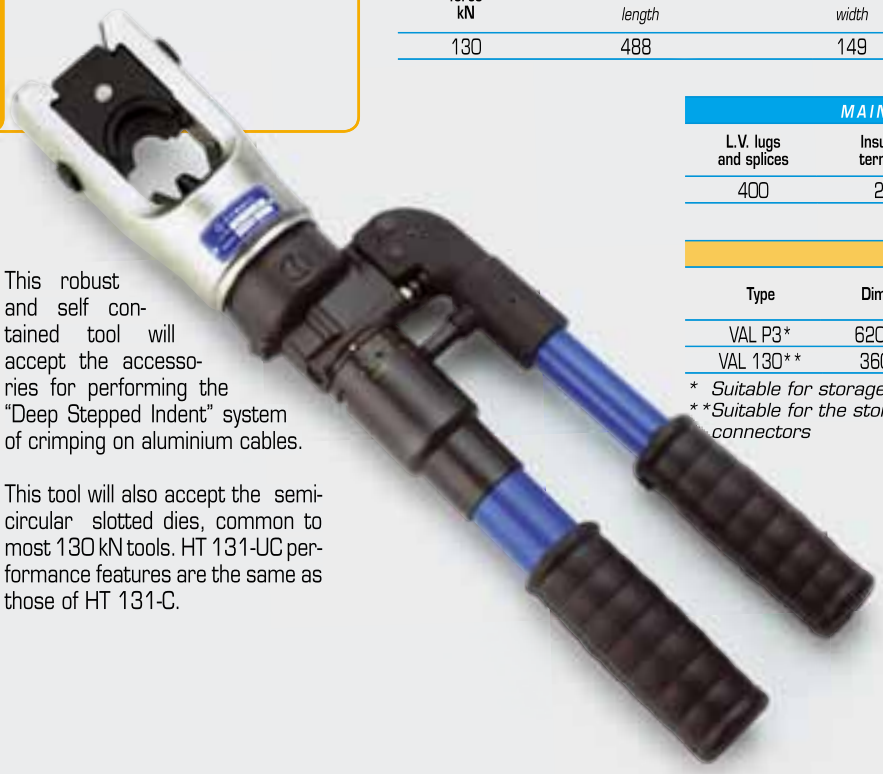
These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

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 144-146).

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 P8*	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 P8

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

HYDRAULIC PRESSHEADS

general features

ECW-H3D

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

MAIN APPLICATION - max section mm²

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
630	300	240	630

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146). 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.

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
	Ø 20 mm	Cu, Alu, Aldrey and Alu-Steel
	Ø 20 mm	Extra flexible steel with ≥ 200 strands
WT2-3D	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	

RHU 231

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

MAIN APPLICATION - max section mm²

Alu lugs and splices	Cu lugs and splices
500	630

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146).
For crimping up to 500 sqmm aluminium.
Dies are available also for crimping copper connectors.

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*

VAL 231

RHU 230-630

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

MAIN APPLICATION - max section mm²

Cu lugs and splices	Alu lugs and splices	"C" sleeve connectors	H.V. lugs and splices
400	630	185	400

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146).
It allows for crimping up to 630 sqmm aluminium (according to HN 68 S90). Adapter AU 230-130 C, is available as an optional extra enabling the head to utilise the semicircular slotted dies which are common to most 130 kN tools.

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 230-630

VAL MAT 230-630

RHU 520

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

MAIN APPLICATION - max section mm²

Lugs and splices	H.V. overhead lines
1200	630

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 144-146). 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.

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 520

VAL MAT 520

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

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 cables 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 144-146)

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	5,3

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 cables 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.

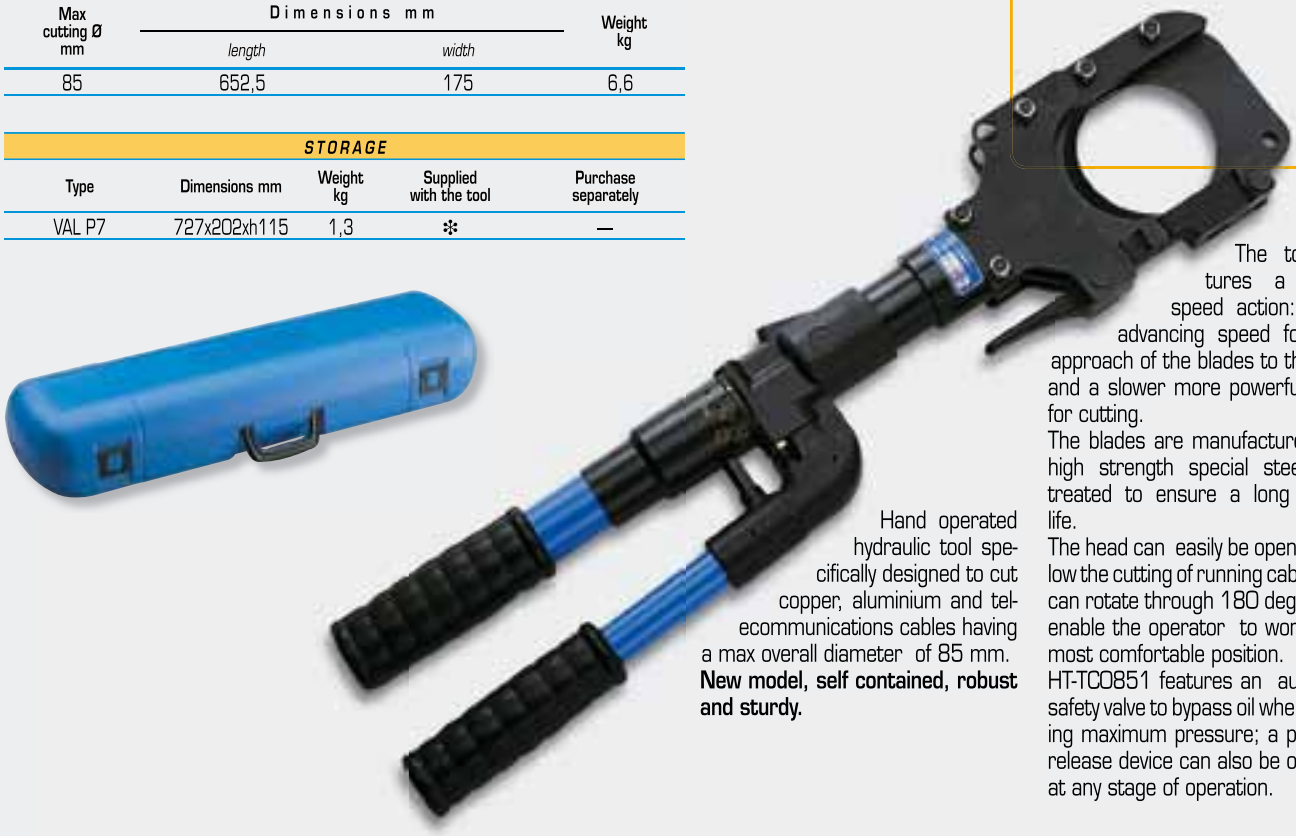
HYDRAULIC CUTTING TOOL

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 cables 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

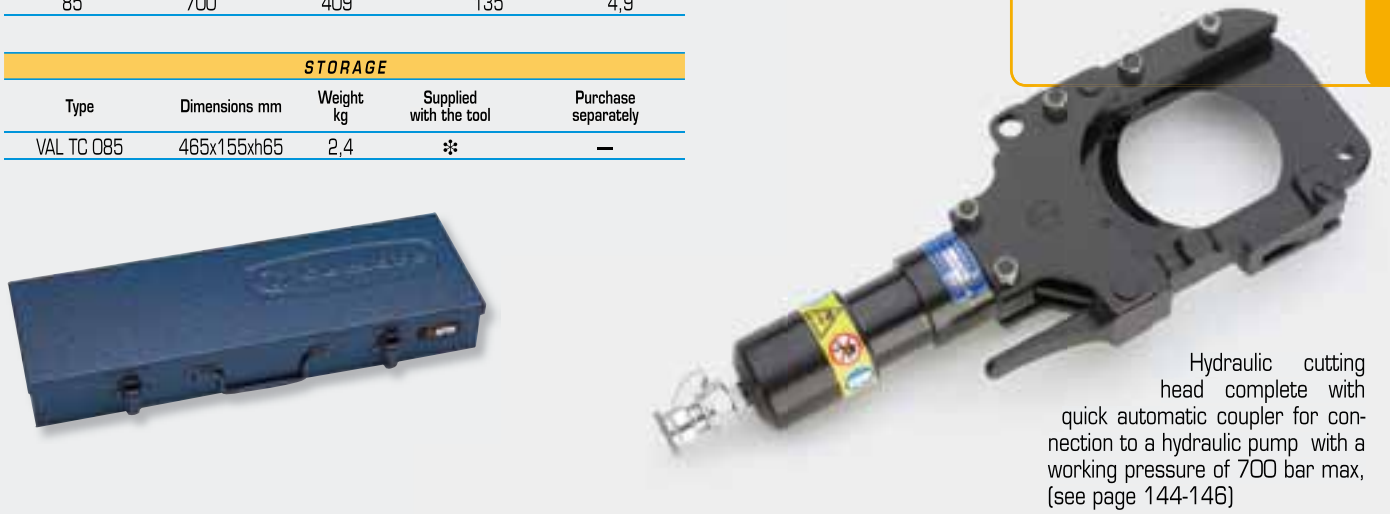
CE

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 144-146)

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 cables 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 144-146).

