CGK/MGK (“21.21”) series
and CG/MG (“44.27”, “57.27”, “77.27”, “104.27”) series

CGK/MGK and CG/MG series of free and fixed enclosures (hoods and housings) for heavy-duty rectangular connectors combine water tightness to **IP68** according EN IEC 60529, the “versatile” complete IP degree of protection of these enclosures being currently IP66/IP68/IP69, high mechanical sturdiness and enhanced immunity to electromagnetic disturbances and shielding of the surrounding against emission (EMC features).

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 (protection against shock by direct contact) and they protect the internal connector inserts from the ingress of foreign matters (dust tightness) and from the harmful effects of ingress of fluids (water tightness).

The water tightness between the bulkhead-mounting housings and the panel is ensured by an O-ring seal held in position in a slot within the bulkhead-mounting housing base.

A second O-ring seal fitted around the mating edges of the enclosure ensures the water tightness between the free and the fixed enclosure when the connector is mated and locked.

To ensure the water tightness when the enclosure is fitted onto a cabinet panel, the optional mounting frame with four M6 threaded blind holes may need to be installed inside the panel.

The fastening screws must be fitted inside the enclosure and, through the fastening holes to be drilled on the panel, must be tightened onto the M6 mounting frame internal thread instead of the usual fastening nuts. The bulkhead-mounting fixed enclosure fastening holes have been drilled within the perimeter of the O-ring seal, in order to avoid having to use further seals.

Although these enclosures are larger than the standard enclosures, to leave more space for the cables, and the walls are thicker to achieve more mechanical robustness, the fixing points have remained the same as those of the standard enclosures. The series is offered with two types of locking systems: **bayonet** and **screw**.

The two closing points are located in asymmetrical positions on the short side of the housing so as to ensure an optimal water tightness while keeping the lowest footprint to allow more compactness in case of multiple enclosures placed one close to the other on the short side. The locking means of both versions are made of high quality stainless steel and are firmly fastened inside the free enclosure. These locking means can be fitted and removed by using either a 1,5 mm flat blade screwdriver or a 10 mm hexagonal key. The fixed and free enclosures of series CG/MG are made of foundry grade aluminium alloy, particularly resistant to seawater corrosion.

Series CGK/MGK enclosures are made of zinc alloy. The finish of CG/MG series is made from epoxy powder, which gives the enclosures high scratch and shock resistant properties as well as good chemical resistance.

The finish of CGK/MGK series (size “21.21”) is made by black chrome plating RoHS 2 conform.

The metal covers are made with the same quality materials as the enclosures, and are fitted with a short cord to make it always retrievable.

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.

The IP68 degree of protection marked or assigned to the enclosure is ensured if the enclosures are correctly installed and the cable entry devices have equal or higher IP rating.

Degree of protection compliant with EN IEC 60529

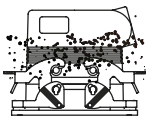
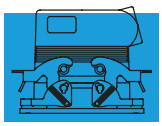
When mated and locked, the CGK/MGK (“21.21”) and the CG/MG enclosures protect the connector inserts fitted inside from outside interference, such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleaning or cooling agents, oils, etc.

The IP68 degree of protection ensured by the enclosures is fully described in the EN IEC 60529 standard, which classifies the enclosures according to their protection against the entry of foreign bodies and water.

IP68 = Total protection against dust, and against the access to hazardous parts with access probe of Ø 1,0 mm (1st characteristic numeral), and protection against the effects of continuous submersion in water (duration ≥ 30 min upon agreement and water depth ≥ 1 m upon agreement) (2nd characteristic numeral).

These enclosures have also successfully passed the tests required for the **IPX6** degree of protection (tightness to powerful water jets) and for the **IPX9** degree of protection (high pressure and temperature water jets) according to EN IEC 60529. Their full “versatile” degree of protection is therefore **IP66/IP68/IP69**.

The following table shows only the IP 68 level of protection. Please see page 46 for the complete table of the different levels of protection specified by the IP standard.

FIRST Index figure	Degree of protection SOLIDS		SECOND Index figure	Degree of protection WATER	
6		Protected against access to hazardous parts with a wire dust-tight (total protection against dust)	8		Protected against the effects of continuous immersion in water at depth and/or duration upon agreement.

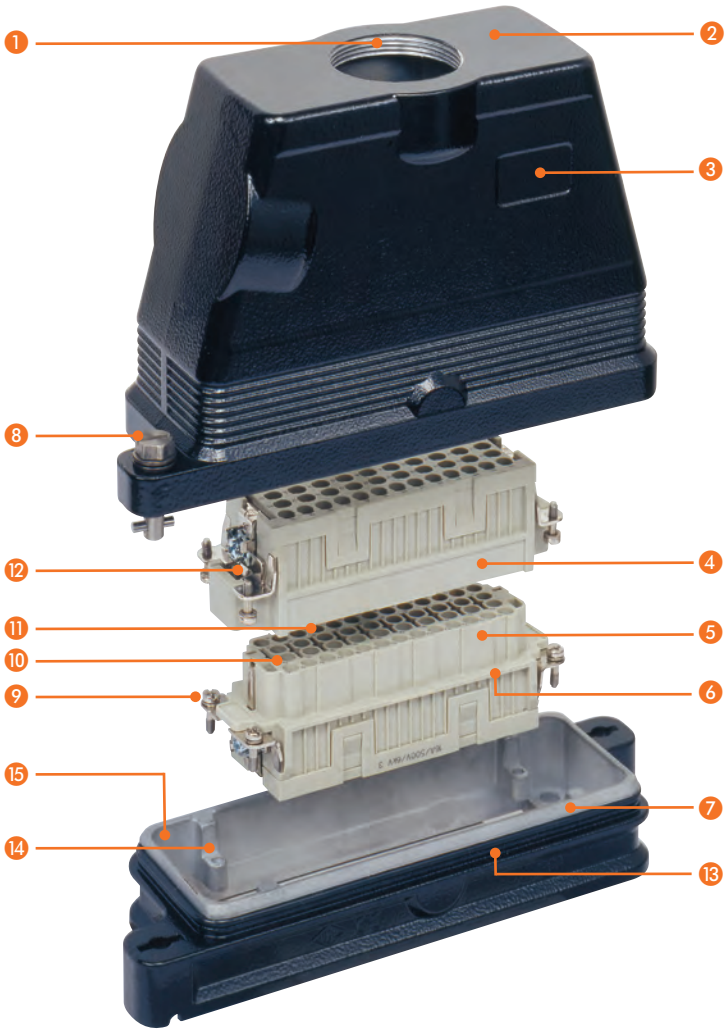
CG/MG (“44.27”, “57.27”, “77.27”, “104.27”) series

1. Threaded cable entry hole, available in different Pg diameters (types with prefix starting with “**C**”) or metric thread (types with prefix starting with “**M**”) compliant with EN 60423 standard, for cable entry devices compliant with EN IEC 62444 standard (former EN 50262), for vertical or horizontal layout.
2. Sturdy, corrosion proof foundry grade aluminium alloy enclosures, with RoHS 2 conform chromate treatment. The following types are available: wall mounted, flush mounted fixed and free enclosures with free protective cover.
3. Oven cured thermosetting paint with epoxy powder, colour black RAL 9005, which gives the enclosures a high mechanical strength and makes them resistant to external agents (only CG/MG).
4. The inserts are made of UL certified self-extinguishing fibreglass reinforced thermoplastics, and feature an operating temperature range between -40 °C and +125 °C.
5. Insert profile polarised with asymmetrical guides to avoid incorrect matings. The inserts have a mechanical life equal to or higher than 500 mating cycles.
6. Inserts are manufactured in compliance with European standard EN IEC 61984 (former DIN VDE 0627), certified and identified with UL and CSA marks, as well as EAC (Eurasian Customs Union) and CQC (China) marks, according to type and series.
7. Special NBR elastomer, anti-ageing, oil and fuel resistant seals which, together with the cable entry devices (not supplied) ensure mated connectors IP66/**IP68**/IP69 degree of protection. The seals are internally positioned to give a better protection from sunlight and outside elements.
8. Locking is available in two solutions: **screw-type** with hexagonal head stainless steel screws or **bayonet-type**. The slotted hexagonal head screws can be fitted and removed by using either a 1,6 mm thick blade screwdriver or a 10 mm hexagonal key, and can be easily accessed even when fitted on enclosures with horizontally exited cables. Tightening torque 2,5 Nm.


SCREW CLOSURE


BAYONET CLOSURE

9. Captive insert fastening screws, with anti-slackening spring washer.
10. Contact position identified with numbers or codes on both sides of each insert and printed with a laser system or from a die.



11. Silver or gold plated brass contacts connected to the wires by means of captive screws supplied already slackened, with spring terminal (SQUICH®), by means of crimping (crimp contacts available separately), or with a built-in 45° terminal block (still with screw or spring terminal).
12. Pre-leading (FMLB) protective earth terminal with a wide contact surface.
13. Fixed, bulkhead-mount enclosure with fastening screws inside the gasket.
14. Wider enclosures to give more space for the cabling.
15. They ensure a good screening for electromagnetic compatibility, resistance to vibrations in compliance with EN 61373 railway standard and to pressurised water (IPX9).

