



# C e m b r e

10 V 087 E



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 offices and the subsidiary companies in Great Britain, France, Spain, Germany and USA are governed by a single Quality System, assessed by Lloyd's Register of Quality as conforming to the ISO 9001:2008 norm, for the design, manufacture and sales of electrical connectors and associated tools, cable accessories, marking systems, tooling and products for railway applications. In house repair, refurbishment and calibration of tooling.*

*This guarantees a 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 company's 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*



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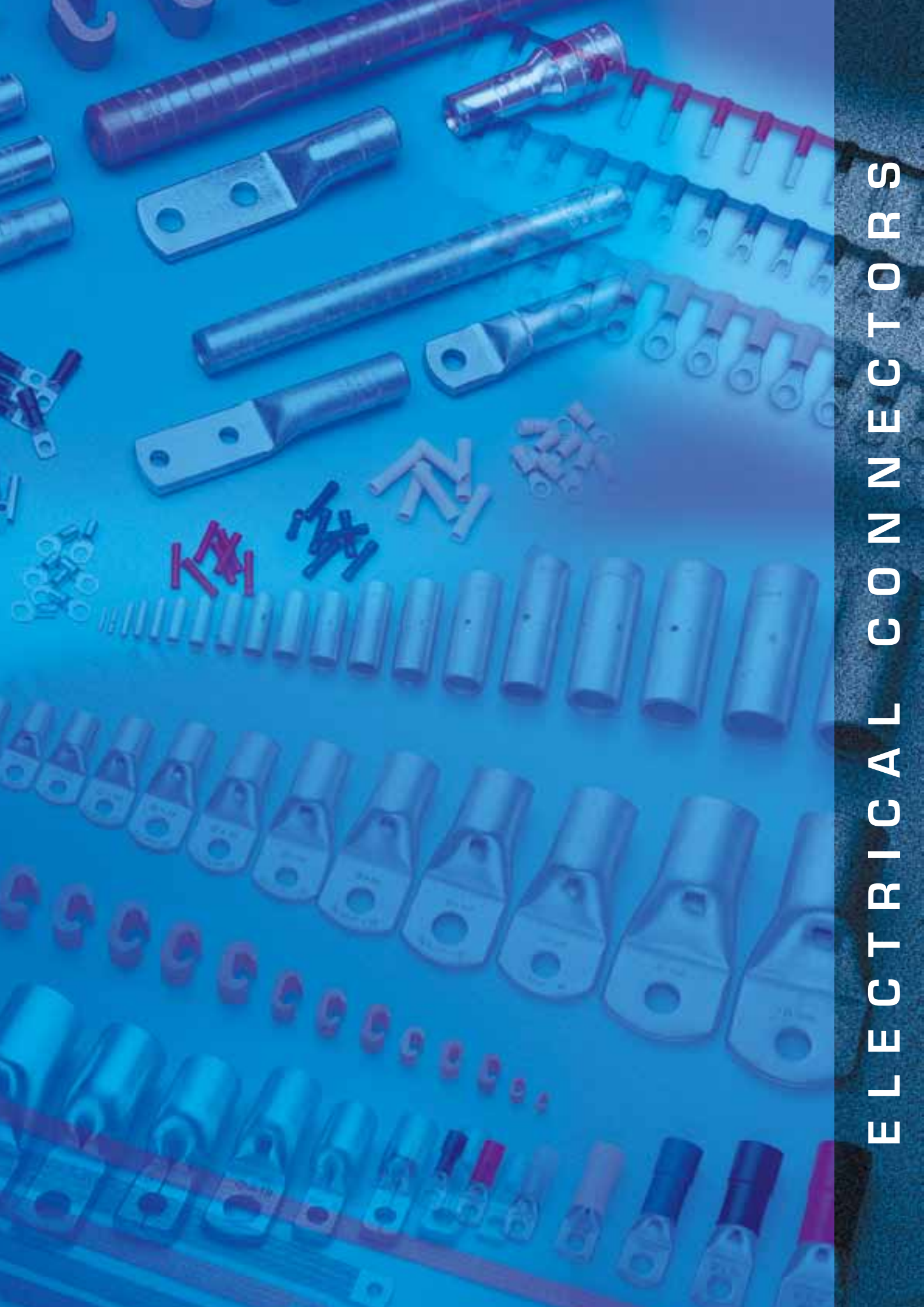
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ELECTRICAL CONNECTORS

# HALOGEN FREE INSULATED TERMINALS



VP RP  
BP GP

P range funnel entry

OPERATING  
TEMPERATURE  
UP TO 115°C

HALOGEN FREE



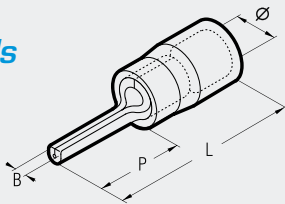
The "P" range of terminals has been designed, to meet the increasing demands for improved safety and reliability of electrical connectors. The polycarbonate insula-





tion, is a halogen free, self extinguishing thermoplastic material class VO (UL 94). The unique funnel shaped entry of the insulation sleeve, guarantees total

insertion of the conductor strands into the terminal barrel, creating a secure and reliable, electrical and mechanical connection.

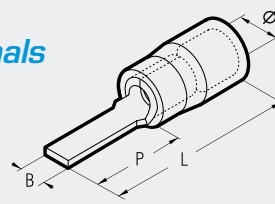
The operating temperature range is - 20 to + 115°C (Surge + 130°C). Recommended installation Tools are shown on pages 98 to 105, 131-132





## pin terminals



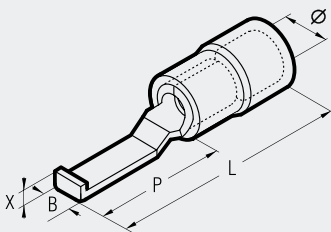
Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity Box/Bag
		Ø	B	P	L	
 0,2÷0,5 (24÷20)	VP-P 10	3,0	1,0	9,8	20,2	4.000/100
 0,25÷1,5 (22÷16)	RP-P 8	4,0	1,6	7,8	17,9	3.500/100
	RP-P 10	4,0	1,6	9,8	19,9	3.500/100
	RP-P 12	4,0	1,6	12,0	22,1	3.000/100
 1,5÷2,5 (16÷14)	BP-P 8	4,9	1,7	7,8	17,9	3.000/100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

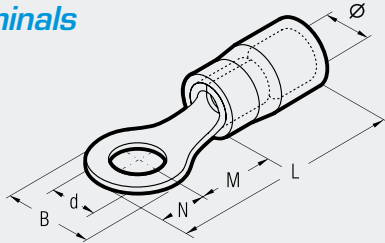


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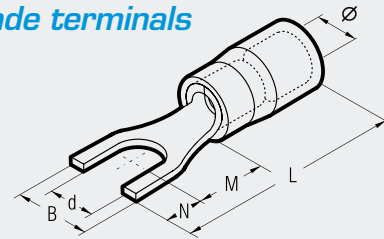
P range funnel entry

VP RP  
BP GP

## ring terminals



## fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Ø	B	M	N	L	d	
0,25÷0,5 (24÷20)	3,0	2 *VP-M 2	3,0	5,6	4,5	2,8	17,5	2,2	4.000/100
		3 VP-M 3	3,0	5,6	4,5	2,8	17,5	3,2	4.000/100
		3,5 VP-M 3.5	3,0	5,6	4,5	2,8	17,5	3,7	4.000/100
		4 VP-M 4	3,0	7,0	6,5	3,5	20,2	4,3	4.000/100
		5 VP-M 5	3,0	7,8	7,1	3,9	21,2	5,3	4.000/100
0,25÷1,5 (22÷16)	4,0	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
1,5÷2,5 (16÷14)	4,9	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
		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
4÷6 (12÷10)	6,6	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
		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		

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

\*Made to order

# INSULATED CHAIN TERMINALS

CP range with easy entry



**CRP**  
**CBP**  
**CGP**

**HALOGEN FREE**  
**OPERATING TEMPERATURE UP TO 115°C**



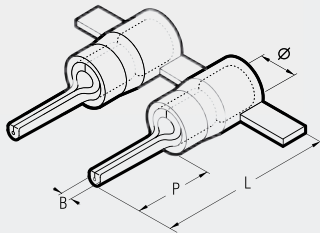
The "CP" range of terminals has been designed to meet the increasing demands for improved safety and reliability of electrical connectors.

Developed for use with production machinery, to give a quick and reliable crimped joint. The polycarbonate insulation, is a halogen free, self-extinguishing thermoplastic mate-

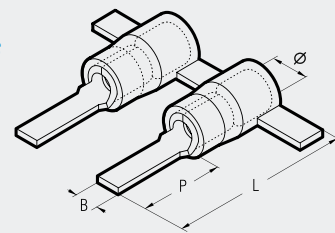
rial class VO (UL 94). The unique funnel shaped entry of the insulation sleeve, guarantees total insertion of the conductor strands into the terminal barrel, creating a se-

cure and reliable, electrical and mechanical connection. The operating temperature range is - 20 to + 115°C (Surge + 130°C).

## pin terminals



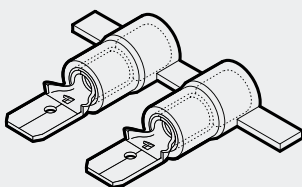
## blade terminals



Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity
		Ø	B	P	L	
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

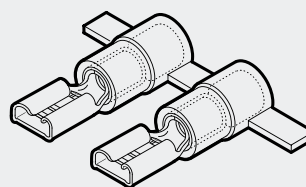
Conductor Size sqmm (AWG)	Ref.	Dimensions mm				Quantity
		Ø	B	P	L	
0,25÷1,5 (22÷16)	CRP-PP 12	4,0	3,0	12,8	22,9	2.000
	*CRP-PP 12/1	4,0	3,0	11,3	21,4	2.000
	*CRP-PP 12/23	4,0	2,3	13,2	23,3	2.000
	CRP-PP 14	4,0	3,0	14,8	24,9	2.000
1,5÷2,5 (16÷14)	CBP-PP 12	4,9	3,5	12,8	22,9	1.750
	*CBP-PP 12/25	4,9	2,5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



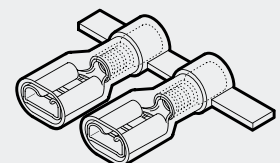
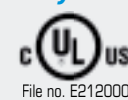
Conductor Size sqmm (AWG)	Ref.	Tab mm	Quantity
0,25÷1,5 (22÷16)	CRP-M 608	6,35 x 0,8	2.000
1,5÷2,5 (16÷14)	CBP-M 608	6,35 x 0,8	1.750
4÷6 (12÷10)	CGP-M 608	6,35 x 0,8	1.250

## female disconnect terminals



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
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



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

\*Made to order



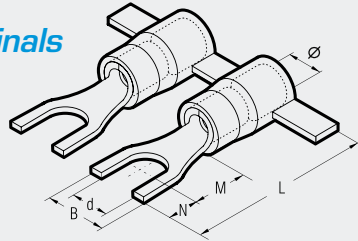
# INSULATED CHAIN TERMINALS



fork/spade terminals



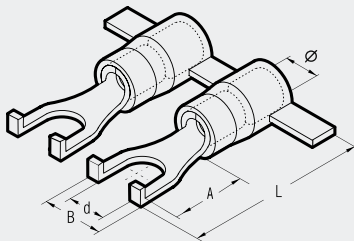
File no. E125401



CP range with easy entry

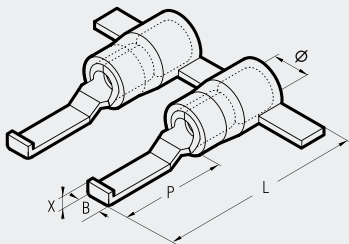
CRP  
CBP  
CGP

Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity
			Ø	B	M	N	L	d	
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
1,5÷2,5 (16÷14)	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
	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
4÷6 (12÷10)	6	CBP-U 6	4,9	9,4	8,1	4,7	22,9	6,4	1.750
	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					Quantity
			Ø	B	A	L	d	
1,5÷2,5 (16÷14)	4	CBP-U 4/3L	4,9	6,5	9,5	14,5	4,3	1.750

hooked blade terminals



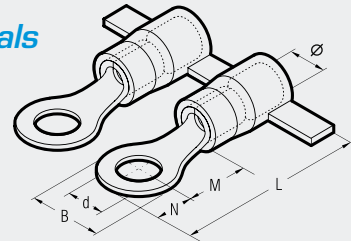
Cond. Size sqmm (AWG)	Ref.	Dimensions mm					Quantity
		Ø	B	P	L	X	
0,25÷1,5 (22÷16)	CRP-PPL30	4,0	3,0	17,5	28,8	1,7	2.000
1,5÷2,5 (16÷14)	CBP-PPL30	4,9	3,0	17,5	28,8	1,7	1.750

\*Made to order

ring terminals



File no. E125401



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity
			Ø	B	M	N	L	d	
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
1,5÷2,5 (16÷14)	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
	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
4÷6 (12÷10)	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
	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
4÷6 (12÷10)	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



Interchangeable application heads are available for the bench press ELB-3 to suit the crimping of these connectors (see page 106).

# PVC INSULATED CRIMP TERMINALS

F range funnel entry



File no. E125401

RF BF  
GF



**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

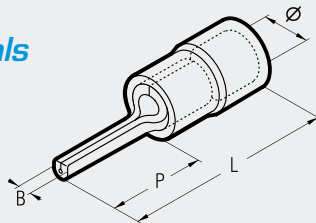
barrel is rifled to improve contact with conductor strands when crimped and to increase tensile strength. The "F" range of terminals offers a wide selection of rings, forks, pins and blades, designed to meet the ever

changing requirements of the end users.

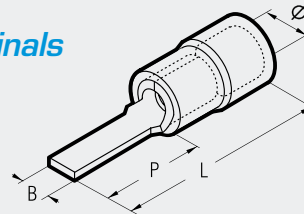
The operating temperature range is - 20 to + 80°C (Surge + 90°C).

Recommended crimping tools are shown on pages 98 to 105, 131-132

## pin terminals



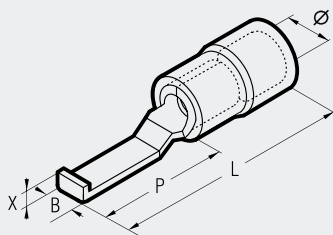
## blade terminals



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

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

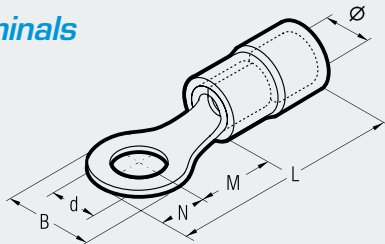
F range funnel entry

RF BF  
GF

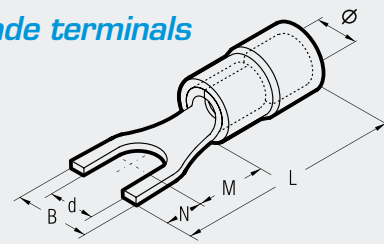


File no. E125401

ring terminals



fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Ø	B	M	N	L	d	
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
0,25÷1,5 (22÷16)		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
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
1,5÷2,5 (16÷14)		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
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
4÷6 (12÷10)		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

Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Ø	B	M	N	L	d	
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
0,25÷1,5 (22÷16)		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
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
1,5÷2,5 (16÷14)		10 BF-U 10	4,9	17,5	13,0	7,7	30,9	10,5	1.000/100
		12 BF-U 12	4,9	20,0	15,5	9,0	34,6	13,0	1.000/100
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
4÷6 (12÷10)		16 GF-U 16	6,7	26,0	17,1	11,5	42,8	17,0	500/100

\*Made to order

# REINFORCED PA 6.6 INSULATED TERMINALS

**RKY**  
**BKY**  
**GKY**

*KY range*



HALOGEN FREE



'KY' type terminals are designed to offer improved mechanical and electrical integrity under heavy-duty application.

This is achieved via a Copper sleeve located between the Copper barrel and Polya-

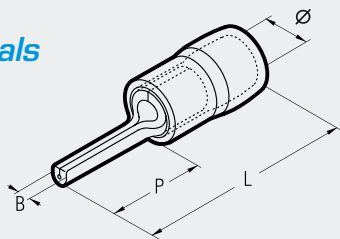
imide insulation of the terminal. Then, during crimping, the insulation of the conductor is integrated into the crimp due to the Copper sleeve being deformed around it to maintain the level of 'grip' required in ap-

plications subject to continuous mechanical vibrations (e.g: mobile plant, vehicles, moving components).

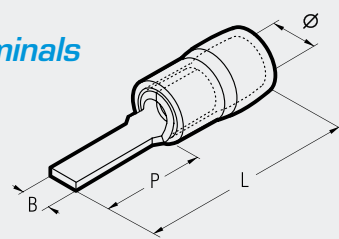
The operating temperature range is - 20 to + 105°C (Surge + 110°C).




Recommended crimping tools are shown on pages 98 to 105, 131-132



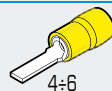
## pin terminals



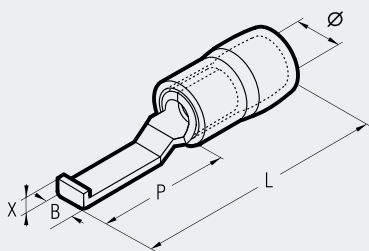
## blade terminals






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

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



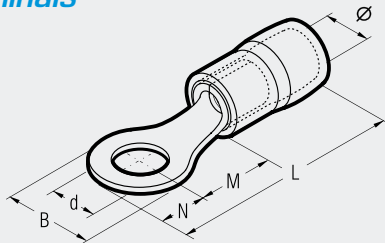
# REINFORCED PA 6.6 INSULATED TERMINALS



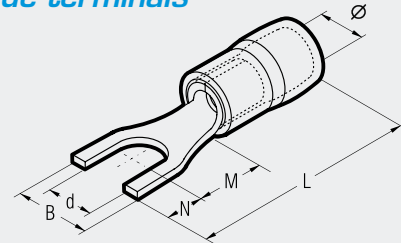
KY range

**RKY**  
**BKY**  
**GKY**

## ring terminals



## fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Ø	B	M	N	L	d	
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		

Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Ø	B	M	N	L	d	
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

# 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 98 to 105,  
131-132




## 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

## FEMALE DISCONNECT TERMINALS










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

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)	 GKF-F 608	6,35 x 0,8	1.500/100



### 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
1,5÷2,5 (16÷14)	 RF-F 408P	4,8 x 0,8	2.000/100
	 RF-F 608P	6,35 x 0,8	1.500/100
4÷6 (12÷10)	 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






# 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 98 to 105,  
131-132

## MALE DISCONNECT TERMINALS

### 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



# 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 98 to 105,  
131-132





## MALE/FEMALE CONNECTORS

### 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

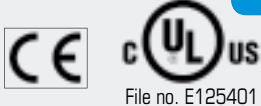
## BULLET AND SOCKET CONNECTORS

### polycarbonate insulated terminals - partially reinforced with copper sleeve

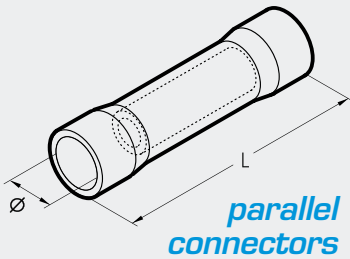
Cond. Size sqmm (AWG)	Ref.	Øi mm	Quantity Box/Bag
0,25÷1,5 (22÷16)	 RF-BM 4	4	2.500/100
	 RF-BF 4	4	1.000/100
1,5÷2,5 (16÷14)	 BF-BM 5	5	2.000/100
	 BF-BF 5	5	800/100



# BUTT AND PARALLEL CONNECTORS



## butt connectors



## parallel connectors

### PVC insulated

Cond. Size sqmm (AWG)	Ref.	Ø mm	L mm	Quantity Box/Bag
0,2÷0,5 (24÷20)	PL 01-M	3,0	25	3.000/100
0,25÷1,5 (22÷16)	PL 03-M	4,0	25	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

# BUTT CONNECTORS

### Polyamide PA6.6 insulated

Cond. Size sqmm (AWG)	Ref.	Ø <sub>i</sub> 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

### PE HD insulated, heat shrinkable

Cond. Size sqmm (AWG)	Ref.	Ø <sub>i</sub> mm	L <sub>1</sub> mm	L <sub>2</sub> 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**

# CLOSE END CONNECTORS

### PA6.6 insulated

Cond. Size sqmm (AWG)	Ref.	Ø <sub>i</sub> 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

## 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 98 to 105, 131-132

## 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 98 to 105, 131-132

## WL-M



Manufactured from copper tube  
 - Electrolytically tin plated  
 - Heat shrink sleeve with sealant  
 - Recommended crimping tools are shown on pages 98 to 105

## 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 98 to 105, 131-132



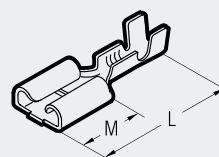
# RN-FA BN-FA



- Manufactured from brass strip
- Recommended crimping tools are shown on pages 98 and 99

## FEMALE CONNECTORS

*open barrel*



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

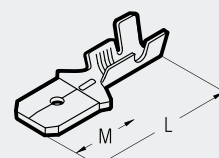
# RN-MA BN-MA



- Manufactured from brass strip
- Recommended crimping tool is shown on page 99

## MALE CONNECTORS

*open barrel*



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

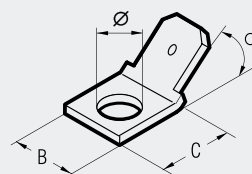
## MALE TABS

*for board mounting*

# MP MPD



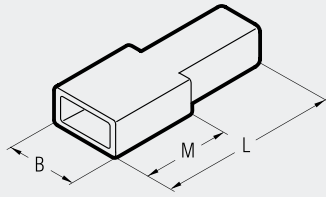
- Manufactured from brass strip



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

# CONNECTOR SLEEVES



## CFA CMA



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

PKD  
PKE  
PKC  
CPKD

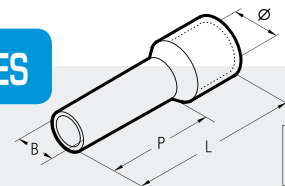


HALOGEN FREE



## POLYPROPYLENE INSULATED END SLEEVES

for flexible copper cables



The PKD.. 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 PKD series of insulated end sleeves comply with specification DIN 46 228/4.

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

Recommended crimping tools are shown on pages 98 to 105, 109, 131-132.

### VALSTAR ND#2/PKD

Comprising:

- a selection of end sleeves PKD conductor size 1÷6 sqmm
- tool ND#2

### VALSTAR ND#2/PKE

Comprising:

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

### VALSTAR ND#2/PKC

Comprising:

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

Conductor Size sqmm	Ref.	Dimensions mm				Insulation Colour	Quantity Box/Bag
		Ø	B	P	L		
0,3÷0,5	PKD 506	2,6	1,4	6,0	12,0	○ white	10.000/500
	PKD 508	2,6	1,4	8,0	14,0		10.000/500
	PKD 510	2,6	1,4	10,0	16,0		10.000/500
0,75	PKD 7506	2,8	1,6	6,0	12,4	○ grey	10.000/500
	PKD 7508	2,8	1,6	8,0	14,0		10.000/500
	PKD 7510	2,8	1,6	10,0	16,4		10.000/500
	PKD 7512	2,8	1,6	12,0	18,4		10.000/500
	PKD 106	3,0	1,8	6,0	12,4		10.000/500
1	PKD 108	3,0	1,8	8,0	14,0	● red	10.000/500
	PKD 110	3,0	1,8	10,0	16,4		10.000/500
	PKD 112	3,0	1,8	12,0	18,4		10.000/500
1,5	PKD 1508	3,5	2,1	8,0	14,0	● black	10.000/500
	PKD 1510	3,5	2,1	10,0	16,4		7.500/500
	PKD 1512	3,5	2,1	12,0	18,4		7.500/500
2,5	PKD 1518	3,5	2,1	18,0	24,4	● blue	5.000/500
	PKD 2508	4,2	2,6	8,0	15,0		7.500/500
	PKD 2512	4,2	2,6	12,0	19,0		5.000/500
4	PKD 2518	4,2	2,6	18,0	25,0	● yellow	5.000/500
	PKD 410	4,8	3,3	10,0	17,0		5.000/200
	PKD 412	4,8	3,3	12,0	19,0		4.000/200
6	PKD 418	4,8	3,3	18,0	25,0	● grey	3.000/200
	PKD 612	6,3	4,0	12,0	20,0		2.500/100
	PKD 618	6,3	4,0	18,0	26,0		2.000/100
10	PKD 1012	7,6	5,0	12,0	21,5	● red	1.500/100
	PKD 1018	7,6	5,0	18,0	27,5		1.500/100
	PKD 1612	8,8	6,2	12,0	22,5		1.000/100
16	PKD 1618	8,8	6,2	18,0	28,5	● blue	1.000/100
	PKD 25016	11,2	7,9	16,0	29,0		500/50
	PKD 25022	11,2	7,9	22,0	35,0		500/50
25	PKD 35016	12,7	8,8	16,0	30,0	● yellow	500/50
	PKD 35025	12,7	8,8	25,0	39,0		400/50
	PKD 50020	15,0	11,0	20,0	36,0		300/50
50	PKD 50025	15,0	11,0	25,0	41,0	● blue	300/50

Conductor Size sqmm	Ref.	Dimensions mm				Insulation Colour	Quantity Box/Bag
		Ø	B	P	L		
0,1÷0,3	PKC 306	1,9	1,1	6,0	10,4	● light blue	25.000/500
	PKC 308	1,9	1,1	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	2,8	1,6	8,0	14,0	○ white	10.000/500
	PKC 7512	2,8	1,6	12,0	18,4		10.000/500
1	PKC 108	3,0	1,8	8,0	14,0	● yellow	10.000/500
	PKC 112	3,0	1,8	12,0	18,4		10.000/500
1,5	PKC 1508	3,5	2,1	8,0	14,0	● red	10.000/500
	PKC 1510	3,5	2,1	10,0	16,4		7.500/500
2,5	PKC 1518	3,5	2,1	18,0	24,4	● grey	5.000/500
	*PKC 2508	4,2	2,6	8,0	15,0		7.500/500
	*PKC 2512	4,2	2,6	12,0	19,0		5.000/500
4	*PKC 2518	4,2	2,6	18,0	25,0	● blue	5.000/500
	*PKC 410	4,8	3,3	10,0	17,0		5.000/200
	*PKC 412	4,8	3,3	12,0	19,0		4.000/200
6	*PKC 418	4,8	3,3	18,0	25,0	● black	3.000/200
	PKC 612	5,8	3,9	12,0	20,0		2.500/100
	PKC 618	5,8	3,9	18,0	26,0		2.000/100
10	PKC 1012	7,4	4,9	12,0	21,5	○ ivory	1.500/100
	PKC 1018	7,4	4,9	18,0	27,5		1.500/100
16	PKC 1612	8,8	6,2	12,0	22,7	● green	1.000/100
	PKC 1618	8,8	6,2	18,0	28,6		1.000/100
25	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	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	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				Insulation Colour	Quantity Reel
		Ø	B	P	L		
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



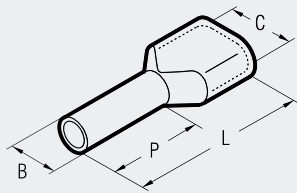
\*To DIN standard 46 228/4



# "TWIN" POLYPROPYLENE INSULATED END SLEEVES



for fine stranded cables



Conductor Size sqmm	Ref.	Dimensions mm				Insulation Colour	ND#1, ND#2, ND#3 and HNK 50 Compression Aperture	Quantity Box/Bag
		C	B	P	L			
2 x 0,75	PKT 7508	5,2x2,6	2,1	8,0	15,0	grey	1,5	2.500/100
	PKT 7512	5,2x2,6	2,1	12,0	19,0	grey	1,5	2.500/100
2 x 1	PKT 108	5,8x3,2	2,6	8,0	16,0	red	1,5	2.500/100
	PKT 112	5,8x3,2	2,6	12,0	20,0	red	1,5	2.500/100
2 x 1,5	PKT 1508	6,5x3,6	2,6	8,0	16,0	black	2,5	2.500/100
	PKT 1512	6,5x3,6	2,6	12,0	20,0	black	2,5	2.500/100
2 x 2,5	PKT 2510	7,5x4,3	3,2	9,0	18,0	blue	4	2.500/100
	PKT 2512	7,5x4,3	3,2	12,0	21,0	blue	4	2.500/100
2 x 4	PKT 412	9,0x5,2	4,2	12,0	23,0	grey	6	1.500/100
2 x 6	PKT 614	10,0x7,2	5,3	14,0	26,0	yellow	10	1.000/100
2 x 10	PKT 1014	13,0x7,2	7,0	14,0	26,0	red	16	500/50
2 x 16	PKT 1614	18,0x9,5	8,8	14,0	30,0	blue	35	300/50

Type PKT range of end sleeves is manufactured from tin plated electrolytic copper.

Designed to accommodate two cables terminating in the same sleeve.

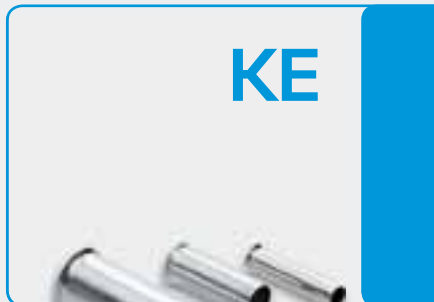
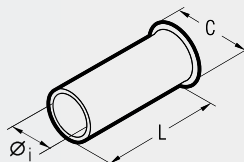
The operating temperature range is - 20 to + 105°C (Surge + 110°C).

Recommended crimping tools are shown on pages 98 to 105, 109, 131-132.

# UNINSULATED END SLEEVES



for flexible copper cables



Conductor Size sqmm	Ref.	Dimensions mm			Quantity Box/Bag
		Øi	L	C	
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

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 98 to 105, 109, 131-132.

# S

## UNINSULATED TERMINALS

### S range - brazed seam



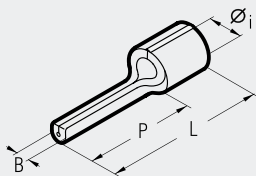
S range terminals are manufactured from electrolytic copper strip and tin plated. The seam is brazed to pro-

vide uniform mechanical strength. The terminal barrel is rifled to enhance electrical con-

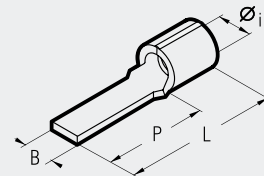
tact and to improve mechanical strength.

Recommended crimping tools are shown on pages 98 to 105, 131-132.

### pin terminals



### 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-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

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

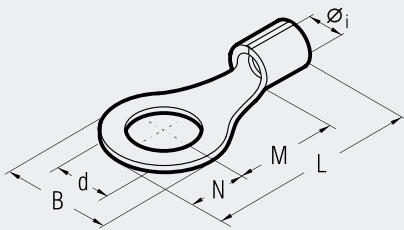


# UNINSULATED TERMINALS

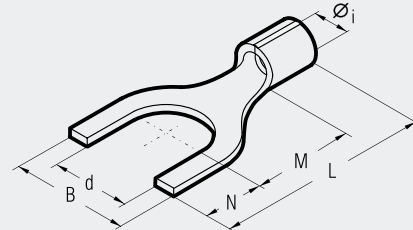
S range - brazed seam

S

## ring terminals



## fork/spade terminals



Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag
			Øi	B	M	N	L	d	
0,25÷1,25 (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

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

\*Made to order



# UNINSULATED TERMINALS

RN, BN, GN range - unbrazed



RN  
BN  
GN



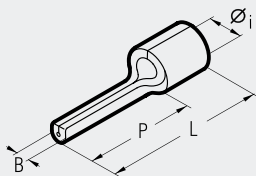
RN, BN, GN range terminals are manufactured from electrolytic copper strip and

tin plated. The seam is unbrazed. The terminal barrel is rifled

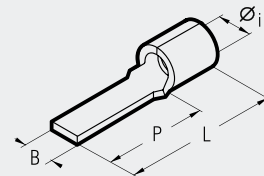
to enhance electrical contact and to improve mechanical strength.

Recommended crimping tools are shown on pages 98 to 105, 131-132.

## pin terminals



## blade terminals



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

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

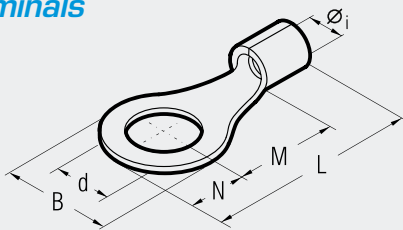


# UNINSULATED TERMINALS

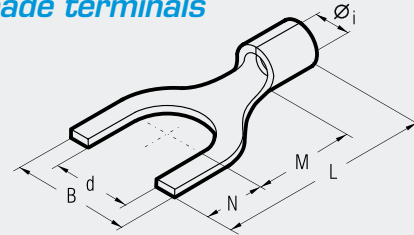
RN, BN, GN range - unbrazed

RN  
BN  
GN

## ring terminals



## 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)	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

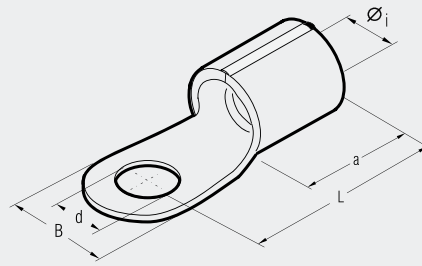
Cond. Size sqmm (AWG)	Ø Stud mm	Ref.	Dimensions mm					Quantity Box/Bag	
			Øi	B	M	N	L		d
0,25÷1,5 (22÷16)	3	RN-U 3	1,8	5,5	5,5	4,0	13,7	3,2	7.000/100
	3,5	RN-U 3.5	1,8	6,0	6,5	3,8	14,5	3,7	7.000/100
	3,5	RN-U 3.5/2	1,8	6,4	6,5	3,8	14,5	3,7	7.000/100
	4	RN-U 4	1,8	6,5	7,5	3,7	15,4	4,3	7.000/100
	4	RN-U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

\*Made to order

# CRIMPING CONNECTORS ACCORDING TO DIN 46234

for copper cables

Q



Q type connectors are manufactured from electrolytic copper strip, annealed and surface protected by tin plating; dimensions are compliant with DIN 46234; the sleeve is brazed with a silver-copper alloy.

Details of the conductor csa and stud diameter are engraved on the palm.

**Consult us for special requirements.**

Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm					Quantity Box/Bag	Mechanical Tools	Hydraulic Tools				
			Øi	d	L	B	a							
6÷10	5	Q 10-5	4,5	5,3	16,0	10,0	8,0	1.500/100	HN 5	B 95-500	RH 50 RHM 50 B 51	RHU 81 HT 81-U	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
	6	Q 10-6	4,5	6,5	17,0	11,0	8,0	1.000/100						
	8	Q 10-8	4,5	8,4	20,0	14,0	8,0	1.000/100						
	10	Q 10-10	4,5	10,5	21,0	18,0	8,0	1.000/100						
	12	Q 10-12	4,5	13,0	22,0	22,0	8,0	500/100						
10÷16	5	Q 16-5	5,8	5,3	20,0	11,0	10,0	1.000/100						
	6	Q 16-6	5,8	6,5	20,0	11,0	10,0	1.000/100						
	8	Q 16-8	5,8	8,4	22,0	14,0	10,0	500/100						
	10	Q 16-10	5,8	10,5	24,0	18,0	10,0	500/100						
	12	Q 16-12	5,8	13,0	26,0	22,0	10,0	500/100						
16÷25	5	Q 25-5	7,5	5,3	25,0	12,0	11,0	500/100						
	6	Q 25-6	7,5	6,5	25,0	12,0	11,0	500/100						
	8	Q 25-8	7,5	8,4	25,0	16,0	11,0	500/100						
	10	Q 25-10	7,5	10,5	26,0	18,0	11,0	500/100						
	12	Q 25-12	7,5	13,0	31,0	22,0	11,0	500/100						
25÷35	16	Q 25-16	7,5	17,0	35,0	28,0	11,0	200/100						
	6	Q 35-6	9,0	6,5	26,0	15,0	12,0	500/100						
	8	Q 35-8	9,0	8,4	26,0	16,0	12,0	400/100						
	10	Q 35-10	9,0	10,5	27,0	18,0	12,0	400/100						
	12	Q 35-12	9,0	13,0	31,0	22,0	12,0	250/50						
35÷50	16	Q 35-16	9,0	17,0	36,0	28,0	12,0	200/50						
	6	Q 50-6	11,0	6,5	34,0	18,0	16,0	200/50						
	8	Q 50-8	11,0	8,4	34,0	18,0	16,0	200/50						
	10	Q 50-10	11,0	10,5	34,0	18,0	16,0	200/50						
	12	Q 50-12	11,0	13,0	36,0	22,0	16,0	200/50						
50÷70	16	Q 50-16	11,0	17,0	40,0	28,0	16,0	200/50						
	6	Q 70-6	13,0	6,5	38,0	22,0	18,0	200/50						
	8	Q 70-8	13,0	8,4	38,0	22,0	18,0	200/50						
	10	Q 70-10	13,0	10,5	38,0	22,0	18,0	100/50						
	12	Q 70-12	13,0	13,0	38,0	22,0	18,0	100/50						
70÷95	16	Q 70-16	13,0	17,0	42,0	28,0	18,0	100/50						
	8	Q 95-8	15,0	8,4	42,0	24,0	20,0	100/25						
	10	Q 95-10	15,0	10,5	42,0	24,0	20,0	100/25						
	12	Q 95-12	15,0	13,0	44,0	24,0	20,0	100/25						
	16	Q 95-16	15,0	17,0	70,0	28,0	20,0	100/25						



# CRIMPING CONNECTORS ACCORDING TO DIN 46234

for copper cables



Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm					Quantity Box/Bag	Hydraulic Tools	
			Øi	d	L	B	a		HT 120 and tools and heads with 130 kN crimping force	ECW-H3D
95÷120	8	<b>Q 120-8</b>	16,5	8,4	44,0	24,0	22,0	100/25		
	10	<b>Q 120-10</b>	16,5	10,5	44,0	24,0	22,0	100/25		
	12	<b>Q 120-12</b>	16,5	13,0	44,0	24,0	22,0	100/25		
	16	<b>Q 120-16</b>	16,5	17,0	48,0	28,0	22,0	50/25		
120÷150	10	<b>Q 150-10</b>	19,0	10,5	50,0	30,0	24,0	50/25		
	12	<b>Q 150-12</b>	19,0	13,0	50,0	30,0	24,0	50/25		
	16	<b>Q 150-16</b>	19,0	17,0	50,0	30,0	24,0	50/25		
150÷185	10	<b>Q 185-10</b>	21,0	10,5	50,0	36,0	28,0	40/20		
	12	<b>Q 185-12</b>	21,0	13,0	50,0	36,0	28,0	40/20		
	16	<b>Q 185-16</b>	21,0	17,0	50,0	36,0	28,0	30/15		
185÷240	10	<b>Q 240-10</b>	23,5	10,5	56,0	38,0	32,0	15/15		
	12	<b>Q 240-12</b>	23,5	13,0	56,0	38,0	32,0	15/15		
	16	<b>Q 240-16</b>	23,5	17,0	56,0	38,0	32,0	15/15		

Consult us for further information.

