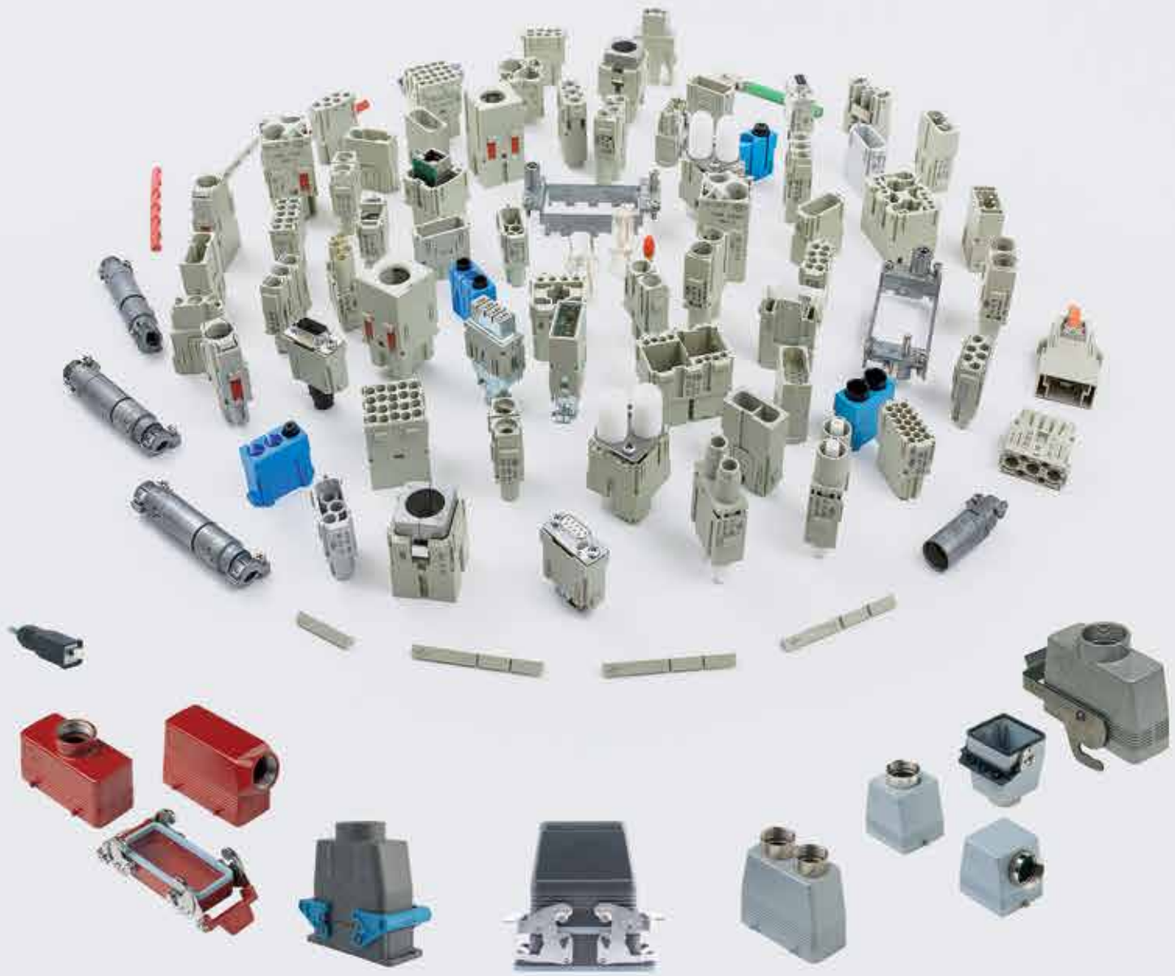
CONNECTORS

INDUSTRIA LOMBARDA MATERIALE ELETTRICO SpA has been operating in Milan since 1938, in particular in the electrotechnical sector for the manufacturing of equipment for industrial installations. ILME reflects the traditional entrepreneurial spirit of Lombardy, and has enjoyed continuous expansion for over half a century. The company has carved an important role for itself in the main world markets, also operating directly in the countries that have assumed world leadership in the field of automation, including Germany and Japan. In the electrical connection sector with applications in industrial automation, characterised by high performance and utmost reliability needs, ILME is today the acknowledged partner of many leading companies worldwide.



Some years ago, the entertainment industry has chosen the Socapex SL61 connectors to become the world wide standard for power distribution interconnect. Socapex is now worldwide known as a major connector manufacturer for entertainment applications. The brand is so famous that "Socapex" can be considered has the worldwide generic name for 19, 7 and 37 pins connectors. Some people even call it the "Soca". Socapex is the sole and only manufacturer of the Socapex SL61 connectors.

Ten 47

Ten 47 Powerline connectors are used in lighting distribution panels. Typical applications include outdoor concerts, theatres, television outdoor broadcasts. Ten 47 **"Powerline"** contacts are retained by means of a spring clip design that can retain the equivalent weight of 100 metres of 240mm² cable. The contacts are inserted from the rear and "snap" into position within the Insulator with no requirement for any Cotter/Dowel pin or assembly tools. A simple removal tool is supplied to release the contact from the insulator. As our clip design does not require any holes through the Insulator, it provides several advantages over the "cotter/dowel pin" design reducing assembly times by upto 50 percent.

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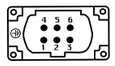
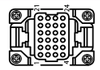
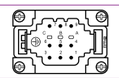
6 Pin 16 amp 400 volt		24 Pin 10 amp 250 volt (crimp)		330-331
9 pin 10 amp 400 volt				

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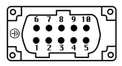
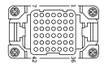
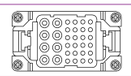
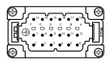
10 Pin 16 amp 400 volt		42 Pin 10 amp 250 volt (crimp)		332-335
8 Pin 16 amp 400 volt + 24 Pin 10amp 250 Volt (crimp)		18 Pin 10 amp 400 volt		

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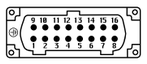
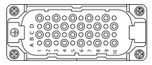
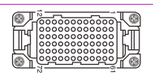
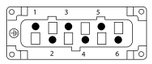
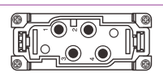
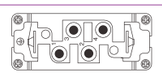
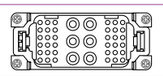
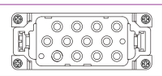
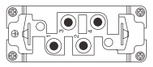
16 Pin 16 amp 400 volt		40 pin 10 amp 250 volt (crimp)		336-339
72 pin 10 amp 250 volt (crimp)		6 pin 35 amp 400 volt		
4 pin 80 amp 690 volt		4 Pin 80 amp 690 volt + 2 pin 16 amp 400 volt		
6 Pin 40 amp 690 volt + 36 pin 10 amp 250 volt		12 Pin 40 amp 690 volt + 2 pin 10 amp 250 volt		
6 pin 40 amp 690volt + 12 pin 10amp 400volt				

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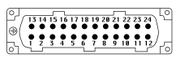
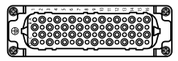
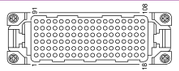
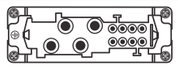
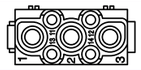
24 pin 16amp 400 volt		64 pin 10amp 250 volt (crimp)		340-343
108 pin 10amp 250 volt (crimp)		4 pin 80amp 690 volt + 8 pin 16amp 400 volt		
6 Pin 100amp 690volt + 6 pin 16amp 400volt				

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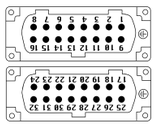
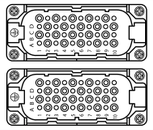
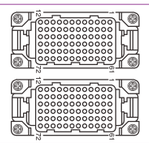
32 Pin 16amp 400 volt		80 Pin 10amp 250 volt (crimp)		344-347
144 Pin 10amp 250 volt (crimp)				

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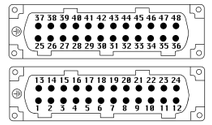
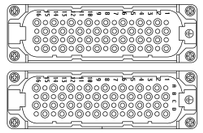
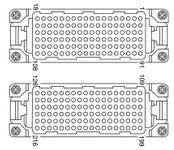
48 Pin 16amp 400 volt		128 Pin 10amp 250 volt (crimp)		348-349
216 Pin 10amp 250 volt (crimp)				

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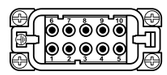
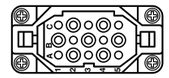
10 Pin 16amp 400 volt		15 Pin 10amp 250 volt (crimp)		350-351

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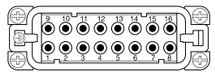
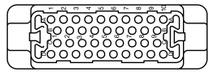
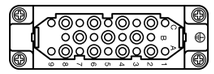
16 Pin 16amp 400 volt		38 Pin 10amp 250 volt (crimp)		352-353
25 Pin 10amp 250 volt (crimp)				

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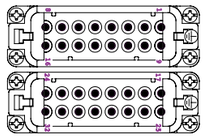
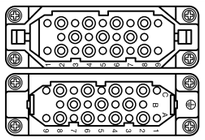
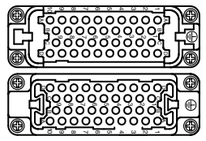
32 Pin 16 amp 400 volt		50 Pin 10 amp 250 volt (crimp)		354-355
76 Pin 10 amp 250 volt (crimp)				

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3 pin & Earth 10amp 250 volt		4 pin & Earth 10amp 250 volt		356-359
8pin 10amp 50 volt (crimp)t		5 pin & Earth 16amp 400 volt (crimp)		
12 Pin 10 amp 400 volt (crimp)		21 Pin 6.5 amp 50 volt (crimp)		
2 Pin 40 amp 400 volt (crimp)				

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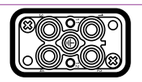
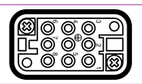
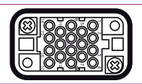
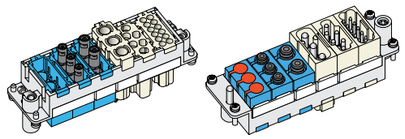
4 Pin 40 amp + 2 Pin 10 amp		8 Pin 16 amp 500 volt (crimp) 	360-361
17 Pin 10 amp 160 volt (crimp)			

Mixo Modular Units			
Control Power BUS RJ45 Pnuematics	Mixo Modular Units enable you to combine all these services into the one connector		362-366

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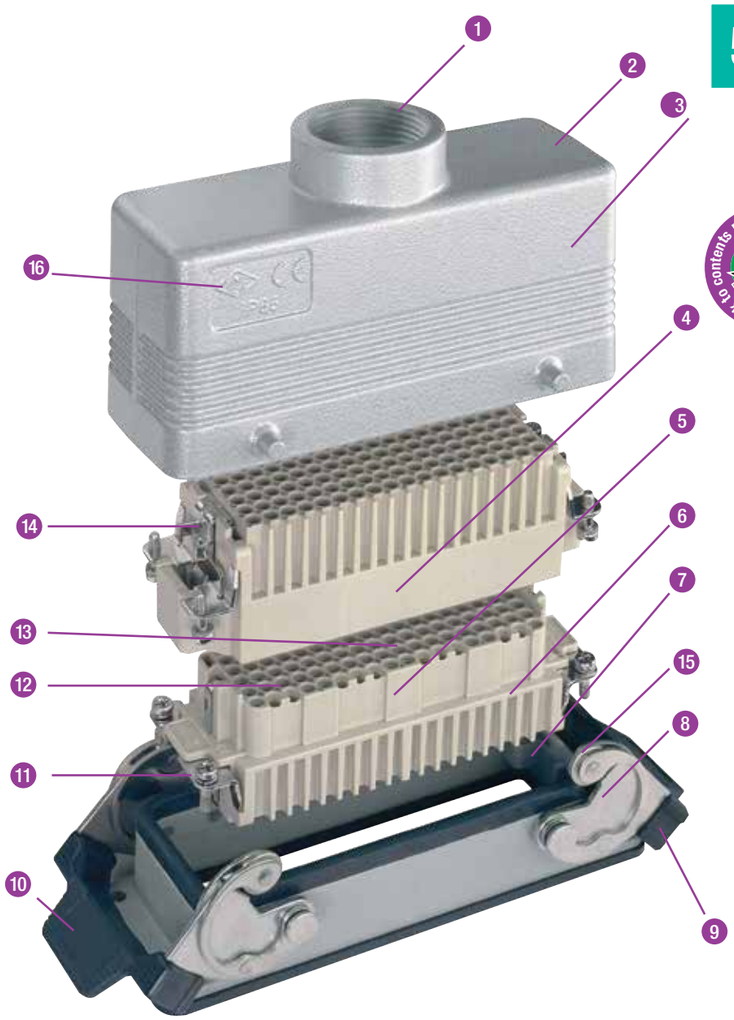
General features of multipole connectors for industrial purposes

1. Threaded cable passage in various Pg diameters (types with pre-code "C") or metric passage (types with pre-code "M") in accordance with EN 60423, for cable entry devices in accordance with EN 50262 (NPT threading on request), may be located vertically, horizontally or frontally.
2. Heavy duty enclosures in die-cast aluminium alloy or self-extinguishing thermoplastic (CK and MK series).cRUus certified Wall mounting or bulkhead housings and hoods are available, with or without fixed covers or with mobile protection covers. The types of enclosures CH-CA (Pg cable entries) and MH-MA (metric cable entries) have a tab that prevents the insertion of inserts series CME (all) and CMCE (only 16+2 poles), while CM (Pg) enclosures series and MM (metric) do not have any tabs and contain supplementary insulating strips inside.
3. Metallic enclosures with a coated finish of epoxy-polyester with high resistance to mechanical stress and external agents. Enclosures used with temperatures of up to 180 °C and in aggressive environments are treated with special coatings. Where electromagnetic compatibility is necessary: EMC enclosures with high conductivity and high corrosion resistance surface treatment.
4. Inserts in self-extinguishing thermoplastic material reinforced with glass fibres, UL approved, with a limit working temperature from -40 °C to +125 °C. The inserts CME (all) and CMCE (only 16+2 poles) for 830V have a key that prevents the insertion of inserts for use other than that prescribed (types CM - Pg and MM - metric). For some series, inserts in PPS (polyphenylene sulphide) may be requested for special uses with temperatures of up to 180 °C.
5. Polarized inserts with asymmetric guide rails for preventing incorrect coupling. The inserts have a mechanical duration equal to or over 500 coupling cycles.
6. Inserts manufactured in conformity with EN 61984 (DIN VDE 0627 standard and are certified and identified with the UL and CSA marks.
7. Special seal gaskets in vinyl nitrile elastomer or fluoro elastomer (on enclosures for use with maximum temperatures of 180 °C and for aggressive environments), in anti-aging, oil-resistant, fuel-resistant, together with the cable entry devices (not supplied) provide an IP66 degree of protection for coupled connectors. Special conductive seals for EMC enclosures.
8. Stainless steel closure levers and springs guarantee a perfect closure and sealing.
9. Locking device available in two versions, simple (with one lever), or double (with two levers).
10. Various types of handles are available: in self-extinguishing, thermoplastic material reinforced with glass fibres; in die-cast aluminium (for special use with temperatures of up to 180 °C); monoblock stainless steel handles (CK, CZ, MK, MZ enclosures and for special uses with temperatures of up to 180 °C).
11. Unlosable insert fastening screws, with anti-loosening flexible washer.
12. Contacts position identified with numbers or codes on both sides of each insert and laser printed or moulded.
13. Contacts in silver or gold-plated brass with connections to the conductors made via unlosable unloosened screws, spring terminal, crimping or incorporated 45° terminal block connectors (with screw or spring terminal).
14. Earth terminal protection with wide contact surface.
15. Pegs and levers supplied with anti-friction rings that facilitate closure and limit wear and tear.
16. CE marking attesting conformity to the requirements of the Low Voltage directive 73/23/EEC and its modification 93/68/EEC.