CGK and MGK high protection IP68 version

inserts		page:
CK	3 and 4 poles + ⏚	58
CKS	3 and 4 poles + ⏚	-
CKSH	3 and 4 poles + ⏚	63
CD *	8 poles	67
CQ4	2 poles + ⏚	182
CQ4 H	2 poles + ⏚	183
CQ4	3 poles + ⏚	184
CQ	5 poles + ⏚	186
CQ	7 poles + ⏚	187
CQ	12 poles + ⏚	189
CQ	21 poles	190
CJ KF (can be used only in I enclosures)		223
CJK 8FT		226
CJK 8IFT		226, 228
CUK 2FT		236
CUK 3FT		236
CLK 04 SC		239
CX 1/2 BD		243

* To ensure IP68 degree of protection with CD 08 insert, purchase the kit CKR 65 D.

In this case do not use the screw supplied with the enclosure.

bulkhead mounting housings

angled bulkhead mounting housings

description	part No.	part No.	entry Pg	part No.	entry M
bulkhead mounting housing	**CGK I**				
without cable entry (on request) 1)		**CGK IA**			
with cable entry, bottom closed 1)		**CGK IAP13**	13,5	**MGK IAP20**	20

1) Not suitable for CQ4 series inserts

ANGLED BULKHEAD MOUNTING HOUSINGS

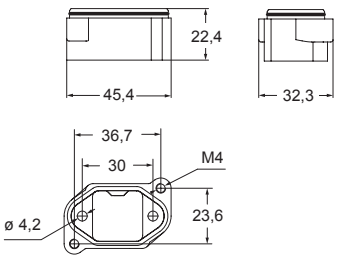
- Eliminate the gasket and the fixing screw; provided with the insert.
- To fix the insert, use the screw with gasket provided with the enclosure (except CD 08 see note above).

CGKCP FX
dust protection cover
(page 697)

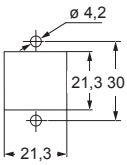
Type 4/4X/12

according to IEC/EN 60529

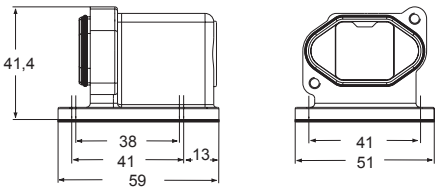
CGK I



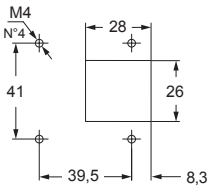
panel cut-out for CGK I enclosures



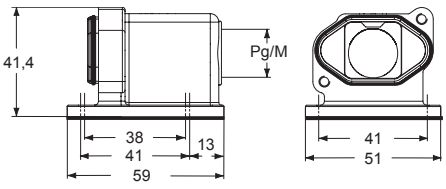
CGK IA



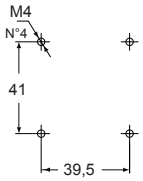
panel cut-out for CGK IA enclosures



CGK IAP and **MGK IAP**



panel cut-out for CGK/MGK IAP enclosures



IP68

dimensions shown in mm are not binding and may be changed without notice

CGK and MGK high protection IP68 version (screw locking)

inserts		page:
CK	3 and 4 poles + ⏚	**58**
CKS	3 and 4 poles + ⏚	**-**
CKSH	3 and 4 poles + ⏚	**63**
CD *	8 poles	**67**
CQ4	2 poles + ⏚	**182**
CQ4 H	2 poles + ⏚	**183**
CQ4	3 poles + ⏚	**184**
CQ	5 poles + ⏚	**186**
CQ	7 poles + ⏚	**187**
CQ	12 poles + ⏚	**189**
CQ	21 poles	**190**
CJ KM (can be used only in hoods)		**223**
CJK 8MT		**226**
CJK 8IMT		**226, 228**
CUK 2FT		**236**
CUK 3FT		**236**
CLK 04 SC		**239**
CX 1/2 BD		**243**

* To ensure IP68 degree of protection with CD 08 insert, purchase the kit CKR 65 D.

In this case do not use the screw supplied with the enclosure.

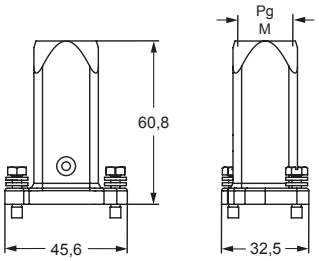
hoods

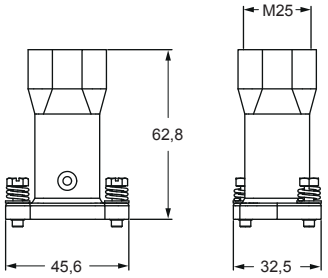
hoods

description	part No.	entry Pg	part No	entry M	part No.	entry M
top entry [1]	**CGK V13**	13,5	**MGK V20**	20		
top entry					**MGK V25**	25

[1] Not suitable for CQ4 series inserts

- Eliminate the gasket and the fixing screw; provided with the insert
- To fix the insert, use the screw with gasket provided with the enclosure (except CD 08 see note above).





CGKCP MB
dust protection cover
(page 697)

c UL us Type 4/4X/12

EN 60529 IP66 IP68 IP69 IEC 60529 according to IEC/EN 60529

c UL us Type 12
Type 4/4X only with CKR 65 (D) pending

EN 60529 IP66 IP68 IP69 IEC 60529 according to IEC/EN 60529

IP68

CGK high protection IP68 version (bayonet locking)

inserts		page:
CK	3 and 4 poles + ⏚	58
CKS	3 and 4 poles + ⏚	-
CKSH	3 and 4 poles + ⏚	63
CD *	8 poles	67
CQ4	2 poles + ⏚	182
CQ4 H	2 poles + ⏚	183
CQ4	3 poles + ⏚	184
CQ	5 poles + ⏚	186
CQ	7 poles + ⏚	187
CQ	12 poles + ⏚	189
CQ	21 poles	190
CJ KF (can be used only in I enclosures)		**223**
CJK 8FT		**226**
CJK 8IFT		**226, 228**
CUK 2FT		**236**
CUK 3FT		**236**
CLK 04 SC		**239**
CX 1/2 BD		**243**

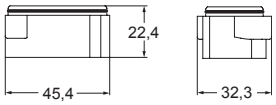
* To ensure IP68 degree of protection with CD 08 insert, purchase the kit CKR 65 D.

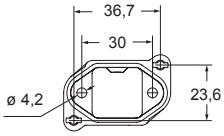
In this case do not use the screw supplied with the enclosure.

bulkhead mounting housings

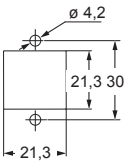
description	part No.
bulkhead mounting housing	**CGK I B**

- Eliminate the gasket and the fixing screw; provided with the insert
- To fix the insert, use the screw with gasket provided with the enclosure (except CD 08 see note above).





panel cut-out for CGK I B enclosures



CGKCP FX
dust protection cover
(page 697)

Type 4/4X/12

according to IEC/EN 60529

CGK and MGK high protection IP68 version (bayonet locking)

inserts		page:
CK	3 and 4 poles + ⏚	**58**
CKS	3 and 4 poles + ⏚	**-**
CKSH	3 and 4 poles + ⏚	**63**
CD *	8 poles	**67**
CQ4	2 poles + ⏚	**182**
CQ4 H	2 poles + ⏚	**183**
CQ4	3 poles + ⏚	**184**
CQ	5 poles + ⏚	**186**
CQ	7 poles + ⏚	**187**
CQ	12 poles + ⏚	**189**
CQ	21 poles	**190**
CJ KM (can be used only in hoods)		**223**
CJK 8MT		**226**
CJK 8IMT		**226, 228**
CUK 2FT		**236**
CUK 3FT		**236**
CLK 04 SC		**239**
CX 1/2 BD		**243**

* To ensure IP68 degree of protection with CD 08 insert, purchase the kit CKR 65 D.

In this case do not use the screw supplied with the enclosure.

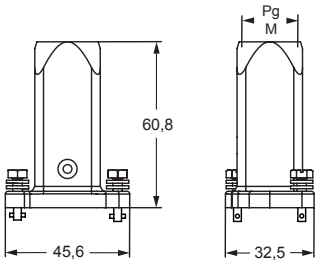
hoods

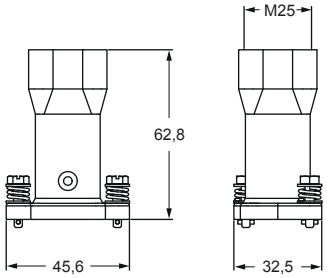
hoods

description	part No.	entry Pg	part No	entry M	part No.	entry M
top entry [1]	**CGK V13 B**	13,5	**MGK V20 B**	20		
top entry					**MGK V25 B**	25

[1] Not suitable for CQ4 series inserts

- Eliminate the gasket and the fixing screw; provided with the insert
- To fix the insert, use the screw with gasket provided with the enclosure (except CD 08 see note above).