Consult us for special requirements.

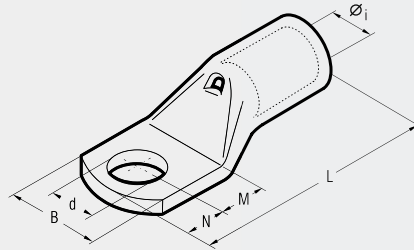
# A-M

## COPPER TUBE CRIMPING LUGS

for copper conductors



File no. E125401



A-M series lugs are manufactured from electrolytic copper tube.

The dimensions of the tube are designed to obtain the most efficient electrical conductivity and mechanical strength to resist vibration and pull out.

Cembre lugs are annealed to guarantee optimum ductility which is an absolute necessity for connectors which will have to withstand the severe deformation arising when compressed and any bending of the palm during installation.

In applications subject to vibration, 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 tinned 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 154 to 162, 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 <small>low stranded flexible*</small>	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools						
			Øi	B	M	N	L	d									
0,25÷1,5	3	A 03-M 3	1,8	6,0	4,5	3,5	16,0	3,2	5.000/100	RH 1	B 150						
	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	RH 1	B 150						
	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								
4÷6	8	A 06-M 8	2,4	12,0	9,0	8,0	26,0	8,4	2.500/100	RH 1	B 150						
	3	A 1-M 3	3,6	7,5	4,5	3,5	20,5	3,2	2.000/100			RH 5	B 150				
	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									
10	8	A 1-M 8	3,6	14,0	9,0	8,0	29,5	8,4	1.500/100	RH 5	B 150						
	10	A 1-M 10	3,6	16,5	11,0	10,0	33,5	10,5	1.000/100			TN 70 SE	B 35-45D B 35-50D RH 45-E				
	4	A 2-M 4	4,6	10,0	5,0	4,0	22,5	4,3	1.500/100					TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520		
	5	A 2-M 5	4,6	10,0	6,5	6,0	26,0	5,3	1.500/100								
	6	A 2-M 6	4,6	11,0	7,0	6,0	26,5	6,4	1.500/100								
8	A 2-M 8	4,6	15,0	9,0	8,0	30,5	8,4	1.000/100									
16	10	A 2-M 10	4,6	18,0	11,0	10,0	34,5	10,5	1.000/100	TN 70 SE	B 35-45D B 35-50D RH 45-E						
	12	A 2-M 12	4,6	19,0	14,0	12,0	39,5	13,2	500/100			TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520				
	4	A 3-M 4	5,8	11,5	5,0	4,0	25,5	4,3	1.000/100					TN 70 SE	B 35-45D B 35-50D RH 45-E		
	5	A 3-M 5	5,8	11,5	6,5	6,0	29,0	5,3	1.000/100							TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520
	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	TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520							
10	A 3-M 10	5,8	18,0	11,0	10,0	37,5	10,5	500/100			TN 70 SE	B 35-45D B 35-50D RH 45-E					
12	A 3-M 12	5,8	20,0	14,0	12,0	42,5	13,2	500/100					TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520			
25	4	A 5-M 4	7,0	14,0	5,0	4,0	28,0	4,3							1.000/100	TN 70 SE	B 35-45D B 35-50D RH 45-E
	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	TN 70 SE					B 35-45D B 35-50D RH 45-E		
	8	A 5-M 8	7,0	15,0	9,0	8,0	36,0	8,4	500/100		TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520					
	10	A 5-M 10	7,0	18,0	11,0	10,0	40,0	10,5	500/100				TN 70 SE	B 35-45D B 35-50D RH 45-E			
35	12	A 5-M 12	7,0	21,0	14,0	12,0	45,0	13,2	500/100							TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520
	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	TN 120 SE					HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520		
	8	A 7-M 8	8,9	17,0	9,0	8,0	38,5	8,4	400/100		TN 70 SE	B 35-45D B 35-50D RH 45-E					
	10	A 7-M 10	8,9	19,0	11,0	10,0	42,5	10,5	400/100				TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520			
50	12	A 7-M 12	8,9	21,0	14,0	12,0	47,5	13,2	300/50							TN 70 SE	B 35-45D B 35-50D RH 45-E
	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	TN 70 SE					B 35-45D B 35-50D RH 45-E		
	10	A 10-M 10	10,0	20,0	11,0	10,0	46,5	10,5	200/50		TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520					
	12	A 10-M 12	10,0	21,0	14,0	12,0	51,5	13,2	200/50				TN 70 SE	B 35-45D B 35-50D RH 45-E			
70	14	A 10-M 14	10,0	25,0	16,0	14,0	55,5	15,0	200/50							TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520
	16	A 10-M 16	10,0	26,0	18,0	16,0	59,5	17,0	200/50								
	6	A 14-M 6	11,3	21,0	8,0	7,0	44,0	6,4	200/50	TN 120 SE					HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520		
	8	A 14-M 8	11,3	21,0	9,0	8,0	46,0	8,4	200/50		TN 70 SE	B 35-45D B 35-50D RH 45-E					
	10	A 14-M 10	11,3	21,0	11,0	10,0	50,0	10,5	200/50				TN 120 SE	HT 51 RHU 81 HT 81-U RHU 81 ECW-H30 RHU 520			
12	A 14-M 12	11,3	22,0	14,0	12,0	55,0	13,2	150/50	TN 70 SE							B 35-45D B 35-50D RH 45-E	
14	A 14-M 14	11,3	25,0	16,0	14,0	59,0	15,0	100/50									TN 120 SE
16	A 14-M 16	11,3	26,0	18,0	16,0	63,0	17,0	100/50		TN 70 SE					B 35-45D B 35-50D RH 45-E		

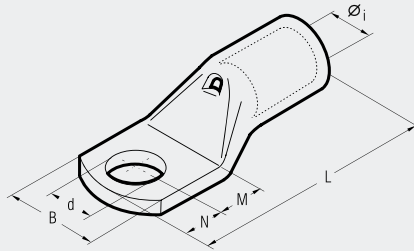
# COPPER TUBE CRIMPING LUGS

for copper conductors

A-M



File no. E125401



Cond. Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools											
			Øi	B	M	N	L	d														
95	70 95	6 A 19-M 6	13,5	25,0	8,0	7,0	50,5	6,4	100/25	TN 120 SE	B 35-45D	B 35-50D	HT 45-E	HT 51	RH 50	B 51	B 55	HT 81-J	RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 520
		8 A 19-M 8	13,5	25,0	9,0	8,0	52,5	8,4	100/25													
		10 A 19-M 10	13,5	25,0	11,0	10,0	56,5	10,5	100/25													
		12 A 19-M 12	13,5	25,0	14,0	12,0	61,5	13,2	100/25													
		14 A 19-M 14	13,5	25,0	16,0	14,0	65,5	15,0	100/25													
		16 A 19-M 16	13,5	27,0	18,0	16,0	69,5	17,0	100/25													
120	95 120	20 A 19-M 20	13,5	29,5	22,0	20,0	77,5	21,0	50/25													
		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													
150	120 150	20 A 24-M 20	15,2	30,0	22,0	20,0	79,0	21,0	50/25													
		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													
185	150 185	20 A 30-M 20	16,7	31,5	22,0	20,0	87,0	21,0	50/25													
		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													
240	185 240	20 A 37-M 20	19,2	35,5	22,0	20,0	94,0	21,0	30/15													
		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													
300	240 300	20 A 48-M 20	21,1	39,0	22,0	20,0	100,0	21,0	30/15													
		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													
		400 16 A 100-M 16	30,3	56,5	22,0	19,0	117,0	17,0	15/1													
		500 20 A 100-M 20	30,3	56,5	24,0	23,0	123,0	21,0	15/1													
630	500 630	16 A 120-M 16	33,4	61,6	22,0	19,0	128,0	17,0	12/1													
		20 A 120-M 20	33,4	61,6	24,0	23,0	134,0	21,0	10/1													
800	630	16 A 160-M 16	38,0	72,0	24,0	19,0	141,0	17,0	6/1													
		20 A 160-M 20	38,0	72,0	24,0	23,0	145,0	21,0	6/3													
1000	800	16 A 200-M 16	44,0	80,0	24,0	19,0	158,0	17,0	6/2													
		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 120mm<sup>2</sup> size use A30... lug.

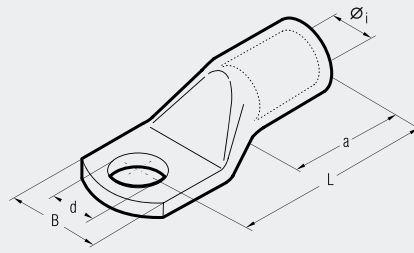


# COPPER TUBE CRIMPING LUGS ACCORDING TO DIN 46235

for copper conductors



## DR



DR series lugs are manufactured from electrolytic copper tube and designed to obtain high electrical conductivity combined with the mechanical strength required to resist vibration and pull out.

Cembre lugs are annealed and tin plated for improved surface protection.

The annealing process optimizes the structural features of the material allowing easier crimping and greater resistance to mechanical stresses.

Dimensions are according to DIN 46235.

The barrel entrance of the lug is chamfered to allow easy conductor insertion, while its length facilitates precise positioning in the crimping die.

Each lug is marked with:

- Cembre logo and part code.
- conductor type and csa (mm<sup>2</sup>).
- Stud Ø (mm).
- crimping die code (Kennzahl)

**Consult us for special requirements**

Conductor Size sqmm	Ø Stud mm	Ref.	Code	Dimensions mm					Quantity Box/Bag	Mechanical Tools	Hydraulic Tools																						
				Øi	d	L	B	a																									
6	5	DR6-5	5	3,7	5,3	24,0	8,5	10,0	800/100	TMD 6 - 70	B 150																						
	6	DR6-6	5	3,7	6,4	24,0	9,0	10,0	800/100																								
	8	DR6-8*	5	3,7	8,4	26,0	13,0	10,0	800/100																								
10	5	DR10-5	6	4,4	5,3	27,5	10,0	10,0	800/100							TMD 10 - 120	B 35-45D B 35-50D	HT 45-E															
	6	DR10-6	6	4,4	6,4	27,0	10,0	10,0	800/100																								
	8	DR10-8*	6	4,4	8,4	28,0	13,0	10,0	800/100																								
16	10	DR10-10*	6	4,4	10,5	28,5	15,0	10,0	800/100													TMD 10 - 120	B 35-45D B 35-50D	HT 45-E									
	5	DR16-5*	8	5,5	5,3	36,0	13,0	20,0	400/100																								
	6	DR16-6	8	5,5	6,4	36,0	13,0	20,0	400/100																								
25	8	DR16-8	8	5,5	8,4	37,0	13,0	20,0	400/100																			TMD 10 - 120	B 35-45D B 35-50D	HT 45-E			
	10	DR16-10	8	5,5	10,5	40,0	16,5	20,0	400/100																								
	12	DR16-12*	8	5,5	13,0	41,0	19,0	20,0	400/100																								
35	6	DR25-6	10	7,0	6,4	39,0	14,6	20,0	400/100	TMD 10 - 120	B 35-45D B 35-50D	HT 45-E																					
	8	DR25-8	10	7,0	8,4	39,5	16,0	20,0	400/100																								
	10	DR25-10	10	7,0	10,5	40,0	16,0	20,0	200/100																								
50	12	DR25-12	10	7,0	13,0	40,5	18,0	20,0	400/100							TMD 10 - 120	B 35-45D B 35-50D	HT 45-E															
	6	DR35-6*	12	8,2	6,4	42,5	17,5	20,0	200/100																								
	8	DR35-8	12	8,2	8,4	42,0	17,0	20,0	200/100																								
70	10	DR35-10	12	8,2	10,5	43,0	19,0	20,0	200/100													TMD 10 - 120	B 35-45D B 35-50D	HT 45-E									
	12	DR35-12	12	8,2	13,0	43,0	21,0	20,0	200/100																								
	16	DR35-16*	12	8,2	17,0	44,0	28,0	20,0	200/100																								
95	6	DR50-6*	14	10,0	6,4	52,0	20,0	28,0	100/25																			TMD 10 - 120	B 35-45D B 35-50D	HT 45-E			
	8	DR50-8	14	10,0	8,4	52,0	20,0	28,0	100/25																								
	10	DR50-10	14	10,0	10,5	53,0	22,0	28,0	100/25																								
120	12	DR50-12	14	10,0	13,0	53,0	24,0	28,0	100/25	TMD 10 - 120	B 35-45D B 35-50D	HT 45-E																					
	16	DR50-16	14	10,0	17,0	57,0	28,0	28,0	100/25																								
	8	DR70-8	16	11,5	8,4	56,0	24,0	28,0	50/25																								
150	10	DR70-10	16	11,5	10,5	56,0	24,0	28,0	50/25							TMD 10 - 120	B 35-45D B 35-50D	HT 45-E															
	12	DR70-12	16	11,5	13,0	56,0	24,0	28,0	50/25																								
	16	DR70-16	16	11,5	17,0	60,0	30,0	28,0	50/25																								
185	20	DR70-20*	16	11,5	21,0	84,5	30,0	28,0	50/25													TMD 10 - 120	B 35-45D B 35-50D	HT 45-E									
	8	DR95-8*	18	13,5	8,4	65,0	28,0	35,0	50/25																								
	10	DR95-10	18	13,5	10,5	66,0	28,0	35,0	50/25																								
240	12	DR95-12	18	13,5	13,0	66,0	28,0	35,0	50/25																			TMD 10 - 120	B 35-45D B 35-50D	HT 45-E			
	16	DR95-16	18	13,5	17,0	65,5	32,0	35,0	50/25																								
	20	DR95-20*	18	13,5	21,0	71,0	33,0	35,0	50/25																								
300	8	DR120-8*	20	15,5	8,4	70,0	31,0	35,0	50/25	TMD 10 - 120	B 35-45D B 35-50D	HT 45-E																					
	10	DR120-10	20	15,5	10,5	70,0	31,0	35,0	50/25																								
	12	DR120-12	20	15,5	13,0	70,5	31,0	35,0	50/25																								
360	16	DR120-16	20	15,5	17,0	70,0	31,5	35,0	50/25							TMD 10 - 120	B 35-45D B 35-50D	HT 45-E															
	20	DR120-20	20	15,5	21,0	72,0	36,0	35,0	50/25																								
	10	DR150-10	22	17,0	10,5	79,0	34,0	35,0	50/25																								
450	12	DR150-12	22	17,0	13,0	78,5	34,0	35,0	50/25													TMD 10 - 120	B 35-45D B 35-50D	HT 45-E									
	16	DR150-16	22	17,0	17,0	78,0	34,0	35,0	50/25																								
	20	DR150-20	22	17,0	21,0	78,0	38,0	35,0	50/25																								
600	10	DR185-10	25	19,0	10,5	83,0	37,0	40,0	25/25																			TMD 10 - 120	B 35-45D B 35-50D	HT 45-E			
	12	DR185-12	25	19,0	13,0	82,5	37,0	40,0	25/25																								
	16	DR185-16	25	19,0	17,0	82,0	37,0	40,0	25/25																								
800	20	DR185-20	25	19,0	21,0	83,0	40,0	40,0	25/25	TMD 10 - 120	B 35-45D B 35-50D	HT 45-E																					
	10	DR240-10*	28	21,5	10,5	92,0	42,0	40,0	20/10																								
	12	DR240-12	28	21,5	13,0	92,0	42,5	40,0	20/10																								
1000	16	DR240-16	28	21,5	17,0	92,0	42,5	40,0	20/10							TMD 10 - 120	B 35-45D B 35-50D	HT 45-E															
	20	DR240-20	28	21,5	21,0	92,0	45,0	40,0	20/10																								

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

## COPPER TUBE CRIMPING LUGS ACCORDING TO DIN 46235



for copper conductors

# DR

Conductor Size Stud sqmm	Ø Stud mm	Ref.	Code	Dimensions mm					Quantity Box/Bag	Hydraulic Tools	
				Øi	d	L	B	a			
300	12	DR300-12*	32	24,5	13,0	104,0	47,0	50,0	10/5	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D RHU 520
	16	DR300-16	32	24,5	17,0	100,0	48,0	50,0	10/5		
	20	DR300-20	32	24,5	21,0	100,0	47,0	50,0	10/5		
400	12	DR400-12*	38	27,5	13,0	117,0	55,0	70,0	5/5	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D RHU 520
	16	DR400-16	38	27,5	17,0	117,0	55,0	70,0	5/5		
	20	DR400-20	38	27,5	21,0	117,0	55,0	70,0	5/5		
500	12	DR500-12*	42	31,0	13,0	130,0	60,0	70,0	5/5	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D RHU 520
	16	DR500-16*	42	31,0	17,0	130,0	60,0	70,0	5/5		
	20	DR500-20	42	31,0	21,0	130,0	60,0	70,0	5/5		
625	20	DR625-20	44	34,5	21,0	135,0	63,0	80,0	5/5		

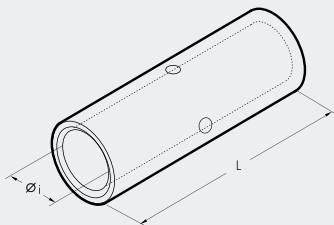
\* Non-standard; dimensions of the tube according to DIN 46.235

Consult us for special requirements

## CRIMPING THROUGH CONNECTORS ACCORDING TO DIN 46267 T.1



for copper cables



# DSV



Conductor Size Stud sqmm	Ref.	Code	Dimensions mm		Quantity Box/Bag	Mechanical Tools		Hydraulic Tools		
			Øi	L						
6	DSV 6	5	3,7	30	1.200/100	TND 6-70 TND 10-120	B 15D	B 35-45D B 35-50D HT 45-E HT 51 RH 50 BS1 HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D RHU 450 RHU 520
10	DSV 10	6	4,4	30	1.200/100					
16	DSV 16	8	5,5	50	800/100					
25	DSV 25	10	7,0	50	400/100					
35	DSV 35	12	8,2	50	200/100					
50	DSV 50	14	10,0	56	200/50					
70	DSV 70	16	11,5	56	100/50					
95	DSV 95	18	13,5	70	100/50					
120	DSV 120	20	15,5	70	50/25					
150	DSV 150	22	17,0	80	50/25					
185	DSV 185	25	19,0	85	25/25					
240	DSV 240	28	21,5	90	15/15					
300	DSV 300	32	24,5	100	10/5					
400	DSV 400	38	27,5	150	10/5					
500	DSV 500	42	31,0	160	10/5					
625	DSV 625	44	34,5	160	5/5					

DSV series through connectors are manufactured from electrolytic copper tube, annealed and surface protected by tin plating. Internal and external dimensions match those of DR series lugs. Chamfered ends and a central stop provide easy and correct insertion of the conductor.

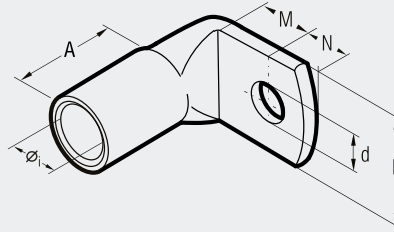
Consult us for special requirements

# A-L



## COPPER TUBE CRIMPING LUGS ANGLED 90°

for copper conductors



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.

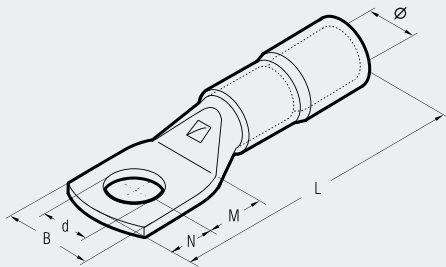
Lugs are electrolytically tinned to avoid oxidation.

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

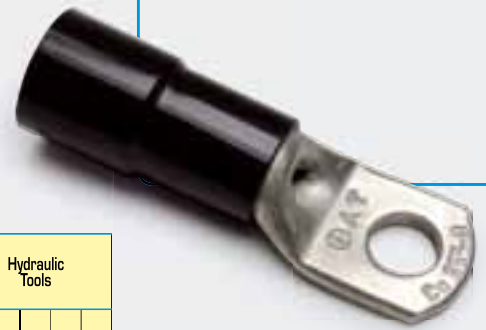
\*Actual conductor section may require a larger lug eg for 120mm<sup>2</sup> size use A30... lug.



# POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS



## ANE-M



Conductor Size	Flexible	Ø Stud	Ref.	Dimensions mm					Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
				Ø	B	M	N	L			
10	4	ANE 2-M 4	8,0	10,0	5,0	4,0	34,1	4,3	500/100	HNN 3 HNN 4	B 15D
	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		
16	4	ANE 3-M 4	9,2	11,5	5,0	4,0	38,6	4,3	500/100	HNN 3 HNN 4	B 15D
	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		
25	4	ANE 5-M 4	11,1	14,0	5,0	4,0	41,0	4,3	300/100	TNN 70	B 35-50D
	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		
35	6	ANE 7-M 6	13,6	17,0	7,0	6,0	50,0	6,4	200/50	TNN 120	B 51
	8	ANE 7-M 8	13,6	17,0	9,0	8,0	54,0	8,4	200/50		
	10	ANE 7-M 10	13,6	19,0	11,0	10,0	58,0	10,5	200/50		
	12	ANE 7-M 12	13,6	21,0	14,0	12,0	63,0	13,2	200/50		
	6	ANE 10-M 6	13,8	19,0	8,0	7,0	55,0	6,4	200/50		
50	8	ANE 10-M 8	13,8	19,0	9,0	8,0	57,0	8,4	200/50	TNN 120	B 51
	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		
	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		
70	10	ANE 14-M 10	15,8	21,0	11,0	10,0	67,0	10,5	100/25	TNN 120	B 51
	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		
	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		
95	12	ANE 19-M 12	18,0	25,0	14,0	12,0	82,0	13,2	50/25	TNN 120	B 51
	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		
	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		
120	14	ANE 24-M 14	20,0	28,5	16,0	14,0	88,5	15,0	50/25	TNN 120	B 51
	16	ANE 24-M 16	20,0	28,5	18,0	16,0	90,5	17,0	50/25		
	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		
150	20	ANE 30-M 20	23,0	31,5	22,0	20,0	113,0	21,0	30/15	TNN 120	B 51

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).

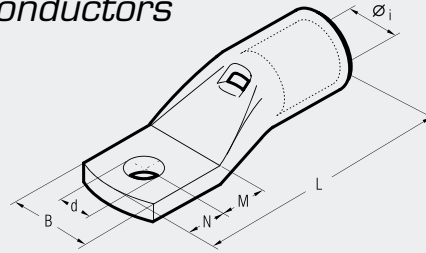
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.



# A-M

## RING TONGUE TERMINALS WITH CONTAINED PALM

for L.V. circuit breakers  
for copper conductors

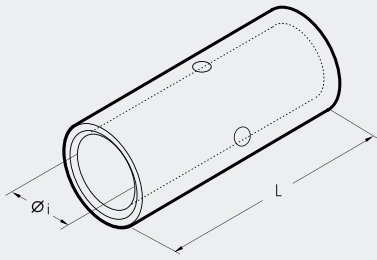


This range of lugs features contained palm width. Our lugs have been specifically developed for application on L.V. circuit breakers with reduced space terminal blocks. In fact the contained palm width allows an immediate and easier installation. Our lugs are manufactured from electrolytic copper tube. 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						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools				
			Øi	B	M	N	L	d							
10	5	A 2-M 5/9	4,6	9,0	6,5	6,0	26,0	5,3	1000/100	TN 70 SE	B 150				
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	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
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	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
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	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
120	8	A 24-B-M 8/19	15,2	19,0	14,0	9,0	60,0	8,4	100/25						
150	10	A 24-B-M 10/19	15,2	19,0	14,0	9,0	60,0	10,5	100/25	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
150	8	A 30-B-M 8/19	16,7	19,0	18,0	9,0	70,0	8,4	50/25						
185	10	A 30-B-M 10/19	16,7	19,0	18,0	9,0	70,0	10,5	50/25	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
185	10	A 37-B-M 10/24.5	19,2	24,5	18,0	9,0	77,0	10,5	50/25						
240	12	A 48-M 10/31	21,1	31,0	13,0	9,0	80,0	10,5	30/15	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
240	12	A 48-M 12/31	21,1	31,0	16,0	12,0	86,0	13,2	30/15						
300	16	A 48-M 16/31	21,1	31,0	19,0	17,0	94,0	17,0	30/15	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		
300	10	A 60-B-M 10/31	23,7	31,0	16,0	12,0	95,0	10,5	20/10						
300	12	A 60-B-M 12/31	23,7	31,0	16,0	12,0	95,0	13,2	20/10	TN 120 SE	B 35-45D	B 35-50D	HT 45-E		



# THROUGH CONNECTORS



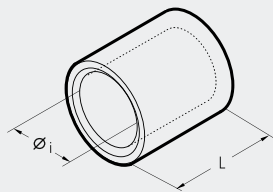
## L-M



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



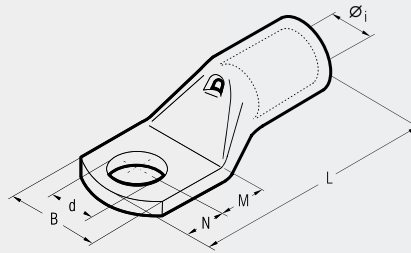
Total Conductor Size sqmm		Ref.	Dimensions mm		Quantity Box/Bag	Mechanical Tools	Hydraulic Tools
low stranded	Flexible		Øi	L			
0,25÷1,5	0,25÷1,5	L 03-P	1,8	6,0	10.000/100		
1,5÷2,5	1,5÷2,5	L 06-P	2,4	6,0	5.000/100		
4÷6	4÷6	L 1-P	3,6	9,0	3.000/100	HN 1	
10	10	L 2-P	4,6	10,5	3.000/100		
16	16	L 3-P	5,8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

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.

# A-M

## COPPER TUBE CRIMPING LUGS

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 120 SE TN 70 SE B 35-450 B 35-500 HT 45-E HT 51 RH 50 B 51 B 55 HT 81-U RHU 81 HT 120 and tools with 130 kN crimping force ECW-H3D RHU 520	
	8	A 9-M 8	9,3	17,0	9,0	8,0	40,5	8,4	400/100		
	10	A 9-M 10	9,3	18,5	11,0	10,0	44,5	10,5	400/100		
	12	A 9-M 12	9,3	21,0	14,0	12,0	49,5	13,2	300/50		
50	6	A 12-M 6/15	11,0	15,0	8,0	7,0	40,5	6,4	200/50		
	8	A 12-M 8	11,0	19,8	9,0	8,0	42,5	8,4	200/50		
	10	A 12-M 10	11,0	19,8	11,0	10,0	46,5	10,5	200/50		
	12	A 12-M 10/19	11,0	19,0	11,0	10,0	46,5	10,5	200/50		
70	12	A 12-M 12	11,0	22,0	14,0	12,0	51,5	13,2	200/50		
	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		
	12	A 17-M 10/19	13,0	19,0	11,0	10,0	51,0	10,5	200/50		
	14	A 17-M 12	13,0	23,0	14,0	12,0	56,0	13,2	150/50		
95	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		
	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		
120	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		
	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		
150	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		
	10	A 35-M 10	19,2	34,2	13,0	11,0	65,5	10,5	50/25		
185	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		

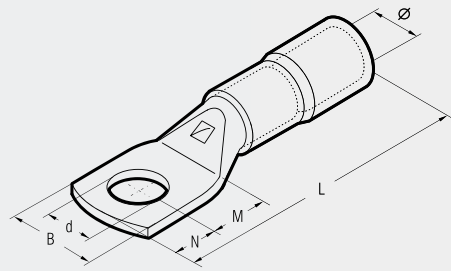


# POLYAMIDE PA6.6 INSULATED COPPER TUBE LUGS



for extra flexible copper conductors

## ANE-M



Conductor Size Extra Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools	Hydraulic Tools						
			Ø	B	M	N	L	d									
35	6	ANE 9-M 6/15	13,6	15,0	8,0	7,0	54,0	6,4	200/50	TNN 70	B 35-50D						
	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								
50	12	ANE 9-M 12	13,6	21,0	14,0	12,0	65,0	13,2	150/50			TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D				
	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								
70	10	ANE 12-M 10	15,7	19,8	11,0	10,0	65,5	10,5	100/25					TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D		
	12	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								
95	6	ANE 17-M 6	17,9	23,0	8,0	7,0	63,8	6,4	100/25							TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D
	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								
120	10	ANE 17-M 10/19	17,9	19,0	11,0	10,0	69,8	10,5	100/25	TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D						
	12	ANE 17-M 12	17,9	23,0	14,0	12,0	74,8	13,2	50/25								
	12	ANE 17-M 14	17,9	25,0	15,5	12,0	76,3	15,0	50/25								
150	16	ANE 17-M 16	17,9	27,0	16,5	13,5	78,8	17,0	50/25			TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D				
	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								
120	12	ANE 20-M 12	20,0	27,0	14,0	12,0	79,6	13,2	50/25					TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D		
	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								
150	10	ANE 29-M 10	22,4	30,0	11,0	10,0	81,5	10,5	50/25							TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D
	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								
150	16	ANE 29-M 16	22,4	30,0	16,5	13,5	90,5	17,0	50/25	TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D						
	20	ANE 29-M 20	22,4	30,0	22,0	20,0	102,5	21,0	30/15								
	12	ANE 35-M 12	25,0	34,2	16,0	14,0	95,0	13,2	30/15								
150	14	ANE 35-M 14	25,0	34,2	18,0	16,0	99,0	15,0	30/15			TNN 120	B 55 B 51 RH 50 HT 51 HT 120 and tools and heads with 130 kN crimping force ECWH3D				
	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.

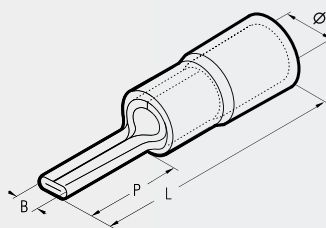
The operating temperature range is - 20 to + 115°C (Surge + 130°C).

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.

# ANE-P



## POLYAMIDE PA6.6 INSULATED PIN TERMINALS



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).

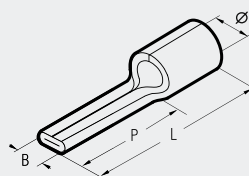
In order to achieve the best electrical and mechanical performance it is suggested that they are crimped using dies and tools specifically developed for this purpose by Cembre.

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	B 51 B 55	HT 120 and tools 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

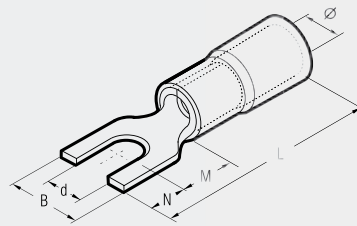


A-P series pin connectors are designed to terminate conductors into contact blocks.

They are manufactured from copper strip, rolled, brazed and tin plated.

Conductor Size sqmm	Ref.	Dimensions mm				Quantity Box/Bag	Mechanical Tools			Hydraulic Tools						
		Ø1	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 RH 50 B 51 B 55	HT 120 and tools with 130 kN crimping force
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



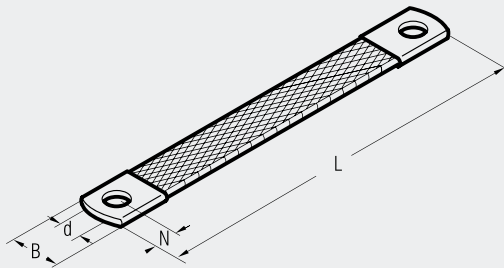
Conductor Size Flexible sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Mechanical Tools		Hydraulic Tools						
			Ø	B	M	N	L	d		HNN 3	HNN 4	TNN 70	TNN 120	B 150	B 35-500	HT 51 RH 50 B 51 B 55	HT 120 and tools and heads with 130 kN crimping force	ECM-H3D
10	4	ANE 2-U 4	8,0	9,8	7,5	7	35,1	4,3	500/100	HNN 3								
	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		HNN 4							
	5	ANE 3-U 5	9,2	11,5	10,0	8	41,1	5,3	500/100			TNN 70						

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				Quantity
			B	N	L	d	
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
	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
16	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
	8	FL 25-150	21	10	150	8,5	50
25	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.

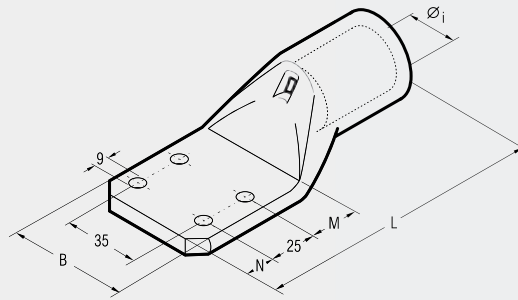
E.g.:

- 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		HT 51 RH 50 B 51 B 55	HT 81-J RHU 81	HT 120 and tools and heads with 130 kN crimping force
185	A 37-4ESI	19,2	61	20	15	124	20/10	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			

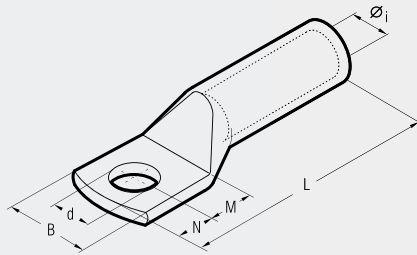






# HEAVY DUTY COPPER TUBE TERMINALS

## 2A-M



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

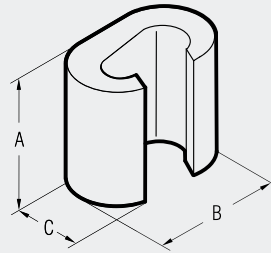
2A-M series are made from high purity copper tube, and are annealed. They feature a double length barrel for enhanced electrical and mechanical performance in heavy duty applications. The absence of an inspection hole prevents the entry of water or moisture into the crimped joint making these terminals 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

Tin plated version



C

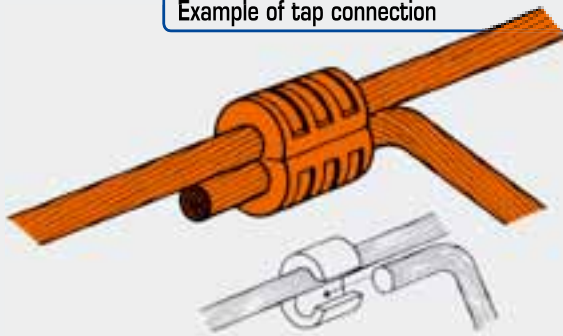


"C" connectors are manufactured from high purity copper profiles and are suitable for a variety of uses either to create an earthing network or tapping off from overhead distribution lines. Each connector is marked as follows:

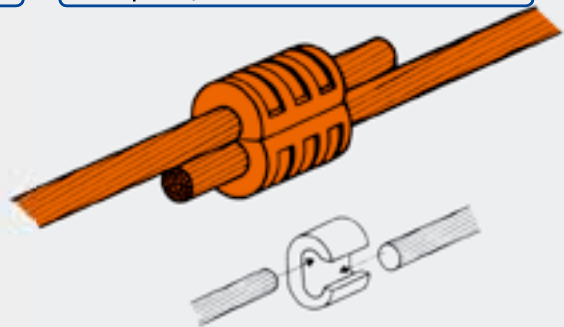
- Cembre trade mark
- Reference number
- Conductor size-Run
- Conductor size-Tap
- Number of crimps
- Die reference.

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

Example of tap connection

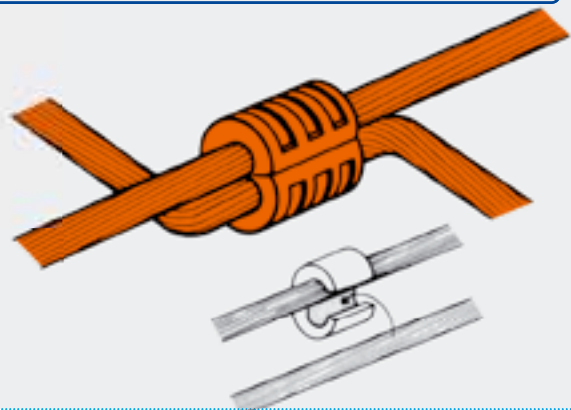


Example of joint connection



Example of joining two running conductors

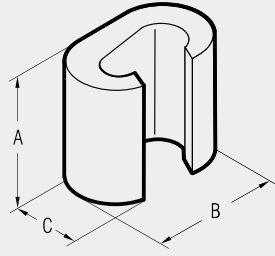
Conductor Size sqmm	Ref.
25-25	<b>C 35-C 16 ST</b>
35-35	<b>C 35-C 35 ST</b>
50-50	<b>C 70-C 70 ST</b>
63-63	<b>C 95-C 70 ST</b>
70-70	
95-95	<b>C 150-C 120 ST</b>
120-120	
125-125	<b>C 150-C 150</b>
120-120	<b>C 185-C 95 ST</b>
125-125	





# SLEEVE CONNECTORS

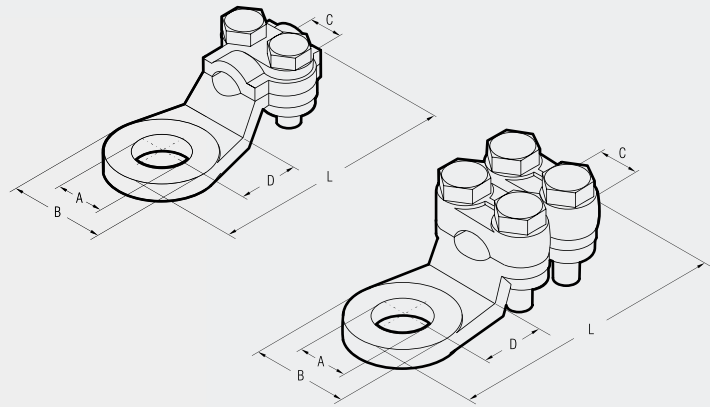
Bright surface version



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

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

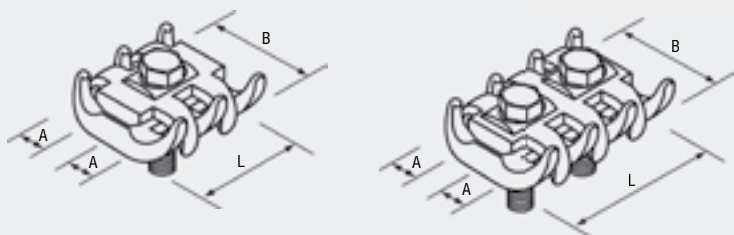
Conductor Size sqmm	Ref.	A bolt	Dimensions mm				Quantity
			B	C	D	L	
16	2155	M8	18,0	4,5	12,5	40	100
16	2171	M10	18,0	4,5	12,5	40	100
25	2156	M8	19,5	6,0	13,0	43	100
25	2172	M10	19,5	6,0	13,0	43	100
35	2157	M12	23,0	7,0	15,0	49	50
35	2173	M14	23,0	7,0	15,0	49	50
50	2174	M14	25,0	8,0	17,0	56	50

## 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

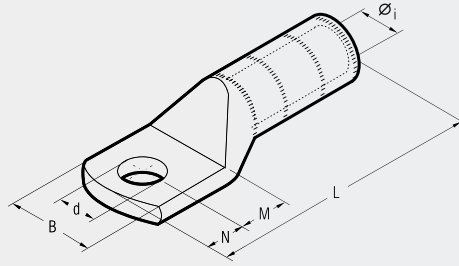
Material:  
Brass OT 58 UNI 5705.  
Zinc plated steel bolts.  
Zinc plated steel nut.

