

## T-TYPE enclosures

Standard & Aggressive environments,

Hygienic applications

**T-TYPE  
STANDARD**  
for standard  
applications



Pages 478 - 487

**T-TYPE/W**  
for aggressive  
environments



Pages 488 - 492

**HYGIENIC  
T-TYPE/H**  
for food  
& beverage

**HYGIENIC  
T-TYPE/C**  
for low  
temperatures



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**ECOLAB**

# T-TYPE general information

## International standards

T-TYPE enclosures have been **successfully** tested in accordance with the following international standards, guaranteeing their usage for numerous applications:

- **EN 61984: Connectors - Safety requirements and tests.**
- **ANSI/UL 50 (Enclosures for Electrical Equipment)** equivalent to voluntary North American standard NEMA 250 (NEMA = National Electrical Manufacturers Association) and the corresponding Canadian standard CSA C22.2 No. 94 (Special Purpose Enclosures) for degrees of protection used in North America and required by local installation codes (e.g. NFPA 70 National Electrical Code in the USA, CSA plant standards for Canada). The current type approval was obtained after passing a series of tests carried out in accordance with the standard, in particular: **Type 12 (= NEMA 12)** for internal use, similar to degree of protection IP54 according to IEC/EN 60529. (Only standard T-TYPE enclosures).
- **EN 60529: Degrees of protection provided by enclosures (IP Code)** for ratings IP65, IP66 and IP69 (according to type).
- **EN 62262: Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK Code)** for ratings IK09 (enclosures with levers), IK10 (enclosures without levers).
- **IEC 60068-2-52: Environmental testing - Part 2-52: Salt mist, cyclic:** with 5% solution of sodium chloride (NaCl), solution Ph from 6,5 to 7,2;  
**ENVIRONMENTAL CONDITIONS:** salt mist 35 °C for 2 hours; 40 °C for 168 hours with 93% relative humidity;  
**NO. OF CYCLES:** 4;  
**TEST PASSED:** maintaining the IP degree of protection and with a change of contact resistance  $\leq 50\%$  of the initial value or  $\leq 5 \text{ m}\Omega$ .
- **IEC 60068-2-6: Environmental testing - Part 2-6: Vibration (sinusoidal):** with values 10Hz+500Hz, 0,35 mm amplitude of displacement, 50m/s<sup>2</sup> (5g<sub>n</sub>), crossover point 60,1 Hz;  
**NO. OF CYCLES:** 10;  
**TEST PASSED:** scanning 3 axes for 2 hours, with a change of contact resistance value  $\leq 50\%$  of the initial value or  $\leq 5 \text{ m}\Omega$  and no micro-interruption ( $\geq 1 \mu\text{s}$ ).
- **IEC 60068-2-3: Environmental testing - Part 2-3: Damp heat, steady state:** at 40 °C, 93% relative humidity, 504 hours;  
**TEST PASSED:** with a change of contact resistance value  $\leq 50\%$  of the initial value or  $\leq 5 \text{ m}\Omega$  and no disruptive discharge (insulation resistance  $> 100 \text{ G}\Omega$ ).
- **IEC 60068-2-30: Environmental testing - Part 2-30: Damp heat, cyclic:** 40 °C, 95% relative humidity, 12 hours at ambient temperature;  
**NO. OF CYCLES:** 21;  
**TEST PASSED:** with a change of contact resistance value  $\leq 50\%$  of the initial value or  $\leq 5 \text{ m}\Omega$  and no disruptive discharge (insulation resistance  $> 100 \text{ G}\Omega$ ).

## T-TYPE general information

## Resistance to chemicals comparison table

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>A</b>				
Acetone (propanone)	x	x	x	x
Active chlorine	x	x	x	x
Alum	●	●	●	●
Ammonia, 10% aqueous solution	●	x	●	●
Ammonia, liquid	x	x	●	●
Ammonium acetate	●	x	●	●
Ammonium carbonate	●	●	●	x
Ammonium chloride	●	●	●	x
Ammonium nitrate	●	●	●	●
Ammonium phosphate	●	●	●	●
Ammonium sulphate	●	●	●	●
Amyl alcohol	□	□	□	x
Aniline	□	□	x	x
Aqua regia (1:3 nitric acid : hydrochloric acid)	x	x	x	x
Asphalt	□	□	□	x