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 cables 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 144-146).

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-TC 026 TC 025 / HT-TC 026Y B-TC026
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 2,3 : 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 144-146)

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 90 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 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 Qty ≥ 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

CE

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 144-146)
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 144-146).
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

New

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 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

New

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 144-146)
TC055 has the same cutting capability as HT-TC055.

Hole punching head RH-FC 47

general features

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 47	47	52	700	255	118	3,1

Storage type	Dimensions mm	Weight kg
VAL P10*	315x300xh95	0,93

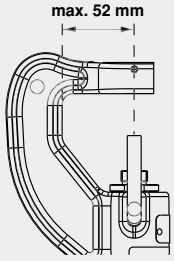
*Supplied with the head

Hole Dimensions					Maximum thickness of mild steel mm	Code
Ø mm	Ø inch	Pg	ISO	Tube		
15,2	.598	Pg 9	-	-	2	RD 15.2 S
16,2	.638	-	ISO-16	-		RD 16.2 S*
17,5	.688	-	-	-		RD 17.5 S*
18,6	.732	Pg 11	-	-		RD 18.6 S
19,1	.750	-	-	-		RD 19.1 S*
20,4	.803	Pg 13,5	ISO-20	-		RD 20.4 S
20,6	.812	-	-	-		RD 20.6 S*
22,5	.885	Pg 16	-	1/2"		RD 22.5 S
23,8	.937	-	-	-		RD 23.8 S*
25,4	1.000	-	ISO-25	-		RD 25.4 S*
27,0	1.063	-	-	-		RD 27 S*
28,3	1.115	Pg 21	-	3/4"		RD 28.3 S
28,6	1.125	-	-	-		RD 28.6 S*
30,5	1.210	-	-	-		RD 30.5 S*
31,8	1.250	-	-	-		RD 31.8 S*
32,5	1.280	-	ISO-32	-	3	RD 32.5 S*
34,6	1.357	-	-	1"		RD 34.6 S*
34,9	1.375	-	-	-		RD 34.9 S*
37,0	1.457	Pg 29	-	-		RD 37 S
38,1	1.500	-	-	-		RD 38.1 S*
40,5	1.594	-	ISO-40	-		RD 40.5 S*
41,3	1.625	-	-	-		RD 41.3 S*
43,2	1.699	-	-	1-1/4"		RD 43.2 S*
44,5	1.750	-	-	-		RD 44.5 S*
47,0	1.850	Pg 36	-	-		RD 47 S

*available upon request

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild steel, fibreglass or plastic material, up to 3 mm thick.

Hydraulic piercing head complete with automatic quick coupler, designed for punching holes from 15,2 up to 47 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 144-146).



Piercing heads RHT

general features

Type	Max piercing Ø mm	Max hole distance from bar edge (mm)	Max operating pressure bar	Dimensions mm		Weight kg
				length	width	
RHT 160	17	30	700	240	153	6,5
RHT 160-60N	17	60	700	240	181	9,2

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

*Supplied with the head

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

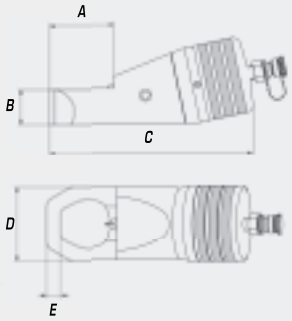
Hydraulic piercing head complete with automatic quick coupler, for piercing holes of various diameters in copper, aluminium and steel bars with max. thickness of 10 mm.
This compact and handy tool is widely used for transformer room connections, control switch boards and power plants.
For operation the head must be joined to a hydraulic pump developing a pressure of 700 bar (see page 144-146).

MAX. THICKNESS						
Hole diameter (mm)	6,5	8,5	10,5	13	15	17
Max thickness strep in copper	10	10	10	10	10	10
Max thickness strep in steel	10	10	10	9	8	7
Punch die/set	RT 6,5	RT 8,5	RT 10,5	RT 13	RT 15	RT 17

SPECIAL TOOLS

Nut splitting heads RHTD

general features



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 144-146).

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

CE

RHTD 1724

Suitable for splitting nuts mm	Max operating pressure bar	Weight kg
17 (M12) ÷ 24 (M16)	700	1,76

RHTD 3241

Suitable for splitting nuts mm	Max operating pressure bar	Weight kg
32 (M22) ÷ 41 (M27)	700	4,6

RHTD 3241T

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*	315x300xh95	0,93

**Supplied with the head*

ACCESSORIES

Flexible hoses

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

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.

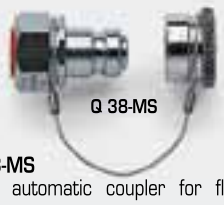
TF 300-Q 38 F
3 m length flexible hose equipped with automatic female quick coupler at one end and male threading at the other end.

Quick couplers

STANDARD VERSIONS

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.

INSULATED 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.

CRIMPING FORCE GAUGES FOR HYDRAULIC 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, RHC 131, RHC 131LN, B 131-C, B 131LN-C, B 135-C, B 135LN-C.

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.

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, RH 50, RHM 50, HT 61, RH 61, B15D (use adaptor available separately), B35-45D, B35-50D, B 46, B 51, B 54D, B55, B 62.

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.

IN-LINE PRESSURE TEST DEVICE FOR HYDRAULIC PUMPS

MPC 5

Manometer unit 700 bar MPC 5

The 700 bar MPC5 device is used to check the oil pressure at any point during the operation.

CHECKING DEVICES				
For Hydraulic Pumps and Tools	For Hydraulic Pumps	For Hydraulic Tools		
MPC 1	**MPC 5**	**MPC 2**	**MPC 4**	**MPC 7**
PO 7000	PO 7000	HT 131-C	ECW-H3D	HT 45
CPP-O	CPP-O	HT 131LN-C	RHU 240-3D-850	HT 51
CPE-1	CPE-1	HT 120		HT 61
B70M-P24	B70M-P24	RHC 131		B15D (use adaptor available separately)
HT 45		RHC 131LN		B35-45D
HT 51		B 131-C		B35-50D
HT 61		B 131LN-C		B 46
HT 81-U		B 135-C		B 51
HT 131-C		B 135LN-C		B 54D
HT 131LN-C				B 55
HT 131-UC				B 62
HT-TC026				RH 50
HT-TC051				RHM 50
HT-TC055				RH 61
HT-TC065				
HT-TC041				
HT-TC0851				

CORDLESS HYDRAULIC TOOLS

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, 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.*
- *The B51, B135-C, B135LN-C, B135-UC, B131-C, B131LN-C and B131-UC will accept die sets common to the Cembre 50 and 130 kN tooling range.*
- ***Common features:***

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

new more powerful Ni-MH battery 14.4V - 3.0Ah; 50% more energy, less memory effect, better environmental compatibility.

SUPPLIED WITH

1. **CB 1430H** 14.4 V 3.0 Ah Ni-MH high power battery (2 pcs.).
2. **CFC 230** Battery charger.
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 12-24IC** car battery charger.
   (INPUT 12-24 V DC; OUTPUT 9.6-14.4 V DC)

B 51 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 131-C 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 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.*

**only for B54D-D6*

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 230** Battery charger.
3. **Adaptor CBA 96-144**.

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

OPTIONAL ACCESSORIES

4. **CFC 12-24IC** car battery charger. (INPUT 12-24 V DC; OUTPUT 9.6-14.4 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.
Battery condition displayed after every crimping operation and battery insertion, to show 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	448x306x122	1,4	❄	—

The tool is supplied with:
- *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 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... ; 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	

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	448x306x122	1,4	❄	—

The tool is supplied with:

- *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.
Battery condition displayed after every crimping operation and after any battery insertion, to show 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 150-156.

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 150 to 156

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	448x306x122	1,4	❄	—

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.
Battery condition displayed after every crimping operation and after any battery insertion, to show 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 150-156.

The tool is supplied with:

- *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

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

Cembre

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	500x350x140	2,3	❄	—
VAL MAT-W	175x96x45	0,93	—	❄

The professional tool ideal for OH lines and residential service applications.

New

The tool is supplied with:

- *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.*

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.

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.
Battery condition displayed after every crimping operation to show the residual battery power.