## 2 bolt fixing

Conductor Size sqmm	Ref.	Ø A for cable mm	Dimensions mm		Quantity
			B	L	
6÷16	2333	3÷ 5	27	32	50
16÷50	2336	5÷ 8	32	40	50
35÷70	2339	7÷12	40	44	25
50÷95	2342	8÷14	48	48	10
70÷150	2344	12÷16	51	53	10
150÷300	2346	18÷22	70	70	5

# 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.

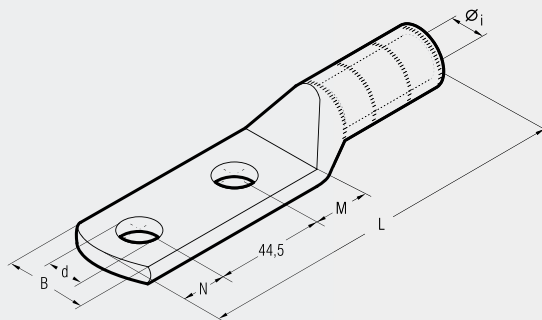
The extended barrel enhances both electrical and mechanical performance. The absence of an inspection hole prevents moisture entry into the crimped joint and makes these terminals suitable for outdoor applications.

Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools				
			Øi	B	M	N	L	d						
25 R	8	CA 25-M 8	6,8	14,0	9	8	65,0	8,4	300/50	B35-500	B 51	RH 50	B 51	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	HT 120 and tools and heads with 130 kN crimping force	ECWH30	RHU 520		
	16	CA 40 S-M 16	8,2	26,0	19	17	85,0	17,0	100/50					
50 RC	12	CA 50 R-M 12	8,7	20,5	16	14	79,0	13,2	150/50					
	16	CA 50 S-M 16	9,5	21,0	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					
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					
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 S-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					
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					
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					
160 S ÷ 200 RC	14	CA 200 R-M 14	17,0	32,5	18	16	101,0	15,0	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					
315 S	14	CA 315 S-M 14	23,7	44,0	18	16	105,0	15,0	15/5					
	14	2 A 80-M 14	27,0	51,0	22	19	140,0	15,0	15/5					
400 R	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					

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors

# HIGH VOLTAGE TERMINALS

two hole fixing



## CA-2M 2A-2M



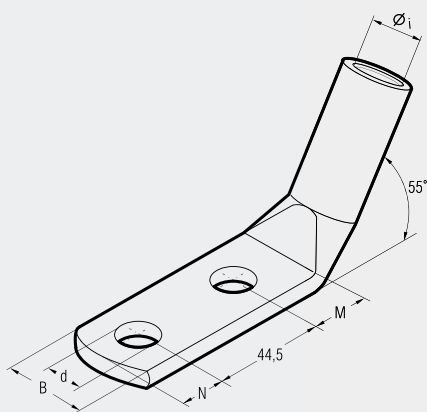
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools		
			Øi	B	M	N	L	d				
25 R	8	CA 25-2 M 8	6,8	14,0	10	11	113,5	8,4	200/50	B35-500	HT 51 RH 50 B 51 B 55	HT 81-J RHU 81
	12	CA 25-2 M 12	6,8	21,0	16	14	122,5	13,2	150/50			
30 RC/S ÷ 40 S	12	CA 40 S-2 M 12	8,2	21,5	16	14	123,5	13,2	100/50			
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			
63 S ÷ 70 S	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			
120 RC/S ÷ 150 RC	14	CA 150 R-2 M 14	15,0	31,0	18	16	145,5	15,0	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			
160 S ÷ 200 RC	14	CA 200 R-2 M 14	17,0	32,5	18	16	145,0	15,0	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			
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	HT 120 and tools and heads with 130 kN crimping force	ECM-H3D	RHU 520
	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			

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors

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 44.5 mm centres.

# HIGH VOLTAGE TERMINALS

two hole fixing



## 2A-2M/55°



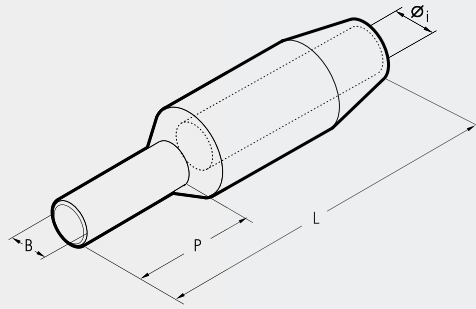
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm						Quantity Box/Bag	Hydraulic Tools		
			Øi	B	M	N	d					
400 R	14	2 A 80 - 2 M 14/55°	27,0	51,0	22	16	15	10/5	HT 120 and tools and heads with 130 kN crimping force	ECM-H3D	RHU 520	
600 R ÷ 630 R	14	2 A 120 - 2 M 14/55°	33,4	61,5	22	16	15	15/3				

R = Round conductors

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.

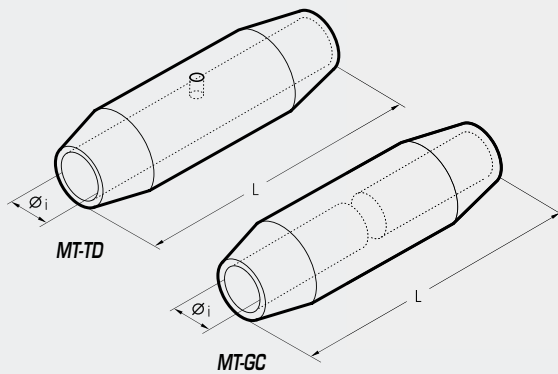
Conductor Size sqmm	Ref.	Dimensions mm				Quantity Box/Bag	Hydraulic Tools			
		Øi	B	P	L					
25 R	<b>MT 25-C 8</b>	6,8	8	35	80	90/3				
30 RC/S ÷ 40 S	<b>MT 40 S-C 8</b>	8,2	8	35	80	90/3	B35-50D	B 55	RHU 81	HT 120 and tools and heads with 130 kN crimping force
	<b>MT 40 S-C 10</b>	8,2	10	35	80	90/3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

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors



# HIGH VOLTAGE COPPER THROUGH CONNECTORS

## MT-TD MT-GC



Conductor Size sqmm	Ref.	Ref.	Dimensions mm		Quantity Box/Bag	Hydraulic Tools				
			øi	L						
25 R	MT 25-TD	MT 25-GC	6,8	60	90/3	B35-50D	HT 51	RH 50	B 51	B 55
30 RC/S ÷ 40 S	MT 40 S-TD	MT 40 S-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					
63 S ÷ 70 S	MT 70 S-TD	MT 70 S-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					
120 RC/S ÷ 150 RC	MT 150 R-TD	MT 150 R-GC	15,0	80	30/3					
150 S ÷ 160 RC	MT 150 S-TD	MT 150 S-GC	16,5	80	30/3					
160 S ÷ 200 RC	MT 200 R-TD	MT 200 R-GC	17,0	100	30/3					
200 S ÷ 240 RC	MT 240 R-TD	MT 240 R-GC	19,2	100	30/3	HT 120 and tools and heads with 130 kN crimping force	ECM-H3D	RHU 520		
240 S ÷ 315 RC	MT 315 R-TD	MT 315 R-GC	21,5	100	30/3					
315 S	MT 315 S-TD	MT 315 S-GC	23,7	100	30/3					
400 R	MT 400-TD		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					

R = Round conductors RC = Round Compact conductors S = Sector shaped conductors

MT-TD and MT-GC series connectors are designed to join conductors in high voltage applications up to 33 kV.

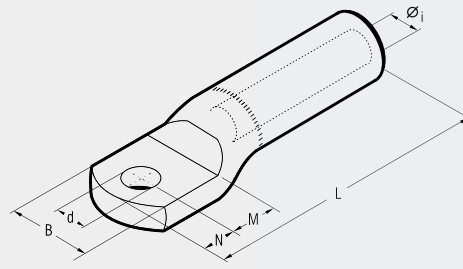
They are manufactured from high purity copper, annealed and tin plated.

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.

# ALUMINIUM TERMINALS

## AA-M



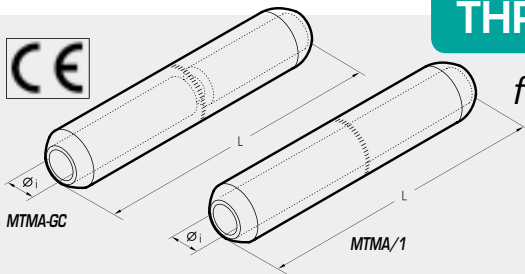
AA-M series terminals are made from aluminium of a purity equal to or greater than 99,5%. They are designed to accept a variety of conductor forms especially low stranded compacted conductors. Non circular conductors may require pre-rounding prior to introduction to the terminal. Barrels are capped and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

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-JUC 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	13,2	60/3		
	14	AA 50-M 14	9,0	26	18	16	95	15,0	60/3		
70	12	AA 70-M 12	11,0	27	16	14	91	13,2	45/3		
	14	AA 70-M 14	11,0	27	18	16	95	15,0	45/3		
95	12	AA 95-M 12	12,5	27	16	14	91	13,2	45/3		
	14	AA 95-M 14	12,5	27	18	16	95	15,0	45/3		
120	12	AA 120-M 12	13,7	35	16	14	115	13,2	30/3		
	14	AA 120-M 14	13,7	35	18	16	119	15,0	30/3		
150	12	AA 150-M 12	15,5	34	16	14	115	13,2	30/3		
	14	AA 150-M 14	15,5	34	18	16	119	15,0	30/3		
185	12	AA 185-M 12	17,0	42	20	14	122	13,2	18/3		
	14	AA 185-M 14	17,0	42	22	16	126	15,0	18/3		
240	12	AA 240-M 12	19,5	44	20	14	122	13,2	15/3		
	14	AA 240-M 14	19,5	44	22	16	126	15,0	15/3		
300	12	AA 300-34 M 12	22,5	47	22	14	130	13,2	15/3		
	14	AA 300-34 M 14	22,5	47	22	16	132	15,0	15/3		
	16	AA 300-34 M 16	22,5	47	22	17	133	17,0	15/3		
400	16	AA 300-M 16	23,3	49	19	17	172	17,0	12/3	ECW-H3D RHU 230-630	
500	16	AA 400-M 16	26,0	56	19	17	172	17,0	12/3		
630	16	AA 500-40 M 16	29,1	57	22	19	177	17,0	12/3		
630	16	AA 630-M 16	32,5	70	22	19	177	17,0	9/3		



## THROUGH CONNECTORS

for aluminium conductors



## MTMA-GC MTMA/1

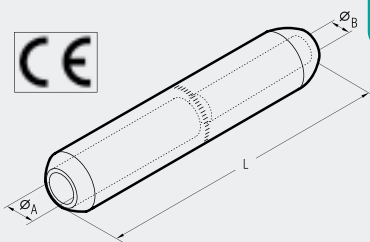


Conductor Size sqmm	Ref.	Ref.	Dimensions mm		Quantity Box/Bag	Hydraulic Tools		
			Øi	L		HT120 HT131-C RHC 131	ECW-H3D	RHU 230-630
10	MTMA 10-GC		4,3	90,5	60/3			
16	MTMA 16-GC	MTMA 16/1	5,5	90,5	60/3			
25	MTMA 25-GC	MTMA 25/1	6,5	90,5	60/3			
35	MTMA 35-GC	MTMA 35/1	8,0	90,5	60/3			
	MTMA 35-20-GC		8,0	106,5	30/3			
50	MTMA 50-GC	MTMA 50/1	9,0	106,5	30/3			
70	MTMA 70-GC	MTMA 70/1	11,0	106,5	30/3			
95	MTMA 95-GC		12,5	110,0	30/3			
		MTMA 95/1	12,5	106,5	30/3			
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 300-GC		23,3	218,0	15/3			
		MTMA 400/1	26,0	218,0	15/3			
400	MTMA 500-GC		29,1	218,5	15/3			
500		MTMA 500-40/1	29,1	218,0	12/3			
630		MTMA 630/1	32,5	218,5	12/3			

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

## REDUCER THROUGH CONNECTORS

for aluminium conductors



## MTMA-GC



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

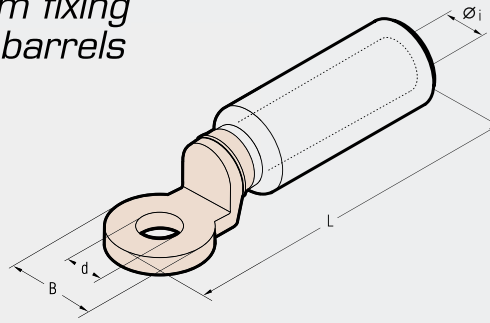
Reducer connectors are manufactured to the same construction as series MTMA-GC. If used to join an aluminium conductor to a copper conductor care should be taken to ensure that the joint is sealed against outside elements which would cause oxidation.

# CAA-M



## BIMETALLIC CONNECTORS

*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.

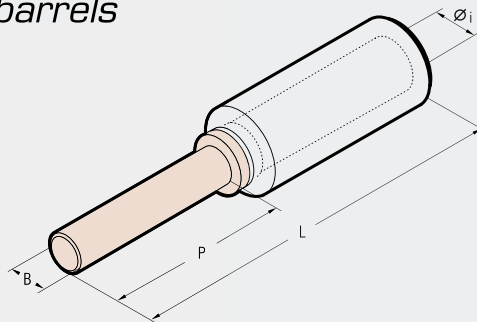
Conductor Size sqmm	Ø Stud mm	Ref.	Dimensions mm				Quantity Box/Bag	Hydraulic Tools
			Øi	B	L	d		
10	12	CAA 10-M 12	4,3	24	87	13	90/3	HT 131-UC RHU 131-C B 131-UC
16	12	CAA 16-M 12	5,5	24	87	13	90/3	
25	12	CAA 25-M 12	6,5	24	87	13	90/3	
35	12	CAA 35-M 12	8,0	24	87	13	90/3	
50	12	CAA 50-M 12	9,0	24	87	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	

# MTA-C



## BIMETALLIC CONNECTORS

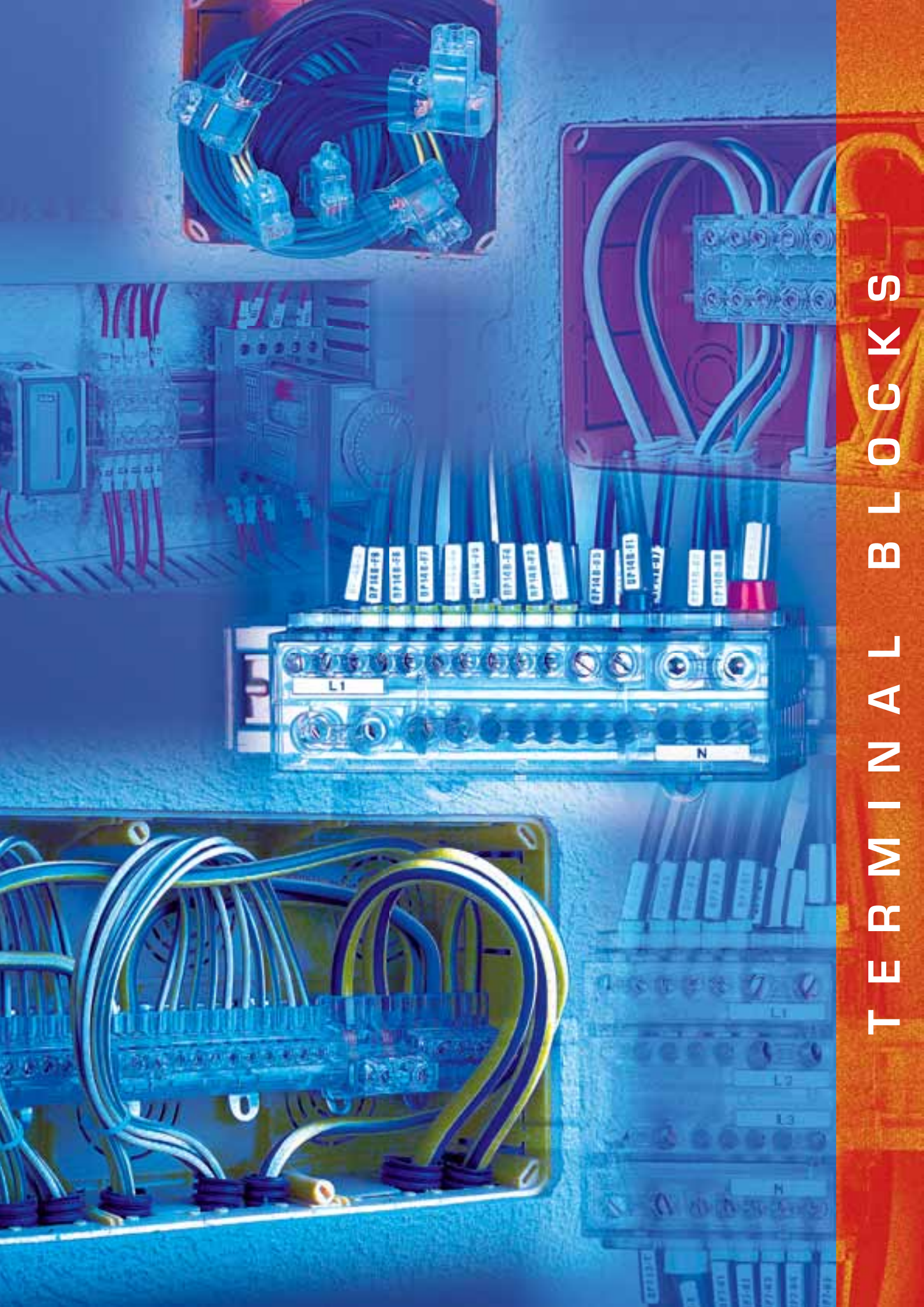
*copper pin aluminium barrels*



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



# Z6

## SINGLE POLE TERMINAL BLOCKS

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 "ZETA più" 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
- Electrolytically tin plated copper connection plate

# Z16

## SINGLE POLE TERMINAL BLOCKS

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 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 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



## 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 way) 35 + (4 way) 16	450	85	IP 20	V-0 (UL 94)	83x41xh43	130	8
Z35-6D	(2+4)						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.



## SINGLE POLE TERMINAL BLOCKS

indirect clamping  
for earthing applications

# Z35 Z50



Z50-10D



Z35T-11



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 "ZETA più"

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 <sup>2</sup>	3 x 6 <sup>2</sup>	1 x 6 <sup>2</sup> R/F 1 x 4 <sup>2</sup> R/F	   
Z6-5	Z6-5D	6 <sup>2</sup>	5 x 6 <sup>2</sup>	1÷2 x 2,5 <sup>2</sup> R/F	
Z6-6	Z6-6D	6 <sup>2</sup>	6 x 6 <sup>2</sup>	1÷2 x 1,5 <sup>2</sup> R/F	
Z6-10	Z6-10D	6 <sup>2</sup>	10 x 6 <sup>2</sup>	1÷4 x 1 <sup>2</sup> R/F	
Z16-3	Z16-3D	16 <sup>2</sup>	3 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> R/F 1 x 10 <sup>2</sup> R/F 1÷2 x 6 <sup>2</sup> R/F 1÷3 x 4 <sup>2</sup> R/F 1÷4 x 2,5 <sup>2</sup> R/F 1÷8 x 1,5 <sup>2</sup> R/F	   
Z16-4	Z16-4D	16 <sup>2</sup>	4 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> F 1 x 10 <sup>2</sup> F 1÷2 x 6 <sup>2</sup> F 1÷3 x 4 <sup>2</sup> F 1÷4 x 2,5 <sup>2</sup> F 1÷8 x 1,5 <sup>2</sup> F	
Z16-5N	Z16-5ND	16 <sup>2</sup>	5 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> R/F 1 x 10 <sup>2</sup> R/F 1÷2 x 6 <sup>2</sup> R/F 1÷3 x 4 <sup>2</sup> R/F 1÷4 x 2,5 <sup>2</sup> R/F 1÷8 x 1,5 <sup>2</sup> R/F	 
Z16-8	Z16-8D	16 <sup>2</sup> /6 <sup>2</sup>	2 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> R/F 1 x 10 <sup>2</sup> R/F 1÷2 x 6 <sup>2</sup> R/F 1÷3 x 4 <sup>2</sup> R/F 1÷4 x 2,5 <sup>2</sup> R/F 1÷8 x 1,5 <sup>2</sup> R/F	
Z16-12	Z16-12D	16 <sup>2</sup> /6 <sup>2</sup>	6 x 6 <sup>2</sup>	1 x 6 <sup>2</sup> R/F 1 x 4 <sup>2</sup> R/F 1÷2 x 2,5 <sup>2</sup> R/F 1÷2 x 1,5 <sup>2</sup> R/F 1÷4 x 1 <sup>2</sup> R/F	 
			2 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> F 1 x 10 <sup>2</sup> F 1÷2 x 6 <sup>2</sup> F 1÷3 x 4 <sup>2</sup> F 1÷4 x 2,5 <sup>2</sup> F	
Z16-12	Z16-12D	16 <sup>2</sup> /6 <sup>2</sup>	10 x 6 <sup>2</sup>	1 x 6 <sup>2</sup> F 1 x 4 <sup>2</sup> F 1÷2 x 2,5 <sup>2</sup> F 1÷2 x 1,5 <sup>2</sup> F 1÷4 x 1 <sup>2</sup> F	 
			2 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> F 1 x 10 <sup>2</sup> F 1÷2 x 6 <sup>2</sup> F 1÷3 x 4 <sup>2</sup> F 1÷4 x 2,5 <sup>2</sup> 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 "ZETA più"


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 <sup>2</sup>	3 x 35 <sup>2</sup>	1 x 35 <sup>2</sup> R/F 1 x 25 <sup>2</sup> R/F 1÷2 x 16 <sup>2</sup> R/F 1÷3 x 10 <sup>2</sup> R/F 1÷5 x 6 <sup>2</sup> R/F	CE  35 sqmm 450 V T 85°C
Z35-4 Z35-4D	35 <sup>2</sup>	4 x 35 <sup>2</sup>	1 x 35 <sup>2</sup> F 1 x 25 <sup>2</sup> F 1÷2 x 16 <sup>2</sup> F 1÷3 x 10 <sup>2</sup> F 1÷6 x 6 <sup>2</sup> F	CE  35 sqmm 450 V T 85°C
Z35-6 Z35-6D	35 <sup>2</sup> /16 <sup>2</sup>	2 x 35 <sup>2</sup>	1 x 35 <sup>2</sup> R/F 1 x 25 <sup>2</sup> R/F 1÷2 x 16 <sup>2</sup> R/F 1÷3 x 10 <sup>2</sup> R/F 1÷6 x 6 <sup>2</sup> F	CE  35-16 sqmm 450 V T 85°C  
		4 x 16 <sup>2</sup>	1 x 16 <sup>2</sup> R/F 1 x 10 <sup>2</sup> R/F 1÷2 x 6 <sup>2</sup> R/F 1÷3 x 4 <sup>2</sup> R/F 1÷5 x 2,5 <sup>2</sup> F	
Z35T-11	35 <sup>2</sup> /6 <sup>2</sup>	1 x 35 <sup>2</sup>	1 x 35 <sup>2</sup> R/F 1 x 25 <sup>2</sup> R/F 1 x 16 <sup>2</sup> R/F 1 x 10 <sup>2</sup> R/F	CE  35-6 sqmm T 85°C
		10 x 6 <sup>2</sup>	1 x 6 <sup>2</sup> R/F 1 x 4 <sup>2</sup> R/F 1÷2 x 2,5 <sup>2</sup> R/F 1÷2 x 1,5 <sup>2</sup> R/F 1÷4 x 1 <sup>2</sup> R/F	
Z35-26D	35 <sup>2</sup> /10 <sup>2</sup>	2 x 35 <sup>2</sup>	1 x 35 <sup>2</sup> R/F 1 x 25 <sup>2</sup> R/F 1÷2 x 16 <sup>2</sup> R/F 1÷3 x 10 <sup>2</sup> R/F 1÷6 x 6 <sup>2</sup> R/F	CE  35-10 sqmm T 85°C  
		24 x 10 <sup>2</sup>	1 x 10 <sup>2</sup> R/F 1 x 6 <sup>2</sup> R/F 1÷2 x 4 <sup>2</sup> R/F 1÷4 x 2,5 <sup>2</sup> R/F	
Z50-10D	50 <sup>2</sup> /25 <sup>2</sup>	2 x 50 <sup>2</sup>	1 x 50 <sup>2</sup> R/F 1 x 35 <sup>2</sup> R/F 1÷2 x 25 <sup>2</sup> R/F 1÷4 x 16 <sup>2</sup> R/F	CE **  50-25 sqmm T 85°C
		8 x 25 <sup>2</sup>	1 x 25 <sup>2</sup> R/F 1÷2 x 16 <sup>2</sup> R/F 1÷3 x 10 <sup>2</sup> R/F 1÷6 x 6 <sup>2</sup> R/F 1÷9 x 4 <sup>2</sup> 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:

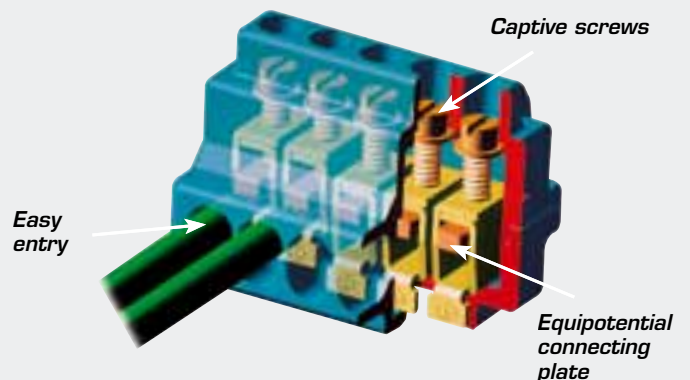
 Directives 2006/95/CE

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

 Lloyd's Register of Shipping  
type approval

 Registro Italiano Navale  
type approval

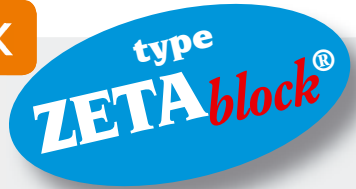
\*\*  EN 60947-7-1: 2002 and  
EN 60947-7-2: 2002 Norms



# Z-DP

## POWER DISTRIBUTION BLOCK

indirect clamping



FOUR POLE  
100 A

TWO POLE  
125 A

FOUR POLE  
125 A

FOUR POLE  
160 A



Z 25-DP7-100



Z 35-DP14B-125



Z 35-DP14-125



Z 50-DP12-160

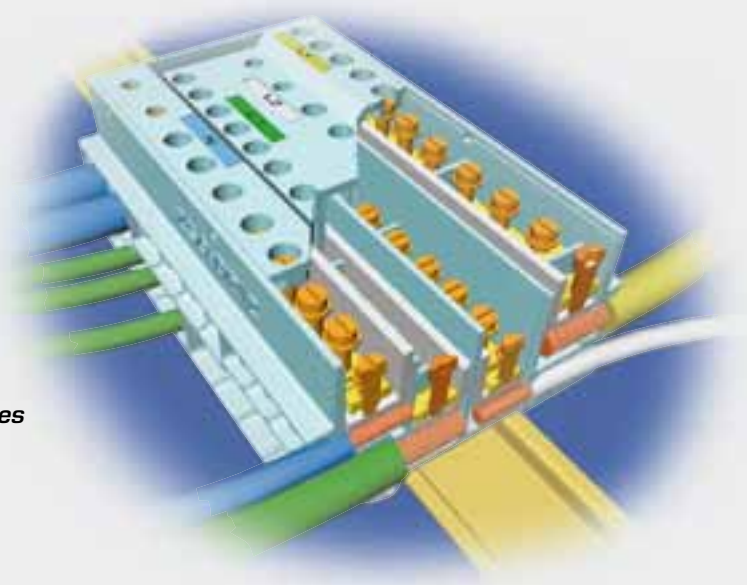
100, 125 and 160A, 2-4 pole distribution blocks with 7, 14 and 12 ways per pole respectively.

Accepting a wide cable CSA range (1 - 50 sqmm) and of compact size, ZETA blocks 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 subsequence wiring operations.

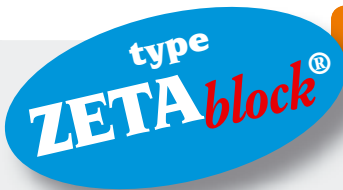
Easy entry apertures provide quick, effective cable insertion while the indirect clamping feature eliminates damage to cable strands and assures a low, stable contact resistance.

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



### Technical features:

- Self extinguishing antishock Polycarbonate body
- Tempered steel captive clamping screws and plates
- Electrolytically tin plated copper connection plate



# POWER DISTRIBUTION BLOCK







indirect clamping

## Z-DP




## CONNECTING CAPACITY OF POWER DISTRIBUTION BLOCK

POWER DISTRIBUTION BLOCK TYPE "ZETA block"

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

F = Flexible cable

MARKINGS:  Directives 2006/95/CE

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

# ONE WAY TERMINAL BLOCKS



## Z-1

indirect clamping



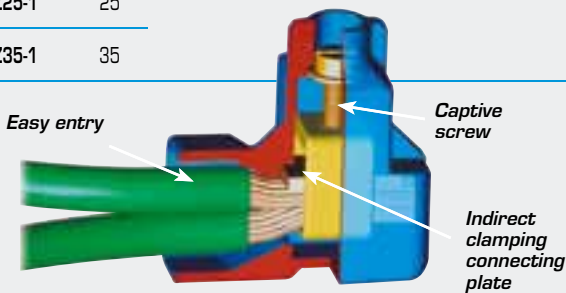
Ref.	Connecting Capacity sqmm	Nominal Voltage V	Maximum Operating Temperature °C	Insulation Specification	Self Extinguishing Specification	Dimensions mm	Weight g	Quantity Box/Bag
Z2.5-1	2,5	450	85	IP 20	V-0 (UL 94)	7,6x20xh23,5	3	500/25
Z6-1	6					11,5x28xh29	6	250/25
Z10-1	10					15,6x32xh32,5	11	100/10
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

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.

- Electrolytically tin plated steel connection plate



### Technical features:

- Self-extinguishing Polycarbonate body
- Electrolytically zinc plated, tempered steel clamp and screw

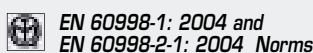
## CONNECTING CAPACITY OF TERMINAL BLOCKS

TYPE	NOMINAL SECTION	CONNECTING CAPACITY * No. of Conductors x Section		MARKINGS
Z2.5-1	2,5 <sup>2</sup>	2 x 2,5 <sup>2</sup> R/F 2÷3 x 1,5 <sup>2</sup> R/F 2÷5 x 1,0 <sup>2</sup> R/F	2÷6 x 0,75 <sup>2</sup> R/F 2÷10 x 0,5 <sup>2</sup> R/F 2÷18 x Ø0,4÷0,6 mm communication type wire	CE, 2.5 sqmm, 450 V, T 85°C, P 20
Z6-1	6 <sup>2</sup>	2 x 6 <sup>2</sup> R/F 2÷3 x 4 <sup>2</sup> R/F 2÷4 x 2,5 <sup>2</sup> R/F 2÷6 x 1,5 <sup>2</sup> R/F 2÷6 x 1 <sup>2</sup> R/F	2÷10 x 0,75 <sup>2</sup> R/F 2÷12 x 0,5 <sup>2</sup> R/F (1 x 6 <sup>2</sup> ) + (4 x 1,5 <sup>2</sup> ) (1 x 6 <sup>2</sup> ) + (2 x 2,5 <sup>2</sup> )	CE, 6 sqmm, 450 V, T 85°C, P 20
Z10-1	10 <sup>2</sup>	2 x 10 <sup>2</sup> R/F 2÷3 x 6 <sup>2</sup> R/F 2÷5 x 4 <sup>2</sup> R/F 2÷8 x 2,5 <sup>2</sup> R/F (1 x 6 <sup>2</sup> ) + (1 x 4 <sup>2</sup> ) + (2 x 2,5 <sup>2</sup> ) + (3 x 1,5 <sup>2</sup> )	2÷12 x 1,5 <sup>2</sup> R/F 2÷20 x 1 <sup>2</sup> R/F 2÷25 x 0,75 <sup>2</sup> R/F	CE, 10 sqmm, 450 V, T 85°C, P 20
Z16-1	16 <sup>2</sup>	2 x 16 <sup>2</sup> R/F 2÷3 x 10 <sup>2</sup> R/F 2÷5 x 6 <sup>2</sup> R/F	2÷8 x 4 <sup>2</sup> R/F 2÷12 x 2,5 <sup>2</sup> R/F 2÷18 x 1,5 <sup>2</sup> R/F	CE, 16 sqmm, 450 V, T 85°C, P 20
Z25-1	25 <sup>2</sup>	2 x 25 <sup>2</sup> R/F 2÷3 x 16 <sup>2</sup> R/F 2÷4 x 10 <sup>2</sup> R/F	2÷8 x 6 <sup>2</sup> R/F 2÷11 x 4 <sup>2</sup> R/F 4÷16 x 2,5 <sup>2</sup> R/F	CE, 25 sqmm, 450 V, T 85°C, P 20
Z35-1	35 <sup>2</sup>	2 x 35 <sup>2</sup> R/F 2÷3 x 25 <sup>2</sup> R/F 2÷4 x 16 <sup>2</sup> R/F 2÷7 x 10 <sup>2</sup> R/F	2÷11 x 6 <sup>2</sup> R/F 4÷17 x 4 <sup>2</sup> R/F 5÷28 x 2,5 <sup>2</sup> R/F	CE, 35 sqmm, 450 V, T 85°C, P 20

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

### MARKINGS:

R = Rigid cable F = Flexible cable







**CABLE GLANDS AND ACCESSORIES**

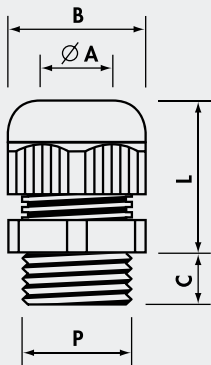
# MAXIblock® CABLE GLANDS

Polyamide PA6.6

## 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, 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

# MAXIblock® CABLE GLANDS

Polyamide PA6.6

1900

## MAXIblock® standard

### Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole ∅ (mm)	∅ 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

## MAXIblock® reduced cable entry

### Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole ∅ (mm)	∅ 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

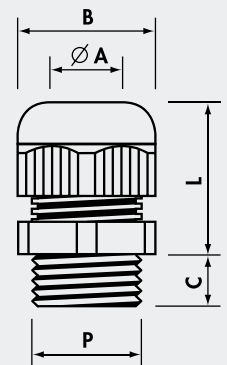
### Pg thread DIN 40 430

Ref. Light Grey	P	Fixing Hole ∅ (mm)	∅ 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



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® CABLE GLANDS

Polyamide PA6.6

MAXIblock® standard factory fitted with locknuts with collar

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

## 1900/X



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



File no. E220310



File no. E220310



File no. E220310



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

MAXIblock® standard

BSP thread ISO 228/1

Ref.	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.	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

## 1900



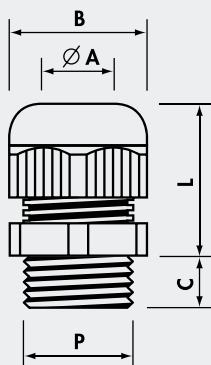
Material: POLYAMIDE PA6.6  
self-extinguishing class V2 (UL 94)  
Temperature range:  
-20°C to +90°C (continuous)  
Sealing ring: NEOPRENE® 50 sh A  
Protection: IP 68  
Colour: RAL 7035 light grey,  
RAL 9005 black



File no. E220310



File no. E220310





# spiralblock® CABLE GLANDS

Polyamide PA6.6



## 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

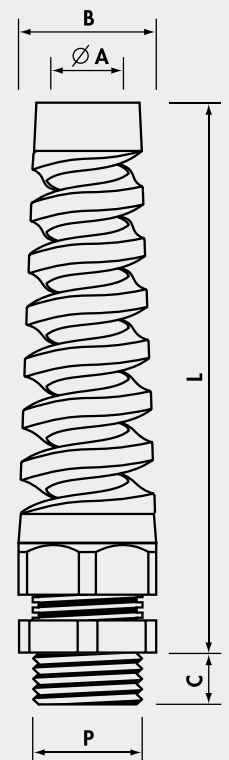
Ref. Light Grey	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	C (mm)	L (mm)	Quantity
1500.14	G1/4"	13,5	3- 6,5	15	8	57	100
1500.38	G3/8"	17	4- 8	19	9	68	100
1500.12	G1/2"	21,5	7-12	24	10	90	50
1500.34	G3/4"	27	13-18	33	12	112	20

Add to Ref: N for Black

# 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

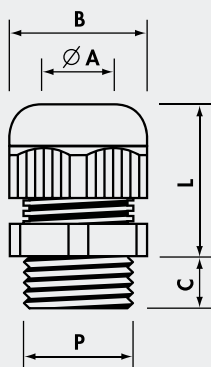


# CABLE GLANDS WITH INCREASED SAFETY

## 4900



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



## 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)



Certificate No LOM 01ATEX2038X

### Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Ref. Black	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ 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 $\varnothing$ (mm)	$\varnothing$ 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 $\varnothing$ (mm)	$\varnothing$ 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 VO (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