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CH-MH Enclosures

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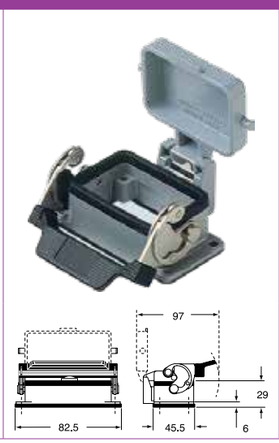
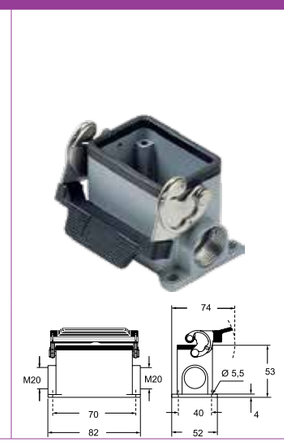
CHI 06 L

CHI 06 LS



MHP 06 L220



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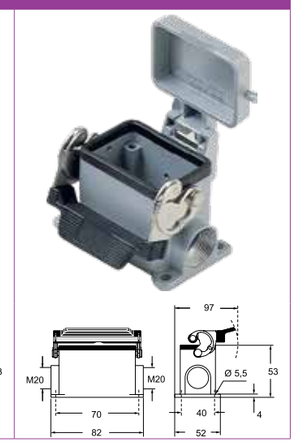

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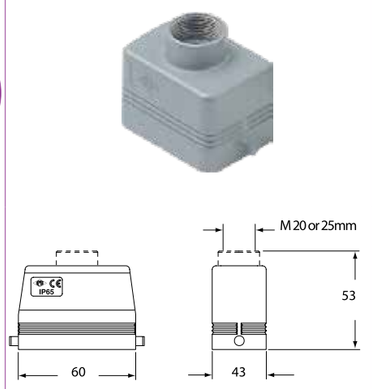

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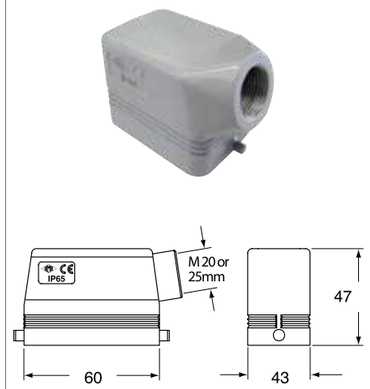
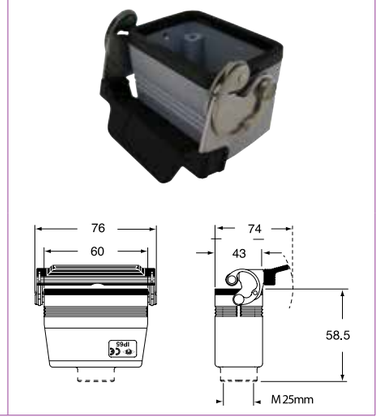
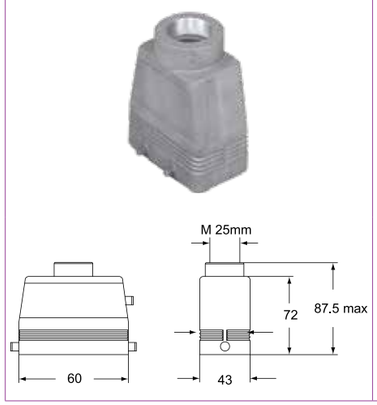


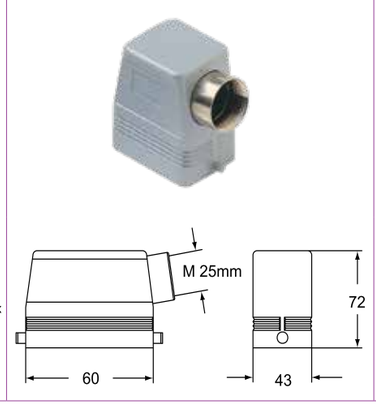
MHV 06 LG25



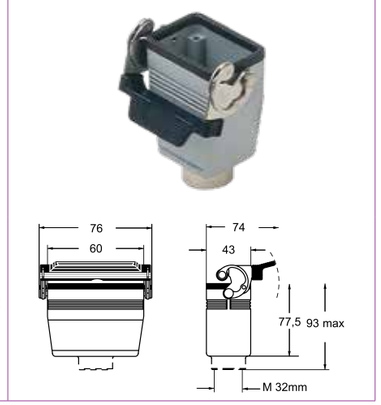
MAV 06 L25



MAO 06 L25



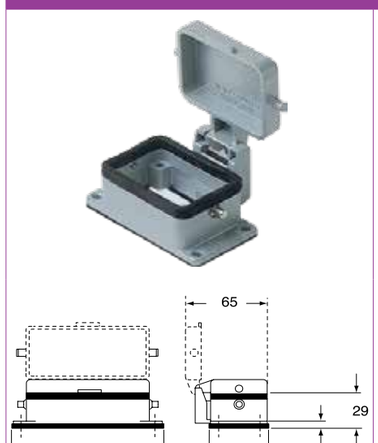
MAV 06 LG32



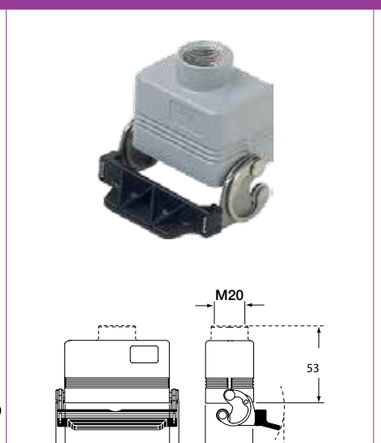
CH-MH Enclosures

Size 44.27

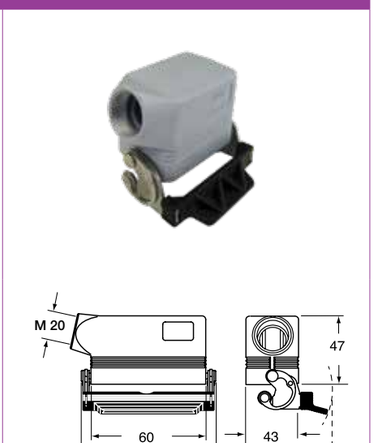
CHI 06 LCS



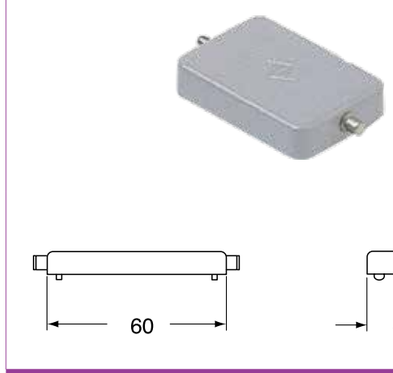
MHV 06 LX20



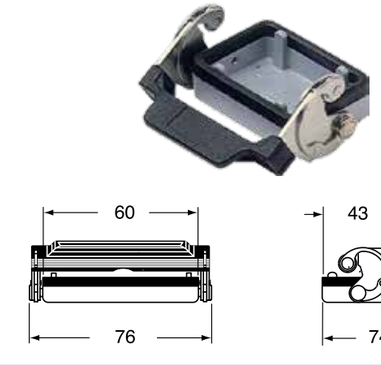
MHO 06 LX20

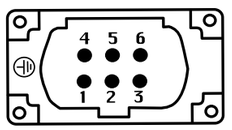
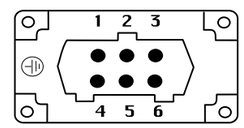
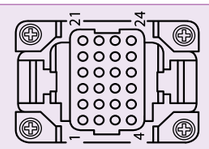
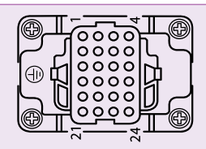
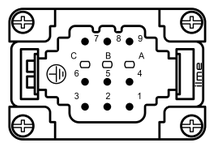
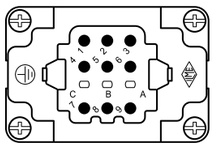


CHC 06 L



CHC 06 LG



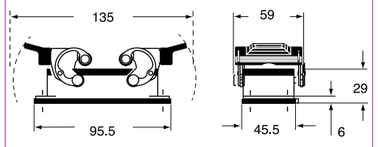
Male Inserts		Female Inserts	
CNEM 06 T 6 Pin 16 amp 400 volt		**CNEF 06 T** 6 Pin 16 amp 400 volt	
CDDM 24 (crimp pins) 24 Pin 10 amp 250 volt		**CDDF 24** (crimp pins) 24 Pin 10 amp 250 volt	
CDSHM 09 9 Pin 10 amp 400 volt		**CDSHF 09** 9 Pin 10 amp 400 volt	

All dimensions in mm.

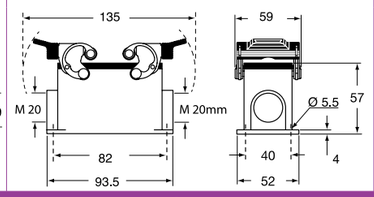
CH-MH-MA Enclosures

Size 57.27
Double Locking

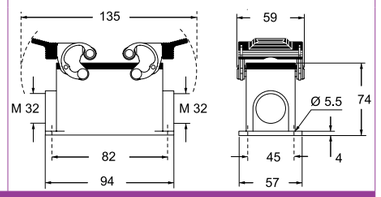
CHI 10



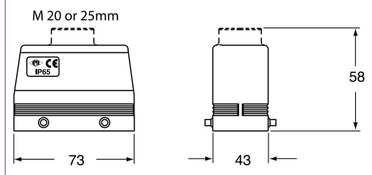
MHP 10.220



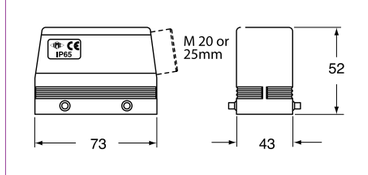
MAP 10.232



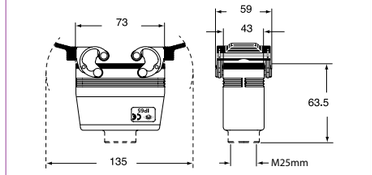
MHV 10.20
MHV 10.25



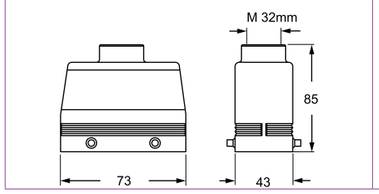
MHO 10.20
MHO 10.25



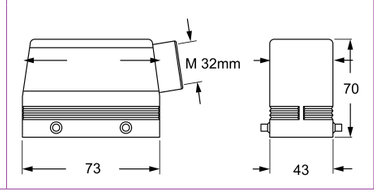
MHV 10 G25



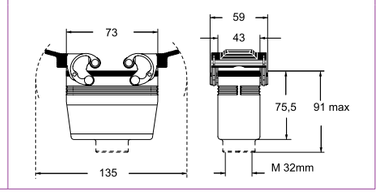
MAV 10.32



MAO 10.32



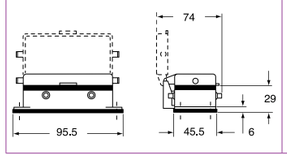
MAV 10 G32



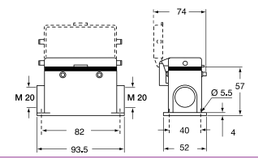
CH-MH-MA Enclosures

Size 57.27
Double Locking

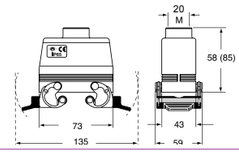
CHI 10 CS



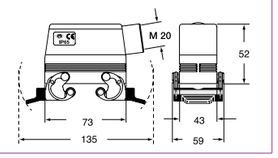
MHP 10 CS220



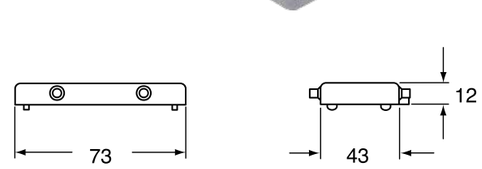
MHV 10 X20



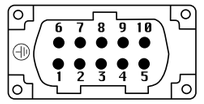
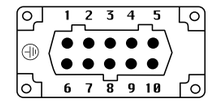
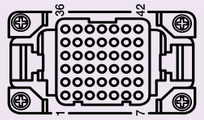
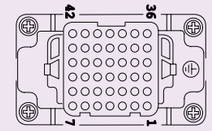
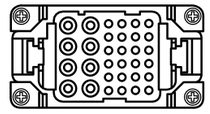
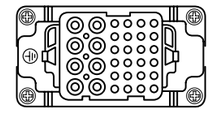
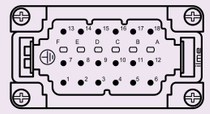
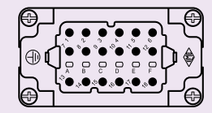
MHO 10 X20



CHC 10



CHC 10 G

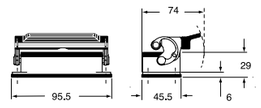
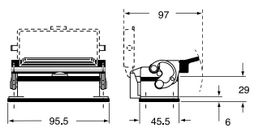
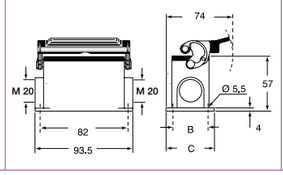
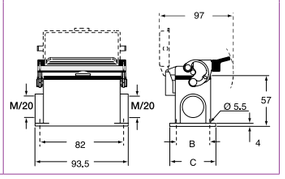
Male Inserts		Female Inserts	
CNEM 10 T 10 Pin 16 amp 400 volt		**CNEF 10 T** 10 Pin 16 amp 400 volt	
CDDM 42 (crimp pins) 42 Pin 10 amp 250 volt		**CDDF 42** (crimp pins) 42 Pin 10 amp 250 volt	
CXM 8/24 (crimp pins) 8 Pin 16 amp 400 volt + 24 Pin 10 amp 250 volt		**CXF 8/24** (crimp pins) 8 Pin 16 amp 400 volt + 24 Pin 10 amp 250 volt	
CDSHM 18 18 Pin 10 amp 400 volt		**CDSHF 18** 18 Pin 10 amp 400 volt	

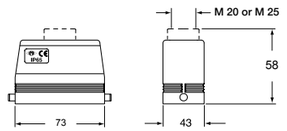
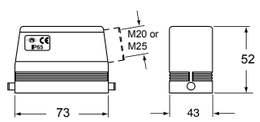
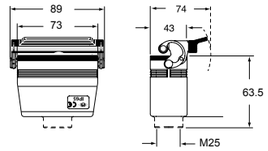
All dimensions in mm.

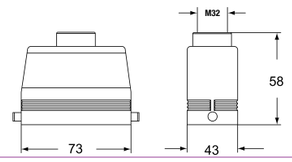
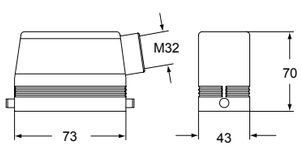
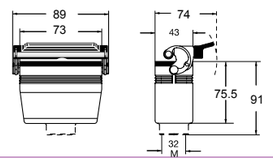
For crimp pins refer to page 367

CH-MH-MA Enclosures

Size 57.27
Single locking

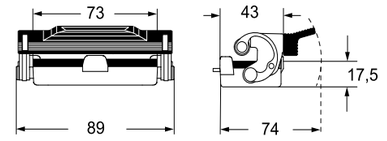
CHI 10L	CHI 10 LS	MHP 10 L220	MHP 10 LS220
			
			

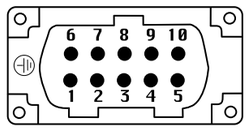
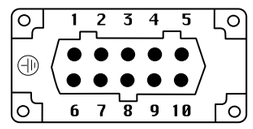
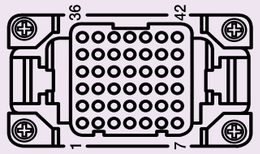
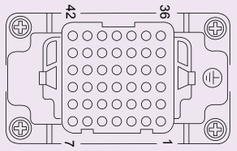
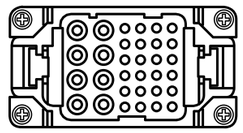
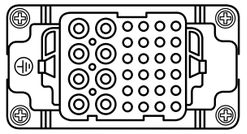
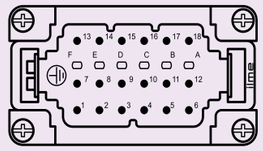
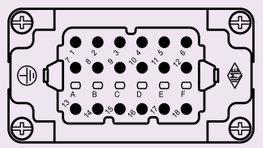
MHV 10 L20 MHV 10 L25	MHO 10 L20 MHO 10 L25	MHV 10 LG25
		
		

MAV 10 L32	MAO 10 L32	MAV 10 LG32
		
		

CH-MH-MA Enclosures

Size 57.27
Single locking

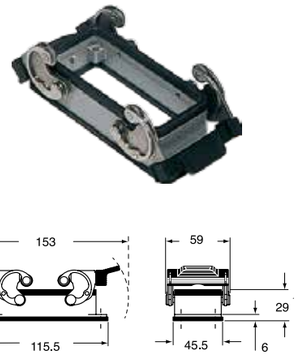
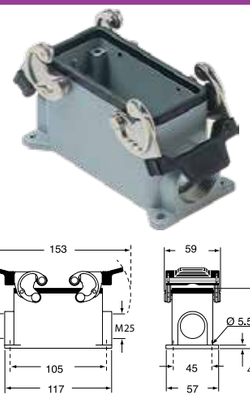
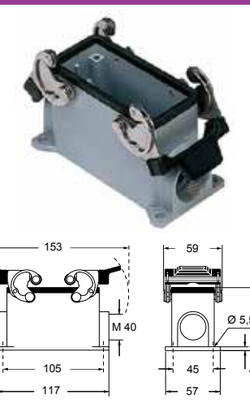
CHC 10 L	CHC 10 LG
	
	

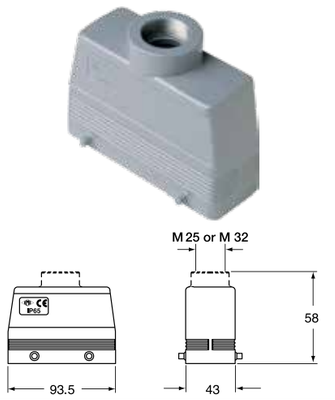
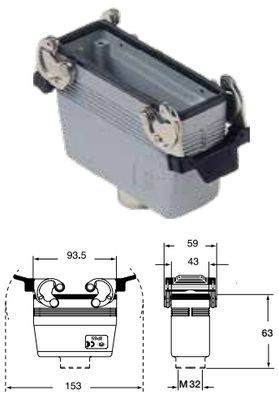
Male Inserts		Female Inserts	
CNEM 10 T 10 Pin 16 amp 400 volt		**CNEF 10 T** 10 Pin 16 amp 400 volt	
CDDM 42 (crimp pins) 42 Pin 10 amp 250 volt		**CDDF 42** (crimp pins) 42 Pin 10 amp 250 volt	
CXM 8/24 (crimp pins) 8 Pin 16 amp 400 volt + 24 Pin 10 amp 250 volt		**CXF 8/24** (crimp pins) 8 Pin 16 amp 400 volt + 24 Pin 10 amp 250 volt	
CDSHM 18 18 Pin 10 amp 400 volt		**CDSHF 18** 18 Pin 10 amp 400 volt	

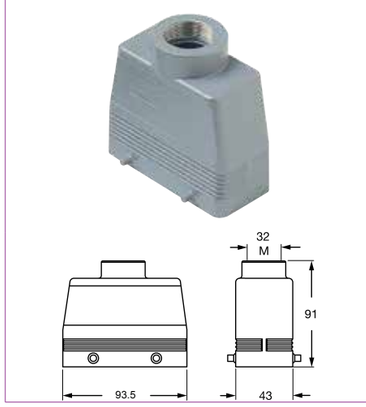
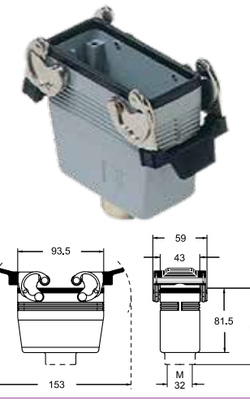
All dimensions in mm. For crimp pins refer to page 367.