CGKCP MB
dust protection cover
(page 697)

Type 4/4X/12

according to IEC/EN 60529

Type 12
Type 4/4X only with CKR 65 (D) pending

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (screw locking)

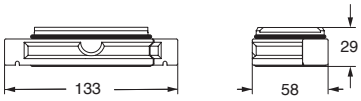
inserts		page:
CDD	24 poles + ⏚	76
CDS	9 poles + ⏚	-
CDSH	9 poles + ⏚	86
CDSH NC	6 poles + ⏚	95
CNE	6 poles + ⏚	110
CSE	6 poles + ⏚	-
CSH	6 poles + ⏚	110
CSH S	6 poles + ⏚	122
CCE	6 poles + ⏚	130
CSS	6 poles + ⏚	148
CQE	10 poles + ⏚	168
MIXO	2 modules	262 - 317

bulkhead mounting housings

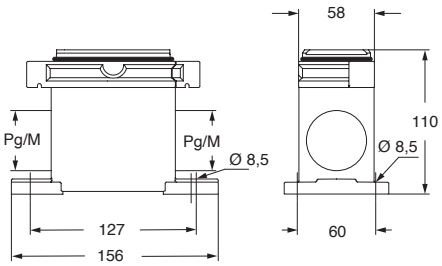
surface mounting housings

description	part No.	part No.	entry Pg	part No.	entry M
with gasket, size “44.27”	**CGI 06**				
size “44.27”		**CGP 06.29**	29	**MGP 06.32**	32

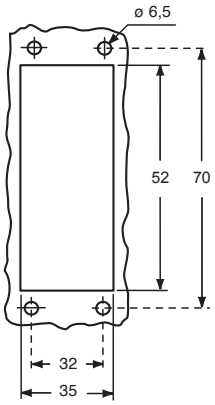
CGI



CGP and **MGP**



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

CG and MG high protection IP68 version (screw locking)

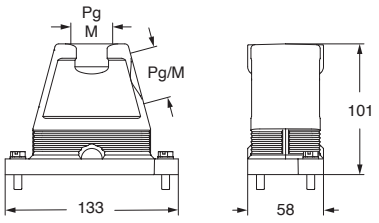
inserts		page:
CDD	24 poles + ⏚	**76**
CDS	9 poles + ⏚	**-**
CDSH	9 poles + ⏚	**86**
CDSH NC	6 poles + ⏚	**95**
CNE	6 poles + ⏚	**110**
CSE	6 poles + ⏚	**-**
CSH	6 poles + ⏚	**110**
CSH S	6 poles + ⏚	**122**
CCE	6 poles + ⏚	**130**
CSS	6 poles + ⏚	**148**
CQE	10 poles + ⏚	**168**
MIXO	2 modules	**262 - 317**

hoods

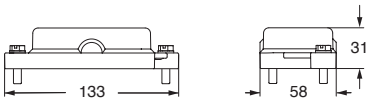
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “44.27”	**CGO 06.16**	16	**MGO 06.25**	25	
size “44.27”	**CGO 06.21**	21	**MGO 06.32**	32	
size “44.27”	**CGO 06.29**	29			
with top entry					
size “44.27”	**CGV 06.16**	16	**MGV 06.25**	25	
size “44.27”	**CGV 06.21**	21	**MGV 06.32**	32	
size “44.27”	**CGV 06.29**	29	**MGV 06.40**	40	
size “44.27”					**CGC 06**

CGO/MGO and **CGV/MGV**



CGC



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

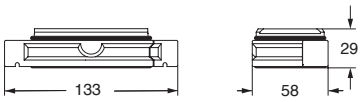
CG high protection IP68 version (bayonet locking)

inserts		page:
CDD	24 poles + ⏚	76
CDS	9 poles + ⏚	-
CDSH	9 poles + ⏚	86
CDSH NC	6 poles + ⏚	95
CNE	6 poles + ⏚	110
CSE	6 poles + ⏚	-
CSH	6 poles + ⏚	110
CSH S	6 poles + ⏚	122
CCE	6 poles + ⏚	130
CSS	6 poles + ⏚	148
CQE	10 poles + ⏚	168
MIXO	2 modules	262 - 317

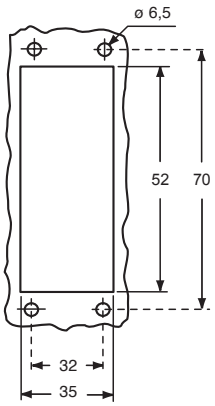
bulkhead mounting housings

description	part No.
with gasket, size “44.27”	**CGI 06 B**

CGI B



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

CG and MG high protection IP68 version (bayonet locking)

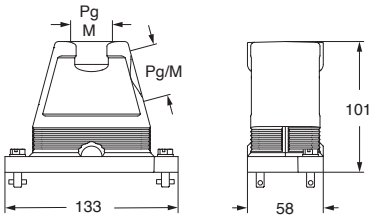
inserts		page:
CDD	24 poles + ⏚	**76**
CDS	9 poles + ⏚	**-**
CDSH	9 poles + ⏚	**86**
CDSH NC	6 poles + ⏚	**95**
CNE	6 poles + ⏚	**110**
CSE	6 poles + ⏚	**-**
CSH	6 poles + ⏚	**110**
CSH S	6 poles + ⏚	**122**
CCE	6 poles + ⏚	**130**
CSS	6 poles + ⏚	**148**
CQE	10 poles + ⏚	**168**
MIXO	2 modules	**262 - 317**

hoods

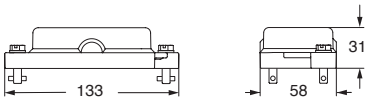
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “44.27”	**CGO 06.16 B**	16	**MGO 06.25 B**	25	
size “44.27”	**CGO 06.21 B**	21	**MGO 06.32 B**	32	
size “44.27”	**CGO 06.29 B**	29			
with top entry					
size “44.27”	**CGV 06.16 B**	16	**MGV 06.25 B**	25	
size “44.27”	**CGV 06.21 B**	21	**MGV 06.32 B**	32	
size “44.27”	**CGV 06.29 B**	29	**MGV 06.40 B**	40	
size “44.27”					**CGC 06 B**

CGO/MGO B and **CGV/MGV B**



CGC B



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

CG and MG high protection IP68 version (screw locking)

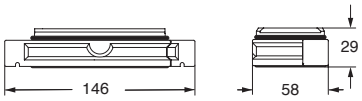
inserts		page:
CDD	42 poles + ⏚	**78**
CDS	18 poles + ⏚	**-**
CDSH	18 poles + ⏚	**87**
CNE	10 poles + ⏚	**111**
CSE	10 poles + ⏚	**-**
CSH	10 poles + ⏚	**111**
CSH S	10 poles + ⏚	**123**
CCE	10 poles + ⏚	**131**
CMSH	3+2 (aux) poles + ⏚	**136**
CMCE	3+2 (aux) poles + ⏚	**137**
CSS	10 poles + ⏚	**149**
CQE	18 poles + ⏚	**169**
CX	8/24 poles + ⏚	**194**
MIXO	3 modules	**262 - 317**

bulkhead mounting housings

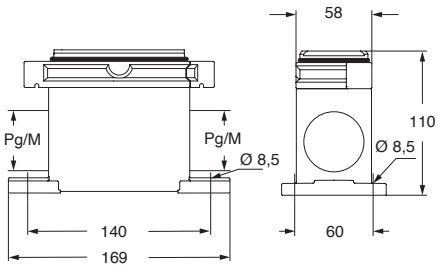
surface mounting housings

description	part No.	part No.	entry Pg	part No.	entry M
with gasket, size “57.27”	**CGI 10**				
size ”57.27”		**CGP 10.29**	29	**MGP 10.32**	32

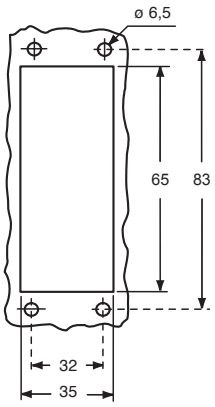
CGI



CGP and **MGP**



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (screw locking)

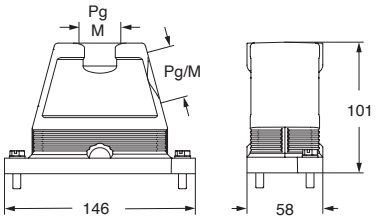
inserts		page:
CDD	42 poles + ⏚	**78**
CDS	18 poles + ⏚	**-**
CDSH	18 poles + ⏚	**87**
CNE	10 poles + ⏚	**111**
CSE	10 poles + ⏚	**-**
CSH	10 poles + ⏚	**111**
CSH S	10 poles + ⏚	**123**
CCE	10 poles + ⏚	**131**
CMSH	3+2 (aux) poles + ⏚	**136**
CMCE	3+2 (aux) poles + ⏚	**137**
CSS	10 poles + ⏚	**149**
CQE	18 poles + ⏚	**169**
CX	8/24 poles + ⏚	**194**
MIXO	3 modules	**262 - 317**

hoods

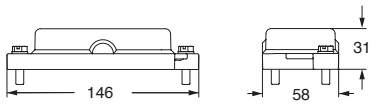
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “57.27”	**CGO 10.16**	16	**MGO 10.25**	25	
size “57.27”	**CGO 10.21**	21	**MGO 10.32**	32	
size “57.27”	**CGO 10.29**	29			
with top entry					
size “57.27”	**CGV 10.16**	16	**MGV 10.25**	25	
size “57.27”	**CGV 10.21**	21	**MGV 10.32**	32	
size “57.27”	**CGV 10.29**	29	**MGV 10.40**	40	
size “57.27”					**CGC 10**