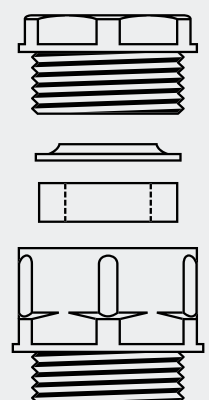
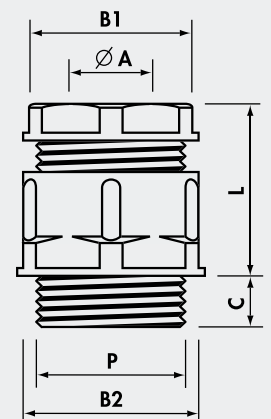
Ref. Light Grey	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ A min-max (mm)	B1 Spanner (mm)	B2 Spanner (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
1400	G1/4"	13,5	5,5- 7	15	16	8	16-20	300/100
* 1401	G3/8"	17	6,5- 8,5	17	20	8	19-22	200/100
* 1401B	G3/8"	17	8 -10	19	22	8	18-24	100/100
* 1401C	G3/8"	17	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 $\varnothing$ (mm)	$\varnothing$ 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

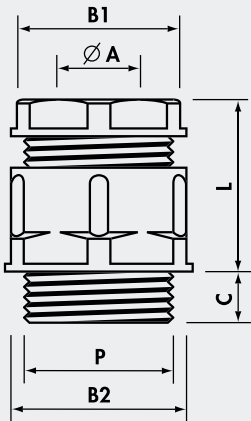
Add to Ref: N for Black



# 1700T



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



## COMPRESSION CABLE GLANDS

Polyamide PA6

### 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

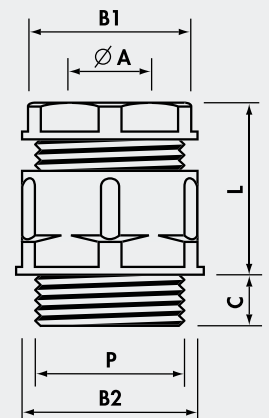
Sealing ring: PVC 50 sh A - Protection: IP 54

**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

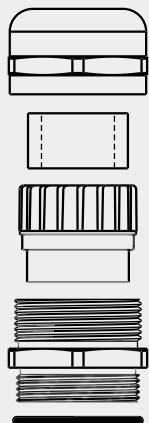
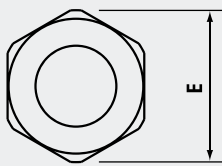
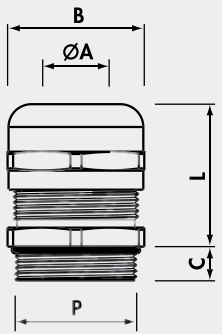
Nickel Plated Brass



## 2900



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® CABLE GLANDS

Nickel Plated Brass

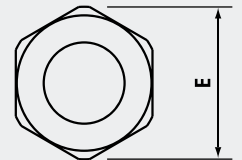
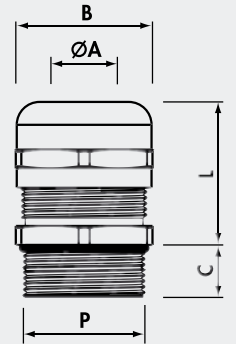
## 2900



## MAXIbrass® extended thread

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

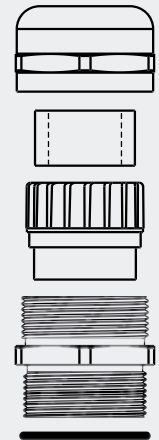
Ref. Nickel Plated Brass	P	Fixing Hole Ø (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2901.M12N	M12X1,5	12,5	3 - 7	16	18	12	16-20	100
2901.M16N	M16X1,5	16,5	4,5-10	20	23	12	20-25	100
2901.M20N	M20X1,5	20,5	7 -13	24	27	12	20-27	50
2901.M25N	M25X1,5	25,5	10 -17	29	32	12	24-30	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

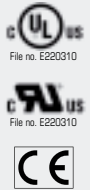
Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

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



# MAXIbrass® CABLE GLANDS

Nickel Plated Brass



## 2900

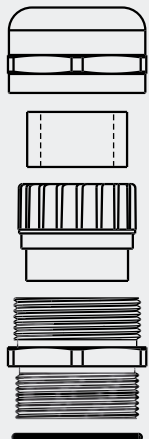
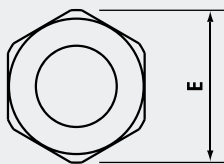
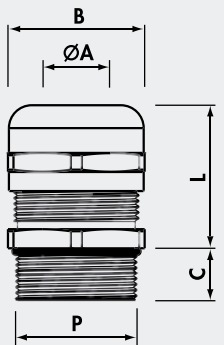


Material:  
NICKEL PLATED BRASS  
(CuZn 40 Pb 3)  
Sealing-ring: NEOPRENE®  
Cable grip insert:  
POLYAMIDE PA6.6  
O-Ring: NITRILE 70 sh A  
(factory fitted)  
Protection: IP 68  
Temperature range:  
-25°C to +100°C (continuous)

## MAXIbrass® standard

Pg thread DIN 40 430

Ref. Nickel Plated Brass	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ 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 $\varnothing$ (mm)	$\varnothing$ 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

# MAXIbrass® CABLE GLANDS

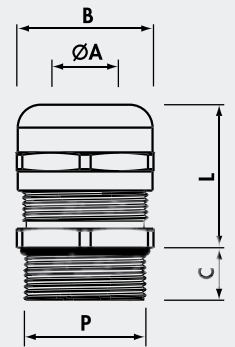
Nickel Plated Brass

2900

## MAXIbrass® extended thread

### Pg thread DIN 40 430

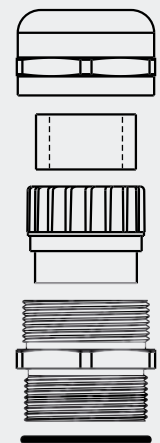
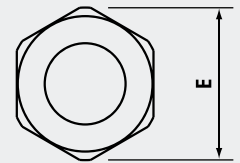
Ref. Nickel Plated Brass	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity
2901.07N	Pg 7	12,5	3 - 7	16	18	12	16-20	100
2901.09N	Pg 9	15,5	4 - 8	17	19	12	17-23	100
2901.11N	Pg11	19,0	4,5-10	20	23	12	20-25	100
2901.13N	Pg13.5	20,5	5 -12	22	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 $\varnothing$ (mm)	$\varnothing$ 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





# EMC CABLE GLANDS

Nickel Plated Brass



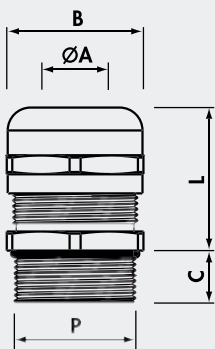
## 20M3



Material: NICKEL PLATED BRASS  
 (CuZn 40 Pb 3)  
 Sealing-ring: Chloroprene (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 Ø (mm)	Ø 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 underground applications.

EMC locknuts have serrated teeth to maintain electrical contact through paint or surface coatings, a feature which also enhances vibration resistance.





# COMPRESSION CABLE GLANDS

Brass

2003  
2002  
2001

## Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

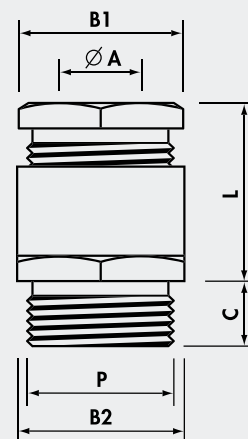
Ref. Nickel Plated Brass	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
2003M1221N	M12X1,5	12,5	4-6	13	14	5	13-16	500/100
2003M1621N	M16X1,5	16,5	8-10	15	17	5	14-17	200/100
2003M2021N	M20X1,5	20,5	10-12	20	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



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

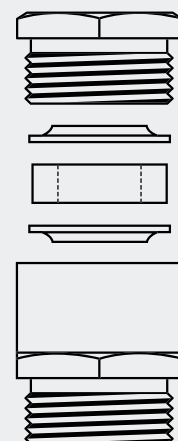
## Pg thread DIN 40 430 - Dimensions DIN 46 320

Ref. Nickel Plated Brass	P	Fixing Hole $\varnothing$ (mm)	$\varnothing$ A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
200200721N	Pg 7	12,5	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 $\varnothing$ (mm)	$\varnothing$ A min-max (mm)	B1 Spanner Head (mm)	B2 Spanner Body (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
200101441	G1/4"	13,5	5,5-7	13	15	6,5	14-17	400/100
207101441	G1/4"	13,5	5,5-7	13	$\varnothing$ 15	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

# MAXInox CABLE GLANDS



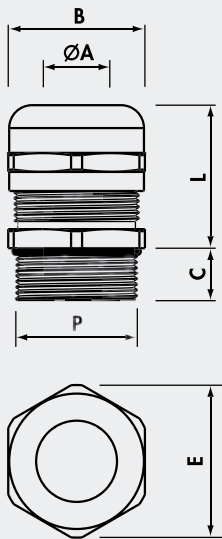
**7900**  
**7900A**



Stainless Steel 303 (X8 CrNiS 18-9)

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

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



## MAXInox Stainless Steel AISI 303

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Stainless Steel AISI 303	P	Fixing Hole (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
7900.M12	M12X1,5	12,5	3 - 7	16	18	6,5	16-20	90/30
7900.M16	M16X1,5	16,5	4,5-10	20	23	7,0	20-25	120/30
7900.M20	M20X1,5	20,5	7 -13	24	27	8,0	20-27	75/25
7900.M25	M25X1,5	25,5	10 -17	29	32	8,0	24-30	40/20
7900.M32	M32X1,5	32,5	11 -21	36	40	9,0	27-34	15
7900.M40	M40X1,5	40,5	19 -28	45	50	9,0	34-42	15
7900.M50	M50X1,5	50,5	26 -35	54	60	10,0	35-43	10
7900.M63	M63X1,5	63,5	34 -45	67	74	15,0	40-52	5

## MAXInox Stainless Steel AISI 316L

Metric thread M 1.5 pitch CEI EN 60423 CEI EN 50262

Stainless Steel AISI 316L	P	Fixing Hole (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
7900A.M12	M12X1,5	12,5	3 - 7	16	18	6,5	16-20	60/20
7900A.M16	M16X1,5	16,5	4,5-10	20	23	7,0	20-25	80/20
7900A.M20	M20X1,5	20,5	7 -13	24	27	8,0	20-27	60/20
7900A.M25	M25X1,5	25,5	10 -17	29	32	8,0	24-30	30/15
7900A.M32	M32X1,5	32,5	11 -21	36	40	9,0	27-34	12
7900A.M40	M40X1,5	40,5	19 -28	45	50	9,0	34-42	10
7900A.M50	M50X1,5	50,5	26 -35	54	60	10,0	35-43	7
7900A.M63	M63X1,5	63,5	34 -45	67	74	15,0	40-52	5



# MAXInox CABLE GLANDS

Stainless Steel 303 (X8 CrNiS 18-9)

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

## 7900 7900A



## MAXInox Stainless Steel AISI 303

### Pg thread DIN 40 430

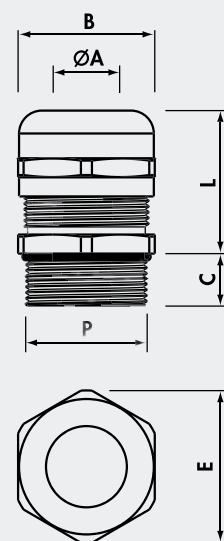
Stainless Steel AISI 303	P	Fixing Hole (mm)	Ø A min-max (mm)	B Spanner (mm)	E (mm)	C (mm)	L min-max (mm)	Quantity Box/Bag
7900.07	Pg 7	12,5	3 - 7	16	18	5,0	16-20	90/30
7900.09	Pg 9	15,5	4 - 8	17	19	6,0	17-23	90/30
7900.11	Pg11	19,0	4,5-10	20	23	6,0	20-25	60/30
7900.13	Pg13,5	20,5	5 -12	22	25	6,5	20-26	90/30
7900.16	Pg16	22,5	7 -13	24	27	6,5	20-27	60/30
7900.21	Pg21	29,0	10 -17	30	33	7,0	24-30	40/20
7900.29	Pg29	37,0	17 -25	40	45	8,0	30-37	30/15
7900.36	Pg36	47,0	20 -32	50	55	8,0	38-48	10
7900.42	Pg42	54,0	28 -38	57	63	10,0	36-46	5
7900.48	Pg48	60,0	34 -45	67	74	15,0	40-52	5

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

## MAXInox Stainless Steel AISI 316L

### Pg thread DIN 40 430

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



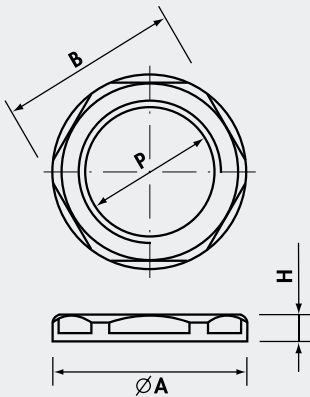
# LOCKNUTS WITH COLLAR

Polyamide PA6 or PA6.6

1143  
1142  
1141



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



## Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	Ø A (mm)	B Spanner (mm)	H (mm)	Quantity Box/Bag
1143M12	M12X1,5	18,5	17	5	1.000/100
1143M16	M16X1,5	24	22	5	600/100
1143M20	M20X1,5	29	27	6	400/100
1143M25	M25X1,5	35,5	32	6	100
1143M32	M32X1,5	45	41	7	50
1143M40	M40X1,5	55	50	7	30
1143M50	M50X1,5	65	60	8	30
1143M63	M63X1,5	82	75	8	15

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

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

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

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

## BSP thread ISO 228/1

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

Add to Ref: N for Black



# LOCKNUTS WITHOUT COLLAR

Polyamide PA6 or PA6.6

1112  
1710  
1410



## 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	100
1719	Pg 7	19	5	100
1710	Pg 9	22	5	700/100
1711	Pg11	24	5	500/100
1712	Pg13,5	27	6	400/100
1713	Pg16	30	6	100
△*1714E34	Pg21	34	7	200/100
1714	Pg21	36	7	200/100
1715	Pg29	46	7,5	50

Add to Ref: N for Black

△ Light Grey only

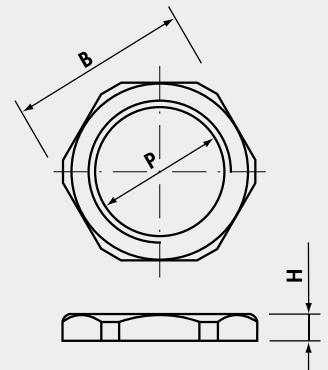
\* Not DIN 46 320

## BSP thread ISO 228/1

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

Add to Ref: N for Black

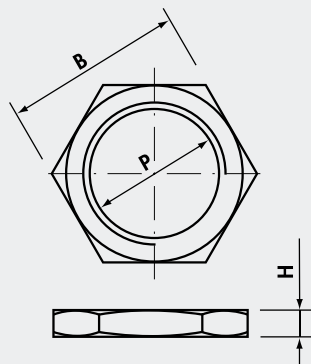
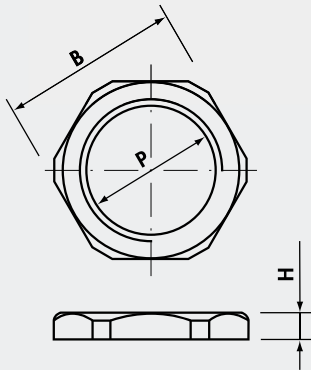
Material:  
POLYAMIDE PA6 or 6.6  
self-extinguishing class V2 (UL 94)  
Temperature range:  
-20°C to +90°C (continuous)  
Colour: RAL 7035 light grey,  
RAL 9005 black



# 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	3,5	600/100
2033M25N	M25X1,5	30	4,0	500/100
2033M32N	M32X1,5	36	4	400/25
2033M40N	M40X1,5	46	5,0	150/10
2033M50N	M50X1,5	60	5	100/10
2033M63N	M63X1,5	70	5,5	50/5

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

Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
2032007N	Pg 7	15	2,8	2.400/100
2032009N	Pg 9	18	2,8	2.000/100
2032011N	Pg11	21	3	1.000/100
2032013N	Pg13,5	23	3	1.000/100
2032016N	Pg16	26	3	600/100
2032021N	Pg21	32	3,5	500/100
2032029N	Pg29	41	4	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

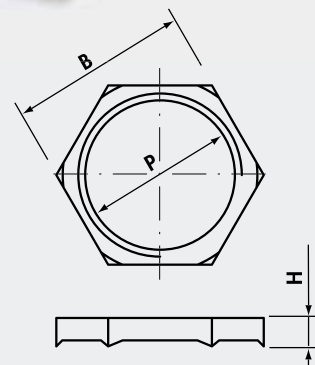
Nickel Plated Brass

### EMC Locknuts

Material: NICKEL PLATED BRASS (CuZn 40 Pb 3)

Metric thread M 1.5 pitch CEI EN 60423

Ref. Nickel Plated Brass	P	B Spanner (mm)	H (mm)	Quantity Box/Bag
20N3M12N	M12X1,5	15	4,1	1000/100
20N3M16N	M16X1,5	19	4,2	1000/100
20N3M20N	M20X1,5	24	4,2	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



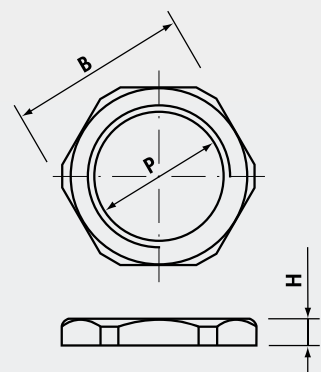
## MAXInox LOCKNUTS

Stainless Steel 303 (X8 CrNiS 18-9)

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

Metric thread M 1.5 pitch CEI EN 60423

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



Pg thread DIN 40 430 - Dimensions DIN 46 320

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

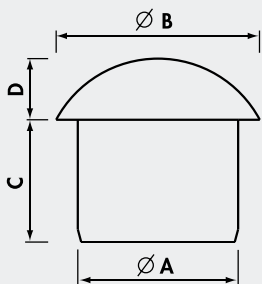
# INTERNAL PLUGS FOR CABLE GLANDS

## TCP

Polyamide PA6.6



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



### Plugs

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

R: reduced cable entry

# MULTI-ENTRY SEALS & PLUGS FOR CABLE GLANDS

## 36 TGM

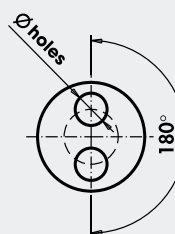
Material: NEOPRENE® 70 sh A  
 Temperature range:  
 -40°C to +130°C  
 Protection: IP 68  
 Colour: black  
 Application:  
 IP68 sealing of multiple cables entering  
**MAXIblock**®, **MAXIbrass**® or  
**MAXIinox** cable glands.



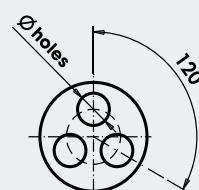
### Multi-entry seals

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

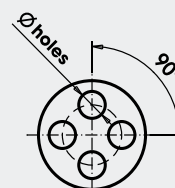
2 ENTRIES



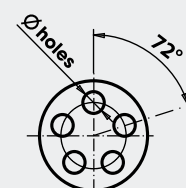
3 ENTRIES



4 ENTRIES



5 ENTRIES

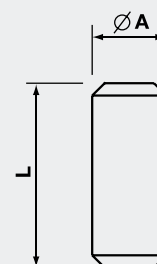


Material: POLYAMIDE PA6.6  
 Temperature range:  
 -20°C to +90°C (continuous)  
 Colour: RAL 7035 light grey

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

### Multi-entry seal plugs

Ref.	Suitable for Seal	Ø A	L	Quantity Box/Bag
		(mm)	(mm)	
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

Nickel Plated Brass

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

2093  
2043  
20A4



Material: NICKEL PLATED BRASS  
(CuZn 40 Pb 3)

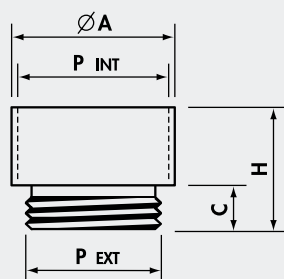


Fig. 1

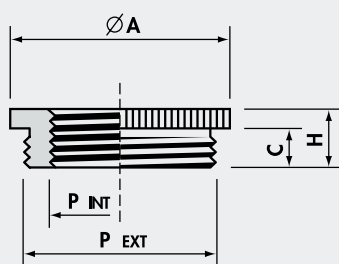


Fig. 2

# ENTRY THREAD ADAPTERS

Nickel Plated Brass

1800  
2042

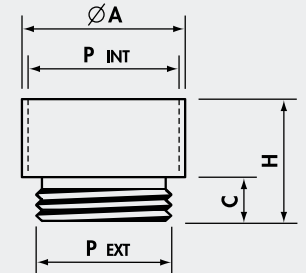


## Entry thread enlargers

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

Ref.	P EXT	P INT	Ø 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

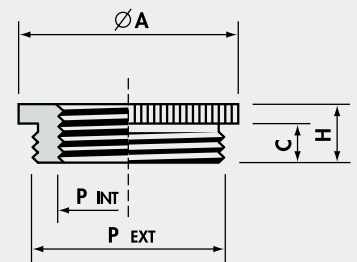
Material: NICKEL PLATED BRASS  
(CuZn 40 Pb 3)



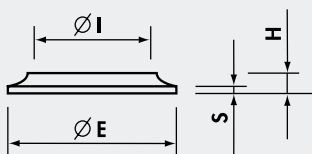
## Entry thread reducers

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

Ref.	P EXT	P INT	Ø 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

# SEALING RINGS

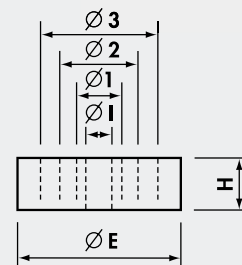
# 1880 1890



## 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

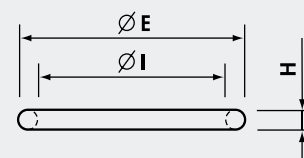
\*Dimensions DIN 46 320-7; material: CHLOROPRENE



## 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



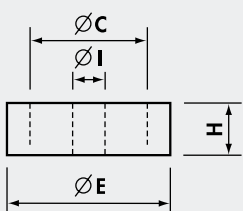
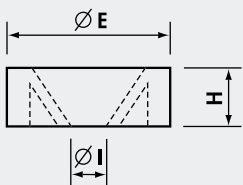
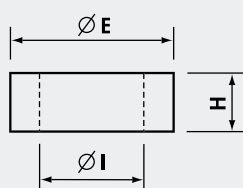
# SPARES SEALING RINGS

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

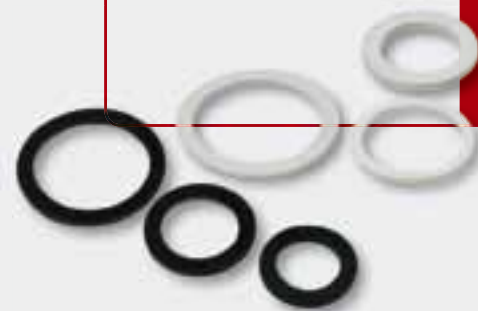
## Double sealing rings

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



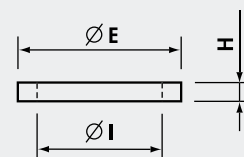
# SPARES SEALING RINGS

## 357 FD



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

Ref.	Fits thread	Ø E (mm)	Ø 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	Ø E (mm)	Ø I (mm)	H (mm)	Quantity Box/Bag
FDM 12	M12	16	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	31	23	1,2	20
FD 21	Pg21 + G3/4"	34,5	27	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

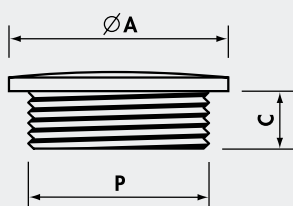
## ENTRY PLUGS

Polyamide PA6

1053  
1052



Material: POLYAMIDE PA6  
reinforced with fibreglass  
self-extinguishing class VO (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	Ø 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	Ø A (mm)	C (mm)	Quantity Box/Bag
1052007	Pg 7	15	6	100
1052009	Pg 9	19	6	100
1052011	Pg11	22	7	100
1052013	Pg13,5	25	7	100
1052016	Pg16	27	7	100
1052021	Pg21	33	9	50
1052029	Pg29	44	9	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



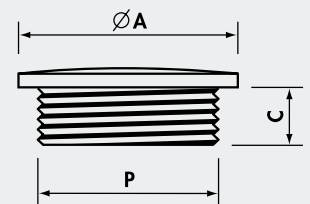
Protection: IP 54

## Metric thread M 1.5 pitch CEI EN 60423

Ref. Light Grey	P	Ø 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

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



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

Ref. Light Grey	P	Ø 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

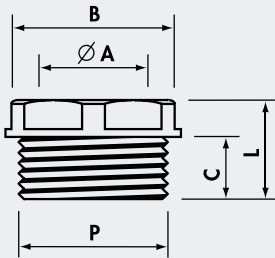
# 1700



## ENTRY BUSHES

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	ØA (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	ØA (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

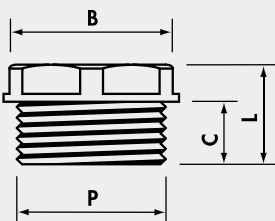
#### BSP thread ISO 228/1

* 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
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\*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

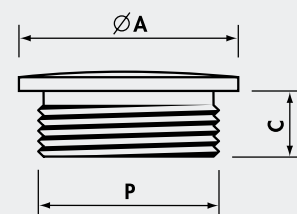
Ref. Nickel Plated Brass	P	Ø A (mm)	C (mm)	Quantity Box/Bag
2053M12N	M12X1,5	14	5	1,500/100
2053M16N	M16X1,5	18	5	1,000/100
2053M20N	M20X1,5	22	6,5	500/100
2053M25N	M25X1,5	28	7	200/100
2053M32N	M32X1,5	35	8	150/25
2053M40N	M40X1,5	44	8,5	100/25
2053M50N	M50X1,5	54	9	50/25
2053M63N	M63X1,5	67	10	25/25

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

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



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

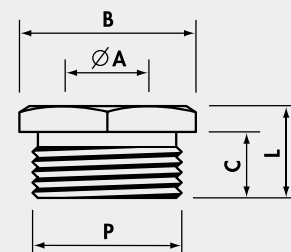


## Entry bushes

### BSP thread ISO 228/1

Ref. Brass	P	Ø 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



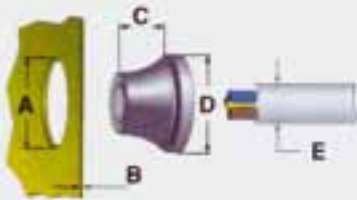


# RUTASEAL GROMMETS

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

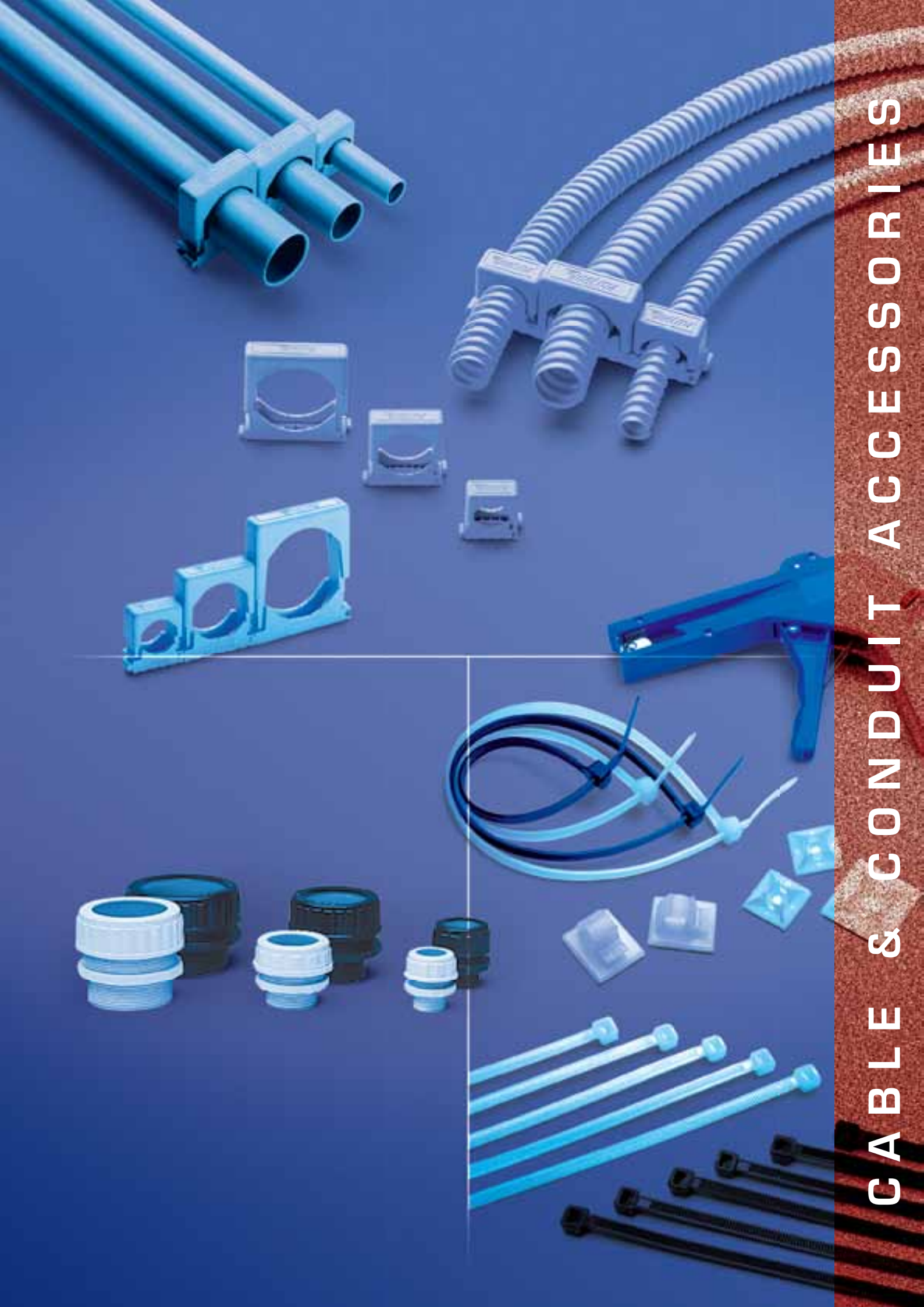


## Fits Metric thread

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

## Fits Pg thread

Ref.	Fits Threaded Entry	Dimensions					Quantity Box/Bag
		A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	
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

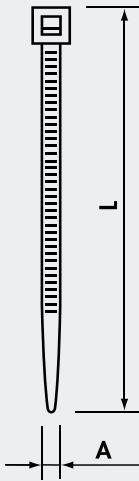
# CABLE TIES

G series, PA6.6 Polyamide

G



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					1000							
G80X2.4/M			16		100							
G80X2.4N/M					1000							
G90X2.4	90	2,4	16		100							
G90X2.4N						1000						
G100X2.5			100		22		1000					
G100X2.5N						30		100				
G100X2.5/M	33	1000										
G100X2.5N/M				40					1000			
G120X2.5	120	2,5	33		1000							
G120X2.5N				40		1000						
G140X2.5							140	2,5	33	1000		
G140X2.5N											40	1000
G140X2.5/M	53	100										
G140X2.5N/M			1000									
G160X2.5				160	2,5	33	1000					
G160X2.5N								40	1000			
G160X2.5/M	53	100										
G160X2.5N/M			1000									
G200X2.5				200	2,8	65	14			100		
G200X2.5N								76	1000			
G200X2.5/M	30	100										
G200X2.5N/M			33								1000	
G250X2.8				250	3,6	53	18			1000		
G250X2.8N								65	100			
G300X2.8	76	1000										
G300X2.8N			102								100	
G120X3.6				120	3,6	53	18			1000		
G120X3.6N								65	100			
G140X3.6	140	3,6										53
G140X3.6N			65								100	
G140X3.6/M				76	1000							
G140X3.6N/M						102	100					
G150X3.6	150	3,6						53	18	1000		
G150X3.6N			65								100	
G180X3.6				180	3,6							53
G180X3.6N						65	100					
G200X3.6	200	3,6						53	18	1000		
G200X3.6N			65								100	
G200X3.6/M				76	1000							
G200X3.6N/M						102	100					
G250X3.6	250	4,8						60	22	1000		
G250X3.6N			60								100	
G300X3.6				300	4,8							60
G300X3.6N						70	100					
G300X3.6/M	76	1000										
G300X3.6N/M			102					100				
G370X3.6				370	4,8				60	22	1000	
G370X3.6N						70	100					
G120X4.8	120	4,8										60
G120X4.8N			70					100				
G160X4.8				160	4,8				60	22	1000	
G160X4.8N						70	100					
G190X4.8	190	4,8										60
G190X4.8N			70					100				
G190X4.8/M				76	1000							
G190X4.8N/M						102	100					
G200X4.8	200	4,8							60	22	1000	
G200X4.8N			70					100				
G200X4.8/M				76	1000							
G200X4.8N/M						102	100					
G250X4.8	250	4,8							60	22	1000	
G250X4.8N			70					100				
G280X4.8				280	4,8							60
G280X4.8N						70	100					
G300X4.8	300	4,8							60	22	1000	
G300X4.8N			70					100				
G370X4.8				370	4,8							60
G370X4.8N						70	100					
G390X4.8	390	4,8							60	22	1000	
G390X4.8N			70					100				
G430X4.8				430	4,8							60
G430X4.8N						70	100					

Minimum order: 1.000 pcs

Minimum order: 100 pcs

HALOGEN FREE

**CABLE TIES**

G series, PA6.6 Polyamide

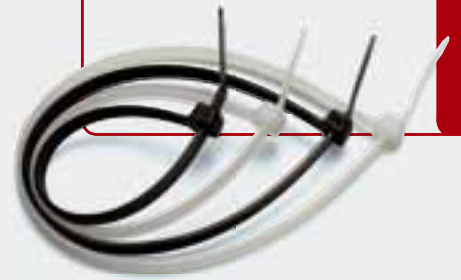
**G**

**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													
G530X4.8N	530	4,8	140	100									
G150X7.6													
G150X7.6N													
G200X7.6	200	7,6	33			100							
G200X7.6N													
G250X7.6													
G250X7.6N	250	7,6	50				100						
G300X7.6													
G300X7.6N													
G370X7.6	300	7,6	65					100					
G370X7.6N													
G430X7.6													
G430X7.6N	430	7,6	76						100				
G530X7.6													
G530X7.6N													
G430X9.0	430	9,0	102							100			
G430X9.0N													
G530X9.0													
G530X9.0N	530	9,0	125								100		
G710X9.0													
G710X9.0N													
G780X9.0	710	9,0	140									100	
G780X9.0N													
G830X9.0													
G830X9.0N	780	9,0	190										100
G920X9.0													
G920X9.0N													
G1020X9.0	920	9,0	228		100								
G1020X9.0N													
G1220X9.0													
G1220X9.0N	1020	12,6	239	100									
G230X12.6													
G230X12.6N													
G380X12.6	1220	12,6	263			100							
G380X12.6N													
G480X12.6													
G480X12.6N	480	12,6	295				100						
G580X12.6													
G580X12.6N													
G730X12.6	580	12,6	365					100					
G730X12.6N													
G880X12.6													
G880X12.6N	730	12,6	50						100				
G1030X12.6													
G1030X12.6N													
G1030X12.6N	880	12,6	106							100			
G730X12.6													
G730X12.6N													
G880X12.6	880	12,6	120								100		
G880X12.6N													
G1030X12.6													
G1030X12.6N	1030	12,6	152									100	
G730X12.6													
G730X12.6N													
G880X12.6	1030	12,6	204										100
G880X12.6N													
G1030X12.6													
G1030X12.6N	1030	12,6	248		100								
G1030X12.6													
G1030X12.6N													
G1030X12.6N	1030	12,6	295	100									
G1030X12.6													
G1030X12.6N													

Minimum order: 100 pcs

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)**

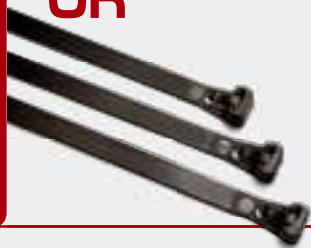
Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity	Minimum Qty	
G90X2.4 VO	90	2,4	16	8	100	1000	
G100X2.5/M VO	100	2,5	22		18		1000
G140X2.5/M VO	140		33				1000
G200X2.5/M VO	200	3,6	53	1000			
G150X3.6 VO	150	4,8	35	22	100		100
G200X4.8/M VO	200		50		1000		
G370X4.8 VO	370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

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



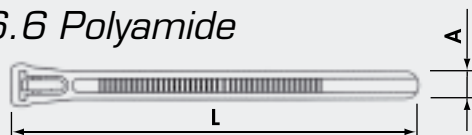
## CABLE TIES

# 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				

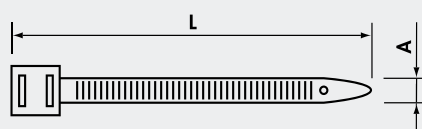
# 1600



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

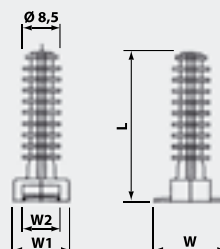
# GH8



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

## ACCESSORIES

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 102



## ACCESSORIES

### PA6.6 Polyamide

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)

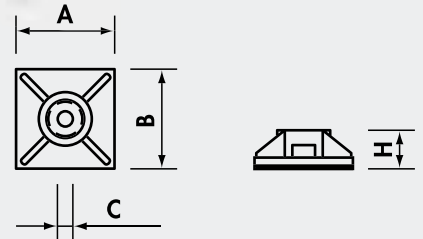
Resistant to:  
 oils, bases, greases, oil products,  
 chlorinated solvents.  
 Colour: Natural

**AB**  
**CC**  
**SS**



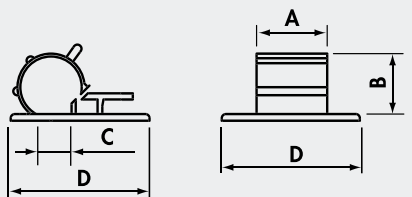
#### Self adhesive cable tie bases in PA6.6

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



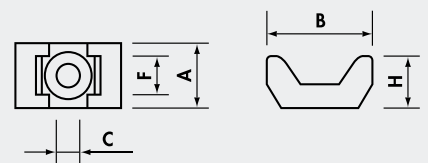
#### Self adhesive cable clips in PA6.6

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

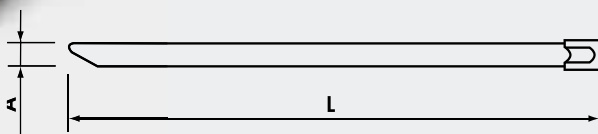
Type	Max Tie (mm)	A (mm)	B (mm)	C (mm)	F (mm)	H (mm)	Quantity
SS 4.8-3.7	4,8	9,5	15	3,7	5,0	7,2	100
SS 4.8-4.5	4,8	9,5	15	4,5	5,0	7,2	100
SS 9-4.5	9	16,0	22	4,5	9,2	9,7	100
SS 9-5	9	16,0	22	5,0	9,2	9,7	100
SS 9-6.4	9	16,0	22	6,4	9,2	9,7	100



## CABLE TIES

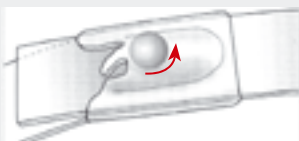
in Stainless Steel AISI 304

**GX**

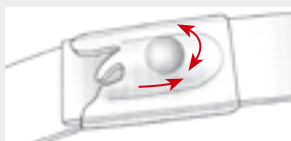


#### Cable Ties in Stainless Steel

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		



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.