CH-MH-MA Enclosures

Size 77.27
Double Locking

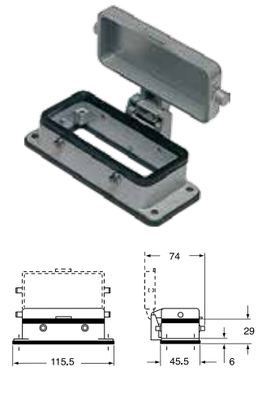
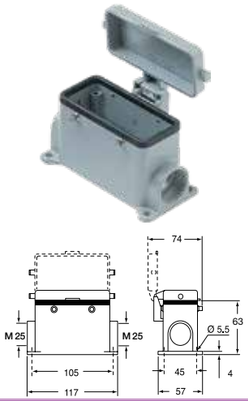
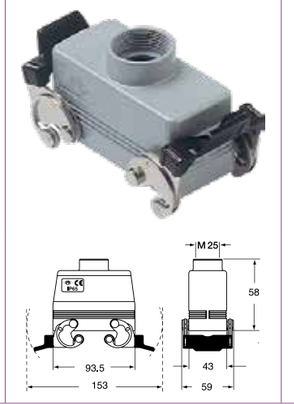
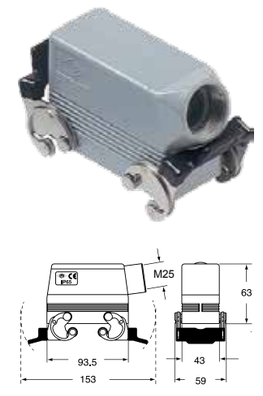
CHI 16	MHP 16.225	MAP 16.240
		

MHV 16.25 MHV 16.32	MHO 16.25 MHO 16.32	MHV 16 G32
		

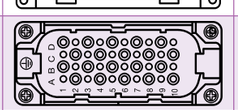
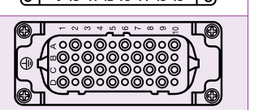
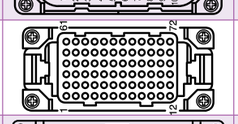
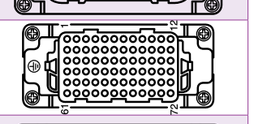
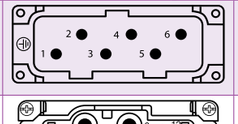
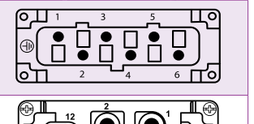
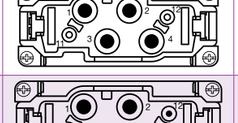
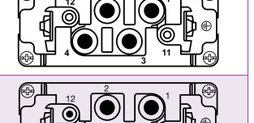
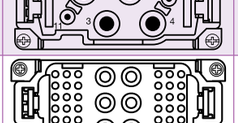
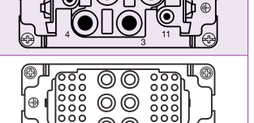
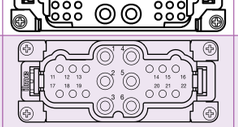
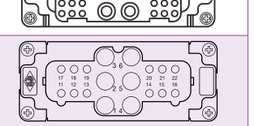
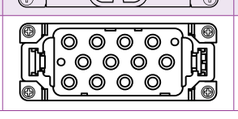
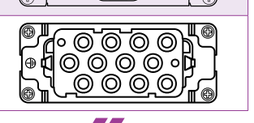
MAV 16.32	MAO 16.32	MAV 16 G32
		

CH-MH-MA Enclosures

Size 77.27
Double Locking

CHI 16 CS	MHP 16 CS 225	MHV 16 X25	MHO 16 X25
			

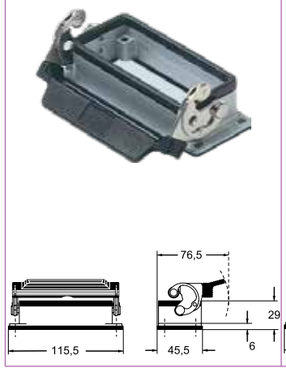
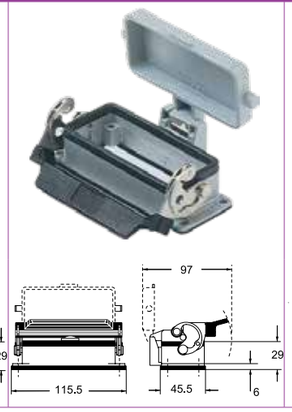
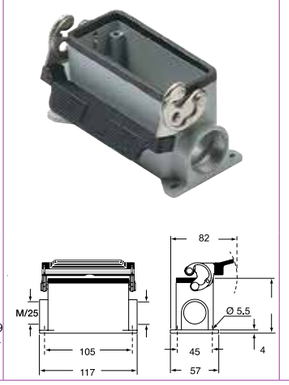
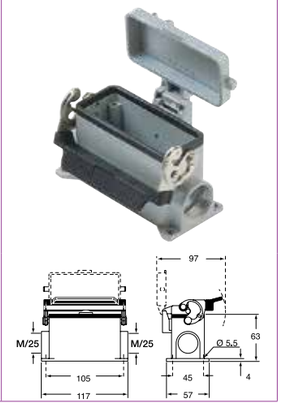
CHC 16	CHC 16G
	

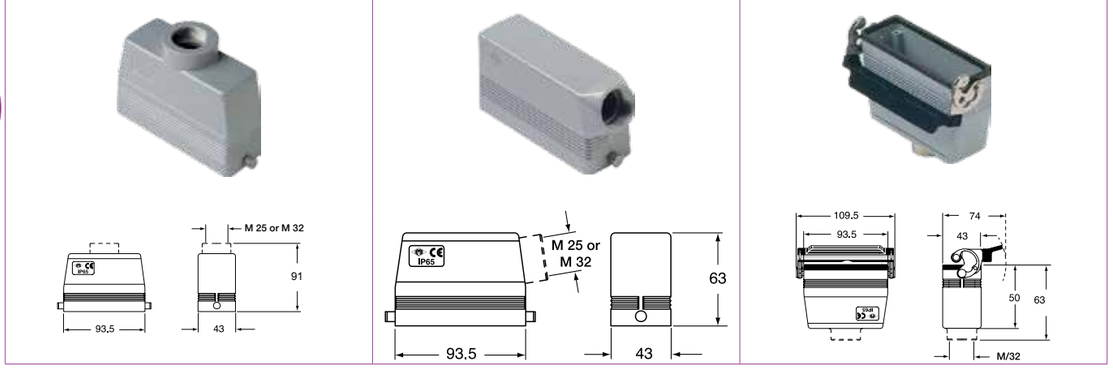
Male Inserts		Female Inserts	
CNEM 16 T 16 pin 16 amp 400 volt		**CNEF 16 T** 16 pin 16 amp 400 volt	
CDM 40 40 pin 10 amp 250 volt (crimp)		**CDF 40** 40 pin 10 amp 250 volt (crimp)	
CDDM 72 72 pin 10 amp 250 volt (crimp)		**CDDF 72** 72 pin 10 amp 250 volt (crimp)	
CPM 06 6 pin 35 amp 400 volt		**CPF 06** 6 pin 35 amp 400 volt	
CXM 4/0 4 Pin 80 amp 690 volt		**CXF 4/0** 4 Pin 80 amp 690 volt	
CXM 4/2 4 pin 80 amp 690 volt + 2 pin 16 amp 400 volt		**CXF 4/2** 4 pin 80 amp 690 volt + 2 pin 16 amp 400 volt	
CXM 6/36 6 pin 40 amp 690 volt + 36 pin 10 amp 250 volt		**CXF 6/36** 6 pin 40 amp 690 volt + 36 pin 10 amp 250 volt	
CXM 6/12 6 pin 40 amp 690 volt + 12 pin 10 amp 400 volt		**CXF 6/12** 6 pin 40 amp 690 volt + 12 pin 10 amp 400 volt	
CXM 12/2 12 Pin 40 amp 690 volt + 2 pin 10 amp 250 volt		**CXF 12/2** 12 Pin 40 amp 690 volt + 2 pin 10 amp 250 volt	

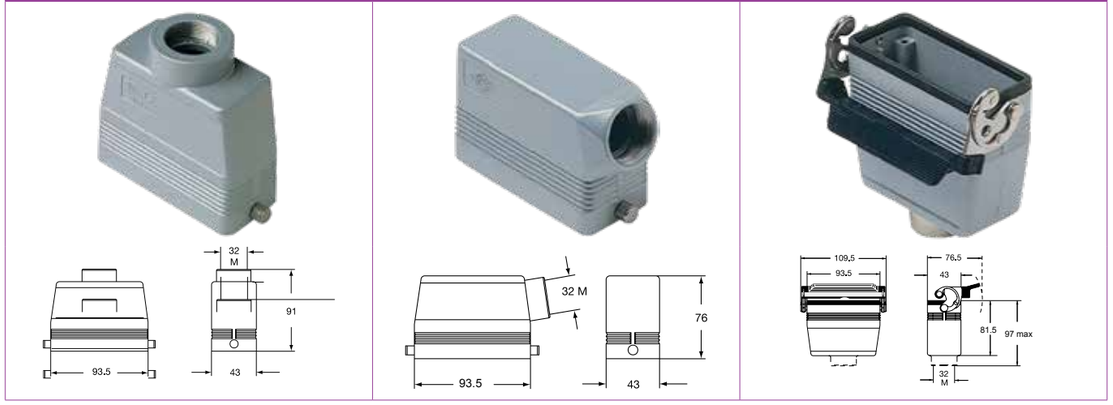
All dimensions in mm. For crimp pins refer to page 367.

CH-MH Enclosures

Size 77.27
Single Locking

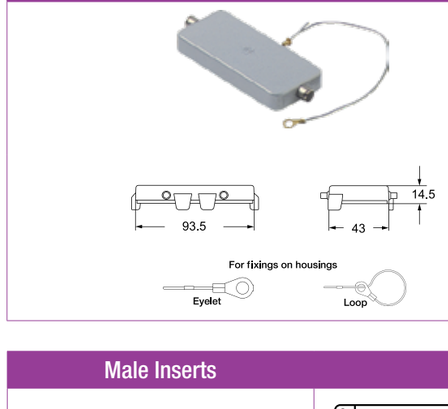
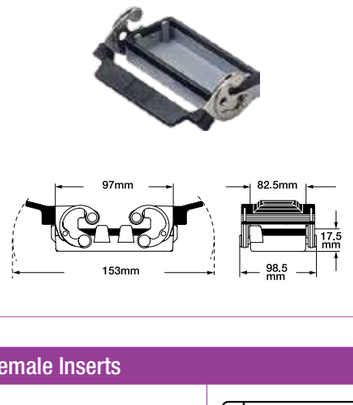
CHI 16 L	CHI 16 LS	MHP 16 L225	MHP 16 LS225
			

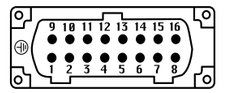
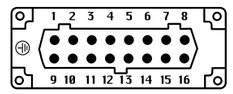
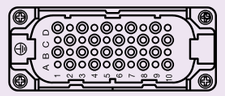
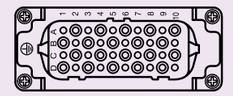
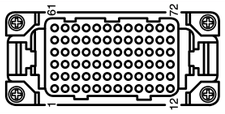
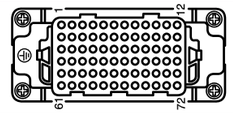
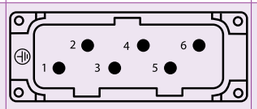
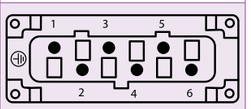
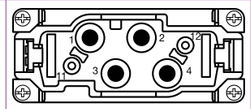
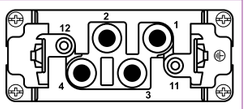
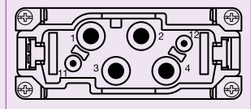
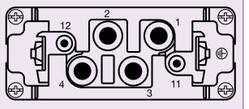
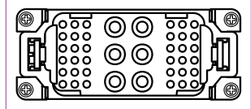
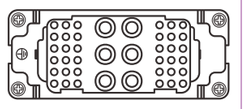
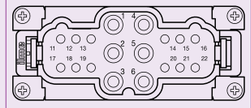
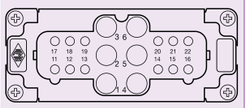
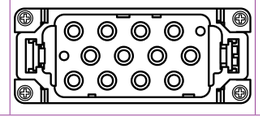
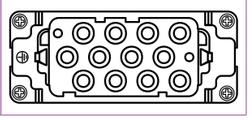
MHV 16 L25 MHV 16 L32	MHO 16 L25 MHO 16 L32	MHV 16 LG32
		

MAV 16 L32	MAO 16 L32	MAV 16 LG32
		

CH-MH Enclosures

Size 77.27
Single Locking

CHC 16 L	CHC 16 LG
	

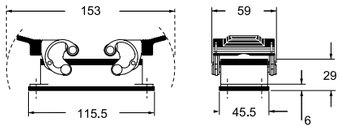
Male Inserts		Female Inserts	
CNEM 16 T 16 pin 16 amp 400 volt		**CNEF 16 T** 16 pin 16 amp 400 volt	
CDM 40 40 pin 10 amp 250 volt (crimp)		**CDF 40** 40 pin 10 amp 250 volt (crimp)	
CDDM 72 72 pin 10 amp 250 volt (crimp)		**CDDF 72** 72 pin 10 amp 250 volt (crimp)	
CPM 06 6 pin 35 amp 400 volt		**CPF 06** 6 pin 35 amp 400 volt	
CXM 4/0 4 Pin 80 amp 690 volt		**CXF 4/0** 4 Pin 80 amp 690 volt	
CXM 4/2 4 pin 80 amp 690 volt + 2 pin 16 amp 400 volt		**CXF 4/2** 4 pin 80 amp 690 volt + 2 pin 16 amp 400 volt	
CXM 6/36 6 pin 40 amp 690 volt + 36 pin 10 amp 250 volt		**CXF 6/36** 6 pin 40 amp 690 volt + 36 pin 10 amp 250 volt	
CXM 6/12 6 pin 40 amp 690 volt + 12 pin 10 amp 400 volt		**CXF 6/12** 6 pin 40 amp 690 volt + 12 pin 10 amp 400 volt	
CXM 12/2 12 Pin 40 amp 690 volt + 2 pin 10 amp 250 volt		**CXF 12/2** 12 Pin 40 amp 690 volt + 2 pin 10 amp 250 volt	

All dimensions in mm. For crimp pins refer to page 367.

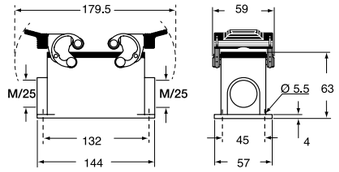
CH-MH Enclosures

Size 104.27
Double Locking

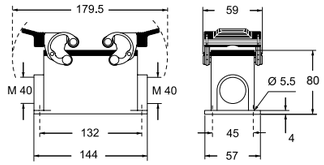
CHI 24



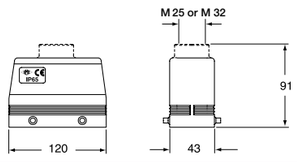
MHP 24.225



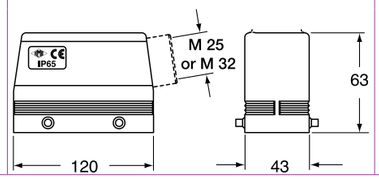
MAP 24.240



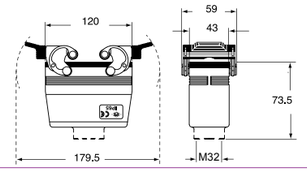
MHV 24.25 / MHV 24.32



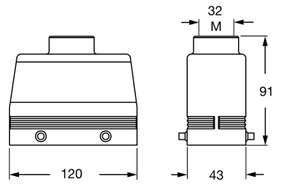
MHO 24.25 / MHO 24.32



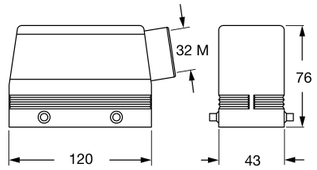
MHV 24 G32



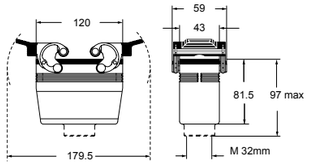
MAV 24.32



MAO 24.32



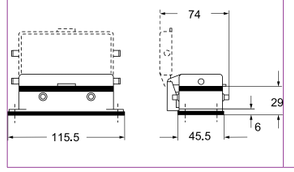
MAV 24 G32



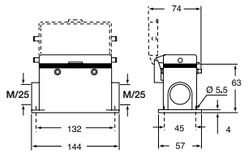
CH-MH Enclosures

Size 104.27
Double Lever

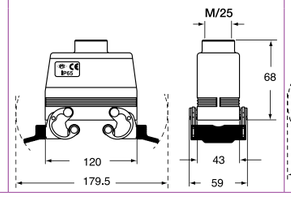
CHI 24 CS



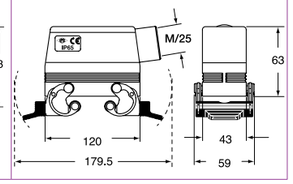
MHP 24 CS 225



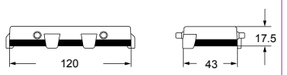
MHV 24 X25



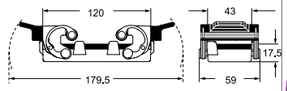
MHO 24 X25

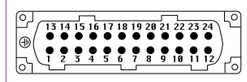
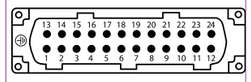
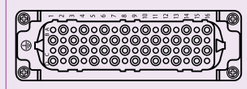
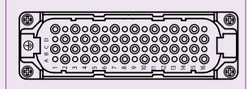
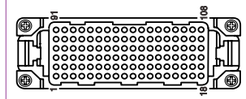
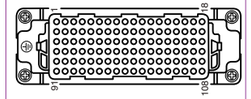
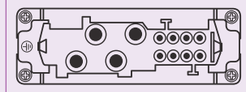
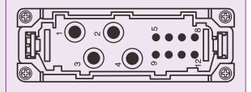
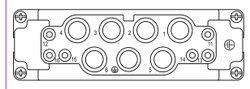
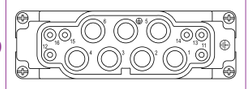


CHC 24



CHC 24 G



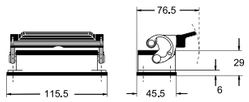
Male Inserts		Female Inserts	
CNEM 24 T 24 pin 16 amp 400 volt		**CNEF 24 T** 24 pin 16 amp 400 volt	
CDM 64 64 pin 10 amp 250 volt (crimp)		**CDF 64** 64 pin 10 amp 250 volt (crimp)	
CDDM 108 108 pin 10 amp 250 volt (crimp)		**CDDF 108** 108 pin 10 amp 250 volt (crimp)	
CXM 4 / 8 4 pin 80 amp 690 v + 8 pin 16a 400 v		**CXF 4 / 8** 4 pin 80 amp 690 v + 8 pin 16a 400 v	
CXM 6 / 6 6 Pin 100 amp 690volt + 6 pin 16amp 400volt		**CXF 6 / 6** 6 Pin 100 amp 690volt + 6 pin 16 amp 400volt	
CDSHM 42 42 Pin 10 amp 400 volt (Squich)		**CDSHF 42** 42 Pin 10 amp 400 volt (Squich)	

All dimensions in mm. For crimp pins refer to page 367.