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 dies for:
one-time disposable lock hasps,
4AWG Alumoweld; ACSR 1/0

INTERCHANGEABLE CRIMPING JAWS			
REF.	GROOVES	CRIMPING DIE COMPATIBILITY	
CDD6	"D3" TO ACCEPT ALL "W" STYLE CRIMPING DIES + "BG" FIXED GROOVE	FCI Burndy Greenlee 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 dies for:** one-time disposable lock hasps; 4AWG Alumoweld; ACSR 1/0		

Jaws rotate 180°

Detail of the pin for the quick jaws change

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 51

general features

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
50	297	302	94	14,4 V 3.0 Ah	4,0

DOUBLE ACTION SPEED

14.4V 3.0Ah Ni-MH

MAIN APPLICATIONS - max section mm²			
L.V. lugs and splices	Insulated terminals	End sleeves	"C" sleeve Connectors
240	70	120	70

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P5	543x412xh130	2,3	❊	—

The tool is supplied with:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing 21 die sets*

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 51 will accept die sets common to the Cembre 50 kN tooling range.

Fitted with a maximum hydraulic pressure valve.
Complete with a battery condition display, which after every operation indicates the residual battery power.
Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.

B 51-KV version also available for Power Supply Companies

Available in B 51L standard and B 51L-KV version for Power Supply Companies for use with W dies.

B 51L-KV

B 51L

Lightweight and balanced

Motor ventilation

Switch protected against accidental operation

Battery condition display

Automatic slot-in battery

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 55

general features

DOUBLE ACTION SPEED

14.4V 3.0Ah Ni-MH

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	*height*	*width*		
55	385	302	94	14.4 V 3.0 Ah	5

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 with:

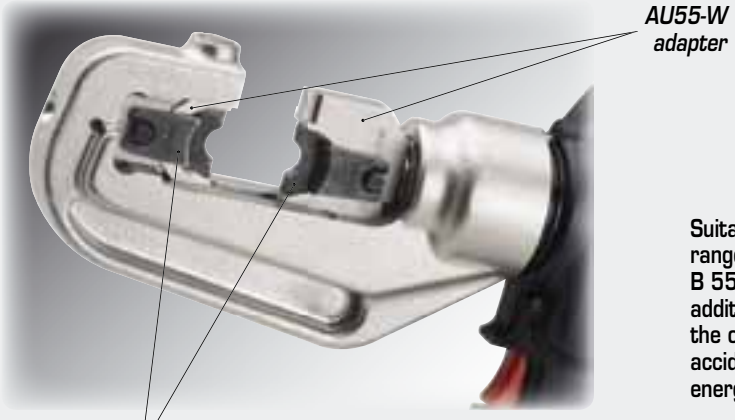
- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

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 battery condition display, which after every operation 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 150 to 156

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 135-C

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	height	width		
130	361	302	94	14,4 V 3.0 Ah	6,65

DOUBLE ACTION SPEED — 14.4V 3.0Ah Ni-MH

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 P9-C	543x412xh130	2,2	❇	—

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 B135-C will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).
Fitted with a maximum hydraulic pressure valve.

Complete with a battery condition display, which after every operation indicates the residual battery power.
Extremely quiet in operation, with very little vibration.
Ergonomically designed with a sculptured body for operator comfort.

The tool is supplied with:
- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 8 sets of semi-circular slotted dies*

B 135-C-KV version also available for Power Supply Companies

B 135LN-C

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	height	width		
130	424	302	94	14,4 V 3.0 Ah	8,15

DOUBLE ACTION SPEED — 14.4V 3.0Ah Ni-MH

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 P9-C	543x412xh130	2,2	❇	—

Also available in the B135LN-C version, featuring a large 42 mm jaw opening, for an easier introduction/removal of large size compression terminations and joints.

New

The tool is supplied with:
- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 8 sets of semi-circular slotted dies*

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 135-UC

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
130	376	302	94	14,4 V 3.0 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 P9-C	543x412xh130	2,2	❄	—

The tool is supplied with:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 8 sets of semi-circular slotted dies*

14.4 V cordless hydraulic crimping tool, lightweight and balanced for single hand operation.
This tool will accept the accessories for performing the "Deep Stepped Indent" system of crimping on aluminium cables.
The B135-UC will accept all semi-circular slotted dies, common to most 12 tons tools (U dies).
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.

Fitted with a maximum hydraulic pressure valve.
Complete with a battery condition display, which after every operation indicates the residual battery power.
Extremely quiet in operation, with very little vibration.
Ergonomically designed with a sculptured body for operator comfort.

Battery condition display

Motor ventilation

Switch protected against accidental operation

Automatic slot-in battery

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 131-C

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	height	width		
130	420	250	100	14,4 V 3.0 Ah	7,4

DOUBLE ACTION SPEED — 14.4V 3.0Ah Ni-MH

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 P19	542x412xh197	3,2	❇	—

Available as optional accessories:
- *ESC600 cable for connection to a 12V dc external power supply/vehicle battery length 6 m.*

The tool is supplied with:
- *Basic tool complete with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 14 sets of semi-circular slotted dies*

- 14.4 V cordless hydraulic crimping tool, lightweight and balanced for single hand operation. This tool 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 tool is powered by 14.4 V dc Ni-MH 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 connector with the other hand.
- The operating buttons, crimp/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 crimping operation, saving energy and extending battery life.
- The residual battery capacity is automatically displayed after every cycle.
- 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.

B 131-C-KV version also available for Power Supply Companies

B 131LN-C

New

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	height	width		
130	480	250	100	14,4 V 3.0 Ah	8,9

DOUBLE ACTION SPEED — 14.4V 3.0Ah Ni-MH

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 P19	542x412xh197	3,2	❇	—

Also available in the B131LN-C version, featuring a large 42 mm jaw opening, for an easier introduction/ removal of large size compression terminations and joints.

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

14.4 V CORDLESS HYDRAULIC CRIMPING TOOL

B 131-UC

general features

Crimping force kN	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
130	435	250	100	14,4 V 3.0 Ah	7,4

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 P19	542x412xh197	3,2	❄	—

The tool is supplied with:
- *Basic tool complete with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and 14 sets of semi-circular slotted dies*

Available as optional accessories:
- *ESC600 cable for connection to a 12V dc external power supply/vehicle battery length 6 m.*

- 14.4 V cordless hydraulic crimping tool, lightweight and balanced for single hand operation. This 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.
- 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 tool is powered by 14.4 V dc Ni-MH 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 connector with the other hand.
- The operating buttons, crimp/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 crimping operation, saving energy and extending battery life.
- The residual battery capacity is automatically displayed after every cycle.
- 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.

Battery condition display

Motor ventilation

High power battery

Socket for 12÷14.4 V dc external power supply

Operating and pressure release buttons mechanically interlocked

Easy to operate with only one hand

Cable type ESC600

These tools are supplied without dies. For die selection, please refer to chart on pages 150 to 156

OVERHEAD LINE APPLICATION

B35-TC025

9.6 V CORDLESS HYDRAULIC CUTTING TOOL

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

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.
Battery condition displayed after every cutting operation and battery insertion, to show the residual battery power.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315xh116	1,5	❊	—

The tool is supplied with:

- *Basic tool with battery and wrist strap*
- *Spare battery*
- *Battery charger*
- *Battery adapter*
- *Plastic carrying case suitable for storing the tool and accessories*

Supplied in a robust plastic case to accommodate the tool and all the accessories.
Two batteries and charger included.

OVERHEAD LINE APPLICATION

B-TC026

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
25	295	302	94	14,4 V 3.0 Ah	4,3

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412xh130	2,2	❊	—

The tool is supplied with:

- *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 cutting tool, 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.
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. The crimping head can rotate through 180° for ease of operation. Fitted with a maximum hydraulic pressure valve. Complete with a battery condition display, which after every operation 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 116.

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC04

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
40	492	250	100	14,4 V 3.0 Ah	7,6

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL BTC04	566x410xh130	6,7	❄	—

The tool is supplied with:

- *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 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 90 degrees.
- The tool is powered by 14.4 V dc Ni-MH 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 cycle.
- 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 118.

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

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

OVERHEAD LINE APPLICATION

B-TC051Y

general features

Max cutting Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
50	414	302	94	14,4 V 3.0 Ah	5,4

STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412xh130	2,2	❄	—

The tool is supplied with:

- *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 cutting tool, lightweight and balanced for single hand operation.
Specifically designed to cut copper, aluminum, aluminum-steel cables (ACSR) 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. Fitted with a maximum hydraulic pressure valve. Complete with a battery condition display, which after every operation indicates the residual battery power.
Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.

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

OVERHEAD LINE APPLICATION

B-TC055

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

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	9,41

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.