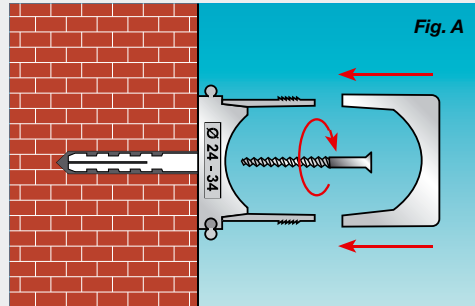
Material: Stainless Steel AISI 304  
 Unique ball locking mechanism that allows simple and rapid installation and secure locking.  
 Operating temperature:  
 From -80°C to +500°C  
 High tensile strength.  
 Non-flammability.  
 High resistance to acetic acid, alkalies, sulphuric acid, corrosion, etc.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

*modular retaining clips - ABS*

**3600**

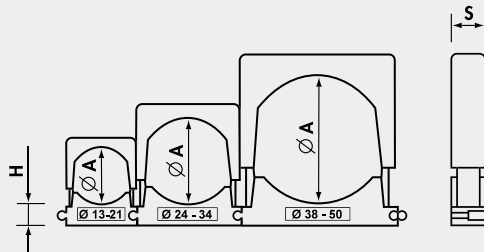


Material: ABS self-extinguishing class VO (UL94) UV stabilised  
 Glow wire resistance: 750° C (CEI EN 60695-2-1)  
 Temperature range: -20°C to +80°C (continuous)  
 Colour: RAL 7035 light grey



**SICURclips** for cable, tubing & flexible 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**

*Polyamide PA6*

**1740**



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

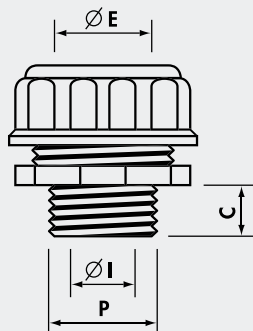
Colour: RAL 7035 grey  
 For all conduits with metal protection: rigid, flexible, spiral, corrugated, etc.  
 High level of resistance: the action of sun, moisture or salinity does not affect the products, which are also impervious to fumes, acids, solvents and oils.  
 Suits outside diameters 13 - 40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

**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	<i>insulated and</i>	0,3÷1,5	190x72x21	470
ND#2	<i>uninsulated</i>	1÷6	190x72x21	470
ND#3	<i>end sleeves</i>	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 2

For end sleeves  
0,5 to 16 sqmm



## ZKE 610

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



## MARKETline RANGE

### MLL 1

For crimping insulated terminals, 0,25 to 6 sqmm



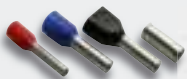
### MLL 90

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



### MLS 1

For crimping end sleeves  
0,25 to 6 sqmm



### MLS 2

For crimping end sleeves  
6 to 16 sqmm



# MECHANICAL TOOLS

## 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)



### HX

Coaxial connectors  
**HX 1** for types RG58, RG59, RG62 and RG 71



# 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**

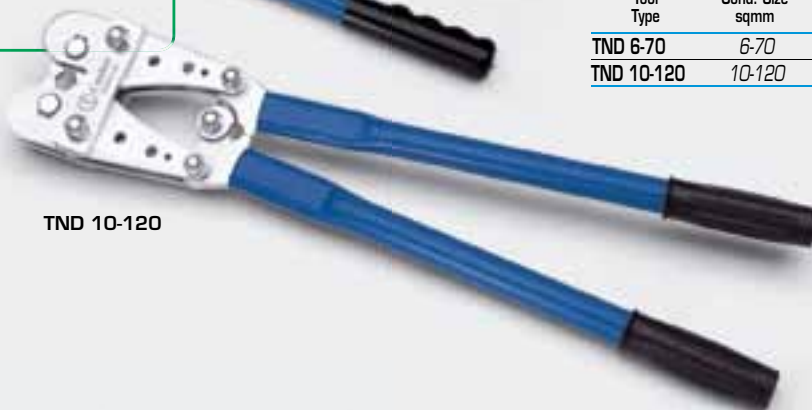
Tool Type	Application	Cond. Size sqmm	Dimensions LxH mm	Weight kg
TN 70 SE	uninsulated terminals and connectors	6-70	450 x 127	2
TNN 70	Polyamide PA6.6 insulated terminals and connectors	10-70	450 x 127	2
TN 120 SE	uninsulated terminals and connectors	10-120	700 x 170	3
TNN 120	Polyamide PA6.6 insulated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

## TND

Mechanical tools equipped with rotating dies with hexagonal imprint compliant with DIN 480863 suitable to crimp copper lugs according to DIN 46235 (refer to page 26-27), Particularly sturdy and easy to handle.



**TND 6-70**



**TND 10-120**

Tool Type	Cond. Size sqmm	Length mm	Weight Kg
TND 6-70	6-70	515	2,0
TND 10-120	10-120	600	4,1

## PELACABLES



### HB 2

Wire stripper, for circular cables Ø 4,5 to 28,5 mm



### HB 7

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



### HB 5

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



### HB 8

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



### HB 6

Wire strippers, supply configuration including stripping die for PVC insulated cables 0,02 to 10 sqmm



### HB 9

Insulated knife for cables, with bent blade and protective cover. Suitable for insulation and screen removal,

equipped with blade guiding to avoid the damage of the strands. Handle is made of a bi-component plastic material.

Interchangeable stripping dies available upon request:



**4320-0864**, flat blade  
Stripping features:  
PVC from 0,02 to 10 sqmm



**4320-0866**, rounded blades  
Stripping features:  
PVC from 4 to 16 sqmm



**4320-0865**, 'V' blades  
Stripping features:  
PTFE from 0,1 to 4 sqmm



### HB 10

Insulated knife for cables with interchangeable straight blade  
Blade protection made of plastic material, to be

folded inside the handle. Ergonomic handle made of anti shock plastic material



### SC 1

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

## SCISSORS



### SC 3X

Multi-purpose scissors with high hardness blades (56 HRC) and anti slide serrations. The moulded plastic handles combine a rigid structure with a softer material for finger comfort.

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

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



### PC 1

Plastic pipe cutting tool  
 Cutting capacity: 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	-	-	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	-	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



**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

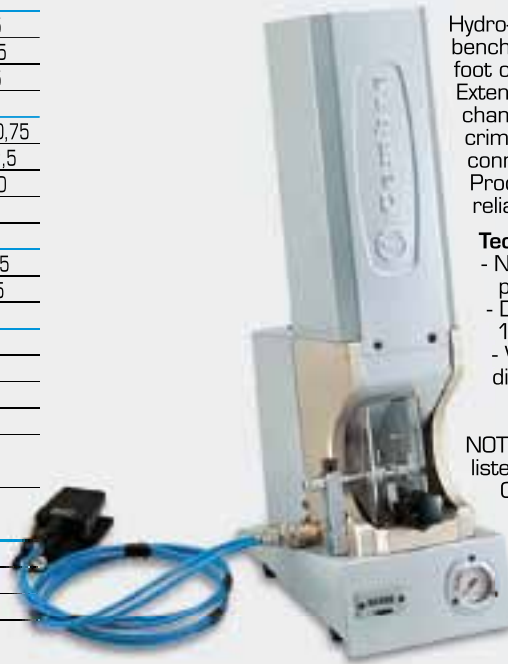


## PNB-1

### 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	0,3 - 0,5 - 0,75
KE 2.5-1			1 - 1,5 - 2,5
KE 10-1			4 - 6 - 10
MTT 16-50			16
MTT 25-50	ME-1		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		A1-M.. 4 - 6
ME 2-50			A2-M.. S10-M.. 10
ME 3-50	ME-1	Bare copper lugs	A3-M.. 16
ME 5-50			A5-M.. 25
ME 7-50			A7-M.. 35
ME 9-50			A9-M.. 50
ME 10-50			A10-M.. 50
ME 12-50			A12-M.. 50
MN 2RF-50			MN RF-1
MN 3RF-50	ANE3-M.. 16		
MN 5RF-50	ANE5-M.. 25		
MN 7RF-50	ANE7-M.. 35		
			ANE9-M.. 35

\* Supplied as standard with the machine



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

#### Technical details:

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

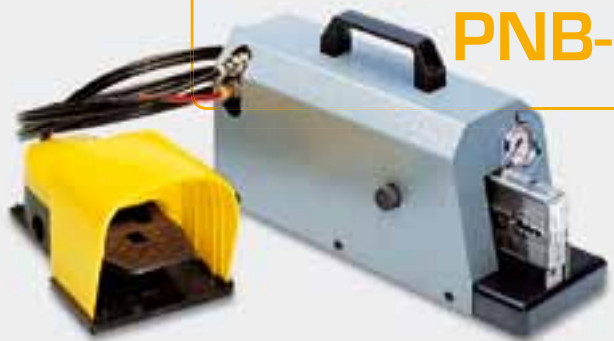
NOTE: for applications not listed, please contact Cembre.



## PNB-3

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



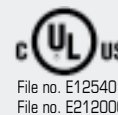
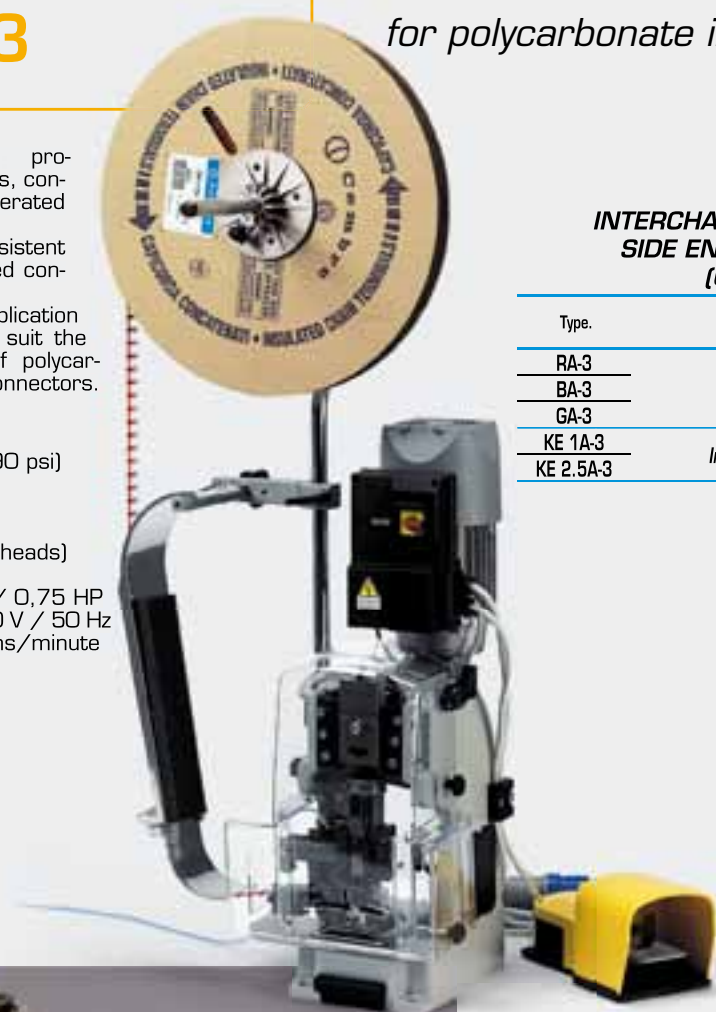
Electro-pneumatic, production bench press, controlled by a foot operated pedal. Producing a consistent and reliable crimped connection. Interchangeable application heads available to suit the complete range of polycarbonate insulated connectors.

**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
BA-3		blue
GA-3		yellow
KE 1A-3	Insulated chain end sleeves	0,5÷1
KE 2.5A-3		1÷2,5



FLUORINE FREE

OPERATING TEMPERATURE UP TO 115°C



Conforms to DIN standard 46 228/4

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		Weight kg
	length	width	
50	346	130	2,0

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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.

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.



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

Openable head, ideal for derivations from running conductors

180° rotatable head, to work in the most comfortable position

Safety valve bypassing the oil supply when the maximum pressure is reached

Pressure releasing system, that can be operated at any stage.





# HYDRAULIC CRIMPING TOOL

## general features

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

### MAIN APPLICATIONS - max section mm<sup>2</sup>

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*	445x290x95	1,2	✳	—

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

HT 51-KV version also available for Power Supply Companies



# HT 51

New design two speed hydraulic tool, lightweight and compact, this tool is ideal for working in confined spaces. Having the benefit of spring loaded handles, the dies can be advanced using only one hand; therefore leaving the other hand free to position the connector.

For ease of operation and comfort of the operator, the tool head can be fully rotated through 180 degrees. The built-in safety valve will by-pass the oil supply when the maximum pressure is reached, and a pressure release system can easily be operated at any stage of the compression.

# HYDRAULIC PRESSHEAD

## 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 mm<sup>2</sup>

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*	445x290x95	1,2	✳	—
Canvas bag 007	350x105	0,13	—	✳

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



# RH 50

Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150) RH 50 is suitable for installing the same range of connectors as HT 51.

# HYDRAULIC PRESSHEAD

## 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 mm<sup>2</sup>

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*	445x290x95	1,2	✳	—
Canvas bag 007	350x105	0,13	—	✳

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



# RHM 50

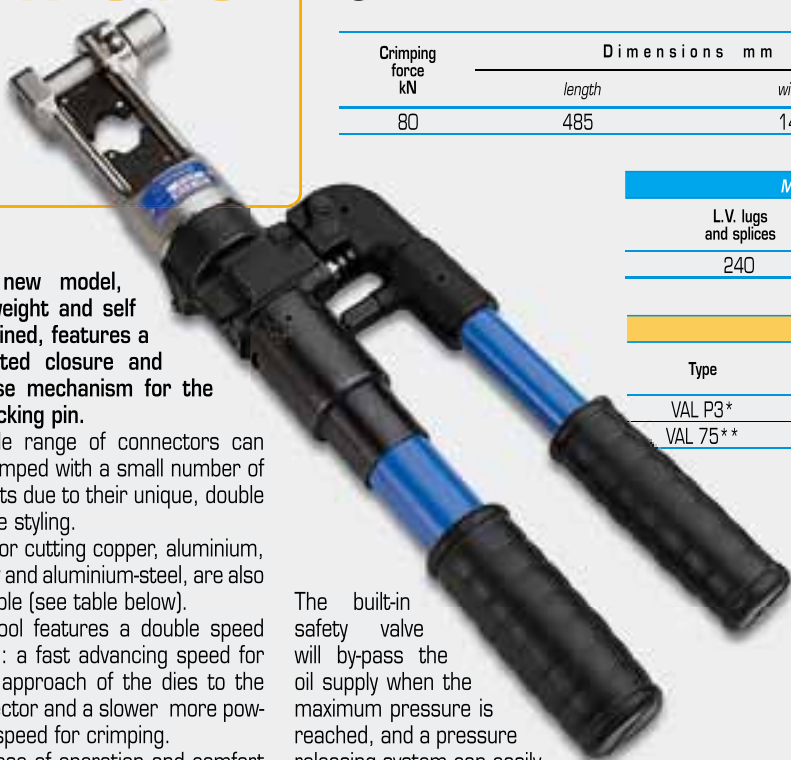
Particularly suitable for high volume bench crimping.

Hydraulic press-head complete with quick automatic coupler for connection to hydraulic pump with working pressure of 700 bar max, (see page 148-150). 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 154 to 162



# HT 81-U



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, aldrej 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 CRIMPING TOOL

### general features

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

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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.



# RHU 81



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150).

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.



## HYDRAULIC PRESSHEAD

### 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 mm<sup>2</sup>

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	—	✳

#### HT 81-U and RHU 81 ACCESSORIES FOR CUTTING CONDUCTORS

Die Type	Cutting Capacity	Conductor Type
	Ø 16 mm	Cu, Alu, Aldrej and Alu-Steel
MB2-80U	This die is suitable to cut steel conductors ( $R \leq 160 \text{ daN/mm}^2$ ) 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 mm <sup>2</sup> aluminium-steel conductors, without damage to the steel core	

# HYDRAULIC CRIMPING TOOL

## general features

# HT 120

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

### MAIN APPLICATIONS - max section mm<sup>2</sup>

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*	620x380x135	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 light-weight and self contained tool will accept the semi-circular slotted dies, common to most 130 kN tools.

It is particularly suitable for installing crimp type electrical connectors for overhead line applications. The tool features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping. For ease of operation and comfort of the operator the tool head can be fully rotated through 180 degrees.

**HT 120-KV**  
version also available for  
Power Supply Companies



Die release system, protected from accidental operation

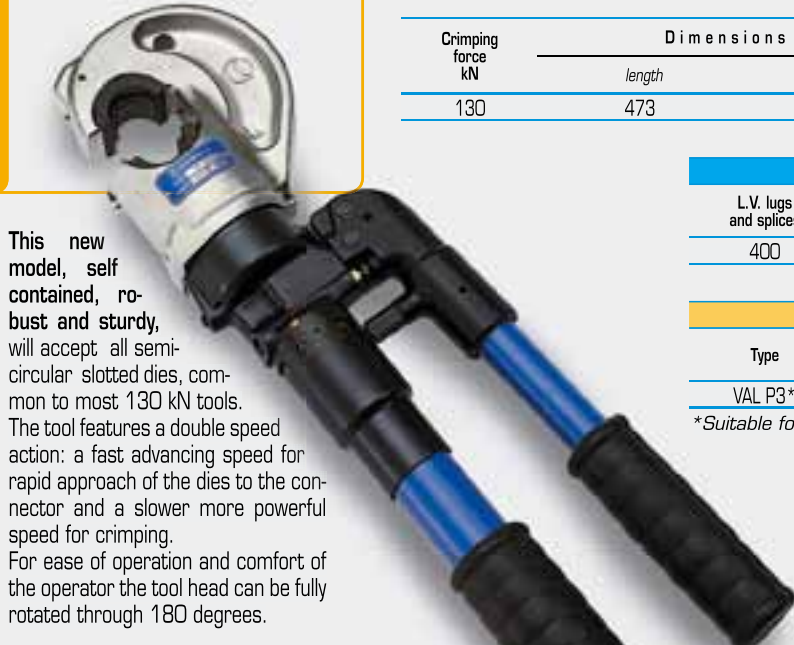
HT 120 features a double speed action: a fast advancing speed for rapid approach of the dies to the connector and a slower more powerful speed for crimping.



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

## HYDRAULIC CRIMPING TOOL

### HT 131-C



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.

#### general features

Crimping force kN	Dimensions mm		Weight kg
	length	width	
130	473	144	5,5

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	✳	—

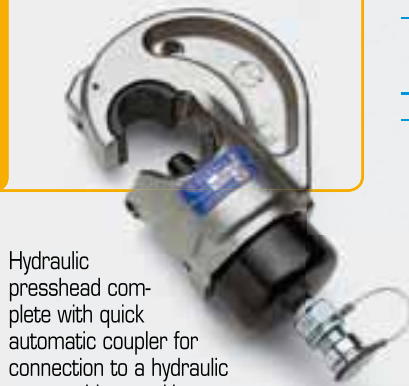
\*Suitable for storage of the tool and 14 sets of dies

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



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150) This new design with improved mechanical features,

#### general features

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



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

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices
400	240	185	400

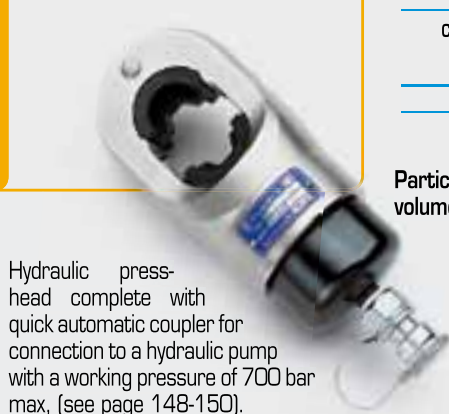
#### STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P8*	445x290xh115	1,2	—	✳

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



### RHM 132



Hydraulic press-head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150).

#### general features

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

Particularly suitable for high volume bench crimping.

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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 154 to 162



## HYDRAULIC CRIMPING TOOL

### general features

Crimping force kN	Dimensions mm		Weight kg
	length	width	
130	538	144	7,0

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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

### 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 mm<sup>2</sup>

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**



## RHC 131LN

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 148-150). Is suitable for installing the same range of connectors as HT 131LN-C.



# HT 131-UC



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.

## HYDRAULIC CRIMPING TOOL

### general features

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

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

L.V. lugs and splices	Insulated terminals	"C" sleeve connectors	H.V. lugs and splices	Alu lugs and splices
400	240	185	400	300

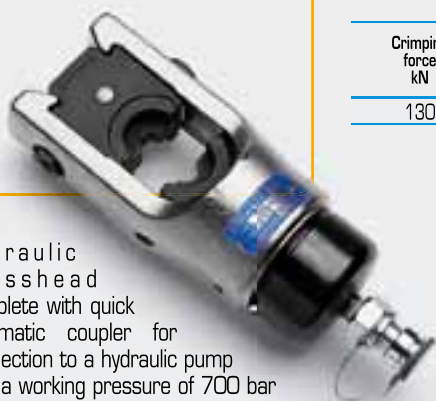
#### STORAGE

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



# RHU 131-C



Hydraulic presshead complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150).

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

## HYDRAULIC PRESSHEAD

### general features



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

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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 154 to 162

# HYDRAULIC PRESSHEADS



## 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

This die is suitable to cut steel conductors ( $R \leq 160 \text{ daN/mm}^2$ ) 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



## 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



## STORAGE

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

\* Suitable for storage of the head

\*\* Suitable for storage of the accessories



VAL MAT 230-630



## 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

## general features

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

## MAIN APPLICATION - max section mm<sup>2</sup>

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 148-150). 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, aldrely, aluminium-steel and steel conductors.

## ECW-H3D



## 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 mm<sup>2</sup>

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 148-150). For crimping up to 500 sqmm aluminium. Dies are available also for crimping copper connectors.

## 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 mm<sup>2</sup>

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 148-150). It allows for crimping up to 630 sqmm aluminium (according to HN 68 S90). Adapters AU 230-130-C/N, and AU 230-PS/E, are available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 130 kN tools.

## 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 mm<sup>2</sup>

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 148-150). Adaptor type AU520-130C is available as an optional extra enabling the head to utilise the semi-circular slotted dies which are common to most 130 kN tools.

These tools are supplied without dies. For die selection, please refer to chart on pages 154 to 162

**INDUSTRIAL APPLICATION**  
**HT-TC051**

**HYDRAULIC CUTTING TOOL**

*general features*

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



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	✳	—

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*

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150)

TC050 features the same cutting capability as HT-TC051.



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	✳	—



**INDUSTRIAL APPLICATION**  
**HT-TC065**

**HYDRAULIC CUTTING TOOL**

*general features*

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 reach-



**New**

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

**STORAGE**

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

ing maximum pressure; a pressure release device can also be operated at any stage of operation.





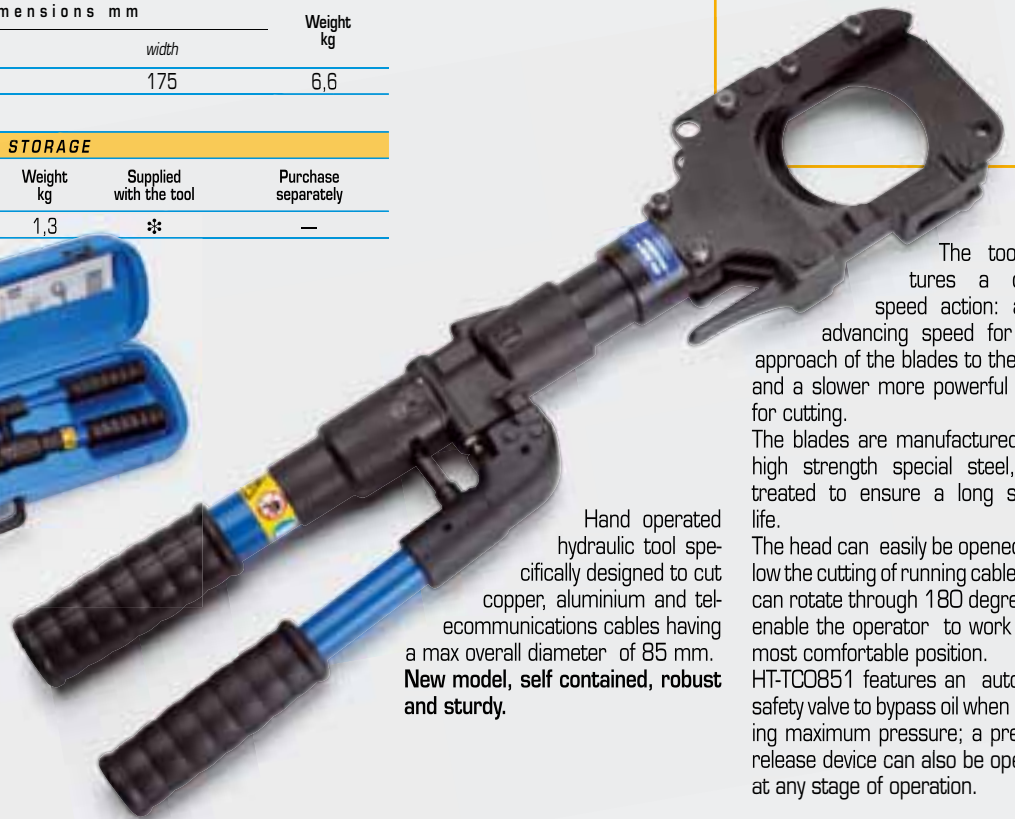
## HYDRAULIC CUTTING TOOL

### general features

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.**

## INDUSTRIAL APPLICATION HT-TC0851

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

### general features



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	✳	—



## INDUSTRIAL APPLICATION TC 085

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150)

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 148-150).



*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 148-150).

### TC 120 cutting capacity - a few examples:

Cable type	TC 120 cutting capacity - a few examples:
	3x150 mm <sup>2</sup> steel armoured Ø80 mm
	1000 mm <sup>2</sup> Cu - EPR rubber insulated; Ø85 mm
	1000 mm <sup>2</sup> Cu - EPR rubber insulated + lead sheath; Ø92 mm
	1000 mm <sup>2</sup> Cu - EPR rubber insulated + lead sheath + PE sheath; Ø100 mm
	240 mm <sup>2</sup> EPR rubber insulated



Handle designed for ease of operation



Opening head, to allow cutting of running cables

OVERHEAD LINE APPLICATION  
**HT-TC026**



Hand operated hydraulic tool specifically designed to cut copper, 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.

## HYDRAULIC CUTTING TOOL

### 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	✳	—



### CUTTING CAPACITY

MATERIAL	TENSILE STRENGTH (daN/mm <sup>2</sup> )	MAX CUTTING DIAMETER (mm)		
		B35-TC025 (1)	HT-TC026 TC 025	HT-TC026Y B-TC026 (2)
COPPER	≤ 41	25		25
ALUMINIUM	≤ 20	25		25
ALMELEC	≤ 34	25		25
ROPE & CONDUCTORS	STEEL	≤ 180	INDICATIVE EXAMPLES: (2) 7 x 3,0 : Ø est. = 9,0 mm (1) (2) 19 x 2,1 : Ø est. = 10,5 mm (1) (2) 19 x 2,2 : Ø est. = 11,0 mm (2) 19 x 2,3 : Ø est. = 11,5 mm	
	MULTI STRANDS STEEL (STRANDS Qty ≥ 200)	≤ 180	-	18
	ACSR	≤ 180	25	25
			INDICATIVE EXAMPLES: (1) (2) 26 x 2,50 + 7 x 1,95 : Ø est. = 15,85 (1) (2) 26 x 3,06 + 7 x 2,38 : Ø est. = 19,38 (1) (2) 26 x 3,60 + 7 x 2,80 : Ø est. = 22,80	
RODS	STEEL	≤ 60	10	13
		≤ 42	-	16
		≤ 30	-	20
	COPPER	≤ 25	16	23
	ALUMINIUM	≤ 16	25	25

OVERHEAD LINE APPLICATION  
**TC 025**



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150)

TC025 has the same cutting capability as HT-TC026.

## HYDRAULIC CUTTING HEAD

### 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 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, aldrej, 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/mm <sup>2</sup>
14,2	/	STEEL EARTHING ROD, COPPER PLATED; Tensile strength = 69 daN/mm <sup>2</sup>
15,6	/	STEEL EARTHING ROD; Tensile strength = 69 daN/mm <sup>2</sup>
15,9	5/8"	STEEL EARTHING ROD, COPPER PLATED (CON ED - ILLINOIS); Tensile strength = 57 daN/mm <sup>2</sup>
15,9	5/8"	STEEL EARTHING ROD, COPPER PLATED (CON ED - STATEN ISLAND); Tensile strength = 78 daN/mm <sup>2</sup>
19	3/4"	STEEL EARTHING ROD, COPPER PLATED; Tensile strength = 74 daN/mm <sup>2</sup>
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)



OVERHEAD LINE APPLICATION  
**HT-TC041**



Hand operated hydraulic tool specifically designed to cut copper, 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.



## HYDRAULIC CUTTING TOOL

### 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	✳	—

CUTTING CAPACITY		
MATERIAL	TENSILE STRENGTH (daN/mm <sup>2</sup> )	MAX CUTTING DIAMETER (mm)
		HT-TC 041 TC 04 B-TC04
COPPER	≤ 41	40
ALUMINIUM	≤ 20	40
ALMELEC	≤ 34	40
ROPE & CONDUCTORS	STEEL	≤ 180 <i>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</i>
	MULTI STRANDS STEEL (STRANDS Qty ≥ 200)	≤ 180 18
	ACSR	≤ 180 40 <i>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</i>
RODS	STEEL	≤ 60 ≤ 42 18 20
	COPPER	≤ 30 30
		≤ 25 32
	ALUMINIUM	≤ 16 40

OVERHEAD LINE APPLICATION  
**TC 04**



Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150) TC04 has the same cutting capability as HT-TC041.

## HYDRAULIC CUTTING HEAD

### general features



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

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



## HYDRAULIC CUTTING TOOL

general features

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	✳	—



### OVERHEAD LINE APPLICATION HT-TC051Y

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

general features

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	✳	—



### OVERHEAD LINE APPLICATION TC 050Y

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150). TC 050Y features the same cutting capability as HT-TC051Y.

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

OVERHEAD LINE APPLICATION  
**HT-TC055**



**New**

Hand operated hydraulic tool specifically designed to cut copper, 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 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.

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 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.



**HYDRAULIC CUTTING TOOL**

*general features*

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

**STORAGE**

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P7	727x202x115	1,3	✳	—

**CUTTING CAPACITY**

MATERIAL	TENSILE STRENGTH (daN/mm <sup>2</sup> )	MAX CUTTING DIAMETER (mm)	
		HT-TC055 B-TC055	
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)	22
		ACSR	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**

*general features*



OVERHEAD LINE APPLICATION  
**TC 055**



**New**

Hydraulic cutting head complete with quick automatic coupler for connection to a hydraulic pump with a working pressure of 700 bar max, (see page 148-150)

TC055 has the same cutting capability as HT-TC055.

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	✳	—





## SPECIAL TOOLS



### general features

## Hole punching head RH-FC 47

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*	315x300x95	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	-	-	2	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	-	-	-	2	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	-	2	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	-	-	-	2	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	-	-	3	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	-	-	-	3	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	

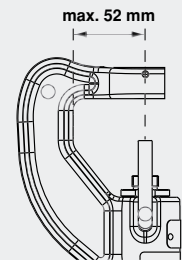
\*available upon request



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 148-150).



### general features

## Piercing heads RHT

Type	Max piercing Ø mm	Max hole distance from bar edge (mm)	Max operating pressure bar	Dimensions mm		Weight kg
				length	width	
RHT 160	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*	283x180x100	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 - indenter	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 148-150).

	MAX. THICKNESS					
Hole diameter (mm)	6,5	8,5	10,5	13	15	17
Max thickness strip in copper	10	10	10	10	10	10
Max thickness strip 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



# Nut splitting heads RHTD

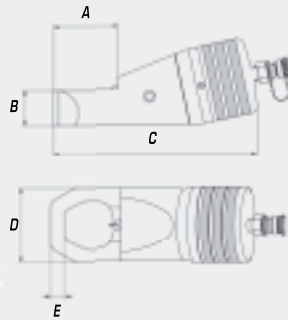


Hydraulic nut splitting head complete with automatic quick coupler.

For operating the head must be joined to a hydraulic pump developing a pressure of 700 bar (see page 148-150).

## SPECIAL TOOLS

general features



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



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**

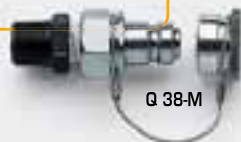
6 m length flexible hose fitted with an automatic female quick coupler and a 3/8" NPT male threaded bush.

**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, to measure the maximum oil pressure on all Cembre tools.

CHECKING DEVICES			
For Hydraulic Pumps and Tools	For Hydraulic Tools		
MPC 1	MPC 2	MPC 4	MPC 7
PO 7000	HT 131-C	ECW-H3D	HT 45
CPP-O	HT 131LNC	RHU 240-3D-850	HT 51
CPE-1	HT 120		HT 61
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 131LNC		B 46
HT 81-U	B 135-C		B 51
HT 131-C	B 135LNC		B 54D
HT 131LNC			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 accommodate the tool and all the accessories.
- The B51, B135-C, B135LNC, B135-UC, B131-C, B131LNC 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.

**14.4V  
3.0Ah  
NI-MH**

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)**

#### 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/sec<sup>2</sup>**.

#### 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)**

## 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 accommodate 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 $\overline{\sim}$  50-60Hz; OUTPUT 9,6V $\overline{\sim}$  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/sec<sup>2</sup>**.

# 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**

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	465x315x116	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

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.

#### Many different interchangeable crimping dies available

##### CRIMPING DIES AVAILABLE

Conductor size mm <sup>2</sup>	Conductor size (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)	RBV-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	

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



Battery condition display



Interchangeable die sets



Ergonomically designed operating switch



Automatic slot-in battery



# 9.6 V CORDLESS HYDRAULIC CRIMPING TOOL



general features

## B 35-45D

**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 mm<sup>2</sup>

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	465x315x116	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



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 available for crimping 120 mm<sup>2</sup> and 150 mm<sup>2</sup>.

Application field as shown in the table above. For further details please refer to tables of page 154-162.

Wide-opening head, ideal for derivations from running conductors



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 154 to 162



# 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**

**New**

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	465x315x116	1,5	✳	—

Can be operated with one hand.  
Balanced for greater control.  
Head rotates 180° for ease of operation in confined spaces.  
Fitted with a maximum pressure valve.  
Extremely quiet, minimal vibration.  
Durable moulded body offering high resistance to wear and damage in all operating conditions.  
Ni-MH battery; powerful, better environmental compatibility.  
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 available for crimping 120 mm<sup>2</sup> and 150 mm<sup>2</sup>. Application field as shown in the table above. For further details please refer to tables of page 154-162.

#### 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 comfort

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 154 to 162

# 9.6 V CORDLESS HYDRAULIC CRIMPING TOOL



## general features

# B 54D-D6

**9.6V  
3.0Ah  
Ni-MH**

Crimping force kN	Dimensions mm			Battery Ni-MH	Weight kg (with battery)
	length	height	width		
54	450	119	66	9.6 V 3.0 Ah	2,9

### MAIN APPLICATIONS - max section AWG

Copper lugs and splices	Aluminum lugs and splices	Aluminum H taps
300 MCM	4/0	4/0 - 4/0

### STORAGE

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P25	497x370x137	2,3	✳	—
VAL MAT-W	175x96x45	0,93	—	✳

### The 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 MAT-W

VAL P25

Available as optional accessories:  
VAL MAT-W metal case for storing 12 Index die sets, fits into VAL-P25.

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



**New**

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.

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.



### 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	W, X Series
		Greenlee IlSCO	KD6 Series ND Series
CDD6-8	"D3" TO ACCEPT ALL "W" STYLE CRIMPING DIES + "O" FIXED GROOVE	Huskie	HT-58 Series
CMB1	Cutting dies for: one-time disposable lock hasps; 4AWG Alumoweld; ACSR 1/0	Panduit	CD-2001 series



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



#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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 P5	543x412x130	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

Lightweight and balanced



Motor ventilation



Battery condition display



Switch protected against accidental operation



Automatic slot-in battery



These tools are supplied without dies. For die selection, please refer to chart on pages 154 to 162



# 14.4 V CORDLESS HYDRAULIC CRIMPING TOOL



## general features

# B 55



Crimping force kN	Dimensions mm			Battery NI-MH	Weight kg (with battery)
	length	height	width		
55	358	302	94	14.4 V 3.0 Ah	5

### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	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 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.