CH-MH-MA Enclosures

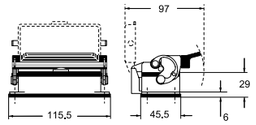
Size 104.27
Single Locking

CHI 24 L

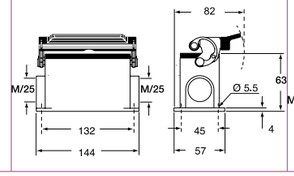


CHI 24 LS

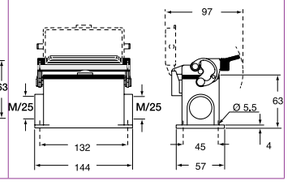
CHI LS



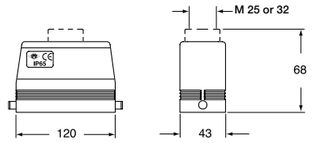
MHP 24 L225



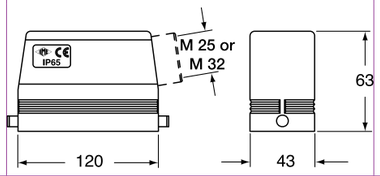
MHP 24 LS225



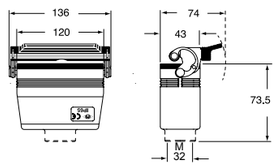
MHV 24 L25 / MHV 24 L32



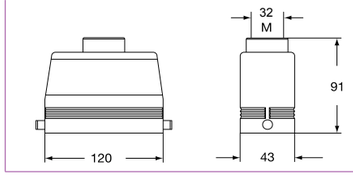
MHO 24 L25 / MHO 24 L32



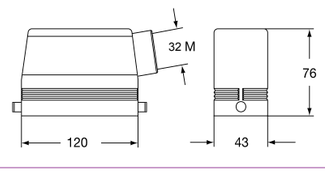
MHV 24 LG32



MAV 24 L32



MAO 24 L32



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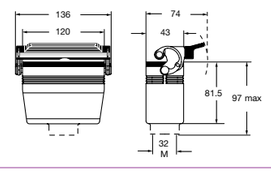
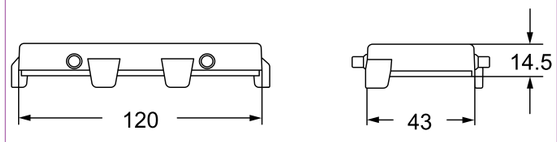


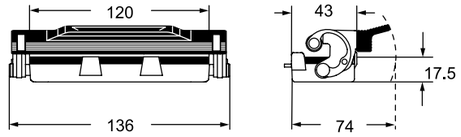
CH-MH-MA Enclosures

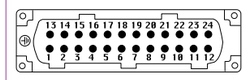
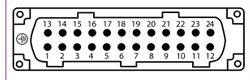
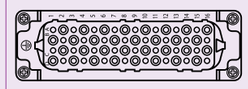
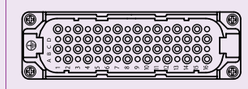
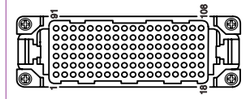
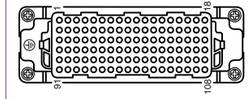
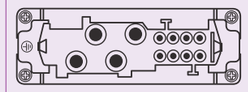
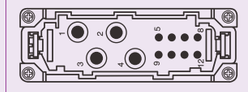
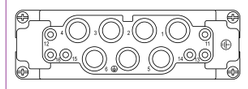
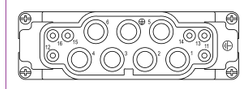
Size 104.27
Single Lever

CHC 24 L



CHL 24 LG



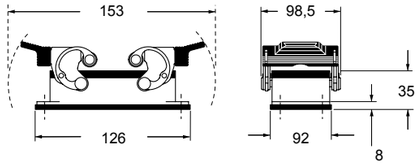
Male Inserts		Female Inserts	
CNEM 24 T 24 pin 16 amp 400 volt		**CNEF 24 T** 24 pin 16 amp 400 volt	
CDM 64 64 pin 10 amp 250 volt (crimp)		**CDF 64** 64 pin 10 amp 250 volt (crimp)	
CDDM 108 108 pin 10 amp 250 volt (crimp)		**CDDF 108** 108 pin 10 amp 250 volt (crimp)	
CXM 4 / 8 4 pin 80 amp 690 v + 8 pin 16a 400 v		**CXF 4 / 8** 4 pin 80 amp 690 v + 8 pin 16a 400 v	
CXM 6 / 6 6 Pin 100 amp 690volt + 6 pin 16amp 400volt		**CXF 6 / 6** 6 Pin 100 amp 690volt + 6 pin 16amp 400volt	

All dimensions in mm. For crimp pins refer to page 367.

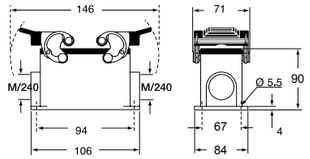
CH-MH-MA Enclosures

Size 77.62
Double Lever

CHI 32



MHP 32.240

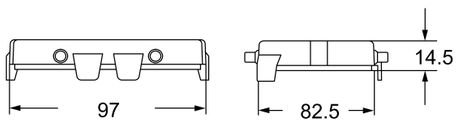


MHV 32.40

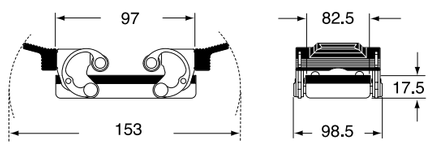
MHO 32.40

MHV 32 G40

CHC 32



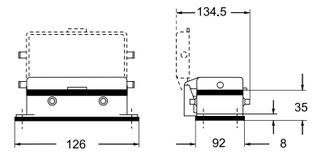
CHC 32G



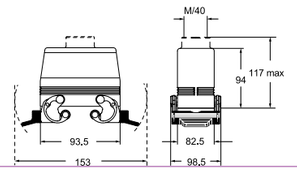
CH-MH-MA Enclosures

Size 77.62
Double Lever

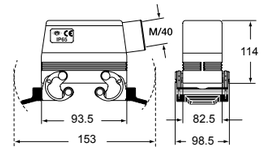
CHI 32 CS

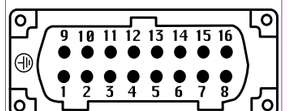
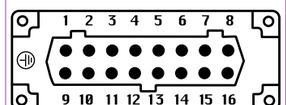
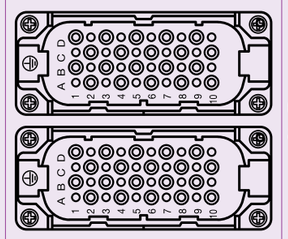
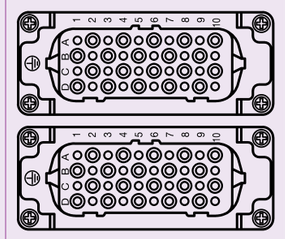
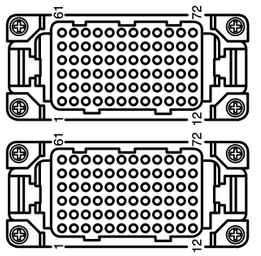
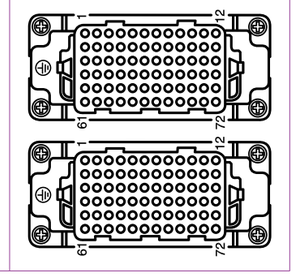


MHV 32 X40



MHO 32 X40



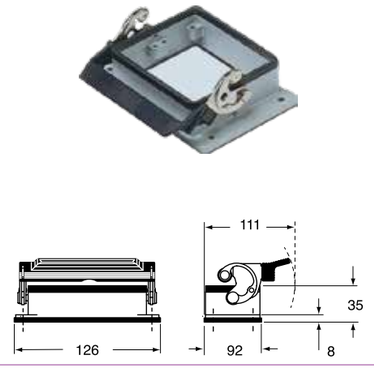
Male Inserts		Female Inserts	
CNEM 16 T 16 Pin (1-16) 16 amp 400 volt		**CNEF 16 T** 16 Pin (1-6) 16 amp 400 volt	
CNEM 16 TN 16 Pin (17-32) 16 amp 400 volt		**CNEF 16 TN** 16 Pin (17-32) 16 amp 400 volt	
CDM 40 x 2 (inserts) 80 pin 10 amp 250 volt (crimp)		**CDF 40 x 2 (inserts)** 80 pin 10 amp 250 volt (crimp)	
CDDM 72 x 2 (inserts) 144 pin 10 amp 250 volt (crimp)		**CDDF 72 x 2 (inserts)** 144 pin 10 amp 250 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367.

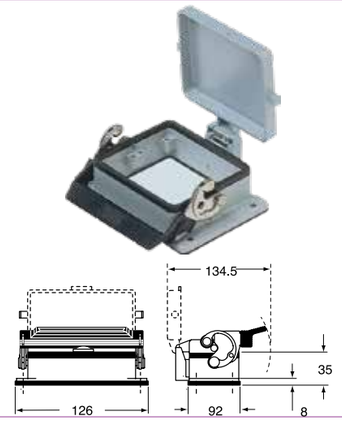
CH-MH-MA Enclosures

Size 77.62
Single Lever

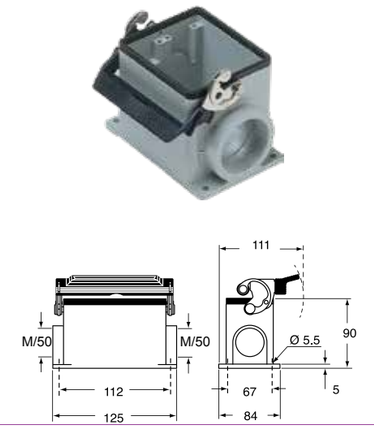
CHI 32 L



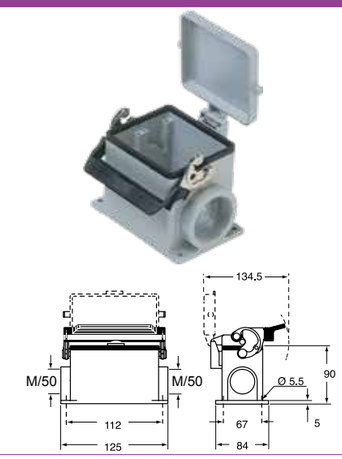
CHI 32 LS



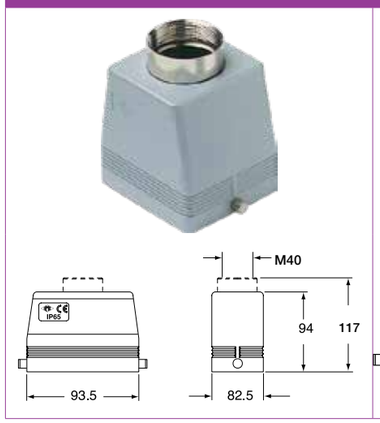
MHP 32 L250



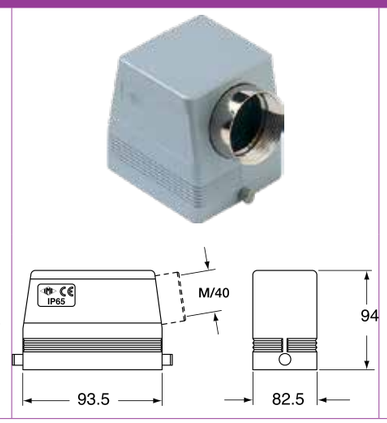
MHP 32 LS250



MHV 32 L40



MHO 32 L40

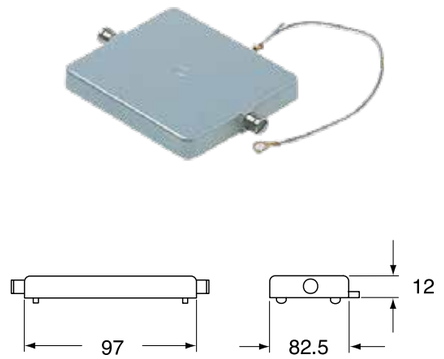


MHV 32 LG40

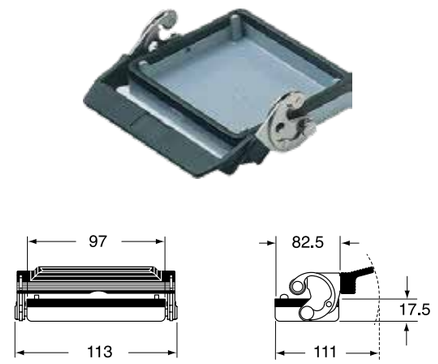
CH-MH-MA Enclosures

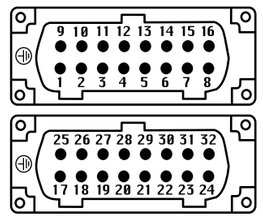
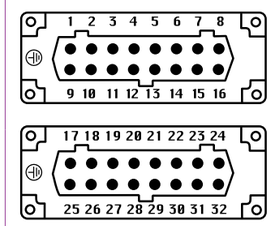
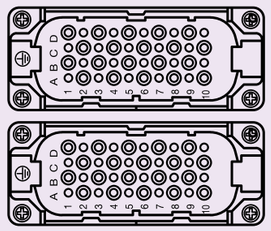
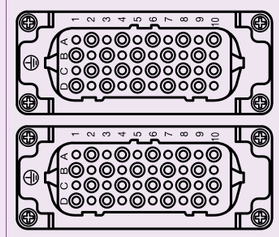
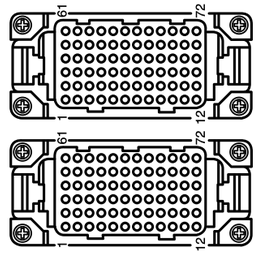
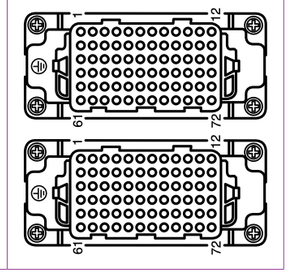
Size 77.62
Single Lever

CHC 32 L



CHC 32 LG



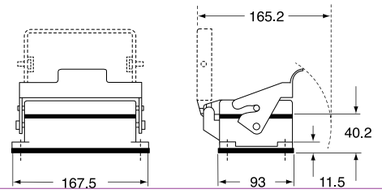
Male Inserts		Female Inserts	
CNEM 16 T 16 Pin (1-16) 16 amp 400 volt **CNEM 16 TN** 16 Pin (17-32) 16 amp 400 volt		**CNEF 16 T** 16 Pin (1-6) 16 amp 400 volt **CNEF 16 TN** 16 Pin (17-32) 16 amp 400 volt	
CDM 40 x 2 (inserts) 80 pin 10 amp 250 volt (crimp)		**CDF 40 x 2 (inserts)** 80 pin 10 amp 250 volt (crimp)	
CDDM 72 x 2 (inserts) 144 pin 10 amp 250 volt (crimp)		**CDDF 72 x 2 (inserts)** 144 pin 10 amp 250 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367.

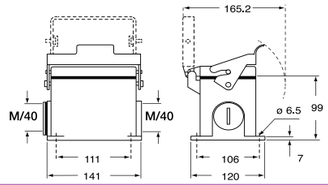
CH-MH Enclosures

Size 104.62

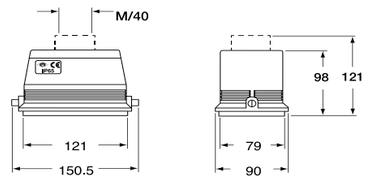
CHI 48 LS



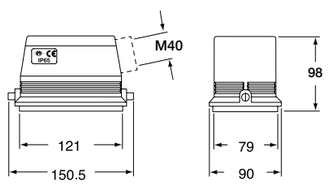
MHP 48 LS40



MHV 48 L40



MHO 48 L40



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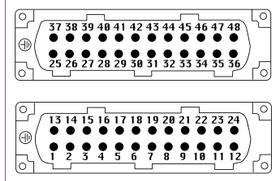
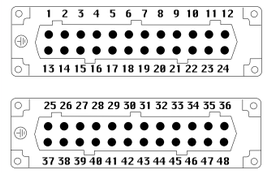
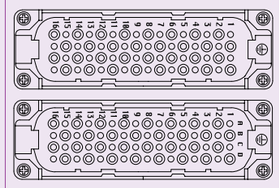
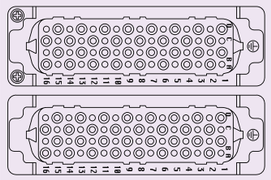
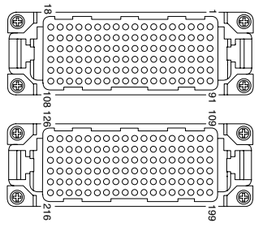
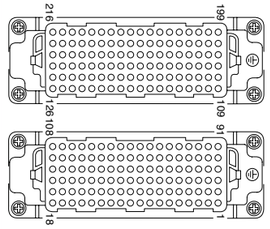
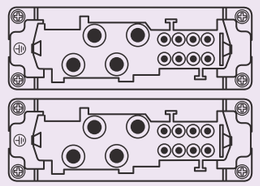
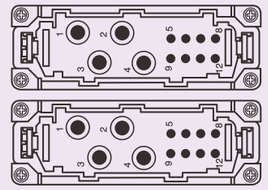
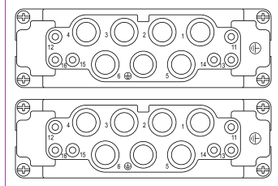
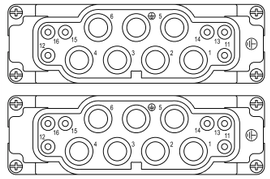
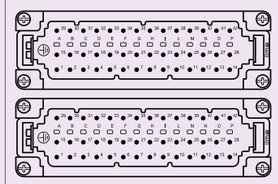
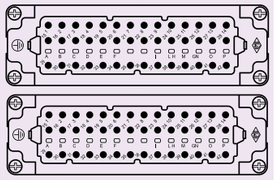
CH-MH Enclosures

Size 104.62

Male Inserts		Female Inserts	
CNEM 24 T 24 Pin (1-24) 16 amp 400 volt **CNEM 24 TN** 24 Pin (25-48) 16 amp 400 volt		**CNEF 24 T** 24 Pin (1-24) 16 amp 400 volt **CNEF 24 TN** 24 Pin (25-48) 16 amp 400 volt	
CDM 64 x 2 128 Pin 10 amp 250 volt (crimp)		**CDF 64 x 2** 128 Pin 10 amp 250 volt (crimp)	
CDDM 108 108 Pin (1-108) 10 amp 250 volt (crimp) **CDDM 108 N** 108 Pin (109-216) 10 amp 250 volt (crimp)		**CDDF 108** 108 Pin (1-108) 10 amp 250 volt (crimp) **CDDF 108 N** 108 Pin (109-216) 10 amp 250 volt (crimp)	
CXM 4 / 8 4 pin 80 amp 690 v + 8 pin 16a 400 v		**CXF 4 / 8** 4 pin 80 amp 690 v + 8 pin 16a 400 v	
CXM 6 / 6 6 Pin 100 amp 690volt + 6 pin 16amp 400volt		**CXF 6 / 6** 6 Pin 100 amp 690volt + 6 pin 16amp 400volt	
CDSHM 42 x 2 (inserts) 42 Pin 10 amp 400 volt (Squich)		**CDSHF 42 x 2 (inserts)** 42 Pin 10 amp 400 volt (Squich)	

All dimensions in mm. For crimp pins refer to page 367.