Fitted with a maximum hydraulic pressure valve. Complete with a battery condition display, which after every operation 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 120.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL B-TC095	565x410x132	6,7	❊	—

The tool is supplied with:
- *Basic tool with battery and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

INDUSTRIAL APPLICATION

B-TC051

14.4 V CORDLESS HYDRAULIC CUTTING TOOL

general features

Max cutting mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
50	414	302	94	14,4 V 3.0 Ah	5,4

14.4 V cordless hydraulic cutting tool, lightweight and balanced for single hand operation.
Specifically designed to cut copper, aluminium and telecommunication cables 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. Fitted with a maximum hydraulic pressure valve. Complete with a battery condition display, which after every operation indicates the residual battery power.
Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412x130	2,2	❊	—

The tool is supplied with:
- *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 CUTTING TOOL

INDUSTRIAL APPLICATION
B-TC065

general features

Max cutting mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
65	445	305	94	14.4 V 3.0 Ah	6,4

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412x130	2,2	❇	—

The tool is supplied with:
- *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 cutting tool, lightweight and balanced for single hand operation.
Specifically designed to cut copper, aluminium and telecommunication cables having a max overall diameter of 65 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 battery condition display, which after every operation 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 CUTTING TOOL

INDUSTRIAL APPLICATION
B-TC095

general features

Max cutting mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
95	527	305	94	14.4 V 3.0 Ah	7,36

STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL B-TC095	565x410x132	6,7	❇	—

The tool is supplied with:
- *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 cables 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 battery condition display, which after every operation indicates the residual battery power.

Extremely quiet in operation, with very little vibration. Ergonomically designed with a sculptured body for operator comfort.

B-FC48

14.4 V CORDLESS HYDRAULIC TOOL FOR PUNCHING HOLES

general features

Max hole punch Ø mm	Dimensions mm			Battery	Weight kg (with battery)
	length	*height*	*width*		
47	351	302	94	14,4 V 3.0 Ah	5

DOUBLE ACTION SPEED

14.4V 3.0Ah Ni-MH

14.4 V cordless hydraulic tool for punching holes from 15,2 up to 47 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.

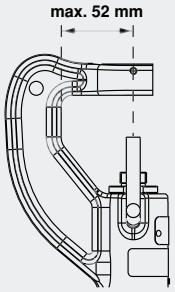
The punching head can rotate through 180° for ease of operation.

Complete with battery condition display, which after every operation 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-FC47 (see page 99).

Max centre of hole to edge of trunking: 52 mm



STORAGE				
Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P9	543x412xh130	2,2	❊	—

The tool is supplied with:

- *Basic tool with battery, wrist strap and shoulder strap*
- *Spare battery*
- *Battery charger*
- *Plastic carrying case suitable for storing the tool and accessories*

Table denotes the punch/die set reference, for each hole size. Suitable for punching holes in mild steel, fibreglass or plastic material, up to 3 mm thick.

Hole Dimensions					Maximum thickness of mild steel mm	Code
Ø mm	Ø inch	Pg	ISO	Tube		
15,2	.598	Pg 9	-	-		**RD 15.2 S**
16,2	.638	-	ISO-16	-		**RD 16.2 S***
17,5	.688	-	-	-		**RD 17.5 S***
18,6	.732	Pg 11	-	-		**RD 18.6 S**
19,1	.750	-	-	-		**RD 19.1 S***
20,4	.803	Pg 13,5	ISO-20	-		**RD 20.4 S**
20,6	.812	-	-	-		**RD 20.6 S***
22,5	.885	Pg 16	-	1/2"	2	**RD 22.5 S**
23,8	.937	-	-	-		**RD 23.8 S***
25,4	1.000	-	ISO-25	-		**RD 25.4 S***
27,0	1.063	-	-	-		**RD 27 S***
28,3	1.115	Pg 21	-	3/4"		**RD 28.3 S**
28,6	1.125	-	-	-		**RD 28.6 S***
30,5	1.210	-	-	-		**RD 30.5 S***
31,8	1.250	-	-	-		**RD 31.8 S***
32,5	1.280	-	ISO-32	-		**RD 32.5 S***
34,6	1.357	-	-	1"		**RD 34.6 S***
34,9	1.375	-	-	-		**RD 34.9 S***
37,0	1.457	Pg 29	-	-		**RD 37 S**
38,1	1.500	-	-	-	3	**RD 38.1 S***
40,5	1.594	-	ISO-40	-		**RD 40.5 S***
41,3	1.625	-	-	-		**RD 41.3 S***
43,2	1.699	-	-	1-1/4"		**RD 43.2 S***
44,5	1.750	-	-	-		**RD 44.5 S***
47,0	1.850	Pg 36	-	-		**RD 47 S**

**available upon request*

HYDRAULIC PUMPS AND UNITS

HYDRAULIC PUMPS

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*

CE

CPE-1 CPE-1-110

New

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.

Operating pressure bar	Dimensions mm			Weight kg
	length	width	height	
700	372	223	482	21

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:
- **RCP-B70**
  remote foot controller
- **CS-CPE-1**
  transportation trolley

RCP-B70

CS-CPE-1

CE

CPE-0-P12N

Portable electro-hydraulic pump, operating at 12 V, and developing a pressure of 700 bar.
This pump can either be operated by battery for independent use, or by an external 12V dc supply.
Complete with internal battery charger,

CPE-0-P12N is supplied with:
– 3 m flexible hose complete with male + female 3/8" NPT self-lock quick couplers

Operating pressure bar	Dimensions mm			Weight kg
	length	width	height	
700	343	162	353	19,5*

**without accessories*

– Remote control cable
– External 12V dc supply cable
– Back-up 12V dc battery
– Battery charger 240 V ac supply cable
– Canvas holdall for carrying accessories

Available as optional accessories:
– Remote pedal control
– External battery charger

CPP-1

The CPP-1 air hydraulic power unit intensifies an air supply of 3÷6 bar (60-120 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 3 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	220	220	350	12

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

B70M-P24

24V 3.3Ah Ni-MH

Portable electro-hydraulic pump, operating at 24V dc by battery for independent use, developing 700 bar pressure; it features an integral socket for connection to an external 24 V dc supply. It is also available insulated and operated by remote pneumatic hand controller and supplied with an non-conductive hose.

Operating pressure bar	Dimensions mm			Weight kg
	length	*width*	*height*	
700	390	163	323	9,2*

**without accessories*

B70M-P24 is supplied with:
- 3 m flexible hose complete with male + female 3/8" NPT self-lock quick couplers
- Remote control
- Shoulder strap
- External battery charger
- Canvas holdall for carrying accessories

Available as optional accessories:
- Spare 24V dc battery
- 24 V dc external supply connection cables:
  - **ESC 300 CEE** with 24 V dc CEE type plug (3 m length)
  - **ESC 600** with crocodile clips (6 m length)
- **RCP-B70** remote foot pedal controller
- **ERCH-WH** remote hand controller (adjustable on 3 m length flexible hose)
- **TRS-B70** canvas rucksack (for carrying the pump)
- **SH-B70** hook (for hanging the pump from a ladder)

SUPPLIED WITH

1. Powerful 24V 3.3Ah Ni-MH battery.
2. Plug-in remote hand controller with bezel-locking electrical connector.
3. 3metre, high pressure flexible hose with automatic self-lock, quick couplers.
4. Self-ventilating battery charger for in-house use.
5. Shoulder strap for attachment to rings provided on pump.
6. Canvas accessories bag.

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.*
***Main features**:*
INPUT 230V~ 50-60Hz; OUTPUT 24V ⎓ thermal and short circuit protection.
***Current supply**: up to 4A extended use; 18A for 50 s; 25A for 8 s.*

EPS 115-230.24
mains power supply
115-230V

TRS-B70
CANVAS RUCKSACK
(for carrying the pump)

ERCH-WH
CONTROL HANDLE
FOR FLEX HOSES

Operating push-button

Pressure release button

VAL-P18
Durable case for pump and accessories.

SH-B70
HOOK
(for hanging the pump from a ladder)

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	315x120	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 04246

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 30 kV (36 kV maximum cable operating voltage allowed).