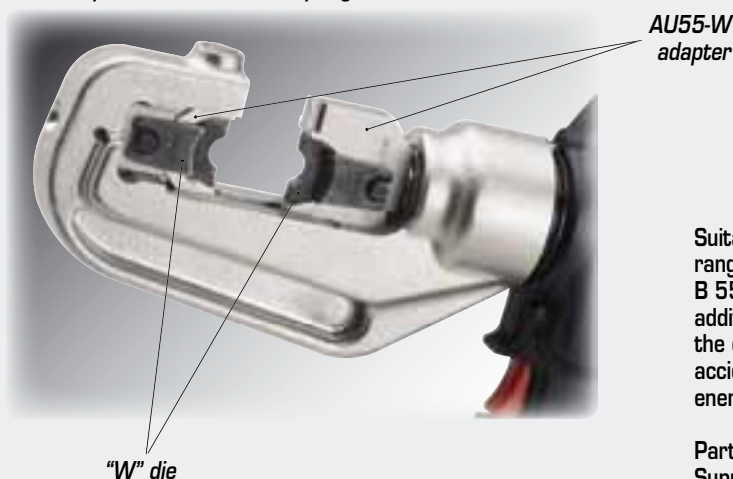
With adapter AU55-50 for accepting Cembre dies.



Cembre die

AU55-50 adapter

With adapter AU55-W for accepting "W" dies.



"W" die

AU55-W adapter

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.



B 55-KV

These tools are supplied without dies. For die selection, please refer to chart on pages 154 to 162



# 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



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.

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	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 8 sets of semi-circular slotted dies



**B 135-C-V**  
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



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**

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	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 8 sets of semi-circular slotted dies



These tools are supplied without dies. For die selection, please refer to chart on pages 154 to 162

# 14.4 V CORDLESS HYDRAULIC CRIMPING TOOL



general features

## B 135-UC



14.4V  
3.0Ah  
NI-MH

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 mm<sup>2</sup>

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.

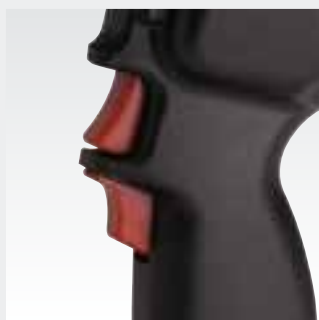
Battery condition display



Motor ventilation



Automatic slot-in battery



Switch protected against accidental operation

These tools are supplied without dies. For die selection, please refer to chart on pages 154 to 162

# 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



- 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 con-

- nector 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.

#### 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

#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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	✳	—

#### Available as optional accessories:

- ESC600 cable for connection to a 12V dc external power supply/vehicle battery length 6 m.

#### 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



#### MAIN APPLICATIONS - max section mm<sup>2</sup>

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 154 to 162



# 14.4 V CORDLESS HYDRAULIC CRIMPING TOOL



## general features

# B 131-UC



**14.4V  
3.0Ah  
NI-MH**

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 mm<sup>2</sup>

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	542x412x197	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.



High power battery



Battery condition display

Motor ventilation



Operating and pressure release buttons mechanically interlocked



Socket for 12-14.4 V dc external power supply

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 154 to 162



OVERHEAD LINE APPLICATION  
**B35-TC025**



**New**

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.

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

For cutting capacity data see page 120.

**9.6 V CORDLESS HYDRAULIC CUTTING TOOL**

*general features*



**9.6V  
2.0Ah  
Ni-MH**

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

**STORAGE**

Type	Dimensions mm	Weight kg	Supplied with the tool	Purchase separately
VAL P22	465x315x116	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



**14.4 V CORDLESS HYDRAULIC CUTTING TOOL**

*general features*



**14.4V  
3.0Ah  
Ni-MH**

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	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



OVERHEAD LINE APPLICATION  
**B-TC026**



14.4 V cordless hydraulic cutting tool, light-weight 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, aldreyl, 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 120.

## 14.4 V CORDLESS HYDRAULIC CUTTING TOOL



### 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 to cut copper, 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 122.

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

### OVERHEAD LINE APPLICATION B-TC04

## 14.4 V CORDLESS HYDRAULIC CUTTING TOOL



### 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-TC051Y

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, aldre, aluminium, aluminium-steel cables and steel ropes, aluminium and steel rods having a max overall diameter of 55 mm. The tool features a double speed action: a fast advancing speed for rapid approach of the blades to the cable and a slower more powerful speed for cutting. The blades are manufactured from high strength special steel, heat treated to ensure a long service life.



The head can be easily opened to allow the cutting of running cables. The head can rotate through 320 degrees, to enable the operator to work in the most comfortable position.

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

**The tool is supplied with:**

- Basic tool with battery and shoulder strap
- Spare battery
- Battery charger

- Plastic carrying case suitable for storing the tool and accessories

Fitted with a maximum hydraulic pressure valve. 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 124.



**14.4 V CORDLESS HYDRAULIC CUTTING TOOL**

INDUSTRIAL APPLICATION  
**B-TC051**

*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

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

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



### 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.



New

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.

INDUSTRIAL APPLICATION  
**B-TC065**

## 14.4 V CORDLESS HYDRAULIC CUTTING TOOL



### 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



New

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.

INDUSTRIAL APPLICATION  
**B-TC095**



# 14.4 V CORDLESS HYDRAULIC TOOL FOR PUNCHING HOLES

## B-FC48

### 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



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.

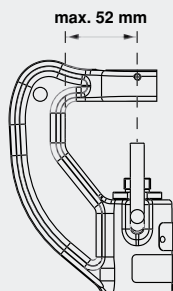
The punching head can rotate through 180° for ease of operation.

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 103).

Max centre of hole to edge of trunking: 52 mm



### 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



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	-	-	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	-	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



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



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

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.



Operating pressure bar	Dimensions mm			Weight kg
	length	width	height	
700	220	220	350	12

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.



Operating pressure bar	Dimensions mm			Weight kg
	length	width	height	
700	320	150	200	6,8

## CPE-1 CPE-1-110

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.



## 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



## 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.



## 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.



# HYDRAULIC PUMPS

## 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*

### 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)
- EPS 115-230.24 mains power supply 115-230V
- BPS 230.24, network power supply 230V~ 50-60Hz

### B70M-P24 is supplied with:

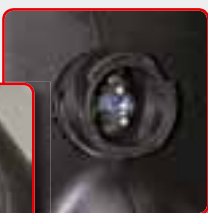
- 3 m flexible hose complete with male + female 3/8" NPT self-lock quick couplers
- Remote control
- Shoulder strap
- External battery charger
- Canvas holdall for carrying accessories

Remote electrical hand or foot controller connection

24V dc external power supply socket with protective cap



Easily accessible oil top-up inlet



High pressure hose connects to automatic self-lock quick coupling with protective cap

- 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.



**B70M-P24-KV**  
insulated version  
with remote  
pneumatic  
hand controller

Powerful 24V Ni-MH rechargeable battery



Battery residual power level display



Manual pressure release button



## 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  $\overline{\text{---}}$   
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

(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 mm<sup>2</sup>

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



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 RHU 131-C)

Crimping force kN	Dimensions pump mm	Dimensions head mm	Weight kg
130	680x200xh163	245x89	13,5

### MAIN APPLICATIONS - max section mm<sup>2</sup>

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 1131-C



(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 mm<sup>2</sup>

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



## CPU 1230-3D





# HYDRAULIC CUTTING UNITS

## CP 1096



(pump **PO 7000** + head **TC 096**)

Max cutting Ø mm	Dimensions pump mm	Dimensions head mm	Weight kg
95	680x200x163	397x249	17,7

Storage type	Dimensions mm	Weight kg
VAL CP 096*	785x430x175	14,0

\*Supplied with the unit

## Units CP-W-KV



GS approval  
n. ET 04246



Hydraulic units provide protection against short circuit when cutting accidentally live L.V. / M.V. cables with nominal voltage up to 60 kV.

Unit Type	Max cutting Ø mm	Dimensions pump	Dimensions head	Weight kg
CP 1086-W-1000-KV	85	680x200x163	405x143	16,6
CP 1096-W-1000-KV	95	680x200x163	407x245	19,0
CP 1120-W-1000-KV	120	680x200x163	556x185	20,2

Storage case type	Dimensions mm	Weight kg
VAL CPO96-W*	785x430x175	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





DIE SELECTOR CHART



COPPER CONDUCTORS

EXTRA FLEXIBLE COPPER CONDUCTORS

APPLICATION	CONDUCTOR		CONNECTOR		HYDRAULIC TOOLS													HYDRAULIC TOOLS																
					B 15D			B 35-45D			B 35-50D			HT 45-E			HT 51 B 51			RH 50 B 55			HT 81-U RHU 81			HT 120 and tools and heads with 130 kN crimping force			ECW-H3D			RHU 520		
					Low str.	Flex	TERMINAL	SPLICE	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	DIE SET	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR	DIE SET	NEST	INDENTOR
	0,25 ÷ 2,5		A 03-M. A 06-M..	L 03M / L 03P L 06M / L 06P	ME03/2-15 MA03/3-15																													
	4 ÷ 6		A 1-M. A 1-L..	L 1-M L 1-P	ME03/2-15 MA03/3-15	MA 1	PA 1	ME 1	MA 1-50	PA 1-50	ME 1-50	MA 1	PA 1	ME 1																				
	10		A 2-M. A 2-L. A 2-P12	L 2-M L 2-P	ME03/2-15 MA03/3-15	MA 2.3		ME 2	MA 2.3-50		ME 2-50	MA 2.3		ME 2																				
	16		A 3-M. A 3-L. A 3-P14	2A 3-M.. L 3-M L 3-P	ME2/3-15 MA03/3-15		PA 5	ME 3		PA 5-50	ME 3-50		PA 5	ME 3																				
	25		A 5-M. A 5-L. A 5-P16	2A 5-M.. L 5-M L 5-P		MA 5		ME 5	MA 5-50		ME 5-50	MA 5		ME 5																				
	35	25* 35	A 7-M. A 7-L. A 7-P20	2A 7-M.. L 7-M L 7-P		MA 7		ME 7	MA 7-50		ME 7-50	MA 7		ME 7																				
	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	MA 10-50		ME 10-50	MA 10		ME 10																				
	70	50* 70	A 14-M. A 14-L. A 14-P30	2A 14-M.. L 14-M L 14-P				ME 14	MA 14-50		ME 14-50			ME 14																				
	95	70* 95	A 19-M. A 19-L..	2A 19-M.. L 19-M L 19-P				ME 19	MA 19-50		ME 19-50			ME 19																				
	120	95* 120	A 24-M. A 24-L..	2A 24-M.. L 24-M L 24-P				ME 24	MA 24-50		ME 24-50			ME 24																				
	150	120* 150	A 30-M. A 30-L..	2A 30-M.. L 30-M L 30-P				ME 30L			ME 30L-50			ME 30																				
	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																														
	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																														
	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																															
	35		A 9-M..			MA 9	PA 10	ME 9	MA 9-50	PA 10-50	ME 9-50	MA 9	PA 10	ME 9																				
	50		A 12-M..					ME 12	MA 12-50		ME 12-50			ME 12																				
	70		A 17-M..					ME 17	MA 17-50	PA 19-50	ME 17-50			ME 17																				
	95		A 20-M..					ME 20	MA 20-50		ME 20-50			ME 20																				
	120		A 29-M..					ME 29			ME 29-50			ME 29																				
	150		A 35-M..																															
	185		A 40-M..																															

Hexagonal crimp (use one size up with fine stranded conductors, E.G.: 95<sup>2</sup> 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

DIE SELECTOR CHART

APPLICATION	CONDUCTOR	CONNECTOR				HYDRAULIC TOOLS										
						B 15D	B 35-45D	B 35-50D	HT 45-E	HT 51 B 51	RH 50 B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force			ECW-H3D
	Conductor Size Flex sqmm	TERMINAL				DIE SET		DIE SET		DIE SET		NEST	INDENTOR	DIE SET	NEST	INDENTOR
 ANE..M.  ANE..P.  ANE..U.	10	ANE 2-M..	ANE 2-P12	ANE 2-U..												
	16	ANE 3-M..	ANE 3-P14	ANE 3-U..		NN4-15 		MN 2 RF-50 		MN 2 RF-50 		MN 2-C 	PN 7-C	MN 2 RFC 	Adaptor AU 230-130 D with die set MN..C and indentor PN..C or with die set MN..RFC and die set MN..FC	
	25	ANE 5-M..	ANE 5-P16					MN 3 RF-50 		MN 3 RF-50 		MN 3-C 		MN 3 RFC 		
	35	ANE 7-M..	ANE 7-P20					MN 5 RF-50 		MN 5 RF-50 		MN 5-C 		MN 5 RFC 		
	50	ANE 10-M..								MN 7 RF-50 		MN 7 RF-50 		MN 7-C 		MN 7 RFC 
	70	ANE 14-M..								MN 10 RF-50 		MN 10 RF-50 		MN 10-C 		MN 10 RFC 
	95	ANE 19-M..										MN 14 RF-50 		MN 14-C 		MN 14 RFC 
	120	ANE 24-M..										MN 19 RF-50 		MN 19-C 		MN 19 RFC 
	150	ANE 30-M..										MN 24 RF-50 		MN 24-C 		MN 24 RFC 
												MN 30-C 	PN 37-C	MN 30 RFC 		
 ANE..M.	35	ANE 9-M..														
	50	ANE 12-M..														
	70	ANE 17-M..														
	95	ANE 20-M..														
	120	ANE 29-M..														
	150	ANE 35-M..														
 PK...	0,3 ÷ 4	PKD 506 ÷ PKD 418	PKE 508 ÷ PKE 418	PKC 508 ÷ PKC 418	KE 506 ÷ KE 412											
	4 ÷ 16	PKD 410 ÷ PKD 1618	PKE 410 ÷ PKE 1618	PKC 410 ÷ PKC 1618	KE 410 ÷ KE 1616											
	16	PKD 16..	PKE 16..	PKC 16..	KE 16..											
	25	PKD 25..	PKE 25..	PKC 25..	KE 25..											
	35	PKD 35..		PKC 35..	KE 35..											
	50	PKD 50..		PKC 50..												
	70			PKC 70..												
	95			PKC 95..												
	120			PKC 120..												

 Indent crimp     Radial crimp     Trapezium crimp

## DIE SELECTOR CHART

APPLICATION	CONDUCTOR		CONNECTOR				HYDRAULIC TOOLS									
							B 35-45D	B 35-50D	HT 45-E	HT 51 B 51	RH 50 B 55	HT 81-U RHU 81	HT 120 and tools and heads with 130 kN crimping force	ECW-H3D	RHU 52D	
 c..c..ST   c..c..	Section Conductor mm <sup>2</sup>		CONNECTOR	CONNECTOR			DIE SET	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	Adaptor AU 230-130 D with die set MC..C	Adaptor AU 520-130 C with die set MC..C		
	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 MC 25-U ①	MC 25-C ①				
	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							
	50	25 ÷ 10														
	70 ÷ 63	25 ÷ 1,5	C 70 - C 25N ST	C 70 - C 25N												
	50	25 ÷ 4	C 50 - C 25 ST	C 50 - C 25												
	*50	50 ÷ 35	C 50 - C 50 ST	C 50 - C 50												
	*70 ÷ 50	40 ÷ 4	C 70 - C 35 ST	C 70 - C 35						*MC 70-50 ③	MC 70-80-U ③	MC 70-C ③	MC 70-3D ①			
	*70 ÷ 50	70 ÷ 35	C 70 - C 70 ST	C 70 - C 70												
	100 ÷ 95	40 ÷ 4	C 95 - C 35 ST	C 95 - C 35												
	100 ÷ 95	70 ÷ 40	C 95 - C 70 ST	C 95 - C 70							MC 95-80-U ③	MC 95-C ③	MC 95-3D ①			
	100 ÷ 95	100 ÷ 63	C 95 - C 95 ST	C 95 - C 95												
	125 ÷ 110	125 ÷ 25	C 120 - C 120 ST	C 120 - C 120												
	160 ÷ 150	125 ÷ 25	C 150 - C 120 ST	C 150 - C 120								MC 185-C ③	MC 185-3D ①			
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													
240 ÷ 150	120 ÷ 95	C 240 - C 120 ST	C 240 - C 120									MC 240-3D ①				
 MT..TD MT..GC   CA..M.. CA..2M..   MT..C..	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 ①		MMT 25-50 ①	MMT 25-U ①	MMT 25-C ①	Adaptor AU 230-130 D with die set MMT..C	Adaptor AU 520-130 C with die set MMT..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 ①		MMT 50-50 ①	MMT 50-U ①	MMT 50-C ①			
	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 ①	MMT 95-U ①	MMT 95-C ①			
	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 ①	MMT 200-U ①	MMT 200-C ①			
	160 S ÷ 200 RC		MT 200 R - TD	MT 200 R - GC	CA 200 R - M..	CA 200 R - 2M..	MT 200 R - 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 ①				
	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 ①	ME 80-3D ①	ME 80-520 ①			
500 R		MT 500 - TD		2A 100 - M..	2A 100 - 2M..							ME 100-3D ①	ME 100-520 ①			
600 R ÷ 630 R		MT 630 - TD		2A 120 - M..	2A 120 - 2M..							ME 120-3D ①	ME 120-520 ①			

① Hexagonal crimp


② Oval crimp

③ 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

APPLICATIONS	CONDUCTOR	CONNECTORS			HYDRAULIC TOOLS							
					HT 131-UC	RHU 131-C	B 131-UC					
 CAA..M..   MTA..C	Conductor Size sqmm	LUGS			DIE HOLDER	DIE	INDENTOR					
	10	CAA 10 - M..			AU 130-150	MV 35 	MUA 35 	PS 130-35/E				
	16	CAA 16 - M..	MTA 16 - C			AU 130-150	MV 95 	MUA 95 	PS 130-95/E			
	25	CAA 25 - M..	MTA 25 - C				AU 130-150	MV 150 	MUA 150 	PS 130-150/E		
	35	CAA 35 - M..	MTA 35 - C					AU 130-150	MV 240 	MUA 240 	PS 130-240/E	
	50	CAA 50 - M..	MTA 50 - C						AU 130-240	MUA 300-34 		
	70	CAA 70 - M..	MTA 70 - C..							AU 130-240		
	95	CAA 95 - M..	MTA 95 - C..		AU 130-240							
	120	CAA 120 - M..	MTA 120 - C..			AU 130-240						
	150	CAA 150 - M..	MTA 150 - C..				AU 130-240					
	185	CAA 185 - M..	MTA 185 - C..		AU 130-240							
	240	CAA 240 - M..	MTA 240 - C..			AU 130-240						
300	CAA 300 - 34 - M..			AU 130-240								
 AA..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..			AU 130-150		MUA 95 	PS 130-95/E				
	35	AA 35 - M..					AU 130-150	MUA 150 	PS 130-150/E			
	50	AA 50 - M..						AU 130-150	MUA 240 	PS 130-240/E		
	70	AA 70 - M..							AU 130-240		MUA 300-34 	
	95	AA 95 - M..									AU 130-240	
	120	AA 120 - M..				AU 130-240						
	150	AA 150 - M..			AU 130-240							
	185	AA 185 - M..					AU 130-240					
	240	AA 240 - M..				AU 130-240						
	300	AA 300 - 34 - M..			AU 130-240							

 Indent crimp





## DIE SELECTOR CHART FOR DEEP STEPPED INDENTING WITH CONTAINING DIES

Conductor Size sqmm	SPLICES		Conductor Size sqmm		SPLICES	HYDRAULIC TOOLS HT 131-UC RHU 131-C B 131-UC			
			Al	Al/Cu		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				
			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				
			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				
185	MTMA 185-GC	MTMA 185/1	185	120	MTMA 185-120 GC				
			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				
			300	240	MTMAD 300-240 GC				
					AU 130-240	MVM 240	MUA 240	PS 130-240/E	
						MUA 300-34			

MTMA...GC

## PRE-ROUNDERS SELECTION

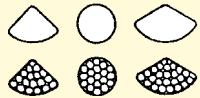
## DIES DESCRIPTION

## DIES SEQUENCE

ALUMINIUM CONDUCTOR SIZE sqmm

PRE-ROUNDER

DIE-SUPPORT



## 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.

CONDUCTOR ROUNDING

CRIMPING

1



1

2



4

3



























5



Indent crimp

## DIE SELECTOR CHART



APPLICATIONS	CONDUCTOR	CONNECTORS		HYDRAULIC TOOLS									
				HT 120 and tools and heads with 130 kN crimping force	HT 131-UC B 135-UC		RHU 131-C B 131-UC		ECW-H3D	RHU 230-630			
					HEXAGONAL CRIMP	INDENT CRIMP			HEXAGONAL CRIMP	INDENT CRIMP			
	Conductor Size sqmm	LUGS		DIE SET	DIE HOLDER	DIE	INDENTOR	DIE SET	ADAPTOR	DIE	INDENTOR		
 CAA..M..	300	CAA 300-34 - M..		MK34L-C 	AU 130-240	MUA 300-34 	PS 130-240/E	MK34-3D 					
	300	CAA 300 - M16											
	400	CAA 400 - M16							MK38-3D 	AU 230-630	MUA 230-630-400 	PS 230-400 5E	
	500	CAA 500 - M16 TNBD											
	630	CAA 630 - 4M8							MK46-3D 	AU 230-630	MUA 230-630-630 	PS 230-630 6E	
 AA..M..	300	AA 300 - 34 - M..		MK34L-C 	AU 130-240	MUA 300-34 	PS 130-240/E	MK34-3D 					
	300	AA 300 - M16											
	400	AA 400 - M16							MK38-3D 	AU 230-630	MUA 230-630-400 	PS 230-400 5E	
	500	AA 500 - 40 - M16											
	630	AA 630 - M16							MK46-3D 	AU 230-630	MUA 230-630-630 	PS 230-630 6E	
 MTMA..	300	MTAMAD 300/1	300	95	MTMAD 300-95-GC	MK34L-C 	AU 130-240	MUA 300-34 	PS 130-240/E	MK34-3D 			
				150	MTMAD 300-150-GC								
				185	MTMAD 300-185-GC								
				240	MTMAD 300-240-GC								
	300	MTMA 300-GC											
	400	MTMA 400/1	400	240	MTMA 400-240-GC					MK38-3D 	AU 230-630	MUA 230-630-400 	PS 230-400 5E
				300	MTMA 400-300-GC								
	500	MTMA 500-40/1											
	500	MTMA 500-GC	500	300	MTMA 500-300-GC					MK46-3D 	AU 230-630	MUA 230-630-630 	PS 230-630 6E
	400			MTMA 500-400-GC									
630	MTMA 630/1												


 Indent crimp


 Hexagonal crimp

## DIE SELECTOR CHART

## HYDRAULIC TOOLS

APPLICATIONS	CONDUCTOR	CONNECTORS		HYDRAULIC TOOLS								ECW-H3D		
				B 15D	B 35-45D	B 35-50D	HT 45	HT 51 RHM 50	RH 50 B 51	HT 81-U	RHU 81 <sup>◊</sup>	HT 120 and tools and heads with 130 kN crimping force	DIE	INDENTOR
		LUGS	SPLICES	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE SET	DIE	INDENTOR	DIE	INDENTOR
GM. 	6÷10	Q10..				MQ10-50 (1)		MQ10-50 (1)	MQ10-50 (1)	MQ10-50 (1)	MGM10-C (1)	MGS16-C	Adaptor AU 230-130 D with die set MQ...	
	10÷16	Q16..				MQ16-50 (1)		MQ16-50 (1)	MQ16-50 (1)	MQ16-50 (1)	MGM16-C (1)			
	16÷25	Q25..				MQ25-50 (1)		MQ25-50 (1)	MQ25-50 (1)	MQ25-50 (1)	MGM25-C (1)			
	25÷35	Q35..				MQ35-50 (2)		MQ35-50 (2)	MQ35-50 (2)	MQ35-50 (2)	MGM35-C (1)			
	35÷50	Q50..				MQ50-50 (2)		MQ50-50 (2)	MQ50-50 (2)	MQ50-50 (2)	MGM50-C (1)			
	50÷70	Q70..				MQ70-50 (2)		MQ70-50 (2)	MQ70-50 (2)	MQ70-50 (2)	MGM70-C (1)			
	70÷95	Q95..									MGM95-C (1)			
	95÷120	Q120..									MGM120-C (1)			
	120÷150	Q150..									MGM150-C (1)			
	150÷185	Q185..												
185÷240	Q240..												MGM185-3D (2)	MGS240-3D (2)
DR. 	6	DR6..	DSV6	MK5/8-15 (1)	MK5 (1)	MK5-50 (1)	MK5 (1)	MK5-50 (1)	MK5-50 (1)	MK5-50 (1)	MK5-C (1)	Adaptor AU 230-130 D with die set MK..C		
	10	DR10..	DSV10		MK6 (1)	MK6-50 (1)	MK6 (1)	MK6-50 (1)	MK6-50 (1)	MK6-50 (1)	MK6-C (1)			
	16	DR16..	DSV16		MK8 (2)	MK8-50 (2)	MK8 (2)	MK8-50 (2)	MK8-50 (2)	MK8-50 (2)	MK8-C (1)			
	25	DR25..	DSV25		MK10 (2)	MK10-50 (2)	MK10 (2)	MK10-50 (2)	MK10-50 (2)	MK10-50 (2)	MK10-C (1)			
	35	DR35..	DSV35		MK12 (2)	MK12-50 (2)	MK12 (2)	MK12-50 (2)	MK12-50 (2)	MK12-50 (2)	MK12-C (1)			
	50	DR50..	DSV50		MK14 (3)	MK14-50 (3)	MK14 (3)	MK14-50 (3)	MK14-50 (3)	MK14-50 (3)	MK14-C (2)		MK14-3D (2)	
	70	DR70..	DSV70		MK16 (3)	MK16-50 (3)	MK16 (3)	MK16-50 (3)	MK16-50 (3)	MK16-50 (3)	MK16-C (2)		MK16-3D (2)	
	95	DR95..	DSV95		MK18 (4)	MK18-50 (4)	MK18 (4)	MK18-50 (4)	MK18-50 (4)	MK18-50 (4)	MK18-C (2)		MK18-3D (2)	
	120	DR120..	DSV120		MK20 (4)	MK20-50 (4)	MK20 (4)	MK20-50 (4)	MK20-50 (4)	MK20-50 (4)	MK20-C (2)		MK20-3D (2)	
	150	DR150..	DSV150		MK22L (4)	MK22L-50 (4)		MK22-50 (4)	MK22-50 (4)	MK22-50 (4)	MK22-C (2)		MK22-3D (2)	
	185	DR185..	DSV185					MK25-50 (5)	MK25-50 (5)	MK25-50 (5)	MK25-C (2)		MK25-3D (2)	
	240	DR240..	DSV240					MK28-50 (5)	MK28-60 (5)	MK28-60 (5)	MK28-C (4)		MK28-3D (2)	
	300	DR300..	DSV300								MK32-C (4)		MK32-3D (2)	
	400	DR400..	DSV400										MK38-3D (3)	
	500	DR500..	DSV500										MK42-3D (3)	
625	DR625..	DSV625								MK44-3D (3)				

 Hexagonal crimp

 Indent crimp

**NB:** for through connectors this is the number of crimps per conductor

<sup>◊</sup> Tools type HT 81-U and RHU 81 use the same dies of HT 51 but are equipped with spring type 6522051.



# APPENDIX



## REFERENCE/CODE CROSS-REFERENCE CHART

Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
1052007	3005900	1142021	3005035	1404	3003130	1702P	3006025	1841N	3006616
1052007N	3005901	1142021G	3005037	1405	3003135	1702PN	3006026	1842	3006620
1052009	3005903	1142021N	3005036	1407	3003155	1702T	3003519	184248	3017700
1052009N	3005904	1142029	3005040	1408	3003170	1702TN	3003520	1842N	3006621
1052011	3005906	1142029G	3005042	1410	3005610	1703	3003030	1843	3006625
1052011N	3005907	1142029N	3005041	1410N	3005611	1703.2	3004030	1843N	3006626
1052013	3005909	1142036	3005045	1411	3005615	1703.5	3004430	1844	3006630
1052013N	3005910	1142036G	3005047	1411N	3005616	1703P	3006030	1844N	3006631
1052016	3005912	1142036N	3005046	1412	3005620	1703T	3003521	1845	3006635
1052016N	3005913	1142042	3005050	1412N	3005621	1704	3003035	1845N	3006636
1052021	3005915	1142042G	3005052	1413	3005625	1704.2	3004035	1846	3006640
1052021N	3005916	1142042N	3005051	1413N	3005626	1704P	3006035	1846N	3006641
1052029	3005918	1142048	3005055	1414	3005630	1705	3003040	1847	3006645
1052029N	3005919	1142048G	3005057	1414N	3005631	1705.2	3004040	1847N	3006646
1052036	3005921	1142048N	3005056	1415	3005635	1706	3003045	1848	3006650
1052036N	3005922	1143M12	3005215	1415N	3005636	1707	3003050	1848N	3006651
1052042	3005924	1143M12G	3005217	1500.07	3002010	1708	3003055	1849	3006655
1052042N	3005925	1143M12N	3005216	1500.07N	3002011	1709	3003010	1849N	3006656
1052048	3005927	1143M16	3005220	1500.09	3002015	1710	3005515	1861	3004515
1052048N	3005928	1143M16G	3005222	1500.09N	3002016	1710N	3005516	1861N	3004516
1053M12	3005958	1143M16N	3005221	1500.11	3002020	1711	3005520	1862	3004520
1053M12N	3005959	1143M20	3005225	1500.11N	3002021	1711N	3005521	1862N	3004521
1053M16	3005961	1143M20G	3005227	1500.12	3002120	1712	3005525	1866	3004615
1053M16N	3005962	1143M20N	3005226	1500.12N	3002121	1712N	3005526	1866N	3004616
1053M20	3005964	1143M25	3005230	1500.13	3002025	1713	3005530	1880	3016215
1053M20N	3005965	1143M25G	3005232	1500.13N	3002026	1713N	3005531	1881	3016220
1053M25	3005967	1143M25N	3005231	1500.14	3002110	1714	3005535	1882	3016225
1053M25N	3005968	1143M32	3005235	1500.14N	3002111	1714E34	3005572	1883	3016230
1053M32	3005970	1143M32G	3005237	1500.16	3002030	1714N	3005536	1884	3016235
1053M32N	3005971	1143M32N	3005236	1500.16N	3002031	1715	3005540	1885	3016240
1053M40	3005973	1143M40	3005240	1500.21	3002035	1715N	3005541	1886	3016245
1053M40N	3005974	1143M40G	3005242	1500.21N	3002036	1719	3005510	1887	3016250
1053M50	3005976	1143M40N	3005241	1500.34	3002130	1719E17	3005581	1888	3016255
1053M50N	3005977	1143M50	3005245	1500.34N	3002131	1719E17N	3005580	1889	3016405
1053M63	3005979	1143M50G	3005247	1500.38	3002115	1719N	3005511	1890	3016410
1053M63N	3005980	1143M50N	3005246	1500.38N	3002116	1730M20	3003225	1890A	3016420
1112	3005715	1143M63	3005250	1500.M12	3002205	1730M20N	3003226	1891	3016430
1112N	3005716	1143M63G	3005252	1500.M12N	3002206	1740	3027015	1891A	3016431
1116	3005720	1143M63N	3005251	1500.M16	3002210	1741	3027020	1892	3016440
1116N	3005721	1150	3005745	1500.M16N	3002211	1741N	3027021	1892A	3016450
1120	3005725	1150N	3005746	1500.M20	3002215	1742	3027025	1892B	3016451
1120N	3005726	1163	3005750	1500.M20N	3002216	1743	3027030	1893	3016460
1125	3005730	1163N	3005751	1500.M25	3002220	1744	3027035	1893A	3016461
1125N	3005731	1253M12	3006750	1500.M25N	3002221	1745	3027037	1894	3016480
1132	3005735	1253M12N	3006751	1500.M32	3002225	1746	3027040	1895	3016490
1132N	3005736	1253M16	3006755	1500.M32N	3002226	1747	3027045	1896	3016500
1140	3005740	1253M16N	3006756	1700	3003015	180709	3017610	1897	3016510
1140N	3005741	1253M20	3006760	1700.2	3004015	180911	3017620	1898	3016520
1141012	3005120	1253M20N	3006761	1700.2N	3004016	180913	3017625	1899	3016530
1141012N	3005121	1253M25	3006765	1700N	3003016	181113	3017630	1899A	3016535
1141112	3005155	1253M25N	3006766	1700P	3006015	181116	3017640	1899B	3016540
1141112N	3005156	1253M32	3006770	1700T	3003515	181316	3017650	1900.07	3001010
1141200	3005170	1253M32N	3006771	1700TN	3003516	181321	3017655	1900.07G	3001012
1141200N	3005171	1253M40	3006775	1701	3003020	181621	3017660	1900.07N	3001011
1142007	3005010	1253M40N	3006776	1701.2	3004020	182129	3017670	1900.07/X	3001077
1142007G	3005012	1253M50	3006780	1701.2N	3004021	182936	3017680	1900.09	3001015
1142007N	3005011	1253M50N	3006781	1701N	3003021	1830	3004110	1900.09G	3001017
1142009	3005015	1253M63	3006785	1701P	3006020	1830N	3004111	1900.09N	3001016
1142009G	3005017	1253M63N	3006786	1701PN	3006021	1831	3004115	1900.09/X	3001080
1142009N	3005016	1400	3003110	1701T	3003517	1831N	3004116	1900.11	3001020
1142011	3005020	1401	3003114	1701TN	3003518	1832	3004120	1900.11G	3001022
1142011G	3005022	1401B	3003116	1702	3003025	1832N	3004121	1900.11N	3001021
1142011N	3005021	1401BN	3003117	1702.2	3004025	1835G	3004222	1900.11/X	3001083
1142013	3005025	1401C	3003118	1702.2N	3004026	1836	3004225	1900.12	3001120
1142013G	3005027	1401CN	3003119	1702.5	3004425	183642	3017690	1900.12N	3001121
1142013N	3005026	1401N	3003115	1702.5N	3004426	1836N	3004226	1900.13	3001025
1142016	3005030	1402	3003120	1702CONC	3003523	1840	3006610	1900.13G	3001027
1142016G	3005032	1402N	3003121	1702CONCN	3003524	1840N	3006611	1900.13N	3001026
1142016N	3005031	1403	3003125	1702N	3003026	1841	3006615	1900.13/X	3001086

## REFERENCE/CODE CROSS-REFERENCE CHART

Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
1900.14	3001110	1901.13N	3001536	1910.M25N	3001721	2021038N	3014116	20422921N	3017865
1900.14N	3001111	1901.16	3001550	1910.M32	3001725	2021058	3014125	20423621N	3017870
1900.16	3001030	1901.16N	3001551	1910.M32G	3001727	2021058N	3014126	20423629N	3017875
1900.16G	3001032	1901.21	3001568	1910.M32N	3001726	2021100	3014135	20424229N	3017880
1900.16N	3001031	1901.21N	3001569	1910.M40	3001730	2021100N	3014136	20424236N	3017885
1900.16/X	3001089	1901.29	3001575	1910.M40G	3001732	2021112	3014155	20424836N	3017890
1900.21	3001035	1901.29N	3001576	1910.M40N	3001731	2021112N	3014156	20424842N	3017895
1900.21G	3001037	1901.36	3001582	1910.M50	3001735	2021114	3014145	20431612N	3017949
1900.21N	3001036	1901.36N	3001583	1910.M50G	3001737	2021114N	3014146	20432012N	3017951
1900.21/X	3001092	1901.42	3001590	1910.M50N	3001736	2021118	3014140	20432016N	3017953
1900.29	3001040	1901.42N	3001591	1910.M63	3001740	2021118N	3014141	20432512N	3017955
1900.29G	3001042	1901.48	3001596	1910.M63G	3001742	2021200	3014170	20432516N	3017957
1900.29N	3001041	1901.48N	3001597	1910.M63N	3001741	2021200N	3014171	20432520N	3017959
1900.29/X	3001095	1901.M12	3001650	1920.09	3001517	2031012	3015620	20433220N	3017961
1900.34	3001130	1901.M12G	3001652	1920.09N	3001518	2031012N	3015621	20433225N	3017963
1900.34N	3001131	1901.M12N	3001651	1920.36	3001584	2031014	3015610	20434025N	3017965
1900.36	3001045	1901.M16	3001655	1921.09	3001513	2031014N	3015611	20434032N	3017967
1900.36G	3001047	1901.M16G	3001657	1921.09N	3001514	2031034	3015630	20435032N	3017969
1900.36N	3001046	1901.M16N	3001656	1921.36	3001586	2031034N	3015631	20435040N	3017971
1900.36/X	3001098	1901.M20	3001660	1925.3	3016470	2031038	3015615	20436340N	3017973
1900.38	3001115	1901.M20G	3001662	200101241	3013120	2031038N	3015616	20436350N	3017975
1900.38N	3001116	1901.M20N	3001661	200101241N	3013121	2031058	3015625	2052007N	3011810
1900.42	3001050	1901.M25	3001665	200101441	3013110	2031058N	3015626	2052009N	3011815
1900.42G	3001052	1901.M25G	3001667	200101441N	3013111	2031100	3015635	2052011N	3011820
1900.42N	3001051	1901.M25N	3001666	200103441	3013130	2031100N	3015636	2052013N	3011825
1900.42/X	3001101	1901.M32	3001670	200103441N	3013131	2031112	3015655	2052016N	3011830
1900.48	3001055	1901.M32G	3001672	200103841	3013115	2031112N	3015656	2052021N	3011835
1900.48G	3001057	1901.M32N	3001671	200103841N	3013116	2031114	3015645	2052029N	3011840
1900.48N	3001056	1901.M40	3001675	200105841	3013125	2031114N	3015646	2052036N	3011845
1900.48/X	3001104	1901.M40G	3001677	200105841N	3013126	2031118	3015640	2052042N	3011850
1900.M12	3001215	1901.M40N	3001676	200110041	3013135	2031118N	3015641	2052048N	3011855
1900.M12G	3001217	1901.M50	3001680	200110041N	3013136	2031200	3015670	2053M12N	3011910
1900.M12N	3001216	1901.M50G	3001682	200111241	3013155	2031200N	3015671	2053M16N	3011915
1900.M12/X	3001310	1901.M50N	3001681	200111241N	3013156	2031212	3015685	2053M20N	3011920
1900.M16	3001220	1901.M63	3001685	200111441	3013145	2031212N	3015686	2053M25N	3011925
1900.M16G	3001222	1901.M63G	3001687	200111441N	3013146	2031300	3015695	2053M32N	3011930
1900.M16N	3001221	1901.M63N	3001686	200111841	3013140	2031300N	3015696	2053M40N	3011935
1900.M16/X	3001313	1902.13N	3001538	200111841N	3013141	2032007N	3015511	2053M50N	3011940
1900.M20	3001225	1910.07	3001501	200120041	3013170	2032009N	3015516	2053M63N	3011945
1900.M20G	3001227	1910.07N	3001502	200120041N	3013171	2032011N	3015521	207101441	3013607
1900.M20N	3001226	1910.09	3001509	200121221	3013185	2032013N	3015526	207101441N	3013608
1900.M20/X	3001316	1910.09N	3001510	200121221N	3013186	2032016N	3015531	20931216N	3017705
1900.M25	3001230	1910.11	3001526	200130021	3013195	2032021N	3015536	20931620N	3017707
1900.M25G	3001232	1910.11N	3001527	200130021N	3013196	2032029N	3015541	20932025N	3017709
1900.M25N	3001231	1910.13	3001539	200200721N	3013011	2032036N	3015546	20932532N	3017711
1900.M25/X	3001319	1910.13N	3001540	200200921N	3013016	2032042N	3015551	20932540N	3017713
1900.M32	3001235	1910.16	3001552	200201121N	3013021	2032048N	3015556	20933240N	3017715
1900.M32G	3001237	1910.16N	3001553	200201321N	3013026	2033M12N	3015751	20933250N	3017717
1900.M32N	3001236	1910.21	3001565	200201621N	3013031	2033M16N	3015756	20934050N	3017719
1900.M32/X	3001322	1910.21N	3001566	200202121N	3013036	2033M20N	3015761	20935063N	3017721
1900.M40	3001240	1910.29	3001578	200202921N	3013041	2033M25N	3015766	20A40916N	3018650
1900.M40G	3001242	1910.29N	3001579	200203621N	3013046	2033M32N	3015771	20A41120N	3018655
1900.M40N	3001241	1910.36	3001588	200204221N	3013051	2033M40N	3015776	20A41320N	3018657
1900.M40/X	3001325	1910.36N	3001589	200204821N	3013056	2033M50N	3015781	20A41620N	3018659
1900.M50	3001245	1910.42	3001592	2003M1221N	3013215	2033M63N	3015786	20A42011N	3018610
1900.M50G	3001247	1910.42N	3001593	2003M1621N	3013220	20420907N	3017810	20A42016N	3018612
1900.M50N	3001246	1910.48	3001598	2003M2021N	3013225	20421107N	3017820	20A42120N	3018661
1900.M50/X	3001328	1910.48N	3001599	2003M2521N	3013230	20421109N	3017822	20A42125N	3018665
1900.M63	3001250	1910.M12	3001705	2003M3221N	3013235	20421307N	3017830	20A42513N	3018615
1900.M63G	3001252	1910.M12G	3001707	2003M4021N	3013240	20421309N	3017832	20A42516N	3018617
1900.M63N	3001251	1910.M12N	3001706	2003M5021N	3013245	20421311N	3017835	20A42925N	3018667
1900.M63/X	3001331	1910.M16	3001710	2003M6321N	3013250	20421607N	3017840	20A43216N	3018620
1901.07	3001503	1910.M16G	3001712	2021012	3014120	20421609N	3017842	20A43221N	3018621
1901.07N	3001504	1910.M16N	3001711	2021012N	3014121	20421611N	3017845	20M3M1261N	3011410
1901.09	3001515	1910.M20	3001715	2021014	3014110	20421613N	3017847	20M3M1661N	3011412
1901.09N	3001516	1910.M20G	3001717	2021014N	3014111	20422111N	3017850	20M3M2061N	3011414
1901.11	3001520	1910.M20N	3001716	2021034	3014130	20422113N	3017855	20M3M2561N	3011416
1901.11N	3001521	1910.M25	3001720	2021034N	3014131	20422116N	3017858	20M3M3261N	3011418
1901.13	3001535	1910.M25G	3001722	2021038	3014115	20422916N	3017860	20M3M4061N	3011420