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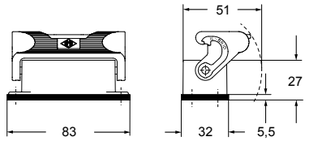
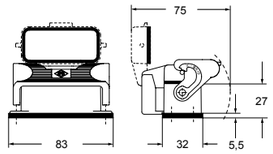
CZ-MZ Enclosures

Size 49.16

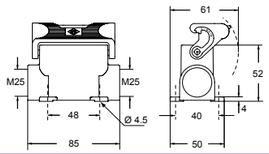
CZI 15 L



CZI 15 LS



MZP 15 L225



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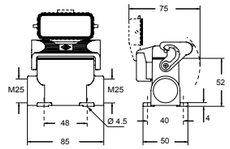
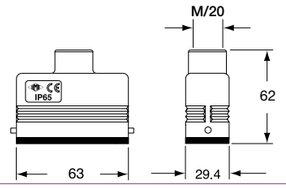
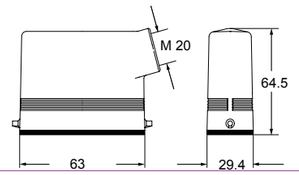


MZV 15 L20



MZO 15 L20



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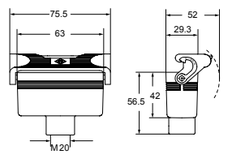
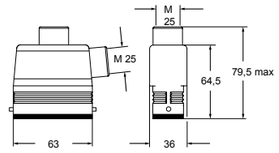


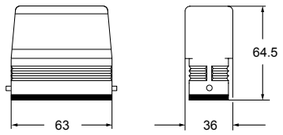
CZ-MZ Enclosures

Size 49.16

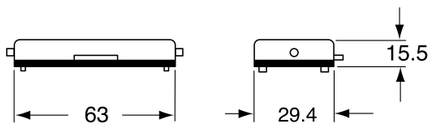
MZAV 15 L25



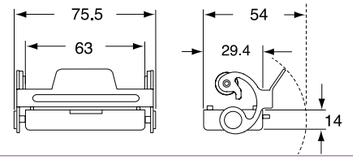
MZAO 15 L25

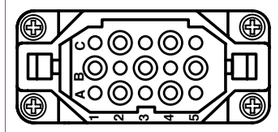
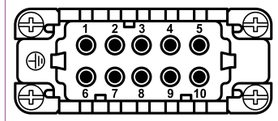
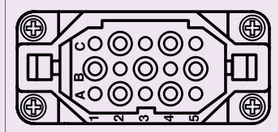
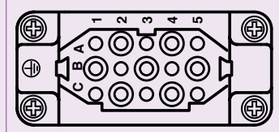


CZC 15 L



CZC 15 LG



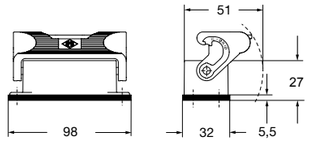
Male Inserts		Female Inserts	
CDAM 10 10 Pin 16 amp 400 volt		**CDAF 10** 10 Pin 16 amp 400 volt	
CDM 15 15 Pin 10 amp 250 volt (crimp)		**CDF 15** 15 Pin 10 amp 250 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367.

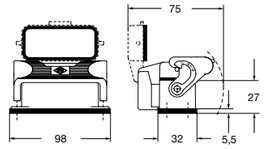
CZ-MZ Enclosures

Size 66.16

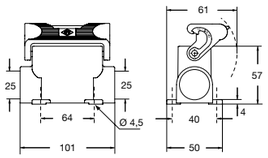
CZI 25 L



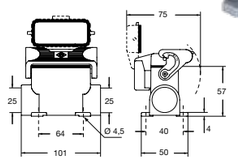
CZI 25 LS



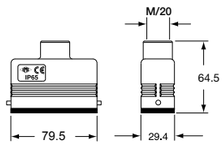
MZAP 25 L225



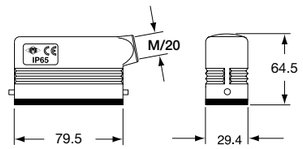
MZAP 25 LS225



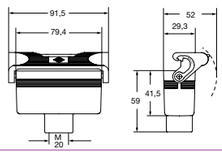
MZV 25 L20



MZO 25 L20



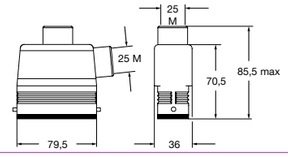
MZV 25 LG20



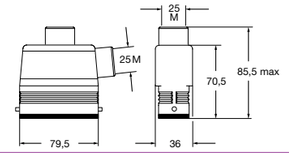
CZ-MZ Enclosures

Size 66.16

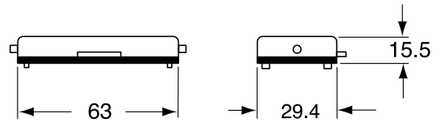
MZAV 25 L25



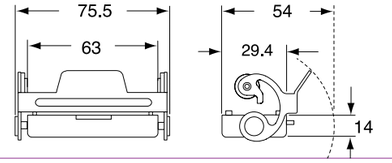
MZAO 25 L25

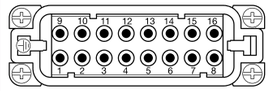
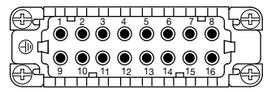
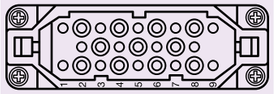
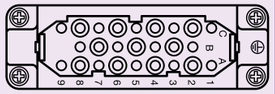
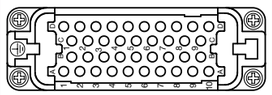
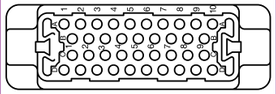


CZC 25 L



CZC 25 LG



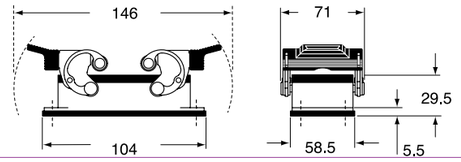
Male Inserts		Female Inserts	
CDAM 16 16 Pin 16 amp 400 volt		**CDAF 16** 16 Pin 16 amp 400 volt	
CDM 25 25 Pin 10 amp 250 volt (crimp)		**CDF 25** 25 Pin 10 amp 250 volt (crimp)	
CDDM 38 38 Pin 10 amp 250 volt (crimp)		**CDDF 38** 38 Pin 10 amp 250 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367.

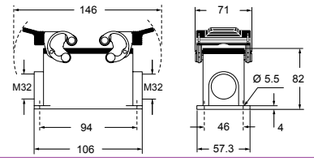
CH-MH-MA Enclosures

Size 66.40

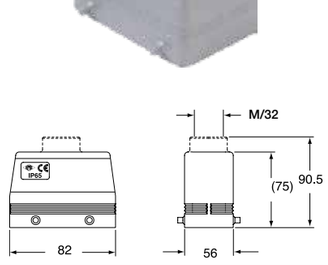
CHI 50



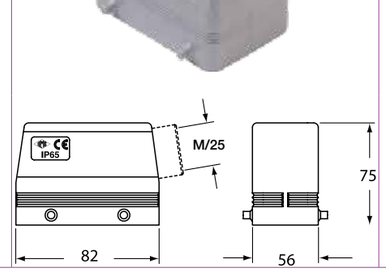
MHP 50.232



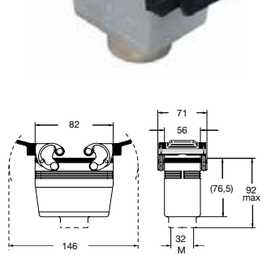
MAV 50.32 (high construction)



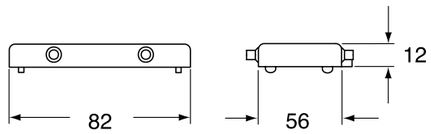
MH0 50.25



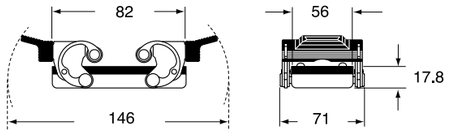
MAV 50 G32



CHC 50



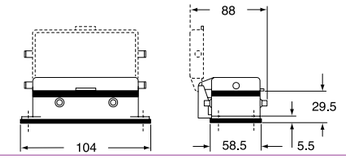
CHC 50 G



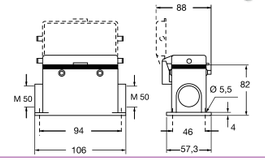
CH-MH-MA Enclosures

Size 66.40

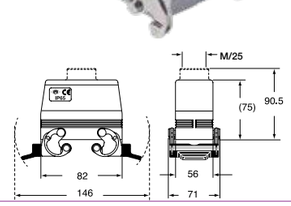
CHI 50 CS



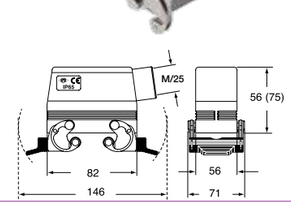
MHP 50 CS232

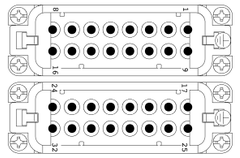
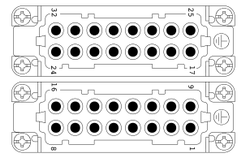
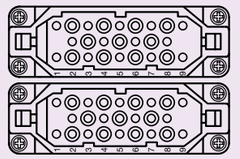
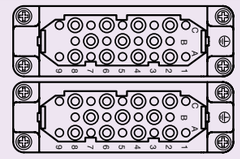
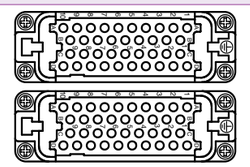
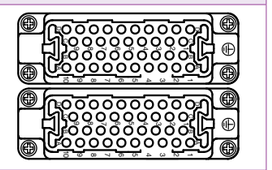


MAV 50 X25



MHO 50 X25



Male Inserts		Female Inserts	
CDAM 16 16 Pin (1-16) 16 amp 400 volt **CDAM 16 N** 16 Pin (17-32) 16 amp 400 volt		**CDAF 16** 16 Pin (1-16) 16 amp 400 volt **CDAF 16 N** 16 Pin (17-32) 16 amp 400 volt	
CDM 25 x 2 (inserts) 50 Pin 10 amp 250 volt (crimp)		**CDF 25 x 2 (inserts)** 50 Pin 10 amp 250 volt (crimp)	
CDDM 38 x 2 (inserts) 76 Pin 10 amp 250 volt (crimp)		**CDDF 38 x 2 (inserts)** 76 Pin 10 amp 250 volt (crimp)	

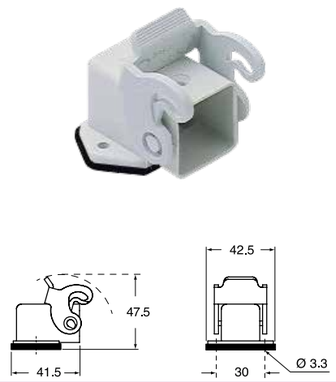
All dimensions in mm. For crimp pins refer to page 367.

CK-MK Plastic Enclosures

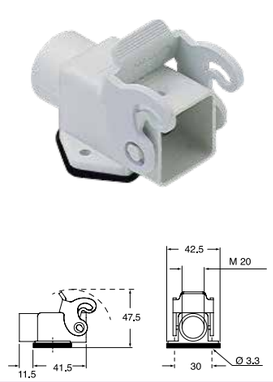
Size 21.21

CK 03 I

CK 03 IA

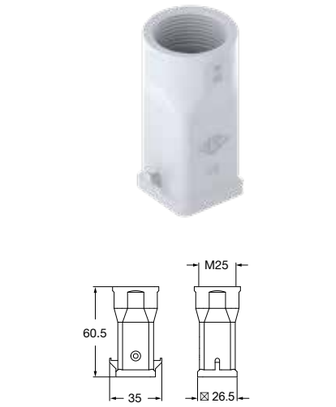


MK IAP20

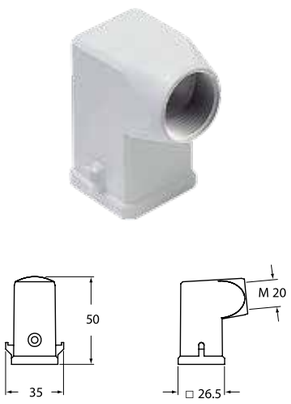


MK V20

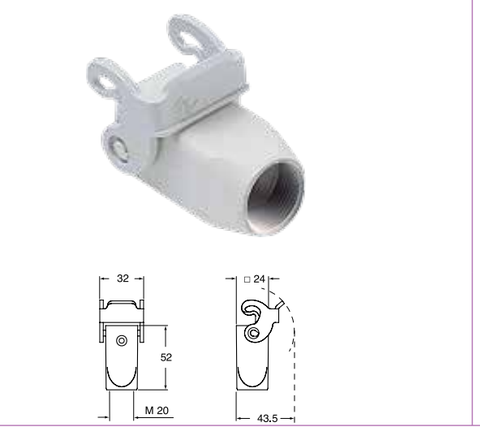
MK V25



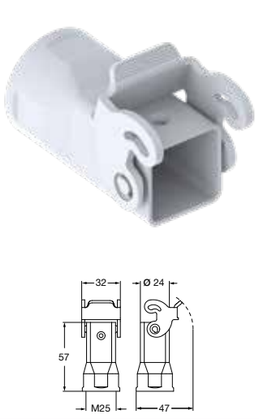
MK VA20



MK VG20

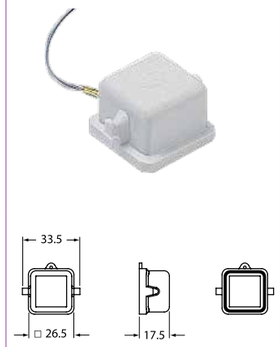
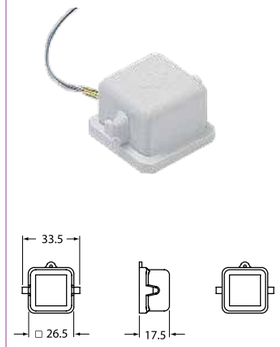
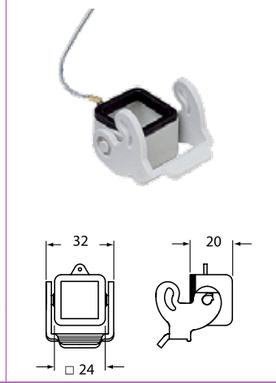
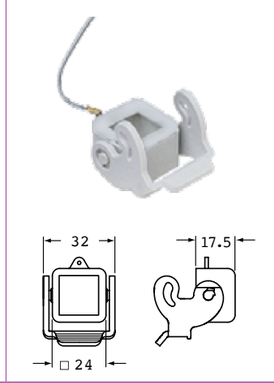


MK VG25



CK-MK Plastic Enclosures

Size 21.21

CK 03 C for female inserts	CK 03 CA for male inserts	CK 03 CX for female inserts	CK 03 CXA for male inserts
			

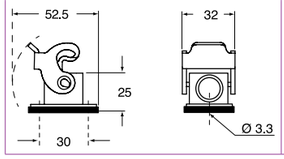
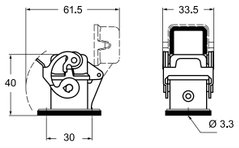
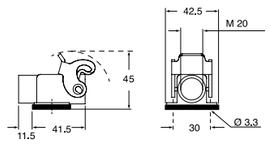
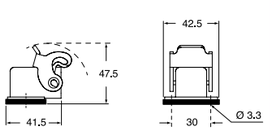
CKR 65	CKR 65 D
gasket & screw kit for IP66/IP67/IP69	gasket & screw kit for IP66/IP67/IP69 only for CD07/08 inserts
	

Male Inserts		Female Inserts	
CKM 03 3pin & Earth 10 amp 250 volt		**CKF 03** 3 pin & Earth 10 amp 250 volt	
CKM 04 4pin & Earth 10 amp 250 volt		**CKF 04** 4 pin & Earth 10 amp 250 volt	
CDM 07 7pin & Earth 10 amp 250 volt (crimp)		**CDF 07** 7pin & Earth 10 amp 250 volt (crimp)	
CDM 08 8pin 10 amp 50 volt (crimp)		**CDF 08** 8 pin 10 amp 50 volt (crimp)	
CQM 05 5 pin & Earth 16 amp 400 volt (crimp)		**CQF 05** 5 pin & Earth 16 amp 400 volt (crimp)	
CQM 12 12 Pin 10 amp 400 volt (crimp)		**CQF 12** 12 Pin 10 amp 400 volt (crimp)	
CQM 21 21 Pin 6.5 amp 50 volt (crimp)		**CQF 21** 21 Pin 6.5 amp 50 volt (crimp)	
CQ4M 02 2 Pin 40 amp 400 volt (crimp)		**CQ4F 02** 2 Pin 40 amp 400 volt (crimp)	

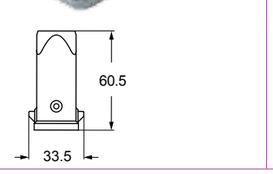
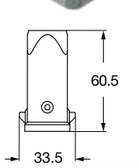
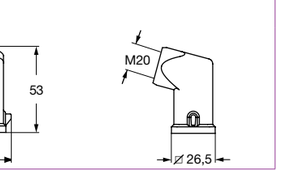
All dimensions in mm. For crimp pins refer to page 367.