CGO/MGO and **CGV/MGV**



CGC



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

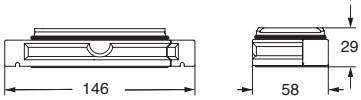
CG high protection IP68 version (bayonet locking)

inserts		page:
CDD	42 poles + ⏚	**78**
CDS	18 poles + ⏚	**-**
CDSH	18 poles + ⏚	**87**
CNE	10 poles + ⏚	**111**
CSE	10 poles + ⏚	**-**
CSH	10 poles + ⏚	**111**
CSH S	10 poles + ⏚	**123**
CCE	10 poles + ⏚	**131**
CMSH	3+2 (aux) poles + ⏚	**136**
CMCE	3+2 (aux) poles + ⏚	**137**
CSS	10 poles + ⏚	**149**
CQE	18 poles + ⏚	**169**
CX	8/24 poles + ⏚	**194**
MIXO	3 modules	**262 - 317**

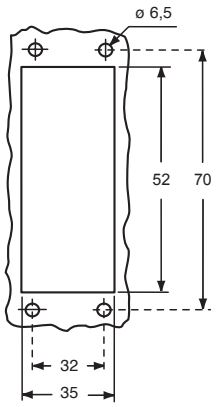
bulkhead mounting housings

description	part No.
with gasket, size “57.27”	**CGI 10 B**

CGI B



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (bayonet locking)

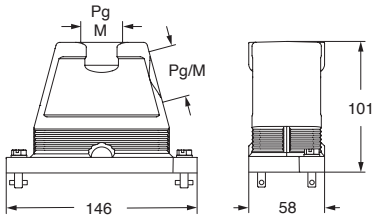
inserts		page:
CDD	42 poles + ⏚	**78**
CDS	18 poles + ⏚	**-**
CDSH	18 poles + ⏚	**87**
CNE	10 poles + ⏚	**111**
CSE	10 poles + ⏚	**-**
CSH	10 poles + ⏚	**111**
CSH S	10 poles + ⏚	**123**
CCE	10 poles + ⏚	**131**
CMSH	3+2 (aux) poles + ⏚	**136**
CMCE	3+2 (aux) poles + ⏚	**137**
CSS	10 poles + ⏚	**149**
CQE	18 poles + ⏚	**169**
CX	8/24 poles + ⏚	**194**
MIXO	3 modules	**262 - 317**

hoods

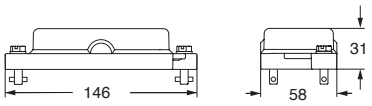
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “57.27”	**CGO 10.16 B**	16	**MGO 10.25 B**	25	
size “57.27”	**CGO 10.21 B**	21	**MGO 10.32 B**	32	
size “57.27”	**CGO 10.29 B**	29			
with top entry					
size “57.27”	**CGV 10.16 B**	16	**MGV 10.25 B**	25	
size “57.27”	**CGV 10.21 B**	21	**MGV 10.32 B**	32	
size “57.27”	**CGV 10.29 B**	29	**MGV 10.40 B**	40	
size “57.27”					**CGC 10 B**

CGO/MGO B and **CGV/MGV B**



CGC B



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (screw locking)

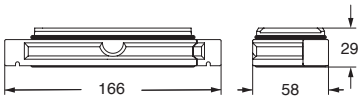
inserts		page:
CD	40 poles + ⏚	**70**
CDD	72 poles + ⏚	**79**
CDS	27 poles + ⏚	**-**
CDSH	27 poles + ⏚	**88**
CNE	16 poles + ⏚	**112**
CSE	16 poles + ⏚	**-**
CSH	16 poles + ⏚	**112**
CSH S	16 poles + ⏚	**124**
CCE	16 poles + ⏚	**132**
CMSH, CMCE	6+2 (aux) poles + ⏚	**138 - 139**
CSS	16 poles + ⏚	**150**
CQE	32 poles + ⏚	**170**
CQEE	40 poles + ⏚	**176**
CP	6 poles + ⏚	**178**
CX	6/12, 6/36 and 12/2 poles + ⏚	**197 - 199**
CX	4/0 and 4/2 poles + ⏚	**200 - 201**
MIXO	4 modules	**262 - 317**

bulkhead mounting housings

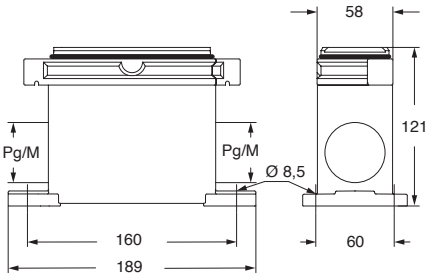
surface mounting housings

description	part No.	part No.	entry Pg	part No.	entry M
with gasket, size “77.27”	**CGI 16**				
size ”77.27”		**CGP 16.36**	36	**MGP 16.40**	40

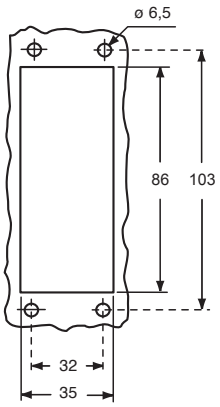
CGI



CGP and **MGP**



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

dimensions shown in mm are not binding and may be changed without notice

CG and MG high protection IP68 version (screw locking)

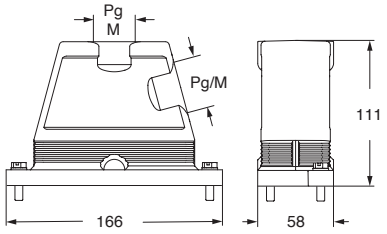
inserts		page:
CD	40 poles + ⏚	**70**
CDD	72 poles + ⏚	**79**
CDS	27 poles + ⏚	**-**
CDSH	27 poles + ⏚	**88**
CNE	16 poles + ⏚	**112**
CSE	16 poles + ⏚	**-**
CSH	16 poles + ⏚	**112**
CSH S	16 poles + ⏚	**124**
CCE	16 poles + ⏚	**132**
CMSH, CMCE	6+2 (aux) poles + ⏚	**138 - 139**
CSS	16 poles + ⏚	**150**
CQE	32 poles + ⏚	**170**
CQEE	40 poles + ⏚	**176**
CP	6 poles + ⏚	**178**
CX	6/12, 6/36 and 12/2 poles + ⏚	**197 - 199**
CX	4/0 and 4/2 poles + ⏚	**200 - 201**
MIXO	4 modules	**262 - 317**

hoods

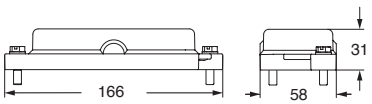
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “77.27”	**CGO 16.21**	21	**MGO 16.32**	32	
size “77.27”	**CGO 16.29**	29	**MGO 16.40**	40	
size “77.27”	**CGO 16.36**	36	**MGO 16.50**	50	
with top entry					
size “77.27”			**MGV 16.25**	25	
size “77.27”			**MGV 16.225**	25 x 2	
size “77.27”	**CGV 16.21**	21	**MGV 16.32**	32	
size “77.27”	**CGV 16.221**	21 x 2			
size “77.27”	**CGV 16.29**	29	**MGV 16.40**	40	
size “77.27”	**CGV 16.36**	36	**MGV 16.50**	50	
size “77.27”					**CGC 16**

CGO/MGO and **CGV/MGV**



CGC



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

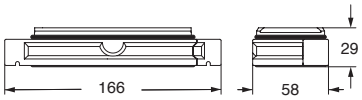
CG high protection IP68 version (bayonet locking)

inserts		page:
CD	40 poles + ⏚	**70**
CDD	72 poles + ⏚	**79**
CDS	27 poles + ⏚	**-**
CDSH	27 poles + ⏚	**88**
CNE	16 poles + ⏚	**112**
CSE	16 poles + ⏚	**-**
CSH	16 poles + ⏚	**112**
CSH S	16 poles + ⏚	**124**
CCE	16 poles + ⏚	**132**
CMSH, CMCE	6+2 (aux) poles + ⏚	**138 - 139**
CSS	16 poles + ⏚	**150**
CQE	32 poles + ⏚	**170**
CQEE	40 poles + ⏚	**176**
CP	6 poles + ⏚	**178**
CX	6/12, 6/36 and 12/2 poles + ⏚	**197 - 199**
CX	4/0 and 4/2 poles + ⏚	**200 - 201**
MIXO	4 modules	**262 - 317**