## REFERENCE / CODE CROSS-REFERENCE CHART

Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
20M3M5061N	3011422	2910.11N	3012521	2A37-M14	2507110	36A3M4078	3016952	7033M63	3010666
20M3M6361N	3011424	2910.13N	3012531	2A37-M16	2507190	36A3M40106	3016954	7033AM12	3010670
20N3M12N	3015810	2910.16N	3012541	2A37-M20	2507270	36A3M5088	3016968	7033AM16	3010672
20N3M16N	3015812	2910.21N	3012551	2A48-M12	2508030	36C201629	3016982	7033AM20	3010674
20N3M20N	3015814	2910.29N	3012555	2A48-M14	2508070	4900.07B	3002811	7033AM25	3010676
20N3M25N	3015816	2910.36N	3012560	2A48-M16	2508110	4900.07N	3002810	7033AM32	3010678
20N3M32N	3015818	2910.42N	3012565	2A48-M20	2508190	4900.09B	3002816	7033AM40	3010680
20N3M40N	3015820	2910.48N	3012570	2A5-M10	2500570	4900.09N	3002815	7033AM50	3010682
20N3M50N	3015822	2910.M12N	3012710	2A5-M12	2500650	4900.11B	3002821	7033AM63	3010684
20N3M63N	3015824	2910.M16N	3012712	2A5-M8	2500530	4900.11N	3002820	7900.07	3010000
2155	3051010	2910.M20N	3012714	2A60-M12	2508480	4900.13B	3002826	7900.09	3010005
2156	3051015	2910.M25N	3012716	2A60-M14	2508500	4900.13N	3002825	7900.11	3010010
2157	3051020	2910.M32N	3012718	2A60-M16	2508530	4900.16B	3002831	7900.13	3010015
2158	3051125	2910.M40N	3012720	2A60-M20	2508610	4900.16N	3002830	7900.16	3010020
2160	3051130	2910.M50N	3012722	2A7-M10	2501110	4900.21B	3002836	7900.21	3010025
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2162	3051140	2911.07N	3012110	2A7-M8	2501030	4900.29B	3002841	7900.36	3010035
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2164	3051150	2911.11N	3012116	2A80-2M14	2509350	4900.M16B	3002871	7900.48	3010045
2171	3051310	2911.13N	3012119	2A80-2M14/55°	2509346	4900.M16N	3002870	7900A.07	3010060
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A24-L12	2281050	A20-M14	2270350	A5-M10	2190190	ANE10-M12	2439380	ANE5-P16	2418560
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A30-L12	2300910	A20-M8	2270230	A5-M4	2190030	ANE12-M10/19	2442225	ANE7-M8	2422310
A37-L10	2320510	A200-M16	2376090	A5-M5	2190070	ANE12-M12	2442230	ANE7-M10	2422320
A37-L12	2320550	A200-M20	2376100	A5-M5/9	2190075	ANE12-M6/15	2442200	ANE7-M12	2422330
A48-L12	2341295	A24-M10	2280150	A5-M6	2190110	ANE12-M8	2442210	ANE7-P20	2422360
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A03-M5	2100150	A24-M8	2280110	A60-M14	2350150	ANE14-M14	2446450	AU130-150	2615560
A03-M6	2100190	A24B-M10/19	2280155	A60-M16	2350190	ANE17-M10	2447260	AU130-240	2615590
A06-M3	2101030	A24B-M8/19	2280115	A60-M20	2350230	ANE17-M10/19	2447265	AU230-130D	2636960
A06-M3.5	2101070	A29-M10	2290270	A60B-M10/31	2350033	ANE17-M12	2447270	AU230-630	2680300
A06-M4	2101110	A29-M12	2290310	A60B-M12/31	2350072	ANE17-M14	2447280	AU520-130C	2648230
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A06-M6	2101190	A29-M16	2290390	A7-M12	2200230	ANE17-M6	2447240	B-TC26	2598760
A06-M8	2101230	A29-M20	2290430	A7-M5	2200070	ANE17-M8	2447250	B-TC04	2599410
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A10-M14	2220230	A2-M12	2170310	A7-P20	2201750	ANE19-M12	2449530	B-TC055	2598830
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A12-M12	2230310	A30-M16	2300270	A100-4ESI	2370990	ANE2-U4	2408860	B135LN-C	2599262
A12-M6/15	2230210	A30-M20	2300350	A120-4ESI	2372850	ANE2-U5	2408865	B135-JC	2599270
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A120-M16	2372070	A30B-M10/19	2300120	A37-4ESI	2321510	ANE20-M12	2451330	B35-50D	2599904
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A14-P30	2241730	A37-M12	2320150	AA120-M12	2741510	ANE29-M10	2456010	BA-3	2598424
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A160-M16	2374150	A37-M16	2320230	AA150-M12	2742030	ANE29-M14	2456050	BF-BM5	2053660
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A19-M14	2260270	A3-P14	2180830	AA50-M12	2740110	ANE3-U5	2415875	BF-M3	2052030
A19-M16	2260310	A40-M10	2330230	AA50-M14	2740150	ANE30-M12	2458320	BF-M3.5	2052070
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A19B-M8/15.5	2260163	A40-M20	2330390	A470-M14	2740550	ANE35-M12	2460010	BF-M6	2052230
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A1-M3	2103030	A48-M10/31	2340120	AA95-M14	2741070	ANE35-M16	2460050	BF-M6/2	2052280
A1-M3.5	2103070	A48-M12	2340150	AB13	3041530	ANE35-M20	2460070	BF-M608	2053650
A1-M4	2103110	A48-M12/31	2340158	AB19	3041532	ANE5-M10	2418540	BF-M608P	2053655
A1-M5	2103150	A48-M14	2340190	AB28	3041534	ANE5-M12	2418550	BF-M7	2052310
A1-M6	2103190	A48-M16	2340230	AC130-P	2615531	ANE5-M4	2418500	BF-M8	2052350
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BF-P8	2053210	BN-U3.5	2152670	C150-C120ST	2492670	CAA400-M16	2760750	CGP-PP12	2076780
BF-PP12	2053330	BN-U3.5/1	2152680	C150-C150ST	2492690	CAA50-M12	2760110	CGP-PP17	2076790
BF-PP12/25	2053370	BN-U4	2152710	C16-C16ST	2492110	CAA500-M16-TNBD	2760852	CGP-U3.5	2076685
BF-PP12/29	2053380	BN-U4/1	2152730	C185-C185ST	2492745	CAAG30-4M8	2760950	CGP-U4	2076695
BF-PP16/25	2053410	BN-U4/2	2152732	C185-C95ST	2492710	CAA70-M12	2760150	CGP-U5	2076710
BF-PPL30	2053460	BN-U5	2152750	C240-C120ST	2492760	CAA95-M12	2760190	CGP-U6	2076715
BF-PPL46	2053465	BN-U6	2152790	C25-C10ST	2492150	Canvas Bag 001	2593300	CMA600	3031984
BF-U10	2052910	BN-U6/1	2152830	C25-C25ST	2492190	Canvas Bag 007	2593295	CMB1	2599943
BF-U12	2052950	BN-U8	2152870	C35-C16ST	2492230	Canvas Bag 010	2593298	CP1086-W-1000-KV	2597905
BF-U3	2052630	BP-M10	2046345	C35-C35ST	2492270	Canvas Bag 011	2593299	CP1096	2597700
BF-U3.5	2052670	BP-M12	2046350	C50-C25ST	2492350	CB1430H	2598502	CP1096-W-1000-KV	2597695
BF-U3.5/1	2052671	BP-M2	2046305	C50-C50ST	2492390	CB9620H	2598503	CP1120-W-1000-KV	2597958
BF-U4	2052710	BP-M3	2046310	C6-C6ST	2492030	CBA96-144	2598508	CP1131	2610120
BF-U4/1	2052720	BP-M3.5	2046315	C70-C25NST	2492310	CBP-F405	2076535	CPE-1	2592751
BF-U4/2	2052730	BP-M3.5/1	2046316	C70-C35ST	2492430	CBP-F408	2076540	CPE-1-110	2592752
BF-U5	2052750	BP-M4	2046320	C70-C70ST	2492470	CBP-F408P	2076543	CPE-0-P12N	2592735
BF-U5/2	2052765	BP-M5	2046325	C95-C35ST	2492510	CBP-F608	2076545	CPKD108	2808582
BF-U6	2052790	BP-M6	2046330	C95-C70ST	2492550	CBP-F608P	2076550	CPKD1508	2808587
BF-U6/1	2052830	BP-M6/1	2046331	C95-C95ST	2492590	CBP-M3	2076310	CPKD2508	2808592
BF-U8	2052870	BP-M6/2	2046332	CA150R-2M14	2533010	CBP-M3.5	2076315	CPKD508	2808573
BKF-F608	2053612	BP-M7	2046335	CA150R-M12	2532810	CBP-M3.5/1	2076320	CPKD7508	2808578
BKY-M3	2145842	BP-M8	2046340	CA150R-M14	2532850	CBP-M4	2076325	CPP-0	2592671
BKY-M3.5	2145845	BP-P10	2046415	CA150S-2M14	2533330	CBP-M5	2076335	CPP-1	2592650
BKY-M3.5/1	2145847	BP-P12	2046420	CA150S-M12	2533210	CBP-M6	2076340	CPU1131-C	2610150
BKY-M4	2145853	BP-P8	2046410	CA150S-M14	2533250	CBP-M6/1	2076345	CPU1230-3D	2630200
BKY-M5	2145856	BP-PP12	2046440	CA200R-2M14	2533570	CBP-M608	2076560	CRP-F305	2076225
BKY-M6/1	2145862	BP-PP12/25	2046445	CA200R-M14	2533530	CBP-M7	2076350	CRP-F308	2076230
BKY-M8	2145871	BP-PP12/29	2046450	CA240R-2M14	2533850	CBP-M8	2076355	CRP-F405	2076235
BKY-M10	2145874	BP-PP16/25	2046455	CA240R-M14	2533770	CBP-P10	2076455	CRP-F405P	2076237
BKY-M12	2145878	BP-PPL30	2046470	CA25-2M12	2530210	CBP-P12	2076460	CRP-F408	2076240
BKY-P8	2145930	BP-PPL46	2046475	CA25-2M8	2530130	CBP-P8	2076450	CRP-F408P	2076242
BKY-P10	2145932	BKY-U10	2046565	CA25-M10	2530050	CBP-PP12	2076480	CRP-F608	2076245
BKY-P12	2145934	BP-U12	2046570	CA25-M12	2530090	CBP-PP12/25	2076490	CRP-F608P	2076250
BKY-PP12	2145940	BP-U3	2046510	CA25-M8	2530010	CBP-PPL30	2076498	CRP-M3	2076010
BKY-PP12/25	2145942	BP-U3.5	2046515	CA315R-2M14	2534430	CBP-U3	2076380	CRP-M3.5	2076015
BKY-PP16/23	2145944	BP-U3.5/1	2046516	CA315R-M14	2534330	CBP-U3.5	2076385	CRP-M3.5/1	2076020
BKY-PPL30	2145950	BP-U4	2046530	CA315S-2M14	2534610	CBP-U4	2076395	CRP-M4	2076025
BKY-PPL46	2145952	BP-U4/1	2046531	CA315S-M14	2534530	CBP-U4/1	2076400	CRP-M4/3	2076030
BKY-U3	2145900	BP-U4/2	2046540	CA40S-2M12	2530510	CBP-U4/2	2076405	CRP-M5	2076035
BKY-U3.5	2145903	BP-U5	2046545	CA40S-M12	2530450	CBP-U4/3L	2076408	CRP-M6	2076040
BKY-U4	2145906	BP-U6	2046555	CA40S-M16	2530490	CBP-U5	2076410	CRP-M6/1	2076045
BKY-U5	2145909	BP-U6/1	2046556	CA50R-2M12	2530870	CBP-U6	2076415	CRP-M608	2076260
BKY-U6	2145912	BP-U8	2046560	CA50R-M12	2530790	CC8.9	3041630	CRP-M7	2076050
BKY-U6/1	2145914	BPS230.14	2598500	CA50S-2M12	2531190	CC9.12	3041632	CRP-M8	2076055
BN-FA608	3031640	BPS230.24	2596093	CA50S-M12	2531110	CDD6	2599940	CRP-P10	2076155
BN-FAB608	3031660	BPS230.96	2598497	CA50S-M16	2531150	CDD6-8	2599941	CRP-P12	2076160
BN-FAR608	3031680	C10-C10	2490070	CA70-M12	2531870	CFA2600	3031942	CRP-P8	2076150
BN-M10	2152390	C120-C120	2490630	CA70S-2M12	2531510	CFA300	3031900	CRP-PP12	2076180
BN-M12	2152430	C150-C120	2490670	CA70S-M12	2531430	CFA400	3031914	CRP-PP12/1	2076185
BN-M2	2152010	C150-C150	2490690	CA70S-M16	2531470	CFA600	3031928	CRP-PP12/23	2076190
BN-M3	2152030	C16-C16	2490110	CA95R-2M14	2532230	CFAB600	3031970	CRP-PP14	2076195
BN-M3.5	2152070	C185-C185	2490745	CA95R-M12	2532150	CFAR600	3031956	CRP-PPL30	2076205
BN-M3.5/1	2152110	C185-C95	2490710	CA95R-M14	2532190	CFC230	2598505	CRP-U3	2076080
BN-M4	2152150	C240-C120	2490760	CA95S-2M14	2532610	CFC12-24IC	2598507	CRP-U3.5	2076085
BN-M5	2152190	C25-C10	2490150	CA95S-M12	2532450	CGP-F608	2076845	CRP-U3.5/2	2076090
BN-M6	2152230	C25-C25	2490190	CA95S-M14	2532490	CGP-F608P	2076850	CRP-U4	2076095
BN-M6/1	2152270	C35-C16	2490230	CA95S-M16	2532500	CGP-M3	2076610	CRP-U4/1	2076100
BN-M7	2152310	C35-C35	2490270	CAA10-M12	2760005	CGP-M3.5	2076615	CRP-U4/2	2076105
BN-M8	2152350	C50-C25	2490350	CAA120-M12	2760310	CGP-M4	2076625	CRP-U5	2076110
BN-MA608	3031740	C50-C50	2490390	CAA150-M12	2760350	CGP-M5	2076635	CRP-U6	2076115
BN-P10	2153190	C6-C6	2490030	CAA16-M12	2760012	CGP-M6	2076640	CRP-U6/1	2076120
BN-P12	2153230	C70-C25N	2490310	CAA185-M12	2760430	CGP-M6/1	2076645	CRP-U8	2076125
BN-P8	2153150	C70-C35	2490430	CAA240-M12	2760590	CGP-M608	2076860	CS-CPE-1	2592748
BN-PP12	2153270	C70-C70	2490470	CAA25-M12	2760030	CGP-M7	2076650	DR6-5	2387910
BN-PP12/25	2153310	C95-C35	2490510	CAA300-M16	2760710	CGP-M8	2076660	DR6-6	2387920
BN-PP16/25	2153350	C95-C70	2490550	CAA300-34-M12	2760680	CGP-M8/1	2076665	DR6-8	2387930
BN-U10	2152910	C95-C95	2490590	CAA300-34-M16	2760715	CGP-P10	2076755	DR10-5	2388000
BN-U12	2152950	C10-C10ST	2492070	CAA35-M12	2760070	CGP-P12	2076760	DR10-6	2388005

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Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
DR10-8	2388010	DSV35	2489030	G80X2.4/M	3041702	G250X4.8N/M	3041808	GF-M16	2054410
DR10-10	2388015	DSV50	2489035	G80X2.4N/M	3041703	G280X4.8	3041810	GF-M3	2054010
DR16-5	2388025	DSV70	2489040	G90X2.4	3041705	G280X4.8N	3041811	GF-M3.5	2054030
DR16-6	2388030	DSV95	2489045	G90X2.4N	3041706	G300X4.8	3041815	GF-M4	2054070
DR16-8	2388040	DSV120	2489050	G90X2.4 VO	3041709	G300X4.8N	3041816	GF-M5	2054110
DR16-10	2388050	DSV150	2489055	G100X2.5	3041710	G370X4.8	3041820	GF-M6	2054150
DR16-12	2388060	DSV185	2489060	G100X2.5N	3041711	G370X4.8 VO	3041824	GF-M6/1	2054160
DR25-6	2388110	DSV240	2489065	G100X2.5/M	3041712	G370X4.8N	3041821	GF-M608	2055670
DR25-8	2388120	DSV300	2489070	G100X2.5/M VO	3041714	G390X4.8	3041825	GF-M7	2054170
DR25-10	2388130	DSV400	2489075	G100X2.5N/M	3041713	G390X4.8N	3041826	GF-M8	2054210
DR25-12	2388140	DSV500	2489080	G120X2.5	3041715	G430X4.8	3041830	GF-M8/1	2054220
DR25-16	2388160	DSV625	2489085	G120X2.5N	3041716	G430X4.8 VO	3041834	GF-P10	2055310
DR35-6	2388210	ECW-H3D	2630073	G140X2.5	3041720	G430X4.8N	3041831	GF-P12	2055350
DR35-8	2388220	ELB-3	2598422	G140X2.5N	3041721	G450X4.8	3041835	GF-P14	2055370
DR35-10	2388230	EPS115-230.24	2596091	G140X2.5/M	3041722	G450X4.8N	3041836	GF-PP12	2055390
DR35-12	2388240	ERCH	2596112	G140X2.5/M VO	3041724	G530X4.8	3041840	GF-PP17	2055430
DR35-16	2388246	ERCH-WH	2596114	G140X2.5N/M	3041723	G530X4.8N	3041841	GF-PPL46	2055465
DR50-6	2388250	ESC300CEE	2596110	G160X2.5	3041725	G150X7.6	3041845	GF-U10	2054810
DR50-8	2388255	ESC600	2599001	G160X2.5N	3041726	G150X7.6N	3041846	GF-U10/1	2054850
DR50-10	2388260	F1-15	2599865	G160X2.5/M	3041727	G200X7.6	3041850	GF-U12	2054890
DR50-12	2388270	FD11	3017354	G160X2.5N/M	3041728	G200X7.6N	3041851	GF-U14	2054930
DR50-14	2388280	FD13.5	3017356	G200X2.5	3041730	G250X7.6	3041855	GF-U16	2054970
DR50-16	2388290	FD16	3017358	G200X2.5N	3041731	G250X7.6N	3041856	GF-U3.5	2054610
DR70-8	2388320	FD21	3017360	G200X2.5/M	3041732	G300X7.6	3041860	GF-U4	2054650
DR70-10	2388330	FD29	3017362	G200X2.5/M VO	3041734	G300X7.6N	3041861	GF-U5	2054690
DR70-12	2388340	FD36	3017364	G200X2.5N/M	3041733	G370X7.6	3041865	GF-U6	2054730
DR70-14	2388350	FD42	3017366	G250X2.8	3041735	G370X7.6N	3041866	GF-U8	2054770
DR70-16	2388360	FD48	3017368	G250X2.8N	3041736	G430X7.6	3041870	GFHT112X2.5	3042805
DR70-20	2388380	FD7	3017350	G300X2.8	3041740	G430X7.6N	3041871	GFH100X2.5	3042810
DR95-8	2388390	FD9	3017352	G300X2.8N	3041741	G530X7.6	3041875	GH8	3041550
DR95-10	2388395	FDM12	3017375	G120X3.6	3041745	G530X7.6N	3041876	GK-F608	2145500
DR95-12	2388400	FDM20	3017377	G120X3.6N	3041746	G430X9.0	3041880	GKY-M3.5	2145982
DR95-14	2388410	FDM25	3017379	G140X3.6	3041750	G430X9.0N	3041881	GKY-M4	2145985
DR95-16	2388420	FDM32	3017381	G140X3.6N	3041751	G530X9.0	3041885	GKY-M5	2145988
DR95-20	2388430	FDM40	3017383	G140X3.6/M	3041753	G530X9.0N	3041886	GKY-M6	2145991
DR120-8	2388450	FDM50	3017385	G140X3.6N/M	3041752	G710X9.0	3041890	GKY-M8	2145994
DR120-10	2388460	FDM63	3017387	G150X3.6	3041755	G710X9.0N	3041891	GKY-M10	2145997
DR120-12	2388470	FL10-150	2510070	G150X3.6N	3041756	G710X9.0 VO	3041894	GKY-M12	2146000
DR120-16	2388490	FL10-200	2510150	G150X3.6 VO	3041759	G780X9.0	3041895	GKY-M14	2146003
DR120-20	2388500	FL10-250	2510190	G180X3.6	3041760	G780X9.0N	3041896	GKY-M16	2146006
DR150-10	2388530	FL16-150	2510470	G180X3.6N	3041761	G830X9.0	3041900	GKY-P14	2146040
DR150-12	2388540	FL16-200	2510550	G200X3.6	3041765	G830X9.0N	3041901	GKY-PP12	2146045
DR150-16	2388560	FL16-250	2510590	G200X3.6N	3041766	G920X9.0	3041905	GKY-PP17	2146047
DR150-20	2388570	FL16-320	2510670	G200X3.6/M	3041767	G920X9.0N	3041906	GKY-PPL46	2146055
DR185-10	2388600	FL16-350	2510690	G200X3.6N/M	3041768	G1020X9.0	3041910	GKY-U3.5	2146020
DR185-12	2388610	FL16-420	2510710	G250X3.6	3041770	G1020X9.0N	3041911	GKY-U4	2146023
DR185-16	2388620	FL16-570	2510750	G250X3.6N	3041771	G1220X9.0	3041915	GKY-U5	2146026
DR185-20	2388630	FL16-660	2510790	G300X3.6	3041775	G1220X9.0N	3041916	GKY-U6	2146029
DR240-10	2388710	FL25-150	2510950	G300X3.6N	3041776	G230X12.6	3041920	GKY-U8	2146032
DR240-12	2388720	FL25-200	2511070	G300X3.6/M	3041777	G230X12.6N	3041921	GN-M10	2154250
DR240-16	2388730	FL25-250	2511110	G300X3.6N/M	3041778	G380X12.6	3041925	GN-M10/1	2154290
DR240-20	2388740	FL25-300	2511190	G370X3.6	3041780	G380X12.6N	3041926	GN-M12	2154330
DR300-10	2388780	FL10-150ST	2518510	G370X3.6N	3041781	G480X12.6	3041930	GN-M14	2154370
DR300-12	2388790	FL10-200ST	2518550	G120X4.8	3041785	G480X12.6N	3041931	GN-M16	2154410
DR300-16	2388810	FL10-250ST	2518590	G120X4.8N	3041786	G580X12.6	3041935	GN-M3	2154010
DR300-20	2388820	FL16-150ST	2518870	G160X4.8	3041790	G580X12.6N	3041936	GN-M3.5	2154030
DR400-12	2388870	FL16-200ST	2518910	G160X4.8N	3041791	G730X12.6	3041940	GN-M4	2154070
DR400-16	2388890	FL16-250ST	2518950	G190X4.8	3041795	G730X12.6N	3041941	GN-M5	2154110
DR400-20	2388900	FL16-320ST	2518990	G190X4.8N	3041796	G880X12.6	3041945	GN-M6	2154150
DR500-12	2388950	FL16-350ST	2519030	G190X4.8/M	3041797	G880X12.6N	3041946	GN-M6/1	2154160
DR500-16	2388970	FL16-420ST	2519070	G190X4.8N/M	3041798	G1030X12.6	3041950	GN-M7	2154170
DR500-20	2388980	FL16-570ST	2519150	G200X4.8	3041800	G1030X12.6N	3041951	GN-M8	2154210
DR625-12	2389030	FL16-660ST	2519170	G200X4.8N	3041801	GA-3	2598429	GN-M8/1	2154220
DR625-16	2389050	FL25-150ST	2519530	G200X4.8/M	3041802	GF-F608	2055630	GN-P10	2155250
DR625-20	2389060	FL25-200ST	2519570	G200X4.8/M VO	3041804	GF-F608P	2055650	GN-P12	2155290
DSV6	2489010	FL25-250ST	2519610	G200X4.8N/M	3041803	GF-M10	2054250	GN-P14	2155310
DSV10	2489015	FL25-300ST	2519690	G250X4.8	3041805	GF-M10/1	2054290	GN-PP12	2155330
DSV16	2489020	G80X2.4	3041700	G250X4.8N	3041806	GF-M12	2054330	GN-PP17	2155370
DSV25	2489025	G80X2.4N	3041701	G250X4.8/M	3041807	GF-M14	2054370	GN-U10	2154850

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Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
GN-U10/1	2154890	HP1	2590500	L10-M	2480330	M540-520	2648910	MA9-C	2610850
GN-U12	2154930	HP1-1	2590502	L10-P	2485270	M70	2651090	MA9.17-U	2600270
GN-U14	2154970	HP3	2590531	L100-M	2480930	M70-50	2675800	Manometer 700 bar	8460004
GN-U16	2155010	HP3-1	2590532	L120-M	2481010	M70-C	2611590	MB2-80U	2604350
GN-U3.5	2154650	HP4-B	2590032	L14-M	2480410	M70.140-U	2603710	MB3-80U	2604400
GN-U4	2154690	HP4-C10	2590040	L14-P	2485350	M75	2651100	MCO	2650490
GN-U5	2154730	HP4-G	2590033	L160-M	2481050	M75-50	2675805	MCO-U	2603510
GN-U6	2154770	HP4-R	2590031	L19-M	2480490	M75-C	2611650	MCO2-U	2603550
GN-U8	2154810	HPH-1	2590029	L19-P	2485430	M75.96-U	2603715	MC10	2650530
GP-M10	2046645	HT-TC026	2591406	L1-M	2480090	M96	2651110	MC10-50	2675610
GP-M10/1	2046646	HT-TC026Y	2591408	L1-P	2485070	M96-50	2675850	MC10-C	2611100
GP-M12	2046650	HT-TC041	2591426	L200-M	2481090	M96-C	2611800	MC10-U	2600610
GP-M14	2046655	HT-TC051	2591472	L24-M	2480570	MA03/3-15	2599870	MC185-3D	2632030
GP-M16	2046660	HT-TC051Y	2591475	L24-P	2485510	MA1	2650110	MC185-C	2611150
GP-M3	2046610	HT-TC055	2591445	L2-M	2480130	MA1-50	2675658	MC2	2650500
GP-M3.5	2046615	HT-TC065	2591477	L2-P	2485100	MA10	2650190	MC240-3D	2632035
GP-M4	2046620	HT-TC0851	2591496	L30-M	2480650	MA10-50	2675666	MC25	2650550
GP-M5	2046625	HT120	2610420	L30-P	2485590	MA10-C	2610860	MC25-50	2675620
GP-M6	2046630	HT120-KV	2610430	L37-M	2480730	MA10.19-U	2600290	MC25-C	2611110
GP-M6/1	2046631	HT131-C	2610416	L37-P	2485670	MA100-3D	2631790	MC25-U	2600650
GP-M7	2046635	HT131-JC	2610436	L3-M	2480170	MA100-520	2645690	MC35	2650570
GP-M8	2046640	HT131LNC	2610419	L3-P	2485130	MA12-50	2675668	MC35-50	2675630
GP-M8/1	2046641	HT45-E	2650040	L48-M	2480810	MA12-C	2610870	MC35-C	2611120
GP-P10	2046715	HT51	2670610	L48-P	2485680	MA12.20-U	2600310	MC35-U	2600690
GP-P12	2046720	HT51-KV	2670611	L5-M	2480210	MA120-3D	2631810	MC6	2650510
GP-P14	2046725	HT81-U	2600036	L5-P	2485160	MA120-520	2645711	MC6-50	2675605
GP-PP12	2046740	HX1	2590298	L60-M	2480850	MA14-50	2675670	MC6.25-U	2600630
GP-PP17	2046750	I38-F	2593863	L7-M	2480250	MA14-C	2610880	MC70-3D	2632010
GP-PPL46	2046755	I38-M	2593858	L7-P	2485190	MA160-520	2645731	MC70-50	2675640
GP-U10	2046865	I38-MS	2593862	L80-M	2480890	MA17-50	2675672	MC70-80U	2600720
GP-U10/1	2046866	KE0.75-1	2591050	M108-520	2648752	MA17-C	2610890	MC70-C	2611130
GP-U12	2046870	KE10-1	2591049	M108-C	2611860	MA19-50	2675674	MC95-3D	2632020
GP-U14	2046875	KE1016ST	2803150	M108.215-U	2603723	MA19-C	2610900	MC95-80U	2600730
GP-U16	2046880	KE106ST	2802310	M110-520	2648754	MA19-U	2600320	MC95-C	2611140
GP-U3.5	2046825	KE110ST	2802390	M113	2651130	MA2-C	2610810	MCCC16-C	2617050
GP-U4	2046830	KE1508ST	2802510	M113-50	2675855	MA2.3	2650130	MCCC25-C	2617070
GP-U5	2046845	KE1510ST	2802550	M113-C	2611870	MA2.3-50	2675660	MCCC35-C	2617090
GP-U6	2046855	KE16-15	2599861	M113.173-U	2603730	MA20-50	2675675	MCCC50-C	2617110
GP-U8	2046860	KE1616ST	2803190	M118	2651150	MA20-C	2610910	ME03/2-15	2599875
GR100X7.6N	3042620	KE1A-3	2598430	M118-50	2675860	MA200-520	2645750	ME1	2652010
GR120X7.6N	3042625	KE2.5-1	2591048	M118-C	2611910	MA24-50	2675676	ME1-50	2676005
GR150X7.6N	3042630	KE2.5A-3	2598432	M118.158-U	2603725	MA24-C	2610920	ME10	2652130
GR200X7.6N	3042635	KE25012ST	2803450	M140	2651170	MA24-U	2600330	ME10-50	2676060
GR250X7.6N	3042640	KE25018ST	2803460	M140-50	2675870	MA29-C	2610930	ME10-C	2614211
GR300X7.6N	3042645	KE2508ST	2802670	M140-C	2612010	MA29.80-U	2600360	ME10.24-U	2604830
GR370X7.6N	3042650	KE2510ST	2802710	M140.190-U	2603800	MA3-C	2610820	ME100-3D	2634940
GX200X4.5	3042245	KE35-15	2599862	M145-520	2648770	MA3.5-U	2600210	ME100-520	2648552
GX300X4.5	3042250	KE35012ST	2803470	M158	2651200	MA30-80-U	2600380	ME12	2652150
GX370X4.5	3042255	KE35018ST	2803480	M158-50	2675880	MA30-C	2610940	ME12-50	2676070
GX370X7.9	3042260	KE4-15	2599860	M158-C	2612130	MA35-C	2610950	ME12-C	2614213
GX520X4.5	3042257	KE410ST	2802870	M160-520	2648771	MA35-U	2600390	ME12.17-U	2604850
GX680X7.9	3042265	KE412ST	2802910	M173	2651210	MA37-C	2610960	ME120-3D	2634950
GX1020X7.9	3042270	KE506ST	2802030	M173-50	2675890	MA37-U	2600410	ME120-520	2648554
HB2	2591308	KE508ST	2802070	M173-C	2612230	MA40-C	2610970	ME14	2652170
HB5	2591318	KE610ST	2802990	M173L-C	2612240	MA40-U	2600430	ME14-50	2676080
HB6	2591285	KE612ST	2803030	M190-50	2675900	MA48-C	2610980	ME14-C	2614215
HB7	2591310	KE616ST	2803070	M190-520	2648772	MA48-U	2600450	ME160-520	2648556
HB8	2591284	KE7506ST	2802110	M190-C	2612330	MA5	2650150	ME17	2652190
HB9	2591336	KE7508ST	2802150	M208-C	2612420	MA5-50	2675662	ME17-50	2676090
HB10	2591337	KT1	2591319	M208-U	2603780	MA5-C	2610830	ME17-C	2614217
HF1	2590900	KT2	2591320	M215-50	2675910	MA60-C	2610990	ME19	2652210
HF2	2590905	KT3	2591275	M215-520	2648773	MA7	2650170	ME19-50	2676100
HN1	2590300	KT4	2591277	M215-C	2612490	MA7-50	2675664	ME19-C	2614219
HN5	2590291	KT5	2591279	M220-520	2648774	MA7-C	2610840	ME2	2652030
HNKE4	2590299	KTS1632	2590700	M232-C	2612590	MA7.14-U	2600250	ME2/3-15	2599876
HNKE16	2590329	L03-M	2480020	M255-520	2648776	MA80-3D	2631770	ME2-50	2676010
HNKE50	2590342	L03-P	2485010	M295-520	2648780	MA80-520	2645671	ME2-C	2614201
HNN3	2590296	L06-M	2480050	M340-520	2648784	MA9	2650180	ME2.19-U	2604750
HNN4	2590292	L06-P	2485040	M440-520	2648840	MA9-50	2675665	ME20	2652230