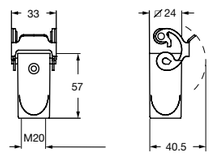
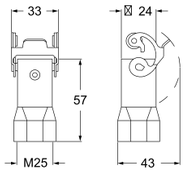
CK-MK Metal Enclosures

Size 21.21

CKAX 03 I	CKAX 03 ILS	CKAX 03 IA	MKAX IAP20
			
			

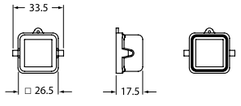
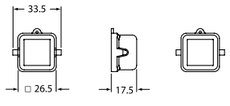
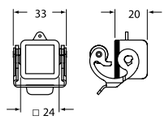
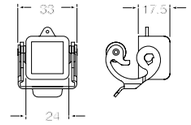
5

MKA V20	MKA V25	MKA VA20
		
		

MKAX VG20	MKAX VG25
	
	

CK-MK Metal Enclosures

Size 21.21

CKA 03 C for female inserts	CKA 03 CA for male inserts	CKAX 03 CX for female inserts	CKAX 03 CXA for male inserts
			
			

5

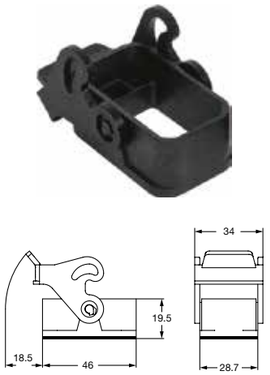
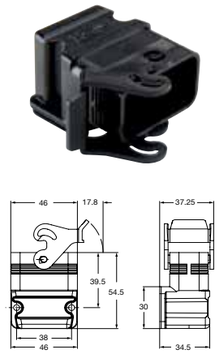
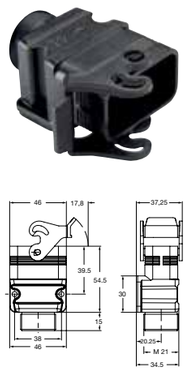
CKR 65
gasket & screw kit for IP66/IP67/IP69


Male Inserts		Female Inserts	
CKM 03 3pin & Earth 10 amp 250 volt		**CKF 03** 3 pin & Earth 10 amp 250 volt	
CKM 04 4pin & Earth 10 amp 250 volt		**CKF 04** 4 pin & Earth 10 amp 250 volt	
CDM 08 8pin 10 amp 50 volt (crimp)		**CDF 08** 8 pin 10 amp 50 volt (crimp)	
CQM 05 5 pin & Earth 16 amp 400 volt (crimp)		**CQF 05** 5 pin & Earth 16 amp 400 volt (crimp)	
CQM 12 12 Pin 10 amp 400 volt (crimp)		**CQF 12** 12 Pin 10 amp 400 volt (crimp)	
CQM 21 21 Pin 6.5 amp 50 volt (crimp)		**CQF 21** 21 Pin 6.5 amp 50 volt (crimp)	
CQ4M 02 2 Pin 40 amp 400 volt (crimp)		**CQ4F 02** 2 Pin 40 amp 400 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367.

Thermoplastic enclosures

Size 32.13

CQ 08 I	CQ 08 IA	CQ 08 IAP
		

CQ 08 V	CQ 08 VA	MQ 08 V0225
		

CQ 08 VG	CQ 08 C & CQ 08 CA	CRQ 16 & CRQ 21
		

Thermoplastic enclosures size “32.13”

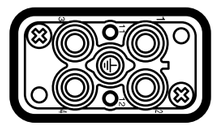
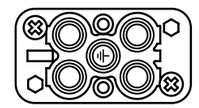
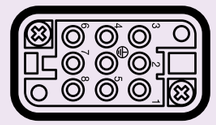
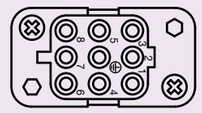
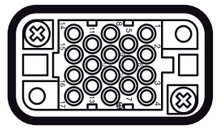
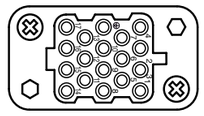
For use with all size “32.13” connector inserts.

Characteristics of materials for CQ - MQ series.

In self-extinguishing grey RAL 7035 or jet black RAL 9005 thermoplastic material;

gaskets in anti-aging, oil-resistant, grease-resistant and fuel-resistant NBR vinyl nitrile elastomer;

with single-block locking lever in self-extinguishing thermoplastic material.

Male Inserts		Female Inserts	
CQM 04/2 4 Pin 40 amp + 2 Pin 10 amp (crimp)		**CQF 04/2** 4 Pin 40 amp + 2 Pin 10 amp (crimp)	
CQM 08 8 Pin 16 amp 500 volt (crimp)		**CQF 08** 8 Pin 16 amp 500 volt (crimp)	
CQM 17 17 Pin 10 amp 160 volt (crimp)		**CQF 17** 17 Pin 10 amp 160 volt (crimp)	

All dimensions in mm. For crimp pins refer to page 367

MIXO Modular Units - General Overview

The MIXO series is a system of modular units for special applications that uses the traditional ILMA enclosures.

Each enclosure can house different types of connections such as: electric signals and contacts for the conduction of compressed air and liquids with pressure values of up to 8 bars.

The inserts are arranged side by side to form a single **compact block** which is inserted into metalic frames with mandatory housing. Once the modules have been inserted and locked with the special tabs, the connector can then be inserted into the enclosure.

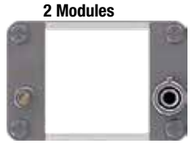
The modular system makes it easy to access a series of contacts inserted in the frame (e.g., for substitution, check or the addition of signals with new inserts for needs not forseen during the initial installation) without having to disassemble the entire connector.

ILMA Mixo series of modular connectors is an open connector system that provides versatile configuration to the users individual requirements giving the **freedom to assemble a customised connector** from a range of optical signals or air. The module range is continuously expanded allowing new cofigurations to be realised.

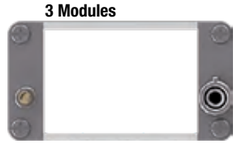
Frames	One or two-lever metalic enclosures
CX 01 T	size “49.16”
CX 02 TM/TF	size “44.27”
CX 03 TM/TF	size “57.27”
CX 04 TM/TF	size “77.27”
CX 06 TM/TF	size “104.27”
CX 04 TM/TF (x 2)	size “77.62”
CX 06 TM/TF (x 2)	size “104.62”

CX 01 T
Module 1

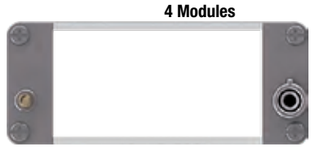
CX 02 TF /TM
2 Modules



CX 03 TF /TM
3 Modules

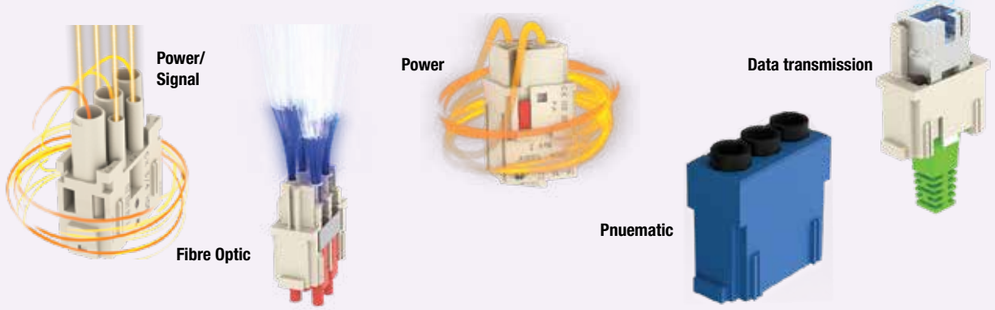


CX 04 TF /TM
4 Modules



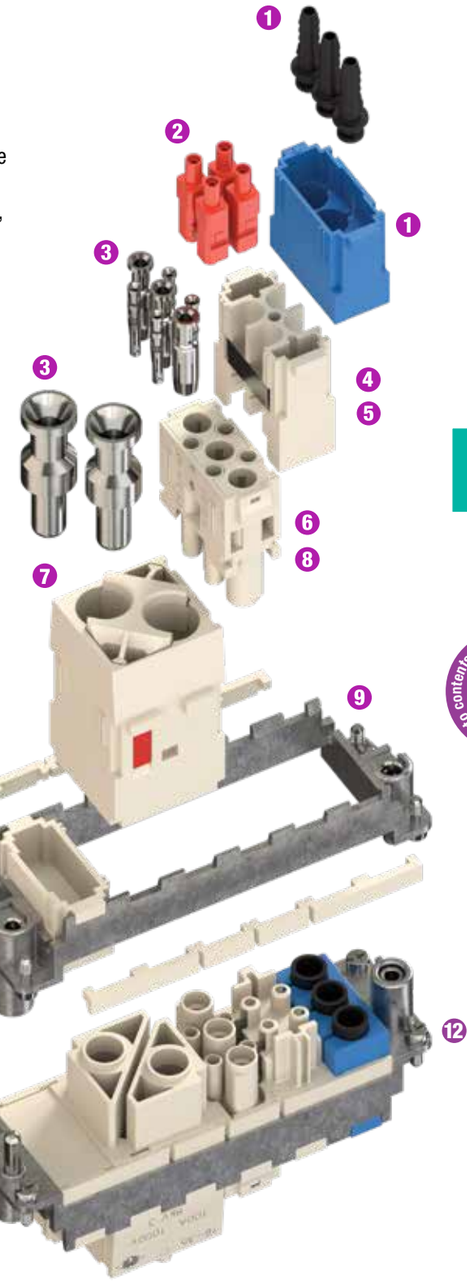
CX 06 TF /TM
6 Modules

Mixo enclosures provie the possibility of innumerable applications.



Mixo Modular Units - Technical Characteristics

1. Pneumatic contacts in plastic with hose barb connection.
2. Fibre optic contacts SC type.
3. Electric contacts in silver-plated or gold-plated brass with connections to the conductors via crimping, spring clamp or axial screw.
4. Modular inserts of identical size with insertion system for forming the complete module and frame lock tab.
5. Inserts in self-extinguishing thermoplastic material, reinforced with glass fibre, UL 94V-0 approved, with a working temperature range of -40 °C to +125 °C.
6. Inserts in conformance with the requirements of the EN 61984 standard and certified and marked with the UL, CSA, CQC, DNV-GL, BV, EAC marks.
7. Inserts with patented “swallowtails” to prevent incorrect coupling.
8. Position of contacts identified with numbers or codes on both sides of every insert.
9. Male/female module carrier frames with mandatory housings and polarity, in die-cast zinc alloy.
10. Module lock tab, may be divided according to the number of modules used; it guarantees a perfect stability of the modules during wiring and coupling/ uncoupling of the connectors.
11. Asymmetric protective earth contacts (two per frame) with wide contact surface to prevent incorrect coupling; when two or more identical connectors of the MIXO series are used, coded pins may prevent incorrect coupling (refer to pages 684, 685 and 689).
12. Captive frame fastening screws, with spring washer.
13. Dummy module for unused frame slots.

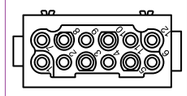


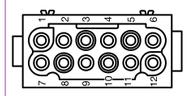
ADVANTAGES

- Easy and user-friendly assembly of the complete multi-module insert before fixing it on the relevant sized metal frame;
- use of proprietary ILME technology providing each module with “swallowtails” (lateral keys/keyways), for reciprocal locking of modules and overall assembly of the insert into rigid (non hinged) frames with snap-in locking strips;
- faster and easier assembly compared with competitor solutions (easier handling of modules as a complete block than e.g. 6 independent parts);
- intermateability at “complete connector” (modules in frame) with other industry standard products;
- robust and long lasting prevailing crimp connection technology (largely preferred over screw type technology in high vibration and shock environments).

MIXO Modular Units

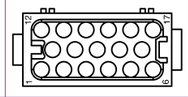
12 Pole 10 amp

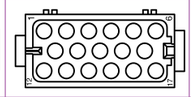




Crimp Pins To Suit	
Female	CDFA
Male	CDMA
See Page 367	

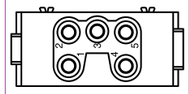
17 Pole 10 amp

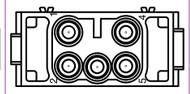




Crimp Pins To Suit	
Female	CDFA
Male	CDMA
See Page 367	

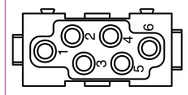
5 Pole 16 amp

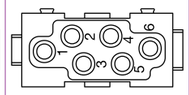




Inserts come with spring loaded contacts

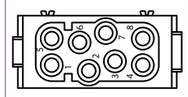
6 Pole 16 amp

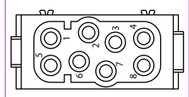




Crimp Pins To Suit	
Female	CCFA
Male	CCMA
See Page 367	

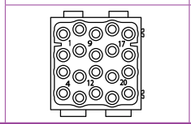
8 Pole 16 amp

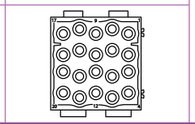




Crimp Pins To Suit	
Female	CCFA
Male	CCMA
See Page 367	

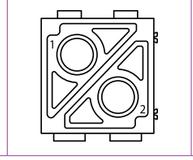
20 Pole 16 amp

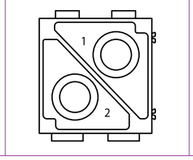




Crimp Pins To Suit	
Female	CCFA
Male	CCMA
See Page 367	

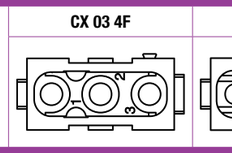
2 Pole 100 amp

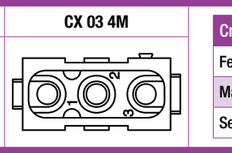




Crimp Pins To Suit	
Female	CGFA
Male	CGMA
See Page 367	

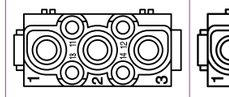
3 Pole 40 amp

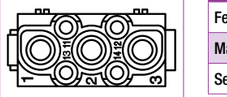




Crimp Pins To Suit	
Female	CXFA
Male	CXMA
See Page 367	

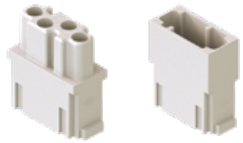
3 Pole 40 amp + 4 pole 10 amp

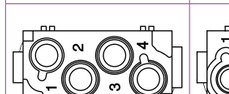




Crimp Pins To Suit	
Female	CXFA
Male	CXMA
See Page 367	

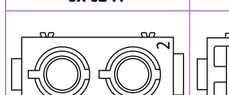
4 Pole 40 amp





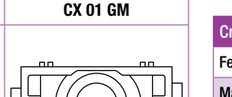
Crimp Pins To Suit	
Female	CXFA
Male	CXMA
See Page 367	

2 Pole 70 amp



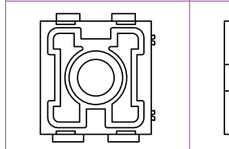
Crimp Pins To Suit	
Female	CX7FA
Male	CX7MA
See Page 367	

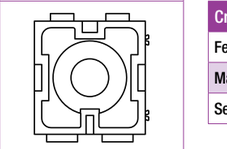
1 Pole 100 amp



Crimp Pins To Suit	
Female	CGFA
Male	CGMA
See Page 367	

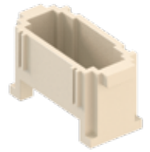
1 Pole 200 amp





Crimp Pins To Suit	
Female	CYFA
Male	CYMA
See Page 367	

Dummy Module



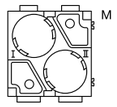
CX FM

There are more combinations of modular units available.

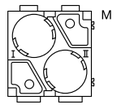
MIXO Modular Units

4 pole + shield 10 amp BUS Connector

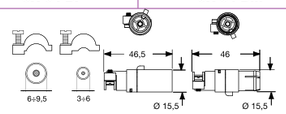
CX 02 BF



CX 02 BM



CX 04 BF | **CX 04 BM**

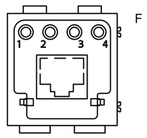


2 cable clamps included in the package

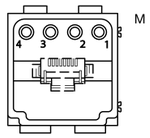
Crimp Pins To Suit	
Female	CDFA
Male	CDMA
See Page ???	

RJ 45 8 Data Contacts + 4 x 10 amp contacts

CX 01 JF

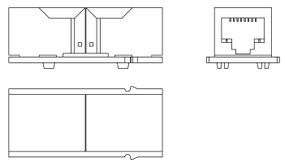


CX 01 JM

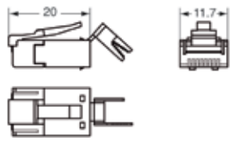


Crimp Pins To Suit	
Female	CDFA
Male	CDMA
See Page ???	