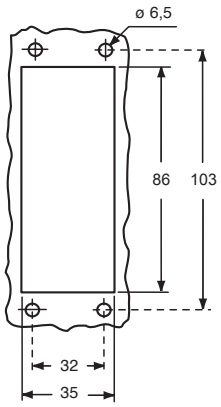
bulkhead mounting housings

description	part No.
with gasket, size “77.27”	**CGI 16 B**

CGI B



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

c UL us Type 4/4X/12

EN 60529 IP66 IP68 IP69 IEC 60529 according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (bayonet locking)

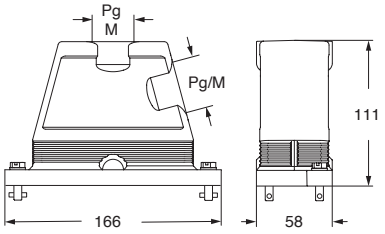
inserts		page:
CD	40 poles + ⏚	**70**
CDD	72 poles + ⏚	**79**
CDS	27 poles + ⏚	**-**
CDSH	27 poles + ⏚	**88**
CNE	16 poles + ⏚	**112**
CSE	16 poles + ⏚	**-**
CSH	16 poles + ⏚	**112**
CSH S	16 poles + ⏚	**124**
CCE	16 poles + ⏚	**132**
CMSH, CMCE	6+2 (aux) poles + ⏚	**138 - 139**
CSS	16 poles + ⏚	**150**
CQE	32 poles + ⏚	**170**
CQEE	40 poles + ⏚	**176**
CP	6 poles + ⏚	**178**
CX	6/12, 6/36 and 12/2 poles + ⏚	**197 - 199**
CX	4/0 and 4/2 poles + ⏚	**200 - 201**
MIXO	4 modules	**262 - 317**

hoods

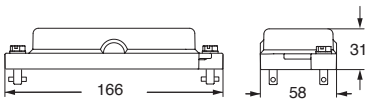
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “77.27”	**CGO 16.21 B**	21	**MGO 16.32 B**	32	
size “77.27”	**CGO 16.29 B**	29	**MGO 16.40 B**	40	
size “77.27”	**CGO 16.36 B**	36	**MGO 16.50 B**	50	
with top entry					
size “77.27”			**MGV 16.25 B**	25	
size “77.27”			**MGV 16.225 B**	25 x 2	
size “77.27”	**CGV 16.21 B**	21	**MGV 16.32 B**	32	
size “77.27”	**CGV 16.221 B**	21 x 2			
size “77.27”	**CGV 16.29 B**	29	**MGV 16.40 B**	40	
size “77.27”	**CGV 16.36 B**	36	**MGV 16.50 B**	50	
size “77.27”					**CGC 16 B**

CGO/MGO B and **CGV/MGV B**



CGC B



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (screw locking)

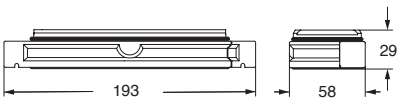
inserts		page:
CD	64 poles + ⏚	**72**
CDD	108 poles + ⏚	**81**
CDS	42 poles + ⏚	**-**
CDSH	42 poles + ⏚	**89**
CNE	24 poles + ⏚	**113**
CSE	24 poles + ⏚	**-**
CSH	24 poles + ⏚	**113**
CSH S	24 poles + ⏚	**125**
CCE	24 poles + ⏚	**133**
CMSH	10+2 (aux) poles + ⏚	**140**
CMCE	10+2 (aux) poles + ⏚	**141**
CSS	24 poles + ⏚	**151**
CQE	46 poles + ⏚	**171**
CQEE	64 poles + ⏚	**177**
CX	4/8 and 6/6 poles + ⏚	**204, 206**
MIXO	6 modules	**262 - 317**

bulkhead mounting housings

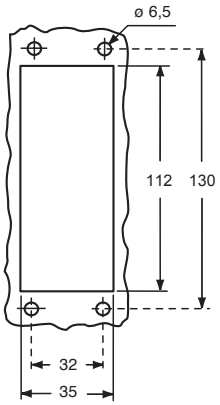
surface mounting housings

description	part No.	part No.	entry Pg	part No.	entry M
with gasket, size “104.27”	**CGI 24**				
size “104.27”		**CGP 24.36**	36	**MGP 24.40**	40
size “104.27”		**CGP 24.236**	36 x 2	**MGP 24.240**	40 x 2

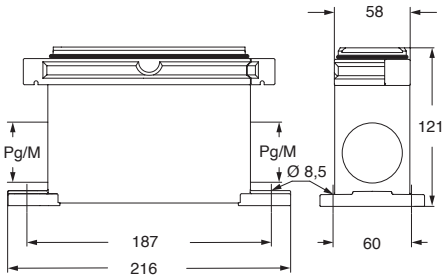
CGI



panel cut-out for bulkhead mounting housings



CGP and **MGP**



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

CG and MG high protection IP68 version (screw locking)

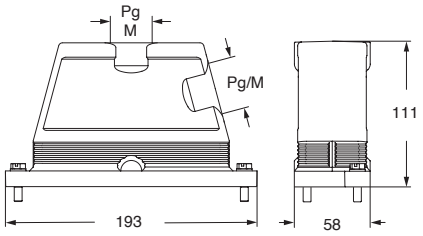
inserts		page:
CD	64 poles + ⏚	**72**
CDD	108 poles + ⏚	**81**
CDS	42 poles + ⏚	**-**
CDSH	42 poles + ⏚	**89**
CNE	24 poles + ⏚	**113**
CSE	24 poles + ⏚	**-**
CSH	24 poles + ⏚	**113**
CSH S	24 poles + ⏚	**125**
CCE	24 poles + ⏚	**133**
CMSH	10+2 (aux) poles + ⏚	**140**
CMCE	10+2 (aux) poles + ⏚	**141**
CSS	24 poles + ⏚	**151**
CQE	46 poles + ⏚	**171**
CQEE	64 poles + ⏚	**177**
CX	4/8 and 6/6 poles + ⏚	**204, 206**
MIXO	6 modules	**262 - 317**

hoods

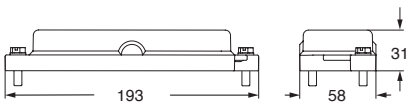
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “104.27”	**CGO 24.21**	21	**MGO 24.32**	32	
size “104.27”	**CGO 24.29**	29	**MGO 24.40**	40	
size “104.27”	**CGO 24.36**	36	**MGO 24.50**	50	
with top entry					
size “104.27”			**MGV 24.325**	25 x 3	
size “104.27”	**CGV 24.21**	21	**MGV 24.32**	32	
size “104.27”			**MGV 24.232**	32 x 2	
size “104.27”	**CGV 24.29**	29	**MGV 24.40**	40	
size “104.27”	**CGV 24.229**	29 x 2	**MGV 24.240**	40 x 2	
size “104.27”	**CGV 24.36**	36	**MGV 24.50**	50	
size “104.27”					**CGC 24**

CGO/MGO and **CGV/MGV**



CGC



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

IP68

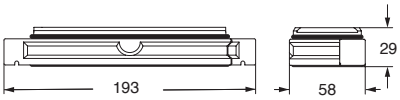
CG high protection IP68 version (bayonet locking)

inserts		page:
CD	64 poles + ⏚	72
CDD	108 poles + ⏚	81
CDS	42 poles + ⏚	-
CDSH	42 poles + ⏚	89
CNE	24 poles + ⏚	113
CSE	24 poles + ⏚	-
CSH	24 poles + ⏚	113
CSH S	24 poles + ⏚	125
CCE	24 poles + ⏚	133
CMSH	10+2 (aux) poles + ⏚	140
CMCE	10+2 (aux) poles + ⏚	141
CSS	24 poles + ⏚	151
CQE	46 poles + ⏚	171
CQEE	64 poles + ⏚	177
CX	4/8 and 6/6 poles + ⏚	204, 206
MIXO	6 modules	262 - 317

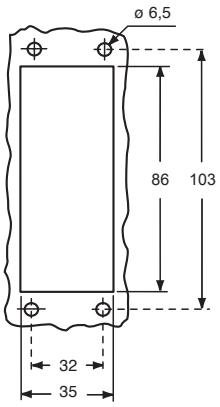
bulkhead mounting housings

description	part No.
with gasket, size “104.27”	**CGI 24 B**

CGI B



panel cut-out for bulkhead mounting housings



CGCP FX
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

CG and MG high protection IP68 version (bayonet locking)