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Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
ME20-50	2676110	MK8	2651610	MN20-C	2610610	MT40S-C14-80	2546070	MTMA95-50-GC	2721030
ME200-520	2648558	MK10	2651640	MN20F-50	2676290	MT40S-C8	2543400	MTMA95-70-GC	2721070
ME20-C	2614221	MK12	2651670	MN20F-C	2610778	MT40S-GC	2541610	MTMA95-GC	2720232
ME24	2652250	MK14	2651700	MN24-C	2610620	MT40S-TD	2540190	MTMA16-/1	2720031
ME24L	2652251	MK16	2651730	MN24RF-50	2676295	MT500-TD	2540870	MTMA25-/1	2720071
ME24-50	2676120	MK18	2651750	MN24RF-C	2610780	MT50R-C10	2543650	MTMA35-/1	2720111
ME24L-50	2676121	MK20	2651770	MN29-C	2610625	MT50R-C8	2543610	MTMA50-/1	2720160
ME24-C	2614223	MK5-50	2675360	MN29F-C	2610782	MT50R-GC	2541690	MTMA70-/1	2720191
ME29	2652260	MK6-50	2675370	MN2RF-50	2676210	MT50R-TD	2540270	MTMA95-/1	2720250
ME29-50	2676130	MK8-50	2675390	MN2RF-C	2610760	MT50S-C10	2543850	MTMA120-/1	2720280
ME29-C	2614225	MK10-50	2675410	MN3-C	2610520	MT50S-C14-80	2546110	MTMA150-/1	2720320
ME29-U	2604870	MK12-50	2675430	MN30-C	2610630	MT50S-C8	2543810	MTMA185-/1	2720370
ME3	2652050	MK14-50	2675450	MN30RF-C	2610784	MT50S-GC	2541650	MTMA240-/1	2720400
ME3-50	2676020	MK16-50	2675470	MN35-C	2610635	MT50S-TD	2540230	MTMAD300-/1	2720460
ME3-C	2614203	MK18-50	2675490	MN35F-C	2610786	MT630-TD	2540890	MTMA400-/1	2720475
ME3.14-U	2604770	MK20-50	2675510	MN37-C	2610640	MT70S-C10	2544050	MTMA500-40-/1	2720509
ME30	2652270	MK22-50	2675530	MN37RF-C	2610788	MT70S-GC	2541730	MTMA630-/1	2720530
ME30L	2652271	MK22L	2651791	MN3RF-50	2676220	MT70S-TD	2540350	MTMAD300-GC	2720440
ME30-50	2676140	MK22L-50	2675534	MN3RF-C	2610762	MT95R-C10	2544290	MTMAD300-95-GC	2722121
ME30L-50	2676141	MK25-50	2675550	MN48-C	2610650	MT95R-C12	2544330	MTMAD300-150-GC	2722140
ME30-C	2614227	MK28-50	2675560	MN48RF-C	2610790	MT95R-GC	2541770	MTMAD300-185-GC	2722160
ME30-U	2604890	MK28-60	2671460	MN5-C	2610530	MT95R-TD	2540390	MTMAD300-240-GC	2722220
ME35-50	2676150	MK6-C	2614250	MN5RF-50	2676230	MT95S-C10	2544530	MTT16-50	2677220
ME35-C	2614229	MK8-C	2614260	MN5RF-C	2610764	MT95S-C12	2544570	MTT25-50	2677230
ME35-U	2604910	MK10-C	2614270	MN60-C	2610660	MT95S-C14-80	2546230	MTT35-50	2677240
ME37-50	2676160	MK12-C	2614280	MN7-C	2610540	MT95S-GC	2541850	MTT50-50	2677250
ME37-C	2614231	MK14-C	2614290	MN7RF-50	2676240	MT95S-TD	2540470	MTT70-50	2677260
ME37-U	2604930	MK16-C	2614300	MN7RF-C	2610766	MTA16-C	2770001	MTT95-50	2677270
ME40-50	2676165	MK18-C	2614310	MN80-3D	2631450	MTA25-C	2770020	MTT120-50	2677275
ME40-C	2614233	MK20-C	2614320	MN9-C	2610551	MTA35-C	2770030	MUA150	2616050
ME40-U	2604950	MK22-C	2614330	MP608	3031810	MTA50-C	2770310	MUA240	2616070
ME48-50	2676170	MK25-C	2614340	MP608/45	3031815	MTA70-C	2770550	MUA300-34	2616090
ME48-C	2614235	MK28-C	2614350	MP608/90	3031820	MTA95-C	2770830	MUA230-630-400	2680129
ME48-U	2604970	MK32-C	2614360	MP608D	3031830	MTA120-C	2771150	MUA230-630-630	2680130
ME5	2652070	MK34L-C	2614371	MPC1	2595201	MTA150-C	2771710	MUA95	2616030
ME5-50	2676030	MK46-3D	2634880	MPC2	2595203	MTA185-C	2772150	MV150	2616170
ME5-C	2614205	MLL1	2590802	MPC4	2595208	MTA240-C	2773010	MV240	2616180
ME5.7-U	2604790	MLL90	2590812	MPC7	2595221	MTMA10-GC	2720025	MV35	2616150
ME60-C	2614237	MLS1	2590805	MS4/10-15	2599880	MTMA120-70-GC	2721410	MV95	2616160
ME7	2652090	MLS2	2590807	MS10/16-15	2599881	MTMA120-95-GC	2721450	MVM150	2616310
ME7-50	2676040	MMT200-50	2676388	MT-FC47	2685902	MTMA120-GC	2720272	MVM240	2616320
ME7-C	2614207	MMT200-C	2611190	MT150R-C12	2545010	MTMA150-120-GC	2721630	MVM35	2616290
ME80-3D	2634930	MMT200-U	2601170	MT150R-C16	2545090	MTMA150-70-GC	2721550	MVM95	2616300
ME80-520	2648550	MMT25-50	2676380	MT150R-GC	2541870	MTMA150-95-GC	2721590	N1-1	2591059
ME80-C	2614239	MMT25-C	2611160	MT150R-TD	2540550	MTMA150-GC	2720330	ND1	2590080
ME9	2652110	MMT25-U	2601050	MT150S-C12	2545310	MTMA16-10-GC	2720560	ND2	2590082
ME9-50	2676050	MMT315-C	2611200	MT150S-C14-80	2546270	MTMA16-GC	2720035	ND3	2590084
ME9-C	2614209	MMT50-50	2676382	MT150S-C16	2545350	MTMA185-120-GC	2721900	ND4	2590086
ME9.20-U	2604810	MMT50-C	2611170	MT150S-GC	2541910	MTMA185-150-GC	2721910	NL03-M	2469328
MFB13-40	2598040	MMT50-U	2601090	MT150S-TD	2540630	MTMA185-GC	2720360	NL06-M	2469330
MFB50-63	2598045	MMT95-50	2676384	MT200R-C10	2545540	MTMA240-GC	2720410	NL06-P	2111950
MH10/16-15	2599886	MMT95-C	2611180	MT200R-C16	2545550	MTMA240-150-GC	2722050	NL06-PB	2111960
MK17S-C	2614307	MMT95-U	2601130	MT200R-GC	2542030	MTMA240-185-GC	2722090	NL1-M	2469350
MK14-3D	2634781	MN10-C	2610560	MT200R-TD	2540670	MTMA25-10-GC	2720575	NL1-P	2113970
MK16-3D	2634783	MN10RF-50	2676250	MT240R-C12	2545710	MTMA25-16-GC	2720580	NL1-PG	2113990
MK18-3D	2634785	MN10RF-C	2610768	MT240R-C16	2545750	MTMA25-GC	2720090	NL2-M	2469390
MK20-3D	2634786	MN12-C	2610570	MT240R-GC	2542110	MTMA300-GC	2720430	NL3-M	2469430
MK22-3D	2634787	MN12F-50	2676260	MT240R-TD	2540710	MTMA35-GC	2720130	NN4-15	2599867
MK25-3D	2634788	MN12F-C	2610770	MT25-C8	2543030	MTMA400-240-GC	2722245	PA1	2650230
MK28-3D	2634790	MN14-C	2610580	MT25-GC	2541570	MTMA400-300-GC	2722250	PA1-50	2675680
MK32-3D	2634800	MN14RF-50	2676270	MT25-TD	2540150	MTMA50-25-GC	2720650	PA10	2650290
MK34-3D	2634810	MN14RF-C	2610772	MT315R-C16	2545950	MTMA50-35-GC	2720660	PA10-50	2675686
MK38-3D	2634830	MN17-C	2610591	MT315R-GC	2542150	MTMA50-GC	2720152	PA10-C	2611010
MK42-3D	2634850	MN17F-50	2676280	MT315R-TD	2540750	MTMA500-GC	2720515	PA100-3D	2631930
MK44-3D	2634870	MN17F-C	2610774	MT315S-C16	2545990	MTMA500-300-GC	2722260	PA120-3D	2631950
MK46-3D	2634880	MN19-C	2610600	MT315S-GC	2542290	MTMA500-400-GC	2722270	PA120-520	2645600
MK5/8-15	2599890	MN19RF-50	2676285	MT315S-TD	2540790	MTMA70-35-GC	2720940	PA19-50	2675694
MK5	2651575	MN19RF-C	2610776	MT400-TD	2540830	MTMA70-50-GC	2720980	PA200-520	2645610
MK6	2651580	MN2-C	2610511	MT40S-C10	2543410	MTMA70-GC	2720195	PA24-50	2675696



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Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
PA24-C	2611020	PKD7506	2808860	PV-1	2591044	RD30.5S	2684148	RHM132	2619410
PA48-C	2611030	PKD7508	2808862	Q10-5	2167010	RD31.8S	2684150	RHM50	2670035
PA5	2650250	PKD7510	2808864	Q10-6	2167015	RD32.5S	2684152	RHT160	2592422
PA5-50	2675682	PKD7512	2808866	Q10-8	2167020	RD34.6S	2684154	RHT160-60N	2592584
PA60-C	2611040	PKE1012	2809190	Q10-10	2167025	RD34.9S	2684156	RHTD1724	2682482
PB-1	2591046	PKE1018	2809200	Q10-12	2167030	RD37S	2684158	RHTD3241	2682502
PC-1	2590705	PKE108	2809090	Q16-5	2167080	RD38.1S	2684160	RHTD3241T	2682517
PG-1	2591047	PKE1508	2809110	Q16-6	2167085	RD40.5S	2684162	RHU131-C	2619210
PKC1012	2809490	PKE1510	2809115	Q16-8	2167090	RD41.3S	2684164	RHU230-630	2680075
PKC1018	2809500	PKE1518	2809120	Q16-10	2167095	RD43.2S	2684168	RHU520	2640151
PKC108	2809390	PKE1612	2809210	Q16-12	2167100	RD44.5S	2684170	RHU81	2600045
PKC112	2809400	PKE1618	2809220	Q25-5	2167150	RD47S	2684172	RKF-F608	2051612
PKC1508	2809410	PKE25016	2809230	Q25-6	2167155	RF-BF4	2051630	RKY-M3	2145684
PKC1510	2809415	PKE25022	2809240	Q25-8	2167160	RF-BM4	2051660	RKY-M3.5	2145685
PKC1518	2809420	PKE2508	2809130	Q25-10	2167165	RF-F305	2051560	RKY-M3.5/1	2145687
PKC1612	2809510	PKE2512	2809135	Q25-12	2167170	RF-F305P	2051565	RKY-M4	2145690
PKC1618	2809520	PKE2518	2809140	Q25-16	2167175	RF-F308	2051580	RKY-M5	2145699
PKC25016	2809530	PKE308	2809030	Q35-6	2167230	RF-F308P	2051585	RKY-M6/1	2145705
PKC25022	2809540	PKE410	2809152	Q35-8	2167235	RF-F405	2051600	RKY-M8	2145711
PKC2508	2809430	PKE412	2809155	Q35-10	2167240	RF-F405P	2051605	RKY-M10	2145715
PKC2512	2809435	PKE418	2809160	Q35-12	2167245	RF-F408	2051590	RKY-M12	2145718
PKC2518	2809440	PKE508	2809050	Q35-16	2167250	RF-F408P	2051595	RKY-P8	2145782
PKC306	2809320	PKE612	2809170	Q50-6	2167310	RF-F608	2051610	RKY-P10	2145783
PKC308	2809330	PKE618	2809180	Q50-8	2167315	RF-F608P	2051620	RKY-P12	2145784
PKC35016	2809550	PKE7508	2809070	Q50-10	2167320	RF-FM608	2051690	RKY-PP12	2145790
PKC35025	2809560	PKT1014	2809870	Q50-12	2167325	RF-M10	2050390	RKY-PP12/19	2145792
PKC410	2809452	PKT108	2809790	Q50-16	2167330	RF-M12	2050430	RKY-PP16/23	2145793
PKC412	2809455	PKT112	2809800	Q70-6	2167390	RF-M2	2050010	RKY-PPL30	2145795
PKC418	2809460	PKT1508	2809810	Q70-8	2167395	RF-M3	2050030	RKY-PPL46	2145798
PKC50020	2809570	PKT1512	2809820	Q70-10	2167400	RF-M3.5	2050070	RKY-U3	2145730
PKC50030	2809580	PKT1614	2809880	Q70-12	2167405	RF-M3.5/1	2050110	RKY-U3.5	2145733
PKC508	2809350	PKT2510	2809830	Q70-16	2167410	RF-M4	2050150	RKY-U4	2145736
PKC510	2809360	PKT2512	2809840	Q95-8	2167470	RF-M4/3	2050170	RKY-U5	2145739
PKC612	2809470	PKT412	2809850	Q95-10	2167475	RF-M5	2050190	RKY-U6	2145742
PKC618	2809480	PKT614	2809860	Q95-12	2167480	RF-M6	2050230	RKY-U6/1	2145743
PKC70022	2809595	PKT7508	2809770	Q95-16	2167485	RF-M6/1	2050270	RN-FA305	3031610
PKC7508	2809370	PKT7512	2809780	Q120-8	2167540	RF-M608	2051650	RN-FA405	3031615
PKC7512	2809380	PLO1-M	2049510	Q120-10	2167545	RF-M608P	2051655	RN-FA608	3031620
PKC95025	2809600	PLO3-M	2051850	Q120-12	2167550	RF-M7	2050310	RN-M10	2150430
PKC120027	2809605	PLO3-P	2051860	Q120-16	2167555	RF-M8	2050350	RN-M12	2150470
PKD1012	2808915	PL06-M	2053850	Q150-10	2167610	RF-P10	2051250	RN-M2	2150010
PKD1018	2808917	PL06-P	2053860	Q150-12	2167615	RF-P12	2051290	RN-M3	2150030
PKD106	2808870	PL1-M	2055870	Q150-16	2167620	RF-P8	2051210	RN-M3.5	2150070
PKD108	2808872	PN14-C	2610710	Q185-10	2167680	RF-PP12	2051330	RN-M3.5/1	2150110
PKD110	2808874	PN24-C	2610720	Q185-12	2167685	RF-PP12/1	2051340	RN-M4	2150150
PKD112	2808876	PN37-C	2610730	Q185-16	2167690	RF-PP12/19	2051370	RN-M4/3	2150170
PKD1508	2808880	PN48-C	2610740	Q240-10	2167750	RF-PP12/23	2051380	RN-M5	2150190
PKD1510	2808882	PN60-C	2610750	Q240-12	2167755	RF-PP14	2051410	RN-M6	2150230
PKD1512	2808884	PN7-C	2610700	Q240-16	2167760	RF-PP16/23	2051450	RN-M6/1	2150270
PKD1518	2808886	PN80-3D	2631460	Q38-F	2593861	RF-PPL30	2051460	RN-M7	2150350
PKD1612	2808920	PNB-1	2591040	Q38-M	2593859	RF-PPL46	2051465	RN-M8	2150390
PKD1618	2808922	PNB-3F/M	2591088	Q38-MS	2593860	RF-U10	2050950	RN-MA305	3031710
PKD25016	2808925	PNB-3N1	2591092	RA-3	2598428	RF-U12	2050990	RN-MA405	3031715
PKD25022	2808927	PNB-3N5	2591096	RBG-15	2599850	RF-U3	2050630	RN-MA608	3031720
PKD2508	2808890	PNB-3NN3	2591094	RBV-15	2599852	RF-U3.5	2050670	RN-P10	2151270
PKD2512	2808892	PNB-3NN4	2591095	RCP-B70	2596116	RF-U3.5/1	2050680	RN-P12	2151310
PKD2518	2808894	PNB-3P	2591090	RD15.2S	2684122	RF-U3.5/2	2050681	RN-P8	2151230
PKD35016	2808930	PNB-3P1	2591084	RD16.2S	2684124	RF-U4	2050710	RN-PP12	2151350
PKD35025	2808932	PNB-3PD	2591091	RD17.5S	2684126	RF-U4/1	2050730	RN-PP12/1	2151370
PKD410	2808900	PNB-4KE	2591251	RD18.6S	2684128	RF-U4/2	2050750	RN-PP12/19	2151390
PKD412	2808902	PO7000	2595904	RD19.1S	2684130	RF-U5	2050790	RN-PP14	2151400
PKD418	2808904	PR-1	2591045	RD20.4S	2684132	RF-U5/1	2050791	RN-PP16/23	2151410
PKD50020	2808935	PRCH	2596113	RD20.6S	2684134	RF-U6	2050830	RN-U10	2150990
PKD50025	2808937	PS130-150/E	2616371	RD22.5S	2684136	RF-U6/1	2050870	RN-U12	2151030
PKD506	2808850	PS130-240/E	2616381	RD23.8S	2684138	RF-U8	2050910	RN-U3	2150670
PKD508	2808852	PS130-35/E	2616351	RD25.4S	2684140	RH50	2670050	RN-U3.5	2150710
PKD510	2808854	PS130-95/E	2616361	RD27S	2684142	RHC131	2619010	RN-U3.5/2	2150720
PKD612	2808910	PS230-400 5E	2680186	RD28.3S	2684144	RHC131LN	2619021	RN-U4	2150750
PKD618	2808912	PS230-630 6E	2680189	RD28.6S	2684146	RH-FC47	2592595	RN-U4/1	2150760

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Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code	Ref.	Code
RN-U4/2	2150790	S1.5-M2	2160010	S6-M5	2163630	TNN71	2590241	Z35-1	2845060
RN-U5	2150830	S1.5-M3	2160030	S6-M6	2163670	TRS-B70	2593280	Z35-26D	2844216
RN-U5/1	2150840	S1.5-M3.5	2160070	S6-M6/1	2163710	UP130-120	2616520	Z35-3	2844205
RN-U6	2150870	S1.5-M3.5/1	2160110	S6-M7	2163750	UP130-150	2616530	Z35-3D	2844206
RN-U6/1	2150910	S1.5-M4	2160150	S6-M8	2163790	UP130-185	2616550	Z35-4	2844201
RN-U8	2150950	S1.5-M4/3	2160160	S6-M8/1	2163800	UP130-240	2616560	Z35-4D	2844202
RP-M10	2046045	S1.5-M5	2160190	S6-P10	2164710	UP130-50	2616470	Z35-6	2844210
RP-M12	2046050	S1.5-M6	2160230	S6-P12	2164750	UP130-70	2616490	Z35-6D	2844211
RP-M2	2046005	S1.5-M6/1	2160270	S6-P14	2164790	UP130-95	2616500	Z35-DP14-125	2845210
RP-M3	2046010	S1.5-M7	2160310	S6-PP12	2164830	VAL04	2593310	Z35-DP14B-125	2845212
RP-M3.5	2046015	S1.5-M8	2160350	S6-PP17	2164870	VAL096	2593669	Z35T-11	2844220
RP-M3.5/1	2046016	S1.5-P10	2161190	S6-U10	2164370	VAL130	2610450	Z50-10D	2844230
RP-M4	2046020	S1.5-P12	2161230	S6-U10/1	2164390	VAL130-U	2610451	Z50-DP12-160	2845220
RP-M4/3	2046023	S1.5-P8	2161150	S6-U12	2164430	VAL160	2593405	Z6-1	2845020
RP-M5	2046025	S1.5-PP12	2161310	S6-U14	2164470	VAL520	2593410	Z6-10	2844106
RP-M6	2046030	S1.5-PP12/1	2161330	S6-U16	2164510	VAL75	2600110	Z6-10D	2844107
RP-M6/1	2046031	S1.5-PP12/19	2161350	S6-U3.5	2164170	VALB-TC04	2593705	Z6-3	2844080
RP-M7	2046035	S1.5-PP14	2161360	S6-U4	2164210	VALB-TC095	2593703	Z6-3D	2844081
RP-M8	2046040	S1.5-U10	2160950	S6-U5	2164250	VALCPO96	2593671	Z6-5	2844100
RP-P10	2046115	S1.5-U12	2160990	S6-U6	2164290	VALECW-H3D	2593421	Z6-5D	2844101
RP-P12	2046120	S1.5-U3	2160630	S6-U8	2164330	VALMAT520	2593411	Z6-6	2844108
RP-P8	2046110	S1.5-U3.5	2160670	SC1	2591261	VALP1	2590595	Z6-6D	2844109
RP-PP12	2046140	S1.5-U3.5/2	2160682	SC3X	2591264	VALP3	2590610	ZKE2	2590710
RP-PP12/1	2046145	S1.5-U4	2160710	SH-B70	2596080	VALP4	2590612	ZKE610	2590718
RP-PP12/19	2046150	S1.5-U4/1	2160730	SS4.8-3.7	3041670	VALP5	2590614	ZKE6-F	2590716
RP-PP12/23	2046155	S1.5-U4/2	2160750	SS4.8-4.5	3041672	VALP7	2590616	ZP2	2590760
RP-PP14	2046160	S1.5-U5	2160790	SS9-4.5	3041675	VALP8	2590618	ZS-B16	2842185
RP-PP16/23	2046165	S1.5-U5/1	2160800	SS9-5	3041677	VALP9	2590619	ZS-B4	2842115
RP-PPL30	2046180	S1.5-U6	2160830	SS9-6.4	3041679	VALP9-C	2590609	ZS-B6	2842155
RP-PPL46	2046185	S1.5-U6/1	2160870	TC025	2591895	VALP19	2590629	ZS-T16	2842190
RP-U10	2046265	S1.5-U8	2160910	TC04	2591396	VALP21	2874156	ZS-T4	2842120
RP-U12	2046270	S2.5-M10	2162170	TC050	2597050	VALP22	2874157	ZS-T6	2842160
RP-U3	2046210	S2.5-M12	2162210	TC050Y	2597056	VALP26	2590635	ZS-U16	2842180
RP-U3.5	2046215	S2.5-M2	2161800	TC055	2591860	VALSTAR ND2/PKC	2590565	ZS-U4	2842110
RP-U3.5/2	2046217	S2.5-M3	2161810	TC085	2597150	VALSTAR ND2/PKD	2590567	ZS-U6	2842150
RP-U4	2046230	S2.5-M3.5	2161850	TC096	2597360	VALSTAR ND2/PKE	2590566		
RP-U4/1	2046231	S2.5-M3.5/1	2161890	TC120	2597250	VALSTAR V3-F	2590577		
RP-U4/2	2046240	S2.5-M4	2161930	TCP10	3019220	VALTC085	2593323		
RP-U5	2046245	S2.5-M5	2161970	TCP12	3019225	VALTC120	2593322		
RP-U5/1	2046246	S2.5-M6	2162010	TCP15	3019230	VP-M2	2048010		
RP-U6	2046255	S2.5-M6/1	2162050	TCP18	3019235	VP-M3	2048030		
RP-U6/1	2046256	S2.5-M7	2162090	TCP20	3019240	VP-M3.5	2048070		
RP-U8	2046260	S2.5-M8	2162130	TCP25	3019250	VP-M4	2048150		
RS0305.07	3008006	S2.5-P10	2163050	TCP30	3019260	VP-M5	2048190		
RS0407.M12	3008050	S2.5-P12	2163090	TCP35	3019270	VP-M6	2048210		
RS0507.09	3008008	S2.5-P8	2163010	TCP40	3019280	VP-P10	2049210		
RS0509.M16	3008052	S2.5-PP12	2163170	TCP45	3019290	VP-PP12/19	2049370		
RS0710.11	3008010	S2.5-PP12/25	2163210	TCP5	3019210	VP-U3	2048630		
RS0813.M20	3008054	S2.5-PP16/25	2163250	TCP50	3019300	VP-U3.5	2048670		
RS1014.16	3008012	S2.5-U10	2162730	TCP55	3019305	VP-U4	2048710		
RS1117.M25	3008056	S2.5-U12	2162770	TCP60	3019310	WLO3-M	2469780		
RS1420.21	3008014	S2.5-U3	2162410	TCP65	3019315	WLO6-M	2469785		
RS1520.M32	3008058	S2.5-U3.5	2162450	TCP70	3019320	WL1-M	2469790		
RS1928.M40	3008060	S2.5-U3.5/1	2162460	TF300-Q38F	2592862	WT2-3D	2636970		
RS2026.29	3008016	S2.5-U4	2162490	TF300-Q38FM	2592863	Z10-1	2845030		
RS2635.36	3008018	S2.5-U4/1	2162510	TF600-Q38FM	2592981	Z16-1	2845040		
RS2735.M50	3008062	S2.5-U4/2	2162530	TGM38	3016155	Z16-12	2844156		
RT10.5	2592470	S2.5-U5	2162570	TGM48	3016157	Z16-12D	2844157		
RT13	2592490	S2.5-U6	2162610	TGM513	3016165	Z16-3	2844115		
RT15	2592510	S2.5-U6/1	2162650	TGM58	3016159	Z16-3D	2844116		
RT17	2592530	S2.5-U8	2162690	TGM613	3016167	Z16-4	2844130		
RT6.5	2592430	S6-M10	2163830	TGM713	3016169	Z16-4D	2844131		
RT8.5	2592450	S6-M10/1	2163850	TGM817	3016171	Z16-5N	2844122		
S10-M4	2165130	S6-M12	2163890	TN120S	2590270	Z16-5ND	2844123		
S10-M5	2165150	S6-M14	2163930	TN70	2590230	Z16-8	2844140		
S10-M6	2165190	S6-M16	2163970	TND6-70	2590120	Z16-8D	2844141		
S10-M7	2165230	S6-M3	2163510	TND10-120	2590145	Z25-1	2845050		
S1.5-M10	2160390	S6-M3.5	2163550	TNN120	2590290	Z25-DP7-100	2845180		
S1.5-M12	2160430	S6-M4	2163590	TNN70	2590240	Z2.5-1	2845010		

## COMPARISON OF AWG, MCM AND METRIC CONDUCTOR CROSS SECTIONS

**AWG comparison to Metric**

AWG	Actual conductor csa mm <sup>2</sup>	Comparable metric csa mm <sup>2</sup>
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 mm <sup>2</sup>	Comparable metric csa mm <sup>2</sup>
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 [mm <sup>2</sup> ]	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 <sup>a</sup>	5,7	6,6	7,8
35 <sup>a</sup>	6,7	7,9	9,2
50 <sup>a</sup>	7,8	9,1	11,0
70 <sup>a</sup>	9,4	11,0	13,1
95 <sup>a</sup>	11,0	12,9	15,1
120 <sup>a</sup>	12,4	14,5	17,0
150 <sup>a</sup>	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.

<sup>a</sup> Solid copper conductor having cross-sectional areas of 25 mm<sup>2</sup> 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 [mm <sup>2</sup> ]	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 mm<sup>2</sup> are not given as the compaction technology is not generally established.

- The values are given for compacted copper conductors in the size range 1,5 mm<sup>2</sup> to 6 mm<sup>2</sup>.

## MINIMUM AND MAXIMUM DIAMETERS OF CIRCULAR ALUMINIUM CONDUCTORS

Cross-sectional area [mm <sup>2</sup> ]	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 area [mm <sup>2</sup> ]	Maximum resistance of conductor at 20 °C		
	Circular, annealed copper conductors		Aluminium and aluminium alloy conductors, circular or shaped <sup>c</sup> [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 <sup>a</sup>
16	1,15	1,16	1,91 <sup>a</sup>
25	0,727 <sup>b</sup>	-	1,20 <sup>a</sup>
35	0,524 <sup>b</sup>	-	0,868 <sup>a</sup>
50	0,387 <sup>b</sup>	-	0,641
70	0,268 <sup>b</sup>	-	0,443
95	0,193 <sup>b</sup>	-	0,320 <sup>d</sup>
120	0,153 <sup>b</sup>	-	0,253 <sup>d</sup>
150	0,124 <sup>b</sup>	-	0,206 <sup>d</sup>
185	0,101 <sup>b</sup>	-	0,164 <sup>d</sup>
240	0,0775 <sup>b</sup>	-	0,125 <sup>d</sup>
300	0,0620 <sup>b</sup>	-	0,100 <sup>d</sup>
400	0,0465 <sup>b</sup>	-	0,0778
500	-	-	0,0605
630	-	-	0,0469
800	-	-	0,0367
1000	-	-	0,0291
1200	-	-	0,0247

<sup>a</sup> Aluminium conductors 10 mm<sup>2</sup> to 35 mm<sup>2</sup> circular only

<sup>b</sup> Solid copper conductors having nominal cross-sectional area of 25 mm<sup>2</sup> and above are for particular types of cable, e.g. mineral insulated, and not for general purposes.

<sup>c</sup> 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.

<sup>d</sup> 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 [mm <sup>2</sup> ]	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 <sup>c</sup> [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			<i>b</i>				0,0151	0,0151	0,0247
1400 <sup>a</sup>			<i>b</i>				0,0129	0,0129	0,0212
1600			<i>b</i>				0,0113	0,0113	0,0186
1800 <sup>a</sup>			<i>b</i>				0,0101	0,0101	0,0165
2000			<i>b</i>				0,0090	0,0090	0,0149
2500			<i>b</i>				0,0072	0,0072	0,0127

<sup>a</sup> Non-preferred sizes. Other non-preferred sizes are recognized for some specialized applications but are not within the scope of this standard.

<sup>b</sup> The minimum number of wires for these sizes is not specified. These sizes may be constructed from 4, 5 or 6 equal segments (Milliken).

<sup>c</sup> 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 [mm <sup>2</sup> ]	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 [mm <sup>2</sup> ]	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

- H Cable conforming to harmonised standards
- A Recognised national type of cable
- N Other type of national cable

- 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

- 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

- 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

- Z2 Round steel strand armour
- Z3 Steel strap armour
- Z4 Steel ribbon armour
- Z5 Steel strand braid

- H Flat divisible cable with or without sheath
- H2 Flat indivisible cable
- H3 Flat cable with cores separated by a slit
- H6 Flat cable with three or more cores
- H7 Cable with double-layered insulation
- H8 Extendable cord

- 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

REFERENCE TO THE STANDARDS

RATED VOLTAGE

INSULATION AND SHEATH MATERIAL

SCREENS

ARMOURS

CONSTRUCTIVE FORM OF THE CABLE

CONDUCTOR FLEXIBILITY DEGREE

**MAXIblock® - spiralblock®**

Ref. Light Grey	Thread	COMPRESSION RANGE Ø min-max			IMPACT CATEGORY (*)	MARKING	
		Nominal [mm]	UL 514B [mm]   [inches]				EN 50262 [mm]
1900.M12	M12x1,5	3,5-7	3,5	0.14	3,5-7	1	USR-CNR / VDE
1900.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1900.M20	M20x1,5	7-13	13	0.51	7-13	3	USL-CNL / VDE
1900.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1900.M32	M32x1,5	13-21	15-21	0.60-0.83	13-21	3	USL-CNL / VDE
1900.M40	M40x1,5	19-28	21-28	0.83-1.10	19-28	3	USL-CNL / VDE
1900.M50	M50x1,5	27-35	27-34	1.06-1.34	27-35	3	USL-CNL / VDE
1900.M63	M63x1,5	34-45	35-45	1.38-1.77	34-45	3	USL-CNL / VDE
1910.M12	M12x1,5	2-5	2-5	0.08-0.20	2-5	1	USR-CNR / VDE
1910.M16	M16x1,5	3-7	4-7	0.16-0.28	4-7	1	USR-CNR / VDE
1910.M20	M20x1,5	5-10	5-10	0.20-0.40	5-10	3	USR-CNR / VDE
1910.M25	M25x1,5	7-13	7-13	0.28-0.51	7-13	3	USR-CNR / VDE
1910.M32	M32x1,5	8-14	8-14	0.31-0.55	8-14	3	USR-CNR / VDE
1910.M40	M40x1,5	15-23	15-23	0.59-0.91	15-23	3	USL-CNL / VDE
1910.M50	M50x1,5	21-29	21-29	0.83-1.14	21-29	3	USL-CNL / VDE
1910.M63	M63x1,5	27-39	28-39	1.1-1.54	27-39	3	USL-CNL / VDE
1901.M12	M12x1,5	3,5-7	3,5	0.14	3,5-7	1	USR-CNR / VDE
1901.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1901.M20	M20x1,5	7-13	13	0.51	7-13	3	USL-CNL / VDE
1901.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1901.M32	M32x1,5	13-21	15-21	0.60-0.83	13-21	3	USL-CNL / VDE
1901.M40	M40x1,5	19-28	21-28	0.83-1.10	19-28	3	USL-CNL / VDE
1901.M50	M50x1,5	27-35	27-34	1.06-1.34	27-35	3	USL-CNL / VDE
1901.M63	M63x1,5	34-45	35-45	1.38-1.77	34-45	3	USL-CNL / VDE
1500.M12	M12x1,5	3,5-7	3,5	0.14	3,5-7	1	USR-CNR / VDE
1500.M16	M16x1,5	5-10	7	0.28	7-10	1	USR-CNR / VDE
1500.M20	M20x1,5	7-13	13	0.51	7-13	3	USL-CNL / VDE
1500.M25	M25x1,5	10-17	17	0.67	10-17	3	USL-CNL / VDE
1500.M32	M32x1,5	13-21	15-21	0.60-0.83	13-21	3	USL-CNL / VDE
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 [mm]	UL 514B [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 [mm]	UL 514B [mm]   [inches]				EN 50262 [mm]
2900.M12N	M12x1,5	3-7	3-7	0.12-0.28	3-7	5	USR-CNR / VDE
2900.M16N	M16x1,5	4,5-10	4,5-10	0.18-0.39	4,5-10	6	USL-CNL / VDE
2900.M20N	M20x1,5	7-13	8-13	0.31-0.51	7-13	6	USL-CNL / VDE
2900.M25N	M25x1,5	10-17	10-17	0.39-0.67	10-17	6	USL-CNL / VDE
2900.M32N	M32x1,5	11-21	11-21	0.43-0.83	11-21	6	USL-CNL / VDE
2900.M40N	M40x1,5	19-28	19-28	0.75-1.10	19-28	6	USL-CNL / VDE
2900.M50N	M50x1,5	26-35	27-35	1.06-1.38	26-35	6	USL-CNL / VDE
2900.M63N	M63x1,5	34-45	34-45	1.33-1.77	34-45	6	USL-CNL / VDE
2910.M12N	M12x1,5	1-5	2-5	0.08-0.20	1-5	5	USR-CNR / VDE
2910.M16N	M16x1,5	2,5-7	3,5-7	0.14-0.28	2,5-7	6	USR-CNR / VDE
2910.M20N	M20x1,5	5-10	5-10	0.20-0.39	5-10	6	USR-CNR / VDE
2910.M25N	M25x1,5	6-13	6-13	0.24-0.51	6-13	6	USR-CNR / VDE
2910.M32N	M32x1,5	7-14	7-14	0.28-0.55	7-14	6	USR-CNR / VDE
2910.M40N	M40x1,5	13-23	15-23	0.59-0.90	17-23	6	USL-CNL / VDE
2910.M50N	M50x1,5	20-29	20-29	0.79-1.14	22-29	6	USL-CNL / VDE
2910.M63N	M63x1,5	27-39	28-39	1.10-1.54	31-39	6	USL-CNL / VDE
2901.M12N	M12x1,5	3-7	3-7	0.12-0.28	3-7	5	USR-CNR / VDE
2901.M16N	M16x1,5	4,5-10	4,5-10	0.18-0.39	4,5-10	6	USL-CNL / VDE
2901.M20N	M20x1,5	7-13	8-13	0.31-0.51	7-13	6	USL-CNL / VDE
2901.M25N	M25x1,5	10-17	10-17	0.39-0.67	10-17	6	USL-CNL / VDE
2901.M32N	M32x1,5	11-21	11-21	0.43-0.83	11-21	6	USL-CNL / VDE
2901.M40N	M40x1,5	19-28	19-28	0.75-1.10	19-28	6	USL-CNL / VDE
2901.M50N	M50x1,5	26-35	27-35	1.06-1.38	26-35	6	USL-CNL / VDE
2911.M12N	M12x1,5	1-5	2-5	0.08-0.20	1-5	5	USR-CNR / VDE
2911.M16N	M16x1,5	2,5-7	3,5-7	0.14-0.28	2,5-7	6	USR-CNR / VDE
2911.M20N	M20x1,5	5-10	5-10	0.20-0.39	5-10	6	USR-CNR / VDE
2911.M25N	M25x1,5	6-13	6-13	0.24-0.51	6-13	6	USR-CNR / VDE
2911.M32N	M32x1,5	7-14	7-14	0.28-0.55	7-14	6	USR-CNR / VDE
2911.M40N	M40x1,5	13-23	15-23	0.59-0.90	13-23	6	USL-CNL / VDE
2911.M50N	M50x1,5	20-29	20-29	0.79-1.14	22-29	6	USL-CNL / VDE

**MAXIbrass®**

Ref. Nickel Plated Brass	Thread	COMPRESSION RANGE Ø min-max			MARKING
		Nominal [mm]	UL 514B [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

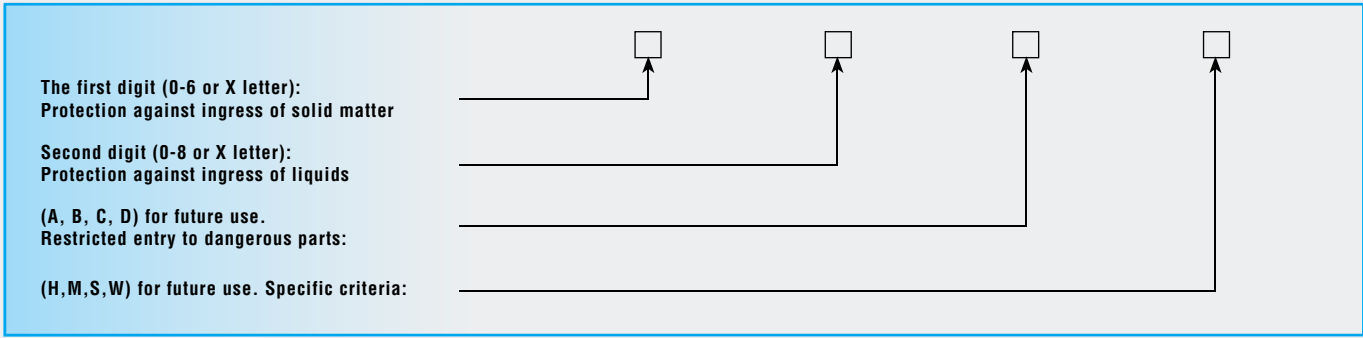
VDE: Licence nos 40008472, 40008474, 40008475 and 40008476

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





**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 $\varnothing$ 50 mm	Accessibility gauge $\varnothing$ 12,5 mm	Accessibility gauge $\varnothing$ 2,5 mm	Accessibility gauge $\varnothing$ 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 $\varnothing$ 50 mm	articulated test finger	accessibility gauge $\varnothing$ 2,5 mm	accessibility gauge $\varnothing$ 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

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 <ul style="list-style-type: none"> <li>• 650° for materials which do not support parts under tension</li> <li>• 750° for materials which support parts under tension of moving sockets and plugs</li> <li>• 850° for materials which support parts under tension of fixed sockets and switches</li> </ul>	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.	<ul style="list-style-type: none"> <li>• the sample does not catch fire</li> <li>• the flame and incandescent particles do not spread the fire</li> <li>• combustion lasts less than 30 seconds</li> </ul>	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	<ul style="list-style-type: none"> <li>• V0 if the sample burns for less than 5 sec. before going out.</li> <li>• V1 if it burns for less than 25 sec.</li> <li>• V2 if it burns for less than 25 sec. With incandescent drops</li> <li>• 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</li> </ul>	Bunsen burner flame	Flame applied for 10 seconds twice following	Length of combustion

**MAXIblock<sup>®</sup>, spiralblock<sup>®</sup>, MAXIbrass<sup>®</sup>**

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<sup>®</sup>, spiralblock<sup>®</sup>, MAXIbrass<sup>®</sup>**

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<sup>®</sup>, spiralblock<sup>®</sup>**

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"
G3/8"	5
G1/2"	6
G3/4"	10







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