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

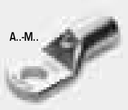
EK 500P

EK 100

DIE SELECTOR CHART

DIE SELECTOR CHART

HYDRAULIC TOOLS

APPLICATION	CONDUCTOR: Conductor Size sqmm, Low str.	CONDUCTOR: Flex	CONNECTOR: TERMINAL	CONNECTOR: TERMINAL	CONNECTOR: SPLICE	B 15D: DIE SET	B 35-45D: NEST	B 35-45D: INDENTOR	B 35-45D: DIE SET	B 35-50D: NEST	B 35-50D: INDENTOR	B 35-50D: DIE SET	HT 45-E: NEST	HT 45-E: INDENTOR	HT 45-E: DIE SET
COPPER CONDUCTORS	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 (1)									
 A..-M..	4 ÷ 6		A 1-M.. A 1-L..		L 1-M L 1-P	ME03/2-15 (1) MA03/3-15 (1)	MA 1	PA 1	ME 1 (1)	MA 1-50	PA 1-50	ME 1-50 (1)	MA 1	PA 1	ME 1 (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 (1)	MA 2.3		ME 2 (1)	MA 2.3-50		ME 2-50 (1)	MA 2.3		ME 2 (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 (1)		PA 5	ME 3 (1)		PA 5-50	ME 3-50 (1)		PA 5	ME 3 (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)
	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)
	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)
 L..-M..	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)
	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)
	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)
 L..-P..	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)
	185	150* 185	A 37-M.. A 37-L.. A 37-4ESI	2A 37-M..	L 37-M L 37-P										
	240	185* 240	A 48-M.. A 48-L.. A 48-4ESI	2A 48-M..	L 48-M L 48-P										
 2A..-M..	300	240 300	A 60-M.. A 60-L.. A 60-4ESI	2A 60-M..	L 60-M										
	400	300 400	A 80-M.. A 80-4ESI	2A 80-M..	L 80-M										
	500	400 500	A 100-M.. A 100-4ESI	2A 100-M..	L 100-M										
 A..-4ESI	630	500 630	A 120-M.. A 120-4ESI	2A 120-M..	L 120-M										
	800	630	A 160-M.. A 160-4ESI	2A 160-M..	L 160-M										
	1000	800	A 200-M..	2A 200-M..	L 200-M										
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)
		50	A 12-M..						ME 12 (2)	MA 12-50		ME 12-50 (2)			ME 12 (2)
 A..-M..		70	A 17-M..						ME 17 (2)	MA 17-50	PA 19-50	ME 17-50 (2)			ME 17 (2)
		95	A 20-M..						ME 20 (2)	MA 20-50		ME 20-50 (2)			ME 20 (2)
		120	A 29-M..						ME 29 (3)			ME 29-50 (3)			ME 29 (3)
		150	A 35-M..												
		185	A 40-M..												

HYDRAULIC TOOLS

Conductor Size sqmm (Low str. / Flex)	HT 51 B 51 RH 50 B 55: NEST	HT 51 B 51 RH 50 B 55: INDENTOR	HT 51 B 51 RH 50 B 55: DIE SET	HT 81-U RHU 81: DIE SET	HT 81-U RHU 81: DIE SET	HT 120 and tools and heads with 130 kN crimping force: NEST	HT 120: INDENTOR	HT 120: DIE SET	ECW-H3D: NEST	ECW-H3D: INDENTOR	ECW-H3D: DIE SET	RHU 520: NEST	RHU 520: INDENTOR	RHU 520: DIE SET
0,25 ÷ 2,5														
4 ÷ 6	MA 1-50	PA 1-50	ME 1-50 (1)											
10	MA 2.3-50		ME 2-50 (1)		ME 2.19-U (1)	MA 2-C		ME 2-C (1)						
16		PA 5-50	ME 3-50 (1)	MA 3.5-U	ME 3.14-U (1)	MA 3-C		ME 3-C (1)						
25	MA 5-50		ME 5-50 (1)		ME 5.7-U (1)	MA 5-C	PA 10-C	ME 5-C (1)						
35 / 25* 35	MA 7-50	PA 10-50	ME 7-50 (1)	MA 7.14-U		MA 7-C		ME 7-C (1)						
50 / 35* 50	MA 10-50		ME 10-50 (2)	MA 10.19-U	ME 10.24-U (2)	MA 10-C		ME 10-C (1)						
70 / 50* 70	MA 14-50	PA 19-50	ME 14-50 (2)	MA 7.14-U	ME 3.14-U (2)	MA 14-C		ME 14-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
95 / 70* 95	MA 19-50		ME 19-50 (2)	MA 10.19-U MA 19-U	ME 2.19-U (2)	MA 19-C	PA 24-C	ME 19-C (1)						
120 / 95* 120	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			ME 30-50 (3)	MA 30.80-U	ME 30-U (2)	MA 30-C		ME 30-C (1)						
185 / 150* 185			ME 37-50 (3)	MA 37-U	ME 37-U (2)	MA 37-C	PA 48-C	ME 37-C (1)						
240 / 185* 240			ME 48-50 (3)	MA 48-U	ME 48-U (3)	MA 48-C		ME 48-C (2)						
300 / 240 300						MA 60-C	PA 60-C	ME 60-C (3)						
400 / 300 400								ME 80-C (3)	MA 80-3D	PA 100-3D	ME 80-3D (2)	MA 80-520		ME 80-520 (2)
500 / 400 500									MA 100-3D		ME 100-3D (2)	MA 100-520	PA 120-520	ME 100-520 (2)
630 / 500 630									MA 120-3D	PA 120-3D	ME 120-3D (2)	MA 120-520		ME 120-520 (2)
800 / 630												MA 160-520	PA 200-520	ME 160-520 (2)
1000 / 800												MA 200-520		ME 200-520 (2)
Extra flexible 35	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)						
Extra flexible 50	MA 12-50		ME 12-50 (2)	MA 12.20-U	ME 12.17-U (2)	MA 12-C		ME 12-C (1)						
Extra flexible 70	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)	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
Extra flexible 95	MA 20-50		ME 20-50 (2)	MA 12.20-U	ME 9.20-U (2)	MA 20-C		ME 20-C (1)						
Extra flexible 120			ME 29-50 (3)	MA 29.80-U	ME 29-U (2)	MA 29-C		ME 29-C (1)						
Extra flexible 150			ME 35-50 (3)	MA 35-U	ME 35-U (2)	MA 35-C	PA 48-C	ME 35-C (1)						
Extra flexible 185			ME 40-50 (3)	MA 40-U	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 51 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
	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		
	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		

EXTRA FLEXIBLE COPPER CONDUCTORS

	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		
	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									
	16	PKD 16..	PKE 16..	PKC 16..	KE 16..						MTT 16-50		MTT 16-50					
	25	PKD 25..	PKE 25..	PKC 25..	KE 25..				KE 35-15		MTT 25-50		MTT 25-50					
	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					

= Indent crimp = Radial crimp = Trapezium crimp

DIE SELECTOR CHART

TAP-OF ON COPPER CONDUCTOR

APPLICATION	CONDUCTOR		CONNECTOR				HYDRAULIC TOOLS							
							B 35-45D	B 35-50D	HT 45-E	HT 51 RH 50 B 51 B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
	Seccion Conductor mm²		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						*MC 70-50 (3)	MC 70-80-U (3)	MC 70-C (3)	MC 70-3D (1)	
	*70 ÷ 50	40 ÷ 4	C 70 - C 35 ST	C 70 - C 35										
	*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							MC 95-80-U (3)	MC 95-C (3)	MC 95-3D (1)	
	100 ÷ 95	70 ÷ 40	C 95 - C 70 ST	C 95 - C 70										
	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								MC 185-C (3)	MC 185-3D (1)	
	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										
	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									MC 240-3D (1)	
	240 ÷ 150	120 ÷ 95	C 240 - C 120 ST	C 240 - C 120										

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 CABLES

APPLICATIONS	CONDUCTOR	CONNECTORS			HYDRAULIC TOOLS			
					HT 131-UC RHU 131-C B 131-UC			
	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 131-UC		
						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


REGISTRO ITALIANO NAVALE
1861
UL
Lloyd's Register
TA
TYPE APPROVAL
VDE
GS
geprüfte Sicherheit

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
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CA352M12	8005726
CA502M12	8005736
CA952M12	8005756
CA120M12	8005566
CA120M16	8005570
CA150M12	8005576
CA150M16	8005580
CA150R-2M14	2533010
CA150R-M12	2532810
CA150R-M14	2532850
CA150S-2M14	2533330
CA150S-M12	2533210
CA150S-M14	2533250
CA185M12	8005586
CA185M16	8005590
CA240M12	8005594
CA240M16	8005596
CA240M20	8005600
CA200R-2M14	2533570
CA200R-M14	2533530
CA240R-2M14	2533850
CA240R-M14	2533770
CA300M12	8005604
CA300M16	8005608
CA300M20	8005610
CA25-2M12	2530210
CA25-2M8	2530130
CA25-M10	2530050
CA25-M12	2530090
CA25-M8	2530010
CA35M10	8005524
CA35M12	8005526
CA35M16	8005530
CA315R-2M14	2534430
CA315R-M14	2534330
CA315S-2M14	2534610
CA315S-M14	2534530
CA40S-2M12	2530510
CA40S-M12	2530450
CA40S-M16	2530490
CA50RM12	2530790
CA50SM12	2531110
CA50SM16	2531150
CA50R-2M12	2530870
CA50R-M12	2530790
CA50S-2M12	2531190
CA50S-M12	2531110
CA50S-M16	2531150
CA70-M12	2531870
CA70SM10	2531420
CA70SM12	2531430
CA70SM14	2531450
CA70S-2M12	2531510
CA70S-M12	2531430
CA70S-M16	2531470
CA95R-2M14	2532230
CA95R-M12	2532150
CA95R-M14	2532190
CA95M10	8005554
CA95M12	8005556
CA95M16	8005560
CA95S-2M14	2532610
CA95S-M12	2532450
CA95S-M14	2532490