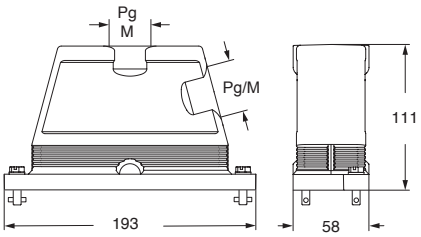
inserts		page:
CD	64 poles + ⏚	**72**
CDD	108 poles + ⏚	**81**
CDS	42 poles + ⏚	**-**
CDSH	42 poles + ⏚	**89**
CNE	24 poles + ⏚	**113**
CSE	24 poles + ⏚	**-**
CSH	24 poles + ⏚	**113**
CSH S	24 poles + ⏚	**125**
CCE	24 poles + ⏚	**133**
CMSH	10+2 (aux) poles + ⏚	**140**
CMCE	10+2 (aux) poles + ⏚	**141**
CSS	24 poles + ⏚	**151**
CQE	46 poles + ⏚	**171**
CQEE	64 poles + ⏚	**177**
CX	4/8 and 6/6 poles + ⏚	**204, 206**
MIXO	6 modules	**262 - 317**

hoods

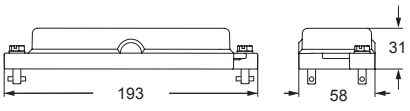
covers

description	part No.	entry Pg	part No	entry M	part No.
with side entry					
size “104.27”	**CGO 24.21 B**	21	**MGO 24.32 B**	32	
size “104.27”	**CGO 24.29 B**	29	**MGO 24.40 B**	40	
size “104.27”	**CGO 24.36 B**	36	**MGO 24.50 B**	50	
with top entry					
size “104.27”			**MGV 24.325 B**	25 x 3	
size “104.27”	**CGV 24.21 B**	21	**MGV 24.32 B**	32	
size “104.27”			**MGV 24.232 B**	32 x 2	
size “104.27”	**CGV 24.29 B**	29	**MGV 24.40 B**	40	
size “104.27”	**CGV 24.229 B**	29 x 2	**MGV 24.240 B**	40 x 2	
size “104.27”	**CGV 24.36 B**	36	**MGV 24.50 B**	50	
size “104.27”					**CGC 24 B**

CGO/MGO B and **CGV/MGV B**



CGC B



CGCP MB
Dust protection cover
(from page 697)

Type 4/4X/12

according to IEC/EN 60529

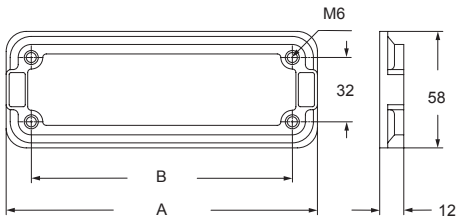
IP68

CG..FL counterflanges high protection IP68 version

bulkhead mounting housings:	page:
size “44.27”	632 - 635
size “57.27”	636 - 639
size “77.27”	640 - 643
size “104.27”	644 - 647

counterflanges
for bulkhead mounting housings

description	part No.
size “44.27”	**CG 06 FL**
size “57.27”	**CG 10 FL**
size “77.27”	**CG 16 FL**
size “104.27”	**CG 24 FL**

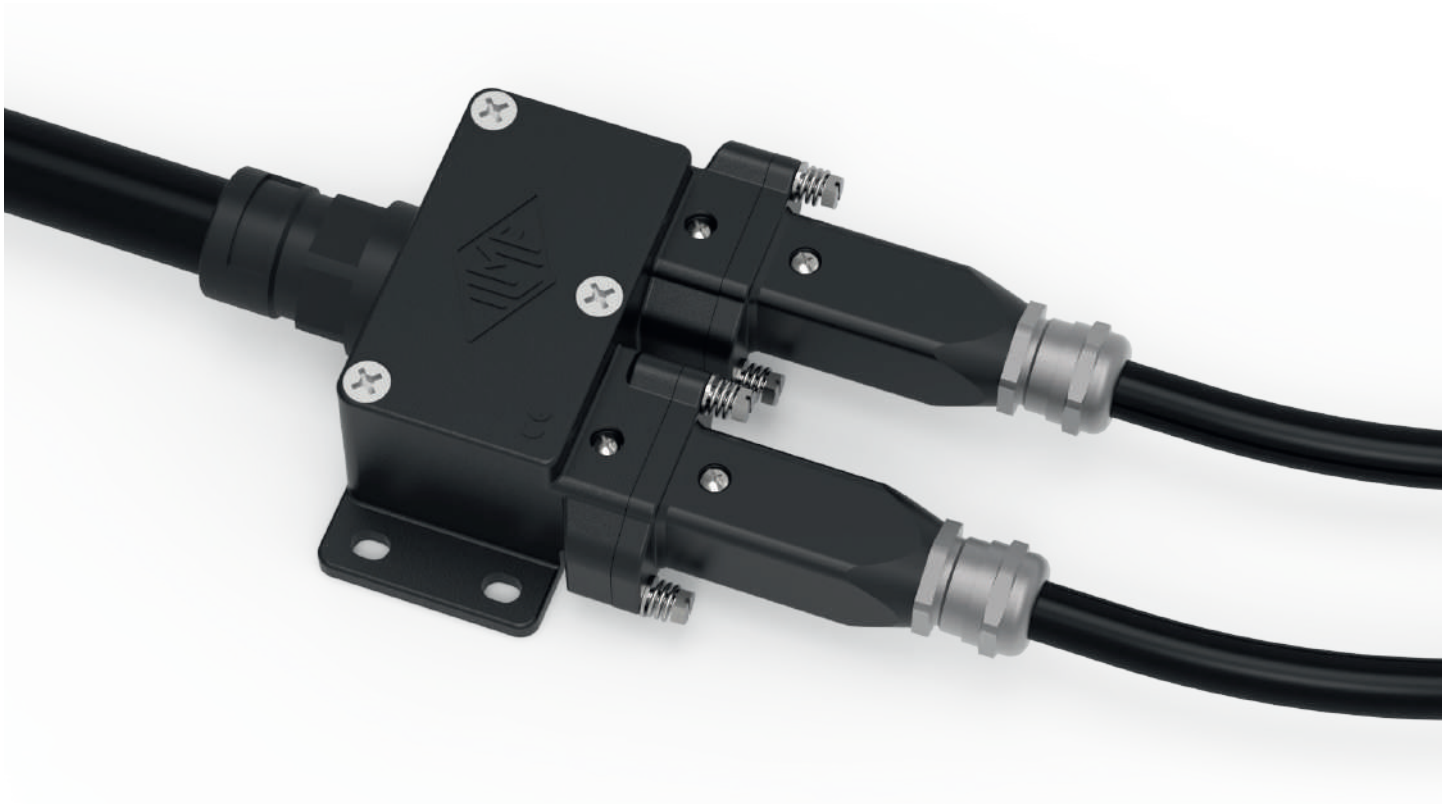


part No.	A	B
CG 06 FL	96	70
CG 10 FL	109	83
CG 16 FL	129	103
CG 24 FL	156	130

IP68

c UL us Type 4/4X/12

IP68 ANGLED HOUSING FOR 2 INSERTS “21.21”
MGK 2AP25



New special
IP68 angled surface-mount
enclosure

Find more information on our products at www.ilme.com

TECHNICAL FEATURES

MGK 2AP25

Watch our technical clip

The **CGK-MGK** series of size “21.21” connector enclosures with **IP68** degree of protection (as well as IPX6 and IPX9, hence IP66/IP68/IP69) is enriched by this new special angled surface-mount enclosure, consisting of a flanged box with screw cover incorporating on one side the interface of two size “21.21” bulkhead-mounting IP68 housings (mateable to two “21.21” CGK-MGK hoods) so as to host 2 connector inserts size “21.21” and on the opposite side an **M25** thread for an equally rated cable gland or conduit fitting.

IP66/IP68/IP69 degree of protection per IEC 60529.

Vibration and shock proof per EN/IEC 61373 (railway rolling stock) **category 2** (bogie mounted).

Corrosion proof surface treatment and exposed parts up to **500 h** neutral salt spray chamber test according ISO 9227.

Suitable to build up a connectorized split/derivation (one line in, two connectors out).

Suitable for wall mounting with M6 head Ø 12,5 mm max. screws (length depending on the specific application) not supplied (see intruction sheet at page 98).

Couples with corresponding connector inserts inside **CGK–MGK** hoods.