CX 8 JF

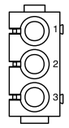


CX 8 JM

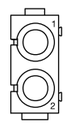


Pneumatic Contacts Modules

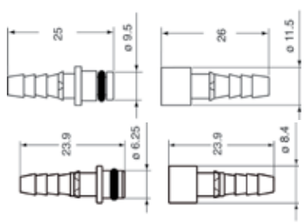
CX 03 P



CX 02 P



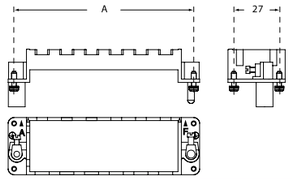
Pneumatic Contacts



female contacts without closing valve	
- for tubes with internal ø 1.6 mm	CX 1.6 PF
- for tubes with internal ø 3 mm	CX 3.0 PF
- for tubes with internal ø 4 mm	CX 4.0 PF
- for tubes with internal ø 6 mm	CX 6.0 PF
male contacts without closing valve	
- for tubes with internal ø 1.6 mm	CX 1.6 PM
- for tubes with internal ø 3 mm	CX 3.0 PM
- for tubes with internal ø 4 mm	CX 4.0 PM
- for tubes with internal ø 6 mm	CX 6.0 PM
female contacts with closing valve	
- for tubes with internal ø 1.6 mm	CX 1.6 VC
- for tubes with internal ø 3 mm	CX 3.0 VC
- for tubes with internal ø 4 mm	CX 4.0 VC
- for tubes with internal ø 6 mm	CX 6.0 VC
male contacts (use contacts without closing valve)	

Frames for Modular Units

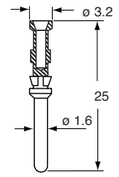
dimensions in mm



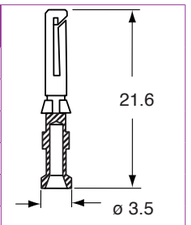
Part No - type for hoods	Part No - type for housings
CX 02 TM	CX 02 TF
CX 03 TM	CX 03 TF
CX 04 TM	CX 04 TF
CX 06 TM	CX 06 TF
Part No.	A (mm) for housings size
CX 02 TM/TF	44 44.27
CX 03 TM/TF	57 57.27
CX 04 TM/TF	77.5 77.27
CX 06 TM/TF	104 104.27

Crimp Pins

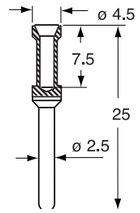
Male Pins 10amp Silver Plated		
CDMA	0.3	0.14 - 0.37 mm²
CDMA	0.5	0.5 mm²
CDMA	0.7	0.75mm²
CDMA	1.0	1.0mm²
CDMA	1.5	1.5mm²
CDMA	2.5	2.5mm²



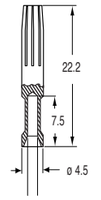
Female Pins 10amp Silver Plated		
CDFA	0.3	0.14 - 0.37 mm²
CDFA	0.5	0.5 mm²
CDFA	0.7	0.75mm²
CDFA	1.0	1.0mm²
CDFA	1.5	1.5mm²
CDFA	2.5	2.5mm²



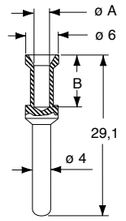
Male Pins 16amp Silver Plated		
CCMA	0.5	0.5 mm²
CCMA	0.7	0.75mm²
CCMA	1.0	1.0mm²
CCMA	1.5	1.5mm²
CCMA	2.5	2.5mm²
CCMA	3.0	3mm²
CCMA	4.0	4mm²



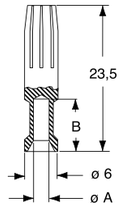
Female Pins 16amp Silver Plated		
CCFA	0.5	0.5 mm²
CCFA	0.7	0.75mm²
CCFA	1.0	1.0mm²
CCFA	1.5	1.5mm²
CCFA	2.5	2.5mm²
CCFA	3.0	3mm²
CCFA	4.0	4mm²



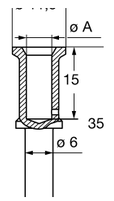
Male Pins 40amp Silver Plated		
CXMA	1.5	1.5mm²
CXMA	2.5	2.5mm²
CXMA	4.0	4mm²
CXMA	6.0	6mm²



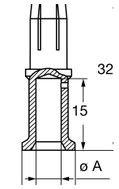
Female Pins 40amp Silver Plated		
CXFA	1.5	1.5mm²
CXFA	2.5	2.5mm²
CXFA	4.0	4mm²
CXFA	6.0	6mm²



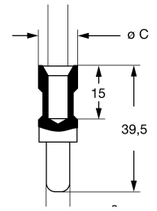
Male Pins 70amp Silver Plated		
CX7MA	10	10mm²
CX7MA	16	16mm²
CX7MA	25	25mm²



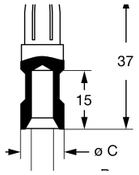
Female Pins 70amp Silver Plated		
CX7FA	10	10mm²
CX7FA	16	16mm²
CX7FA	25	25mm²



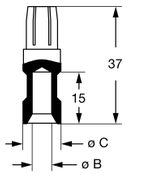
Male Pins 100amp Silver Plated		
CGMA	10	10mm²
CGMA	16	16mm²
CGMA	25	25mm²
CGMA	35	35mm²



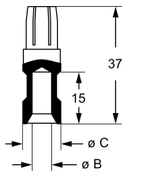
Female Pins 100amp Silver Plated		
CGFA	10	10mm²
CGFA	16	16mm²
CGFA	25	25mm²
CGMA	35	35mm²



Male Pins 200amp Silver Plated		
CYMA	16	16mm²
CYMA	25	25mm²
CYMA	35	35mm²
CYMA	50	50mm²
CYMA	70	70mm²



Female Pins 200amp Silver Plated		
CYFA	16	16mm²
CYFA	25	25mm²
CYFA	35	35mm²
CYFA	50	50mm²
CYFA	70	70mm²



Crimp Tools & Accessories for Crimp Contacts

CCPZ TP

Crimp Tool for 10 amp and 16 amp contacts

Front view showing incroporated crimping dies

Crimp Tool for series **CD** (10A) & **CC** (16A) contacts.
Crimping dies and turret head are included.

Insertion tool Part No. **CCINA**

Removal tools
10amp contacts Part No. **CCES**

16 amp contcacts Part No. **CQES**

Rear view showing incorporated turrett head positioner

CCPZ RN

Crimp Tool for 10 amp, 16 amp & 40 amp contacts

Front view

Crimp Tool for series **CD** (10A), **CC** (16A) & **CX** (40A) contacts.
Crimping dies and turret head are included.

Insertion tool Part No. **CCINA**

Removal tools
10amp contacts Part No. **CCES**

16 amp contcacts Part No. **CQES**

40 amp contacts Part No. **CXES**

Rear view showing incorporated positioner

CCINA

Insertion Tool

CCES

Removal Tool for 10 amp contacts

CQES

Removal Tool for 16 amp contacts

CXES

Removal Tool for 40 amp contacts

Coding Pins

CR20 single coding pins
CRM/CRF double coding pins

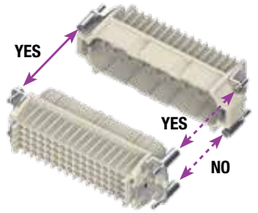
Each series of connector inserts is made in such a way as to make incorrect coupling between inserts of different series impossible.

When a number of identical connectors with different functions are mounted closely together these must be selected in such a way as to prevent the coupling of a mobile part on a non-corresponding fixed part and consequent damage and breakdown.

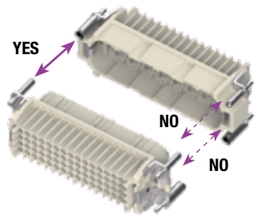
Code pins are supplied to apply in place of the normal insert fastening screws (see example below).

In this way the coupling of identical connectors is assured. The combination of code pins makes it possible to obtain a high number of selective couplings.

CR20 single coding pins



CRM & CRF double coding pins



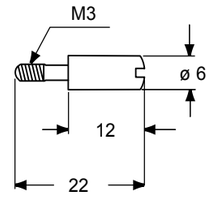
CR 20

Single coding pins for 6 codings

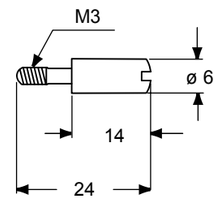
Part No. **CR 20** Stainless Steel

Part No. **CR 20 CX** Stainless Steel
(for Mixo inserts only)

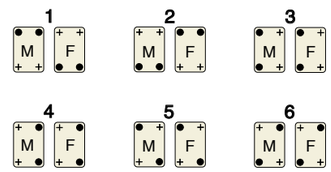
CR 20



CR 20 CX



Application with single insert



• code pin
+ normal fixing screw
M = male insert
F = female insert

Also suitable for applications with double inserts

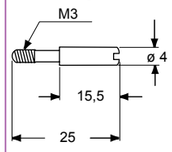
CRM & CRF

Double coding and guide pins for 16 codings

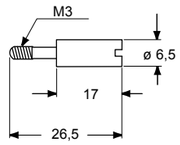
Part No. **CRM** Male Pin Stainless Steel
Part No. **CRF** Female Pin Stainless Steel

Part No. **CRM CX** Male Pin Stainless Steel
Part No. **CRF CX** Female Pin Stainless Steel
(for Mixo inserts only)

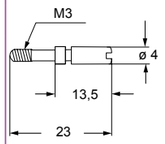
CRM



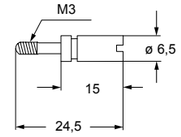
CRF



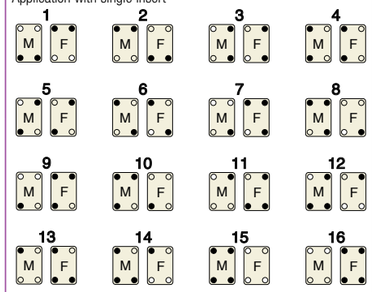
CRM CX



CRF CX



Application with single insert

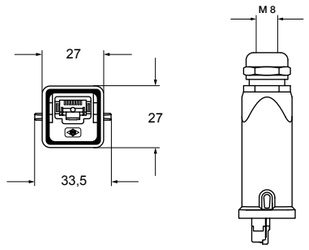
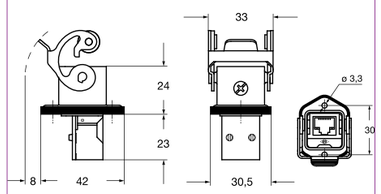
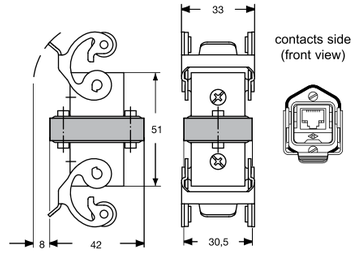
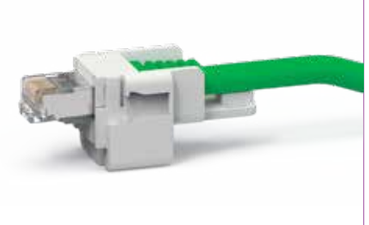
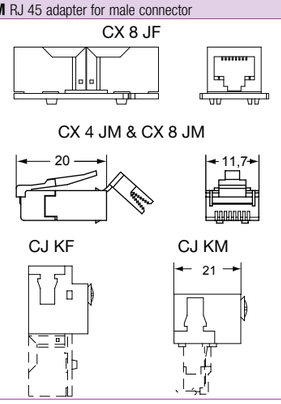
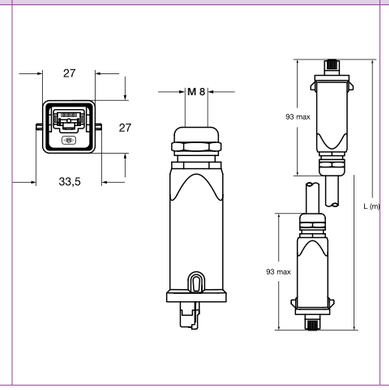
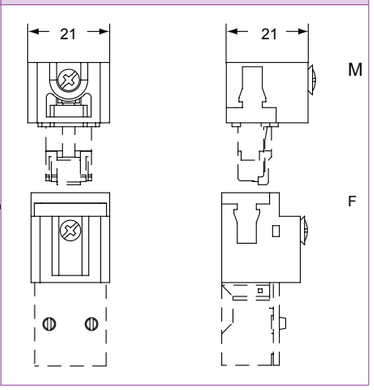


○ Male code pin
• Female code pin
+ normal fixing screw
M = male insert
F = female insert

Also suitable for applications with double inserts

5
Back to contents page
5
Back to contents page

RJ 45

MJZA	CJZA 8I	CYG 8 JFA
		
MJZA 4 V metal enclosure and insert with 4 data contacts **MJZA 8 V** metal enclosure and insert with 8 data contacts	**CJZA 8 I** metal enclosure and insert with 8 data contacts	**CYG 8 JFA** RJ 45 coupler jack in housings, 8 data contacts
		
CX & CJ	**CWKA**	**CJK 8M**
		
CX 8 JF RJ 45 coupler jack with 8 data contacts **CX 4 JM** RJ 45 plug with 4 data contacts **CX 8 JM** RJ 45 plug with 8 data contacts **CJ KF** RJ 45 adapter for female connector **CJ KM** RJ 45 adapter for male connector	**CWKA 2 J2M8** RJ 45 2 meter patch cord **CWKA 5 J2M8** RJ 45 5 meter patch cord **CWKA 10 J2M8** RJ 45 10 meter patch cord	**CJK 8M** universal patch cord adapter. The adapter insert can host most of RJ 45 patch cord plugs available on the market, it can quickly and easily make captive the RJ 45 plugs without any disassembly of the patch cord.
		

180 - The Heat Shield

Series specifically developed for industrial applications where the ambient temperatures are particularly harsh (from -40°C to +180°C).

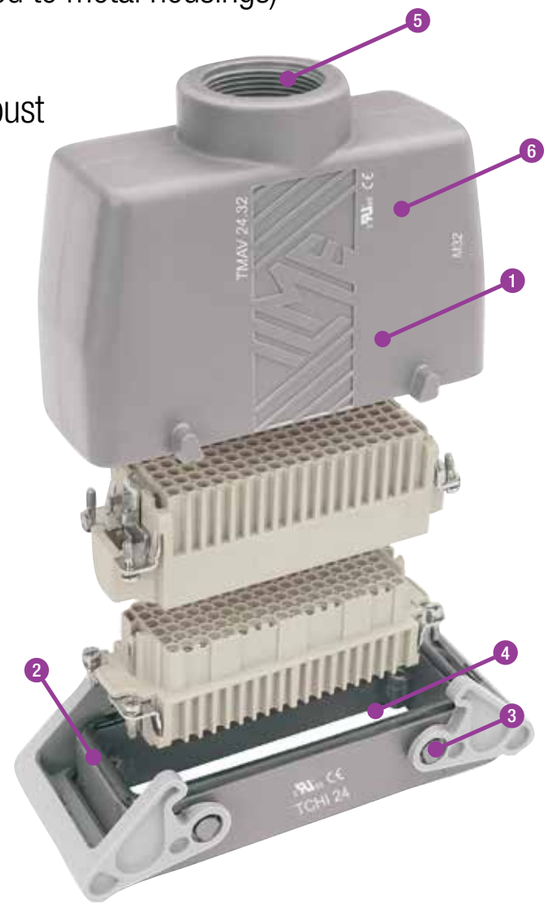
SUM-UP OF MATERIALS USED

- Enclosure body made of die cast aluminium alloy
- Chromate conversion coating, RoHS 2 conform, on the enclosure body die casts
- Coated with special high temperatures resistant, red coloured thermosetting powder.
- Flange and interface sealing gaskets (as applicable) in FPK, anti-aging heat resistant fluoroelastomer Locking device with lever(s), springs and pegs in stainless steel
- Single-block locking lever handles in stainless steel (for “21.21” sized CKA…R/ MKA…R, “44.16” sized CZ…R and MZ...R, and “104.62” sized CH…R 48 … and, MH…R 48 … versions)
- Locking lever handles in die-cast aluminium alloy with the same special coating as the enclosure body (for CH…R 10, 16, 24 and MH…R 10, 16, 24 versions)

“T-Type” thermo plastic enclosures

Alongside the wide range of traditional metal enclosures for ILME multipole connectors, there is now available a new series of enclosures in self-extinguishing thermoplastic material in the most common sizes of “44.27”, “57.27”, “77.27” and “104.27”. Quality and low cost are the main features of these enclosures.
Valuable characteristics of these new enclosures:

- Cost savings of up to 50% (compared to metal housings)
- Up to 70% lighter
- Structurally solid & mechanically robust
- Chemical resistant



1. Construction
These enclosures are structurally solid and mechanically robust, due to their increased thickness. They are particularly resistant to the main pollutants present in industrial environments. The lever enclosure pegs are built into the enclosures. The thermoplastic material used is RAL 7012 dark grey colour and UL 94V-2 grade self extinguishing.

2. Gaskets
Gaskets have been produced by means of the FIPFG technology (Formed-In-Place-Foam-Gasket). They have therefore been incorporated in the base flange on bulkhead housings for easier installation.

3. Levers
The locking levers have been produced in self-extinguishable thermoplastic material coloured grey RAL 7001.

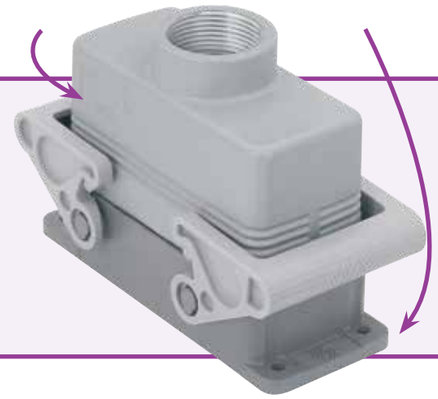
4. Dimensions
The internal dimensions allow mounting of all connector inserts in their relevant sizes. The external dimensions of the bulkhead-mount and of the surface mount housings are similar to those of the corresponding metal housings; hole fixing centres are unchanged.

5. Cable entries
The housings and hoods cable entries are available with metric thread, respectively:
• M25 or M32 for smaller sizes “44.27” and “57.27”.
• M32 or M40 for larger sizes “77.27” and “104.27”.

6. Marking
These enclosures carry CE marking as they are accessories for electrical connectors with rated operating voltage within the scope of the 2006/95/EC Low Voltage Directive.

Limitations
With respect to enclosures in metal alloy, ILME insulating enclosures have some limitations of use in combination with particular accessories:
Please contact your local Treotham office to confirm compatibility of current inserts and housings with T-Type enclosures.

Metal Hood with Plastic Base



Interchangeability with other ILME series.

TCH series housings can be coupled with metal hoods; insulating hoods can be coupled with “V-Type” metal housings. The hood “57.27”, “77.27” and “104.27” can be mounted on COB TCQ and COB BC frames simply by replacing the supplied levers with COB L levers (to be purchased in addition).