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Canvas Bag 001	2593300
Canvas Bag 007	2593295
Canvas Bag 010	2593298
Canvas Bag 011	2593299
CAA10-M12	2760005
CAA120-M12	2760310
CAA150-M12	2760350
CAA16-M12	2760012
CAA185-M12	2760430
CAA240-M12	2760590
CAA25-M12	2760030
CAA300-34-M12	2760680
CAA35-M12	2760070
CAA35ADN	2762260
CAA50-M12	2760110
CAA70-M12	2760150
CAA95-M12	2760190
CB1430H	2598502
CB9620H	2598503
CBA96-144	2598508
CBP-F405	2076535
CBP-F408	2076540
CBP-F408P	2076543
CBP-F608	2076545
CBP-F608P	2076550
CBP-M3	2076310
CBP-M3,5	2076315
CBP-M3,5/1	2076320
CBP-M4	2076325
CBP-M5	2076335
CBP-M6	2076340
CBP-M6/1	2076345
CBP-M608	2076560
CBP-M7	2076350
CBP-M8	2076355
CBP-P10	2076455
CBP-P12	2076460
CBP-P8	2076450
CBP-PP12	2076480
CBP-PP12/25	2076490
CBP-PPL30	2076498
CBP-U3	2076380
CBP-U3,5	2076385
CBP-U4	2076395
CBP-U4/1	2076400
CBP-U4/2	2076405
CBP-U4/3L	2076408
CBP-U5	2076410
CBP-U6	2076415
CC8.9	3041630
CC9.12	3041632
CDD6	2599940
CDD6-8	2599941
CFA2600	3031942
CFA300	3031900
CFA400	3031914
CFA600	3031928
CFAB600	3031970
CFAR600	3031956
CFC230	2598505
CFC12-24IC	2598507
CGP-F608	2076845
CGP-F608P	2076850
CGP-M3	2076610
CGP-M3,5	2076615
CGP-M4	2076625
CGP-M5	2076635
CGP-M6	2076640
CGP-M6/1	2076645
CGP-M608	2076860
CGP-M7	2076650
CGP-M8	2076660
CGP-M8/1	2076665
CGP-P10	2076755
CGP-P12	2076760
CGP-P14	2076765
CGP-PP12	2076780
CGP-PP17	2076790
CGP-U3,5	2076685
CGP-U4	2076695

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CGP-U5	2076710
CGP-U6	2076715
CMA600	3031984
CMB1	2599943
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
CPE-0-P12N	2592735
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-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
CS-CPE-1	2592748
ECW-H3D	2630073
ELB-3	2598422
ERCH	2596112
ERCH-WH	2596114
ESC300CEE	2596110
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
FDM20	3017377
FDM25	3017379
FDM32	3017381
FDM40	3017383
FDM50	3017385
FDM63	3017387

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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
G80X2.4	3041700
G80X2.4N	3041701
G80X2.4/M	3041702
G80X2.4N/M	3041703
G90X2.4	3041705
G90X2.4N	3041706
G90X2.4 VO	3041709
G100X2.5	3041710
G100X2.5N	3041711
G100X2.5/M	3041712
G100X2.5/M VO	3041714
G100X2.5N/M	3041713
G120X2.5	3041715
G120X2.5N	3041716
G140X2.5	3041720
G140X2.5N	3041721
G140X2.5/M	3041722
G140X2.5/M VO	3041724
G140X2.5N/M	3041723
G160X2.5	3041725
G160X2.5N	3041726
G160X2.5/M	3041727
G160X2.5N/M	3041728
G200X2.5	3041730
G200X2.5N	3041731
G200X2.5/M	3041732
G200X2.5/M VO	3041734
G200X2.5N/M	3041733
G250X2.8	3041735
G250X2.8N	3041736
G300X2.8	3041740
G300X2.8N	3041741
G120X3.6	3041745
G120X3.6N	3041746
G140X3.6	3041750
G140X3.6N	3041751
G140X3.6/M	3041753
G140X3.6N/M	3041752
G150X3.6	3041755
G150X3.6N	3041756
G150X3.6 VO	3041759
G180X3.6	3041760
G180X3.6N	3041761
G200X3.6	3041765
G200X3.6N	3041766
G200X3.6/M	3041767
G200X3.6N/M	3041768
G250X3.6	3041770
G250X3.6N	3041771
G300X3.6	3041775
G300X3.6N	3041776
G300X3.6/M	3041777
G300X3.6N/M	3041778
G370X3.6	3041780
G370X3.6N	3041781
G120X4.8	3041785
G120X4.8N	3041786
G160X4.8	3041790
G160X4.8N	3041791
G190X4.8	3041795
G190X4.8N	3041796
G190X4.8/M	3041797
G190X4.8N/M	3041798
G200X4.8	3041800
G200X4.8N	3041801
G200X4.8/M	3041802

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G200X4.8/M VO	3041804
G200X4.8N/M	3041803
G250X4.8	3041805
G250X4.8N	3041806
G250X4.8/M	3041807
G250X4.8N/M	3041808
G280X4.8	3041810
G280X4.8N	3041811
G300X4.8	3041815
G300X4.8N	3041816
G370X4.8	3041820
G370X4.8 VO	3041824
G370X4.8N	3041821
G390X4.8	3041825
G390X4.8N	3041826
G430X4.8	3041830
G430X4.8 VO	3041834
G430X4.8N	3041831
G450X4.8	3041835
G450X4.8N	3041836
G530X4.8	3041840
G530X4.8N	3041841
G150X7.6	3041845
G150X7.6N	3041846
G200X7.6	3041850
G200X7.6N	3041851
G250X7.6	3041855
G250X7.6N	3041856
G300X7.6	3041860
G300X7.6N	3041861
G370X7.6	3041865
G370X7.6N	3041866
G430X7.6	3041870
G430X7.6N	3041871
G530X7.6	3041875
G530X7.6N	3041876
G430X9.0	3041880
G430X9.0N	3041881
G530X9.0	3041885
G530X9.0N	3041886
G710X9.0	3041890
G710X9.0N	3041891
G710X9.0 VO	3041894
G780X9.0	3041895
G780X9.0N	3041896
G830X9.0	3041900
G830X9.0N	3041901
G920X9.0	3041905
G920X9.0N	3041906
G1020X9.0	3041910
G1020X9.0N	3041911
G1220X9.0	3041915
G1220X9.0N	3041916
G230X12.6	3041920
G230X12.6N	3041921
G380X12.6	3041925
G380X12.6N	3041926
G480X12.6	3041930
G480X12.6N	3041931
G580X12.6	3041935
G580X12.6N	3041936
G730X12.6	3041940
G730X12.6N	3041941
G880X12.6	3041945
G880X12.6N	3041946
G1030X12.6	3041950
G1030X12.6N	3041951
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

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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
GFHT112X2.5	3042805
GFH100X2.5	3042810
GH8	3041550
GK-F608	2145500
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
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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

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GP-M8	2046640
GP-M8/1	2046641
GP-P10	2046715
GP-P12	2046720
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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
GR100X7.6N	3042620
GR120X7.6N	3042625
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GR200X7.6N	3042635
GR250X7.6N	3042640
GR300X7.6N	3042645
GR370X7.6N	3042650
GX200X4.5	3042245
GX300X4.5	3042250
GX370X4.5	3042255
GX370X7.9	3042260
GX520X4.5	3042257
GX680X7.9	3042265
GX1020X7.9	3042270
HB1-U	2598062
HB29-U	8060030
HB40-U	8060035
HB5	2591318
HB7	2591310
HB8	2591284
HF1	2590900
HF2	2590905
HN1	2590300
HN5	2590291
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-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
I38-F	2593863
I38-M	2593858
I38-MS	2593862
KE0,75-1	2591050
KE10-1	2591049
KE1016ST	2803150

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KE106ST	2802310
KE110ST	2802390
KE1508ST	2802510
KE1510ST	2802550
KE16-15	2599861
KE1616ST	2803190
KE1A-3	2598430
KE2,5-1	2598459
KE2,5A-3	2598432
KE25012ST	2803450
KE25018ST	2803460
KE2508ST	2802670
KE2510ST	2802710
KE35-15	2599862
KE35012ST	2803470
KE35018ST	2803480
KE4-15	2599860
KE410ST	2802870
KE412ST	2802910
KE506ST	2802030
KE508ST	2802070
KE610ST	2802990
KE612ST	2803030
KE616ST	2803070
KE7506ST	2802110
KE7508ST	2802150
KT1	2591319
KT2	2591320
KT3	2591330
KT4	2598060
KT5	2591279
KTS1632	2590700
L03-M	2480020
L03-P	2485010
L06-M	2480050
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L120-M	2481010
L14-M	2480410
L14-P	2485350
L160-M	2481050
L19-M	2480490
L19-P	2485430
L1-M	2480090
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L37-P	2485670
L3-M	2480170
L3-P	2485130
L48-M	2480810
L48-P	2485680
L5-M	2480210
L5-P	2485160
L60-M	2480850
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