RoHS: compliant without exemptions.

suitable to build up a connectorized split/ derivation (one line in, two connectors out)

MGK 2AP25 for 2 inserts high protection IP68 version

inserts		page:
CK	3 and 4 poles + ⏚	**58**
CKS	3 and 4 poles + ⏚	**-**
CKSH	3 and 4 poles + ⏚	**63**
CD [1]	8 poles	**67**
CQ4	2 poles + ⏚	**182**
CQ4 H	2 poles + ⏚	**183**
CQ4	3 poles + ⏚	**184**
CQ	5 poles + ⏚	**186**
CQ	7 poles + ⏚	**187**
CQ	12 poles + ⏚	**189**
CQ	21 poles	**190**
CJ KF (can be used only in I enclosures)		**223**
CJK 8FT		**226**
CJK 8IFT		**226, 228**
CUK 2FT		**236**
CUK 3FT		**236**
CLK 04 SC		**239**
CX 1/2 BD		**243**

refer to CN.19 pages

angled bulkhead mounting housings for 2 inserts

description	part No.	entry M
with cable entry, bottom closed [2]	**MGK 2AP25**	25
internal PE terminal connection kit [3]	**CR MBT**	

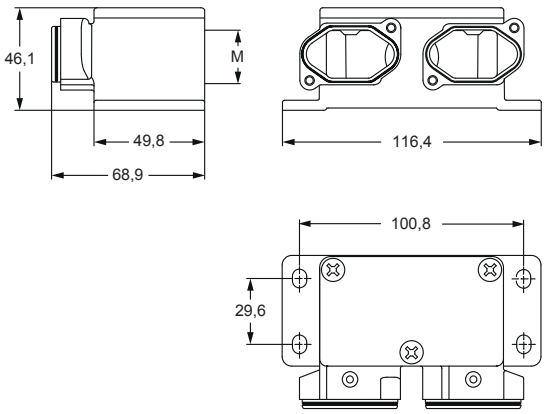
[1] To ensure IP68 degree of protection with **CD 08** insert, purchase the kit **CKR 65 D**.
In this case do not use the gasket and screw kit supplied with the enclosure.

[2] **CDF /M 07** series inserts (with pass-through protective earth contact) are suitable only by separate earthing of the housing through its internal PE terminal (**CR MBT kit** separately available), see note [3] below.

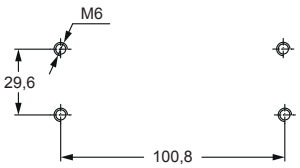
[3] to be employed:
- for equipotential bonding connection between cover and housing PE terminals (**2×** required, see Instruction Sheet **page 99**);
- for PE connection of the housing (1× required) when used with CDF/M 07 inserts, see note [2] above

CR MBT kit consists of:
- Ø 4 mm eyelet crimp cable lug for 6 mm² max. PE wire, tin-plated brass;
- M3,5x6 self-tapping screw w/ Ph 2 head, stainless steel with Ø 4 mm washer.

MGK 2AP25



panel cut-out for MGK 2AP25



CGKCP FX
dust protection cover
(page 697 CN19 catalogue)

cURus
Type 4/4X/12 pending

EN 60529 IP66 IP68 IP69 IEC 60529 according to IEC/EN 60529

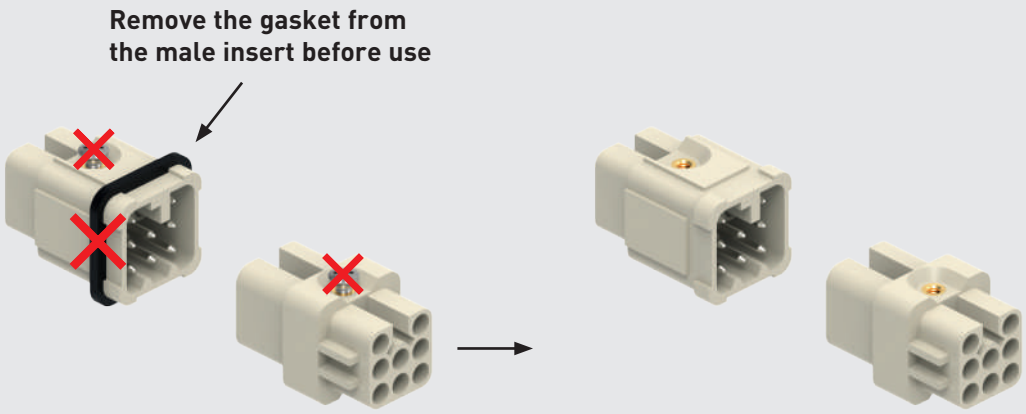
MGK 2AP25 - ANGLED BULKHEAD MOUNTING HOUSINGS FOR 2 INSERTS “21.21”