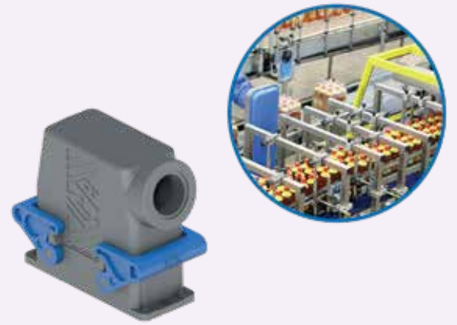
Hygienic

T-TYPE/H & T-TYPE/C

The evolution of T-TYPE insulating enclosures meets food and beverage requirements

T-TYPE/H - PRODUCTION LINES APPLICATIONS SUM-UP

- Enclosures in thermoplastic material, dark grey RAL 7012 colour, with high thicknesses providing structural solidity and durability
- Sealing gaskets made by HNBR rubber formulated in accordance with FDA Guideline 21 CFR §177.2600
- Ambient temperature range: -40 °C / +70 °C



T-TYPE/C - LOW TEMPERATURE APPLICATIONS SUM-UP

- The Hygienic T-TYPE/C Series enclosures have been specifically designed for food and beverage ambient temperature as low as -50 °C (range: -50 °C / +70 °C)
- This version differs from the Hygienic T-TYPE/H one for the sealing gaskets made by in accordance with FDA Guideline 21 CFR §177.2600

W Type

ENCLOSURES for aggressive environments

A cornerstore against corrosion

Series W-TYPE connector enclosures for aggressive environments is specially **designed for industrial applications where particularly aggressive external agents are present** (e.g. salty environments, etc.).

They are **distinguished by the jet black RAL 9005 colour** and have the following characteristics:

- **chromate conversion treatment of castings** RoHS 2 compliant, providing **50% improved corrosion in resistance in salt spray tests** (according to UNI EN ISO 9227) compared to the previous green coloured versions;
- **thermosetting epoxy powder coating** (with improved resistance to chemicals compared to epoxy polyester of the standard enclosures series);
- **FKM fluoroelastomer gaskets** (with improved resistance to chemicals and aging);
- **ambient temperature limits from -40 °C to +125 °C.**

E -xtreme

E-Xtreme® series

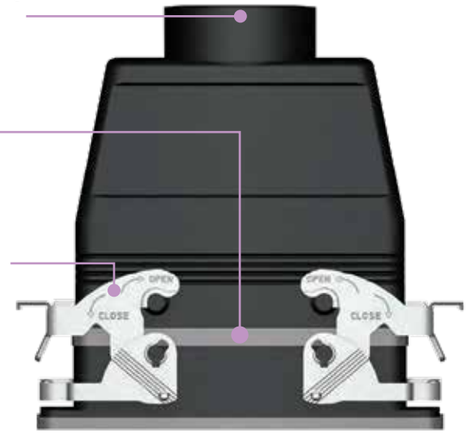
ADVANTAGES

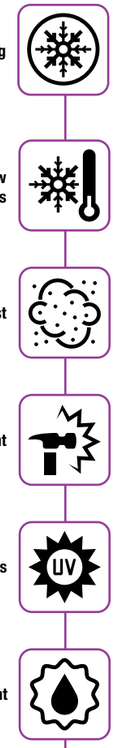
The protection is granted also in case of impact with stones and sand.
The materials are able to withstand UV radiations, a wide temperature range and harsh chemicals.

Metal hoods and housings intended for **extremely demanding environments**, with special protective treatment under painting.

Their **special patented protective coating** assures a high level of protection against the corrosion even in case of long term exposure to salt mist.

- **3.000 hours in salt spray tests**
- **IP66, IP67, IP69** degree of protection (EN 60529)
- corrosion-proof aluminium with a **special coating** under the powder painting colour **RAL 7016 dark grey**
- **FKM** gasket (-40 °C...+180 °C) or silicone gasket (-60 °C...+180 °C)
- **V-TYPE lever or C-TYPE lever**, hoods with moulded pegs or riveted stainless steel bolts
- **V-TYPE lever or C-TYPE lever**, hoods with moulded pegs or riveted stainless steel bolts
- **durable protection** against damage caused by stone chip, icing, salt mist, UV radiations and harsh gases





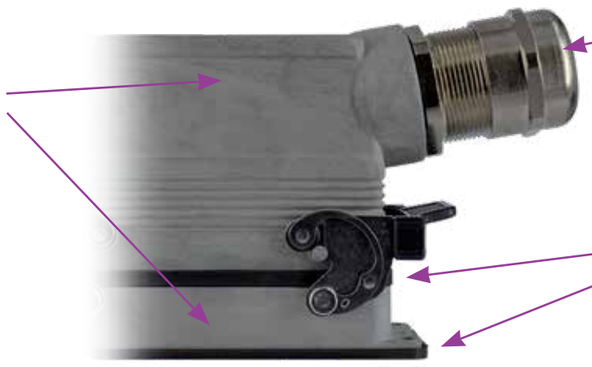
EMC

The concept of **Electromagnetic Compatibility** (EMC) is the reversal in the positive sense of what was until recently known as **Electromagnetic Interference** (EMI): **we have electromagnetic compatibility** between a device and the environment (including surrounding equipment) when there is no reciprocal electromagnetic interference or when this is within tolerable limits.

The enclosure surfaces are treated to make them extremely conductive while maintaining the necessary corrosion resistance.
The bulkhead mounting housing has a special conductive gasket.
For best results the surface underneath the gasket should be conductive. Since the use of this enclosure system presupposes the use of shielded cables, the hood should comprise a special cable gland with anchoring device for the cable shield.

EMC enclosures with conductive coating

EMC Cable Gland
with contact elemement
for cable shielding coating



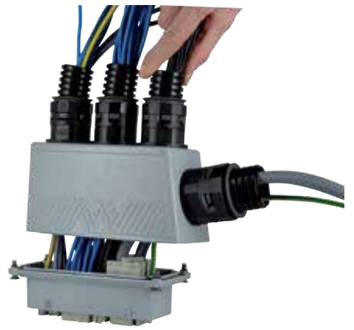
EMC Gasket
in special
conductive material

EMC enclosures

BIG

BIG Series, based on the wide-ranging experience achieved by ILME, introduces a significant **change in the design of hoods and has been specifically designed to meet the new requirements of the wiring market.**
The enclosures **integrate the existing range** and **are ideal for installations with structured and complex wiring.**

Accurate design
The **large dimensions** of these innovative enclosures have been chosen to offer customers an **adequate space to store conductors.**
The **width** of the new enclosures is **greater than that of previous versions:** 66 mm compared to the 43 mm for standard enclosures. The **height** of BIG enclosures has also been **increased to 100 mm** for sizes “44.27” and “57.27” (standard versions for high models: 70 and 72mm), **and to 110 mm** for sizes “77.27” and “104.27” (standard versions for high models: 76 mm).



Central Lever

Easy access for robotics

- Series specifically designed for industrial applications with limited installation space.
- These enclosures can be installed, placed side-by-side and handled in a single operation.
- Furthermore, the lever's shape reduces the effort required to uncouple the inner fittings.

SUM-UP OF MATERIALS USED FOR CH..YC, CA..YC and MA..YC, CA..YX and MF..YX series

- Made of die cast aluminium alloy
- With epoxy-polyester powder coating
- Gaskets in anti-aging, oil-resistant, grease-resistant and fuel-resistant vinyl nitrile elastomer
- Locking device with single stainless steel lever

IP68

CGK/MGK and CG/MG series

- The enclosures ensure the highest degree of protection from external interferences; more specifically, they protect people from accessing the hazardous components housed inside the enclosures

Scope of application

- External interconnections in vehicles, in harsh environments and in humid areas and with sensitive interconnections requiring shielding from electromagnetic interference.
- They are particularly suitable for the applications in the railway industry and any application requiring high resistance to pressure, impact and corrosion, with IP66/IP68/IP69 protection rating.
- They also ensure a good shielding for electromagnetic compatibility.

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Monopiece 19 Pin 25amp 400 Volt IP 67 with PG 29 cable gland entry

SLGD FFDR PG29 419AR

SLD FMD PG29 419AR

Monopiece 19 Pin 25amp 400 Volt IP 67 with PG 36 cable gland entry

SLGD FFDR PG36 419AR

SLD FMD PG36 419AR

SL61 19 Pin 25amp 400 Volt

SL D EF 419AR

SL D EME 419AR

SL61 37 Pin 7.5amp 175 Volt

SL FFDR 337P

SL FMD 337P

SL61 7 Pin 25amp 480 Volt

SL FFDR 37Y

SL FMD 37Y

SL EF 37Y

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ILME

HEADERS

TAILS

LOOMS

Looms available in 4,5 & 6 way with either pvc or rubber cable

SOCAPEX

HEADERS

TAILS

LOOMS

Looms available in SL 61 OR Mono piece housigns with either pvc or rubber cable

POWERLINE CONNECTORS

BACKGROUND
Keyed “L” slot single pole connectors have become widely adopted in a diverse range of applications and industries.
One of the main features of early designs was the mechanically keying of the connectors to prevent possible connection errors. i.e.

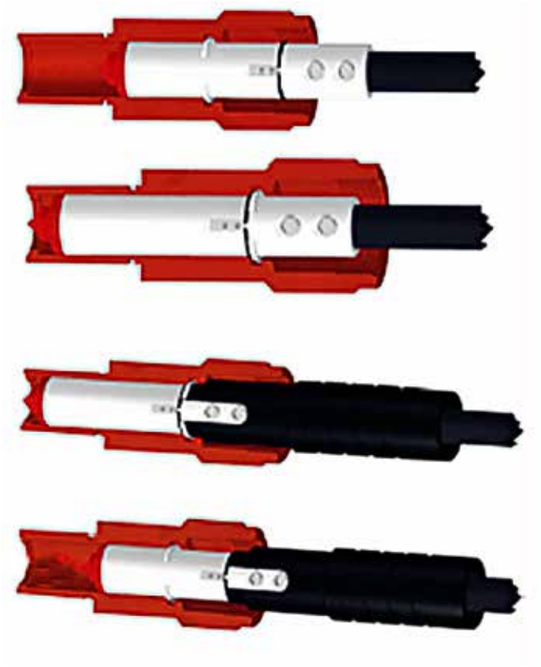
A Phase Line cannot be connected into Earth Line etc. It was evident that several enhancements to existing designs were possible to further improve the product but at the same time remaining intermateable.

TYPICAL APPLICATIONS
- Power Distribution
- Utilities
- Electric Vehicles
- Railway Equipment
- Military Field Power
- Mobile Generators
- Loadbanks
- Back-up Power Systems

POWERLINE FEATURES

- 500 Mating Cycles minimum.
- Intermateable with other versions.
- IP2X Finger Protected contacts.
- IP68 sealed when mated.
- Remote tool required to release mated connectors.
- For use with Electrical Power Cables.
- Heavy Duty Hand Grips.
- Clip retained contacts.
- No Dowel / Cotter pin required.
- Cable sizes from 25mm² to 300mm²
- Facilitate cables up to 37mm Ø.
- High Impact Insulators.
- Harmonised Colour Coding.
- CE Compliant.
- EN/ESI compliant Creepage and Clearance distances.
- Multi-louver contact system.
- Mechanically keyed to prevent connection errors.
- Permanent Marking
- Set Screw and Crimp contact versions.
- UL94 VO Flame Retardant.
- Field Assembly & Repair.
- No special tools required.
- Daisy Chain hook up system.

CLIP CONTACT RETENTION SYSTEM - Saves 50% assembly time



1. Position the contact keyway and insert into the rear of the insulator.
2. Push the cable/contact until the “clips” snap into position.
   You will hear the locking during this operation.
3. To remove place the removal tool around the cable and position into the rear of the insulator.
4. Push the contact from the front and it will release from the insulator.

PART NUMBER CONFIGURATION

CPF - E - GN - C 240 - M FP

CONNECTOR STYLE

Cable Connector	CCF
Cable Plug	CPF
Panel Socket	PSF
Panel Inlet	PIF

KEY POSITION

Earth	E
Neutral	N
Line 1	L1
Line 2	L2
Line 3	L3

INSULATOR COLOUR

Green	GN
Blue	BU
Brown	BR
Black	BK
Grey	GY
Red	RD
Yellow	YE
White	WH

CONTACT TERMINATION

M12 Post for up to 120mm²	T4
M12 Post for up to 300mm²	T7
Set Screw for up to 120mm²	S
Crimp Contacts up to 300mm²	C

CABLE CONDUCTOR SIZE

25mm²	25
35mm²	35
50mm²	50
70mm²	70
95mm²	95
120mm²	120
150mm²	150
185mm²	185
240mm²	240
300mm²	300

CABLE EXTERNAL DIAMETER

15mm – 20mm	S
21mm – 25mm	M
26mm – 32mm	OS
33mm – 37mm	M50

CODES

IP2X Contacts	FP

MODIFICATION CODES Consult Factory

	Earth	Neutral	Line 1	Line 2	Line 3
Australia	Green	Black	Red	White	Blue

Ten 47 - Powerline, single pole, 400Amp

PANEL SOCKET (Panel Source)

400 Amp Panel Socket	Part Code	
	PSF -E-GN-T⁴-FP	Green
	PSF-N-BK-T⁴-FP	Black
	PSF-¹-R-T⁴-FP	Red
	PSF-²-WH-T⁴-FP	White
	PSF-³-BU-T⁴-FP	Blue

Style “PSF”

Panel Source Connectors are typically used as the Live or Supply side of the circuit and utilise a Solid Insulated contact tip to provide IP2X Finger Protection when unmated. “PSF” Connectors incorporate a slot that engages with the Locking Pin on both the mating Panel Inlet and Cable Plug connectors.

PANEL INLET (Panel Drain)

400 Amp Panel Inlet	Part Code	
	PIF -E-GN-T⁴-FP	Green
	PIF-N-BK-T⁴-FP	Black
	PIF-¹-R-T⁴-FP	Red
	PIF-²-WH-T⁴-FP	White
	PIF-³-BU-T⁴-FP	Blue

Style “PIF”

Panel Drain Connectors utilise a spring-mounted contact with a Double Insulated Sleeve that provides IP2X Finger Protection when unmated. The “CCF” contact depresses the spring and sleeves to obtain Electrical connection. When unmated, they return automatically to the IP2X position. A Locking Pin engages with the slot on both the Panel Socket and Cable Connectors when mated.

Ten 47 - Powerline, single pole, 400Amp

CABLE CONNECTOR (Line Source)

1200mm² Cable Connector	Part Code	
	CCF-E-GN-S12⁰-M-FP	Green
	CCF-N-BK-S12⁰-M-FP	Black
	CCF-¹-R-S-12⁰-M-FP	Red
	CCF-²-WH-S12⁰-M-FP	White
	CCF-³-BU-S12⁰-M-FP	Blue

Style “CCF”

Line source Connectors are typically used as the Live or Supply side of the circuit and utilise a Solid Insulated contact tip to provide IP2X Finger Protection when unmated. “CCF” Connectors incorporate a slot that engages with the Locking Pin on both the mating Panel Inlet and Cable Plug connectors.

CABLE PLUG (Line Drain)

1200mm² Cable Plug	Part Code	
	CPF-E-GN-S12⁰-M-FP	Green
	CPF-N-BK-S12⁰-M-FP	Black
	CPF-¹-R-S12⁰-M-FP	Red
	CPF-²-WH-S12⁰-M-FP	White
	CPF-³-BU-S12⁰-M-FP	Blue

Style “CPF”

Line drain connectors utilise a spring-mounted contact with a Double Insulated Sleeve that provides IP2X Finger Protection when unmated. The “CCF” contact depresses the spring and sleeves to obtain Electrical connection. When unmated, they return automatically to the IP2X position. A Locking Pin engages with the slot on both the Panel Socket and Cable Connectors when mated Panel Inlet and Cable Plug connectors.

Compression Sleeves and Tools

Compression Sleeves	Part Code
35mm² Compression Sleeve	CS-35
50mm² Compression Sleeve	CS-50
70mm² Compression Sleeve	CS-70
95mm² Compression Sleeve	CS-95
120mm² Compression Sleeve	CS-120
Set Screw Contact Removal Tool	REM-185P
Crimp Contact Removal Tool	REM-240P

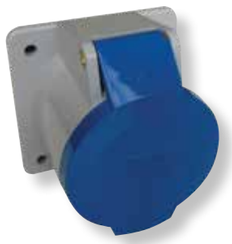
- All connectors are IP2X Protected
- In Line Connectors are supplied as standard with Metric Cable Glands.
- Connectors seal to IP68 when mated.
- Once mated, the connectors are separated by using a remote unlocking key.
- Panel connectors can be Front or Rear mounted on equipment.
- All connectors are mechanically keyed and individually colour coded to help prevent any possible cross connection errors.
- Plastic Push / Pull or Environmental
- Locking caps are available for all connectors.

Ceeform

16amp Single Phase (2P+E) IP44

		
PE 1663 PQ	PE 1663 PV	PE 1663 SV

32amp Single Phase (2P+E) IP44

		
PE 3263 PQ	PE 3263 PV	PE 3263 SV

32amp Three Phase (3P+N+E) IP67

		
PEW 3265 PQ	PEW 3265 PV	PEW 3265 SV

63amp Three Phase (3P+N+E) IP67

		
PEW 6365 SI	PEW 6365 PV	PEW 6365 SV

Treoflex Soft Flex Stage Event Cables

Technical Data

Specially modified PVC

- **Temperature range**
  -30C to +70C
- **Nominal voltage**
  450/750V
- **Bending radius**
  5 x cable diameter

Cable Structure

- Bare copper conductors
- Class 5 , according to PN-EN 60228
- Insulation of specially modified PVC
- Black cores with white numbers
- Outer sheath special PVC ensuring excellent flexibility
- Outer sheath colour black

Properties

Excellent toughness and flexibility
Good abrasion resistance

Resistant to:

UV and ozone
Alcohol
Animal and vegetable oils

Application

Soft-Flex cable is designed for mobile power supply to stage devices. The outer sheath is made of specially modified PVC compound and guarantees excellent flexibility and resistance to Ultra Violet rays.

Part Number	No. Cores x cross-sec mm^2	Outer Diameter in mm	Coper weight Kg/Km	Cable Weight Kg/Km
TA21.0015.07	7 G 1.5	10.2	101	184
TA21.0015.12	12 G 1.5	11.8	173	309
TA21.0015.18	18 G 1.5	15.3	259	440
TA21.0015.12.6E	12 x 1.5 + 6 G 1.5	15.3	259	440
TA21.0025.12	12 G 2.5	16.05	288	520
TA21.0025.18	18 G 2.5	19.3	432	764
TA21.0025.12.6E	12 x 2.5 + 6 G 2.5	19.3	432	764