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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

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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
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
MC25-U	2600650
MC35	2650570
MC35-50	2675630
MC35-C	2611120
MC35-U	2600690
MC6	2650510
MC6-50	2675605
MC6.25-U	2600630
MC70-3D	2632010
MC70-50	2675640
MC70-80U	2600720
MC70-C	2611130
MC95-3D	2632020
MC95-80U	2600730
MC95-C	2611140
MCCC16-C	2617050
MCCC25-C	2617070
MCCC35-C	2617090
MCCC50-C	2617110
ME03/2-15	2599875
ME1	2652010
ME1-50	2676005
ME10	2652130
ME10-50	2676060
ME10-C	2614211
ME10.24-U	2604830
ME100-3D	2634940
ME100-520	2648552
ME12	2652150
ME12-50	2676070
ME12-C	2614213
ME12.17-U	2604850
ME120-3D	2634950
ME120-520	2648554
ME14	2652170
ME14-50	2676080
ME14-C	2614215
ME160-520	2648556
ME17	2652190
ME17-50	2676090
ME17-C	2614217
ME19	2652210
ME19-50	2676100
ME19-C	2614219
ME2	2652030
ME2/3-15	2599876
ME2-50	2676010
ME2-C	2614201
ME2.19-U	2604750
ME20	2652230
ME20-50	2676110
ME200-520	2648558
ME20-C	2614221

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ME24	2652250
ME24-50	2676120
ME24-C	2614223
ME29-50	2676130
ME29-C	2614225
ME29-U	2604870
ME3	2652050
ME3-50	2676020
ME3-C	2614203
ME3.14-U	2604770
ME30-50	2676140
ME30-C	2614227
ME30-U	2604890
ME35-50	2676150
ME35-C	2614229
ME35-U	2604910
ME37-50	2676160
ME37-C	2614231
ME37-U	2604930
ME40-50	2676165
ME40-C	2614233
ME40-U	2604950
ME48-50	2676170
ME48-C	2614235
ME48-U	2604970
ME5	2652070
ME5-50	2676030
ME5-C	2614205
ME5.7-U	2604790
ME60-C	2614237
ME7	2652090
ME7-50	2676040
ME7-C	2614207
ME80-3D	2634930
ME80-520	2648550
ME80-C	2614239
ME9	2652110
ME9-50	2676050
ME9-C	2614209
ME9.20-U	2604810
MFB13-40	2598040
MFB50-63	2598045
MH10/16-15	2599886
MK17S-C	2614307
MK5/8-15	2599890
MLL1	2590802
MLL90	2590812
MLS1	2590805
MLS2	2590807
MMT200-50	2676388
MMT200-C	2611190
MMT200-U	2601170
MMT25-50	2676380
MMT25-C	2611160
MMT25-U	2601050
MMT315-C	2611200
MMT50-50	2676382
MMT50-C	2611170
MMT50-U	2601090
MMT95-50	2676384
MMT95-C	2611180
MMT95-U	2601130
MN10-C	2610560
MN10RF-50	2676250
MN10RF-C	2610768
MN12-C	2610570
MN12F-50	2676260
MN12F-C	2610770
MN14-C	2610580
MN14RF-50	2676270
MN14RF-C	2610772
MN17-C	2610591
MN17F-50	2676280
MN17F-C	2610774
MN19-C	2610600
MN19RF-50	2676285
MN19RF-C	2610776
MN2-C	2610511
MN20-C	2610610
MN20F-50	2676290
MN20F-C	2610778

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MN24RF-50	2676295
MN24RF-C	2610780
MN29-C	2610625
MN29F-C	2610782
MN2RF-50	2676210
MN2RF-C	2610760
MN3-C	2610520
MN30-C	2610630
MN30RF-C	2610784
MN35-C	2610635
MN35F-C	2610786
MN37-C	2610640
MN37RF-C	2610788
MN3RF-50	2676220
MN3RF-C	2610762
MN48-C	2610650
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
MP608	3031810
MP608/45	3031815
MP608/90	3031820
MP608D	3031830
MPC1	2595201
MPC2	2595203
MPC3	2595206
MPC4	2595208
MPC5	8460004
MS4/10-15	2599880
MS10/16-15	2599881
MT-FC47	2685902
MT120C12	8006254
MT120C16	8006258
MT150C10	8006252
MT150C12	8006264
MT150C1480	8006266
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

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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
MT200R-GC	2542030
MT200R-TD	2540670
MT240R-C12	2545710
MT240R-C16	2545750
MT240R-GC	2542110
MT240R-TD	2540710
MT25-C8	2543030
MT25-GC	2541570
MT25-TD	2540150
MT315R-C16	2545950
MT315R-GC	2542150
MT315R-TD	2540750
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
MT40S-TD	2540190
MT500-TD	2540870
MT50R-C10	2543650
MT50R-C8	2543610
MT50R-GC	2541690
MT50R-TD	2540270
MT50S-C10	2543850
MT50S-C14-80	2546110
MT50S-C8	2543810
MT50S-GC	2541650
MT50S-TD	2540230
MT630-TD	2540890
MT70S-C10	2544050
MT70S-GC	2541730
MT70S-TD	2540350
MT95R-C10	2544290
MT95R-C12	2544330
MT95R-GC	2541770
MT95R-TD	2540390
MT95S-C10	2544530
MT95S-C12	2544570
MT95S-C14-80	2546230
MT95S-GC	2541850
MT95S-TD	2540470
MTA16-C	2770001
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
MTMA240-150-GC	2722050
MTMA240-185-GC	2722090
MTMAD300-185-GC	2722160
MTMAD300-240-GC	2722220
MTMA240-GC	2720410

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MTMA25-10-GC	2720575
MTMA25-16-GC	2720580
MTMA25-GC	2720090
MTMA35-GC	2720130
MTMA50-25-GC	2720650
MTMA50-35-GC	2720660
MTMA50-GC	2720152
MTMA70-35-GC	2720940
MTMA70-50-GC	2720980
MTMA70-GC	2720195
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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MTT25-50	2677230
MTT35-50	2677240
MTT50-50	2677250
MTT70-50	2677260
MTT95-50	2677270
MTT120-50	2677275
MUA150	2616050
MUA240	2616070
MUA95	2616030
MV150	2616170
MV240	2616180
MV35	2616150
MV95	2616160
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MVM240	2616320
MVM35	2616290
MVM95	2616300
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ND1	2590080
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NL1-P	2113970
NL1-PG	2113990
NL2-M	2469390
NL3-M	2469430
NN4-15	2599867
PA1	2650230
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PA10-C	2611010
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PA120-3D	2631950
PA120-520	2645600
PA19-50	2675694
PA200-520	2645610
PA24-50	2675696
PA24-C	2611020
PA48-C	2611030
PA5	2650250
PA5-50	2675682
PA60-C	2611040
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PC-1	2590705
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PKC112	8010075
PKC1012	8010120
PKC1018	8010125
PKC1508	8010080

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PKC1612	8010130
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PKC306	8010040
PKC308	8010045
PKC35016	8010150
PKC35025	8010155
PKC409	8010100
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PKC50030	8010165
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PKE1012	8020110
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PKE1508	8020030
PKE1518	8020040
PKE1612	8020126
PKE1618	8020128
PKE2508	8020050
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PKE418	8020080
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PKCT1512	8020235
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PKCT2512	8020245
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PKCT1616	8020265
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PKET1508	8020330
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PKET508	8020300
PKET614	8020355
PKET7508	8020310
PKET7512	8020315
PL01-M	2049510
PL03-M	2051850
PL03-P	2051860
PL06-M	2053850
PL06-P	2053860
PL1-M	2055870
PN14-C	2610710
PN24-C	2610720
PN37-C	2610730
PN48-C	2610740
PN60-C	2610750
PN7-C	2610700
PN80-3D	2631460