MGK 2AP25 for 2 inserts high protection IP68 version

ASSEMBLY INSTRUCTIONS

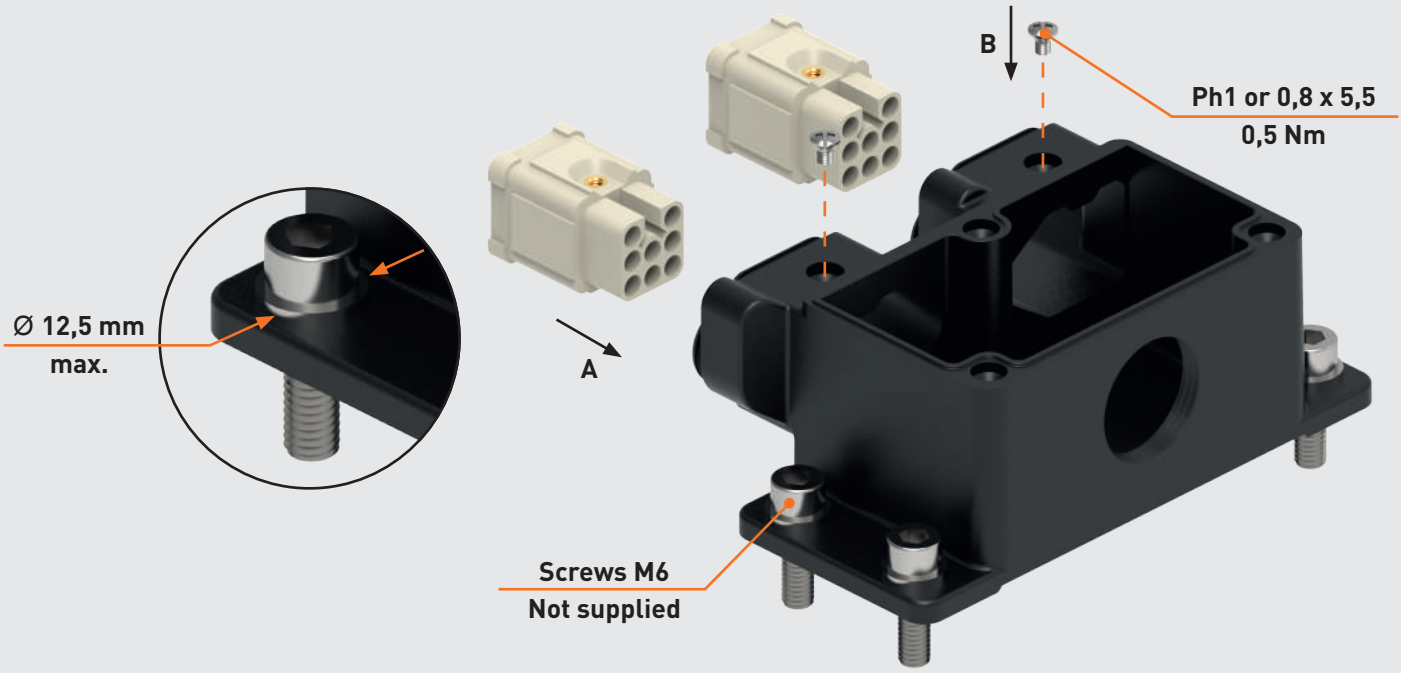
MGK 2AP25 FOR 2 INSERTS

1



Inserts may differ from those depicted

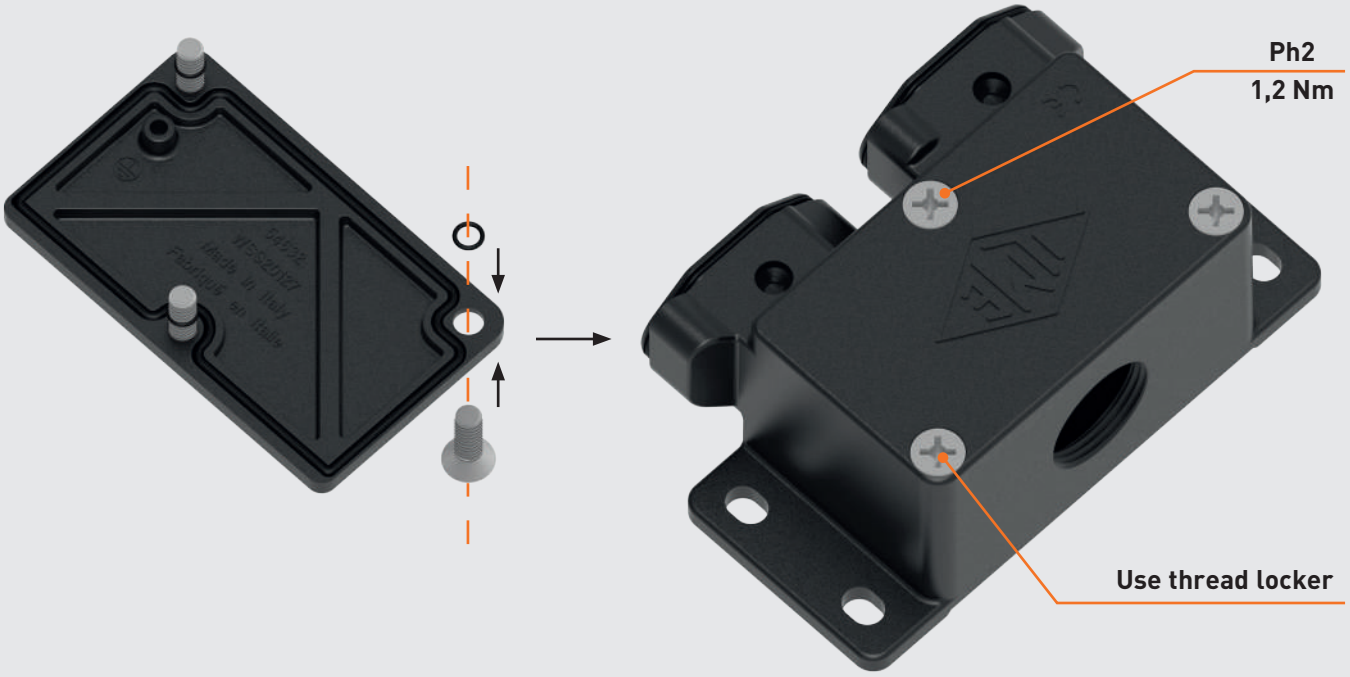
2



ASSEMBLY INSTRUCTIONS

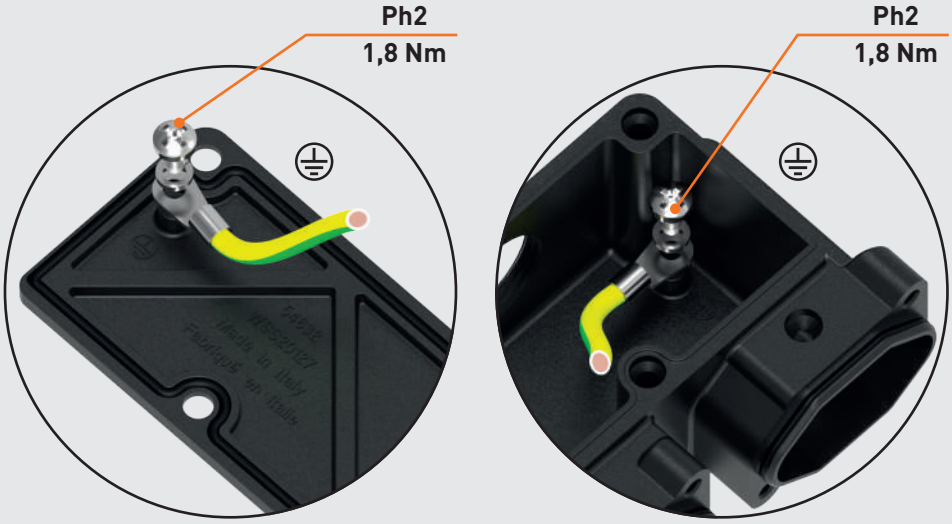
MGK 2AP25 FOR 2 INSERTS

3



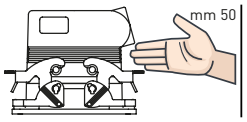
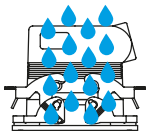
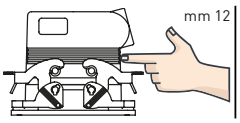
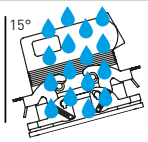
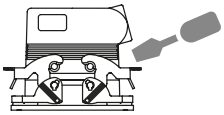
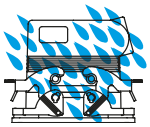
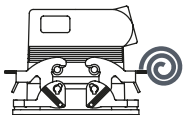
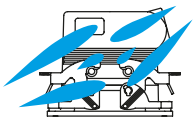
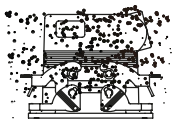
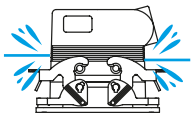
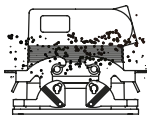
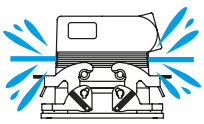
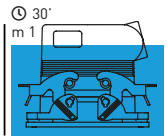
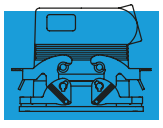
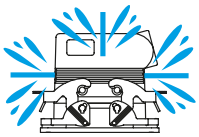
SEPARATELY AVAILABLE

CR MBT



THE DEGREE OF PROTECTION

The connector's housing, sealing and locking mechanism protect the connection from external influences such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleansing and cooling agents, oils, etc. The degree of protection the housing offers is explained in the IEC 60529, DIN EN 60529, standards that categorize enclosures according to foreign body and water protection.
The following table shows the **IP (Ingress Protection) Ratings Guide**.

FIRST Index figure	Degree of protection SOLIDS		SECOND Index figure	Degree of protection WATER	
0		No protection	0		No protection
1		Protected against access to hazardous parts with the back of a hand and protected against solid foreign objects of Ø 50 mm and greater	1		Protected against vertically falling water drops
2		Protected against access to hazardous parts with a finger - protected against solid foreign objects of Ø 12,5 mm and greater	2		Protected against vertically falling water drops when enclosure tilted up to 15° (on either side of the vertical)
3		Protected against access to hazardous parts with a tool - protected againstsolid foreign objects of Ø 2,5 mm and greater	3		Protected against spraying water (at an angle up to 60° on either side of the vertical)
4		Protected against access to hazardous parts with a wire - protected against solid foreign objects of Ø 1,0 mm and greater	4		Protected against splashing water from any direction
5		Protected against access to hazardous parts with a wire dust-protected (no harmful dust deposit)	5		Protected against water jets from any direction
6		Protected against access to hazardous parts with a wire dust-tight (total protection against dust)	6		Protected against powerful water jets from any direction (similar to sea waves)
			7		Protected against the effects of temporary immersion in water at a maximum depth of 1 metre for 30 min
			8		Protected against the effects of continuous immersion in water at depth and/or duration upon agreement, more severe than for numeral 7
			9		Protected against high pressure and temperature water jets from any direction

RATING EXAMPLE

IP 6 5

Description according to IEC 60529

CHANGEOVER FROM PG THREADS TO METRIC

After 31st December 1999, the German safety standard DIN VDE 0619 (1987-09) and the standards it refers to - DIN 46319 for dimensions with metric threads and DIN 46320 (T1-T4), DIN 46255 and DIN 46259 for dimensions with Pg threads (Pg = Panzerrohr-Gewinde: literally “threads for armoured pipes”) - were withdrawn and European standard EN 50262 “Metric cable glands for electrical installations” has been in force since 1st January 2000.

This standard defines the new sizes with metric threads for cable glands according to EN 60423 and establishes the safety prescriptions.

Conversely, it does not specify the dimensions, such as the size of the tightening wrench, the diagonal dimension, or the dimensions of the tightness seals, as was the case in the withdrawn DIN for Pg cable glands.

The standard came definitively into force on 1st April 2001, when the contrasting national standards were withdrawn.

It is valid in all member countries of CENELEC (European Electrical Standardisation Committee) and its publication has led to a broadening of the supply of enclosures for multi-pole connectors for industrial use, to include new enclosure versions with cable entry suitable for metric cable glands.

NOTE – In 2016 the new EN 62444:2013 standard “Cable glands for electrical installations” replaced the former to cover only cable gland with metric thread whose range is now M6 through M110 (previously up to M75).

Cable gland producers have introduced the new metric series to add to the Pg size series, to gradually replace the latter type. The transitional period indicated in the new standard should have ended on 1st March 2001, after which date the use of cable entry devices with Pg thread and, as a result, enclosures with Pg thread, should have ended in new installations. Nevertheless, both the cable entry devices and the relevant enclosures with Pg thread, may continue to be used as spare parts. For the mandatory **CE** marking of these items, observance of the safety conditions specified by the Low Voltage Directive is sufficient, however adherence to the safety requirements of EN 62444 provides presumption of conformity.

To distinguish hoods and surface-mounting housings with metric entries from the relevant Pg versions (identified with a C pre-code), the ILME metric types are identified with an M pre-code. The transposition table below indicates the correspondence rule adopted in most cases by ILME for creating the new metric versions.

Pg → metric transposition table

Pg	Metric
Pg 11	M20
Pg 13.5	M20
Pg 16	M20
Pg 21	M25
Pg 29	M32
Pg 36	M40
Pg 42	M50

Cable diameter for use with ILME cable glands

∅ in mm	Metric thread				
Series	**20**	**25**	**32**	**40**	**50**
AS M..P	6 - 12,5	10 - 18	14 - 24	15 - 24	23 - 30
AS M..E	8 - 12,5	13,5 - 18	17 - 24	—	—
AG M..T	6 - 8 -10	11 - 14 - 17	19 - 21 -24	26 - 29 - 32	35 - 38 - 41
AG M..I	5 - 12,5	9 - 18	14 - 25	18 - 32	24 - 38,5
AG M..R	6 - 8 -10	11 - 14 - 17	19 - 21 - 24	—	—

For more information, please refer to the technical catalogue on www.ilme.com