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PNB-1	2591040
PNB-3F/M	2591088
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PNB-3N5	2591096
PNB-3NN3	2591094
PNB-3NN4	2591095
PNB-3P	2591090
PNB-3P1	2591084
PNB-3PD	2591091
PNB-4KE	2591251
PO7000	2595904
PR-1	2591045
PRCH	2596113
PS130-150/E	2616371
PS130-240/E	2616381
PS130-35/E	2616351
PS130-95/E	2616361
PV-1	2591044
Q38-F	2593861
Q38-M	2593859
Q38-MS	2593860
RA-3	2598428
RBG-15	2599850
RBY-15	2599852
RCP-B70	2596116
RD15,2S	2684122
RD16,2S	2684124
RD17,5S	2684126
RD18,6S	2684128
RD19,1S	2684130
RD20,4S	2684132
RD20,6S	2684134
RD22,5S	2684136
RD23,8S	2684138
RD25,4S	2684140
RD27S	2684142
RD28,3S	2684144
RD28,6S	2684146
RD30,5S	2684148
RD31,8S	2684150
RD32,5S	2684152
RD34,6S	2684154
RD34,9S	2684156
RD37S	2684158
RD38,1S	2684160
RD40,5S	2684162
RD41,3S	2684164
RD43,2S	2684168
RD44,5S	2684170
RD47S	2684172
RF-BF4	2051630
RF-BM4	2051660
RF-F305	2051560
RF-F305P	2051565
RF-F308	2051580
RF-F308P	2051585
RF-F405	2051600
RF-F405P	2051605
RF-F408	2051590
RF-F408P	2051595
RF-F608	2051610
RF-F608P	2051620
RF-FM608	2051690
RF-M10	2050390
RF-M12	2050430
RF-M2	2050010
RF-M3	2050030
RF-M3,5	2050070
RF-M3,5/1	2050110
RF-M4	2050150
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

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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
RH50	2670050
RHC131	2619010
RHC131LN	2619021
RH-FC47	2592595
RHM132	2619410
RHM50	2670035
RHT160	2592422
RHT160-60N	2592584
RHTD1724	2682482
RHTD3241	2682502
RHTD3241T	2682517
RHU131-C	2619210
RHU520	2640151
RHU81	2600045
RKF-F608	2051612
RKY-M3	2145684
RKY-M3.5	2145685
RKY-M3.5/1	2145687
RKY-M4	2145690
RKY-M5	2145699
RKY-M6/1	2145705
RKY-M8	2145711
RKY-M10	2145715
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

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RN-PP12	2151350
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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
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
RT10,5	2592470
RT13	2592490
RT15	2592510
RT17	2592530
RT6,5	2592430
RT8,5	2592450
S10-M4	2165130
S10-M5	2165150
S10-M6	2165190
S10-M7	2165230
S1,5-M10	2160390

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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
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

Ref.	Code
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
SH-B70	2596080
SS4,8-3,7	3041670
SS4,8-4,5	3041672
SS9-4,5	3041675
SS9-5	3041677
SS9-6,4	3041679
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
TCP35	3019270
TCP40	3019280
TCP45	3019290
TCP5	3019210
TCP50	3019300
TCP55	3019305
TCP60	3019310
TCP65	3019315
TCP70	3019320
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
VAL130	2610450
VAL130-U	2610451
VAL160	2593405
VAL22	2593370
VAL22-3	2593406
VAL22-C	2593402
VAL520	2593410
VAL75	2600110
VALB-TC04	2593705
VALB-TC095	2593703
VALCP096	2593671
VALECW-H3D	2593421
VALMAT520	2593411
VALP1	2590595
VALP3	2590610
VALP4	2590612

Ref.	Code
VALP5	2590614
VALP7	2590616
VALP8	2590618
VALP9	2590619
VALP9-C	2590609
VALP19	2590629
VALP21	2874156
VALP22	2874157
VALP26	2590635
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
VP-P10	2049210
VP-PP12/19	2049370
VP-U3	2048630
VP-U3,5	2048670
VP-U4	2048710
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
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
ZP2	2590760
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

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** Polyolefine 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

UL AND VDE MARKING OF CABLE GLANDS

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
1940.M25	M25x1,5	13-18	13-18	0.51-0.71	-	-	USL-CNL
1540.M25	M25x1,5	13-18	13-18	0.51-0.71	-	-	USL-CNL

*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
1901.09	Pg 9	5-8	5.5-8	0.22-0.31	USR-CNR
1901.11	Pg 11	5-10	6.5-9.5	0.26-0.37	USR-CNR
1901.13	Pg 13,5	7-12	8-11.5	0.31-0.45	USL-CNL
1901.16	Pg 16	10-14	10.5-14	0.41-0.55	USL-CNL
1901.21	Pg 21	13-18	13-18	0.51-0.71	USL-CNL
1901.29	Pg 29	18-25	18.5-25	0.73-0.98	USL-CNL
1901.36	Pg 36	20-32	21.5-32	0.85-1.26	USL-CNL
1500.07	Pg 7	3,5-7	4.5-6.5	0.18-0.25	USR-CNR
1500.09	Pg 9	5-8	5.5-8	0.22-0.31	USR-CNR
1500.11	Pg 11	5-10	6.5-9.5	0.26-0.37	USR-CNR
1500.13	Pg 13,5	7-12	8-11.5	0.31-0.45	USL-CNL
1500.16	Pg 16	10-14	10.5-14	0.41-0.55	USL-CNL
1500.21	Pg 21	13-18	13-18	0.51-0.71	USL-CNL
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®

Ref. Nickel Plated Brass	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

MAXIbrass®

Ref. Nickel Plated Brass	Thread	COMPRESSION RANGE Ø min-max			MARKING
		Nominal	UL 514B		
		[mm]	[mm]	[inches]	
2900.09N	Pg 9	4-8	4-8	0.16-0.31	USR-CNR
2900.11N	Pg 11	4,5-10	4,5-10	0.18-0.39	USR-CNR
2900.13N	Pg 13,5	5-12	9-12	0.35-0.47	USL-CNL
2900.16N	Pg 16	7-13	10-13	0.39-0.51	USL-CNL
2900.21N	Pg 21	10-17	12-17	0.47-0.67	USL-CNL
2910.09N	Pg 9	2-6	3-6	0.12-0.24	USR-CNR
2910.11N	Pg 11	2,5-7	3,5-7	0.14-0.28	USR-CNR
2910.13N	Pg13,5	4-10	5,5-10	0.22-0.39	USR-CNR
2910.16N	Pg 16	5-10	6-10	0.24-0.39	USR-CNR
2910.21N	Pg 21	6-13	7-13	0.28-0.51	USR-CNR
2902.13N	Pg 13,5	5-12	9-12	0.35-0.47	USL-CNL

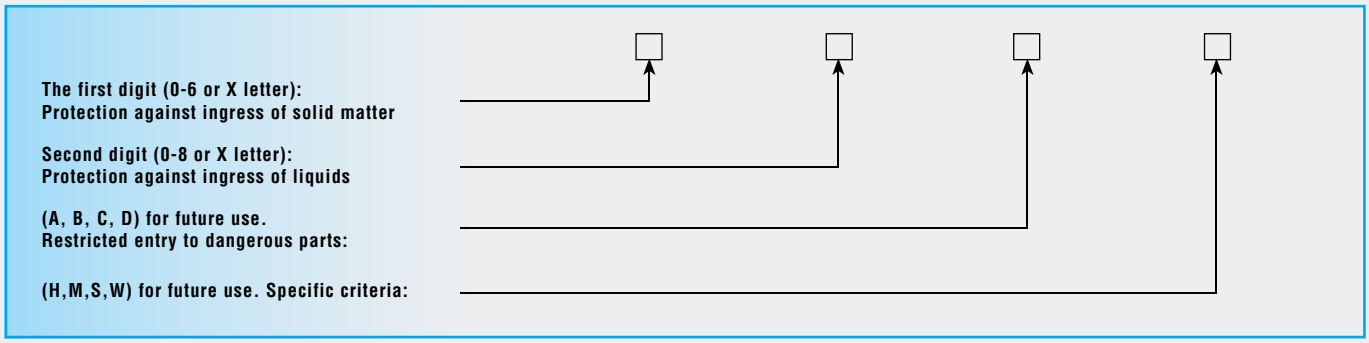
VDE: *Licence nos 40008472, 40008474, 40008475 and 40008476*

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



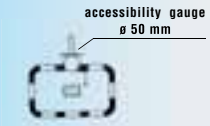
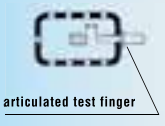
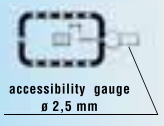
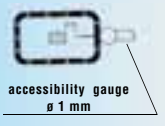
1st CHARACTERISTIC NUMBER:
PROTECTION AGAINST INGRESS OF SOLID MATTER

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

MAXIblock®, spiralblock®, MAXIbrass®

to obtain IP68 ingress protection in accordance with EN 50262

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

MAXIblock®, spiralblock®, MAXIbrass®

to obtain IP68 ingress protection in accordance with DIN VDE for Pg threads

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 series		non-metallic series	
	2900	2910	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

MAXIblock®, spiralblock®

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

NOTES

NOTES

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MG2 MARKINGENIUS 2

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GENERAL MARKING

The information contained in this catalogue is to aid the commercial selection of products.
It is not intended for use as an instruction manual.
Information concerning application and the correct operational use is provided by the specific manual delivered with the products.

printing: IGB Group Brescia.

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