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>B</b>				
Beer	●	●	●	●
Benzene	x	□	x	x
Borax	□	□	□	□
Boric acid	●	●	●	●
Boric acid, 10% aqueous solution	●	●	●	●
Boric water (boric acid 3%)	●	●	●	●
Butane, gas	□	□	□	x
Butane, liquid	□	□	□	x

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>C</b>				
Calcium chloride	●	●	●	●
Calcium chloride, 10% aqueous solution	●	●	●	●
Calcium chloride, diluted suspension	●	●	●	●
Calcium nitrate	●	●	●	●
Calcium sulphate	●	●	x	●
Caustic potash (potassium hydroxide) 10%	x	●	●	x
Citric acid 50% aqueous solution	x	x	●	●
Copper sulphate 10% aqueous solution	●	●	●	●
Cresol	□	□	x	x
Cresolic solution	□	□	x	x
Cutting oil	□	□	□	x
Cyclo-hexane	□	□	□	x

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>D</b>				
Deca-hydro-naphtalene	x	x	x	x
Di-Ethylhexyl Phtalate	●	x	x	x
Di-isononyl Phtalate	●	x	x	x
Di-octyl Phtalate	●	●	x	x
Diesel Oil	□	□	□	□
Diluted Glucose	●	●	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>D</b>				
Diluted Glycerine	●	●	●	●
Diluted Glycol	●	●	●	●
Diluted Phenol	□	□	x	x
Diluted urea	●	●	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>E</b>				
Ethanol (ethyl alcohol)	x	x	●	●
Ethyl alcohol, 10% aqueous solution	●	●	●	●
Ethylene-glycol or propylene-glycol	●	●	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>F</b>				
Fatty acids	●	●	●	□
Ferric chloride, 10% aqueous solution	x	x	x	x
Formalin (formaldehyde 40% aqueous solution)	x	x	●	●
Fruit juices	●	●	●	●
Fuel oils	□	□	□	x

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>G</b>				
Gaseous ammonia	□	x	●	●
Gaseous propane	x	●	●	x
Glycerine	●	●	●	●
Grinding oil	□	□	□	x
Gypsum (see calcium sulphate)	●	●	x	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>H</b>				
Heptane	□	□	□	x
Hexane	□	□	□	x
Hydrochloric acid, <2% aqueous solution	x	x	●	□
Hydrogen sulphide	□	x	●	x

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>I</b>				
Ink	●	●	●	●
IRM oil 901	●	●	●	●
IRM oil 902	□	●	●	x
IRM oil 903	x	□	□	□
Isopropyl alcohol	□	●	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>K</b>				
Kitchen salt, aqueous solution	●	●	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>L</b>				
Lactic acid	●	●	●	●
Linseed oil	●	●	●	●
Liquid soap	x	●	●	●
Lubricating engine oil	□	□	□	x
Lubricating oil	●	●	●	x

The classification herewith provided is only a generic reference guide in order to enable a first selection. It is based on literature data provided by the suppliers of the raw materials used, which are related to tests carried out on specimens under test conditions which are not always homogeneous and involving accelerating techniques, therefore not necessarily describing real operational conditions. The actual behaviour of products in the field may therefore be positively or negatively influenced by

several variable environmental parameters such as temperature, relative humidity, simultaneous presence of a plurality of substances and their concentration, exposure time, dynamic or static application condition, and so on. The accuracy of transferring the indications given herein to the actual conditions of use is therefore merely indicative and does not imply any guarantee or responsibility by ILME.

**Q NOTE:** As the characterizing element of the T-TYPE/W series is the different sealing gasket material, hoods and covers without sealing gaskets for this series are the same of T-TYPE Standard.

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>M</b>				
Mercury	●	●	●	●
Methanol (methyl alcohol)	x	x	●	●
Methyl alcohol, diluted 50%	□	□	●	●
Mineral based oil	●	●	●	●
Mineral oils (un-tasteful)	●	●	●	●
Mothballs (naphthalene, paradichlorobenzene)	□	□	x	x
Muriatic acid, concentrated	x	x	x	x
<b>N</b>				
n-Butanol (butyl alcohol)	●	●	●	●
Naphthalene	□	●	x	x
Normal (low octane) gasoline (petrol)	□	□	□	x
<b>O</b>				
Octane	□	□	□	x
Oleic acid	●	●	●	x
Oxalic acid	●	●	●	●
Ozone	x	x	x	□
<b>P</b>				
Paraffin oil	●	●	●	●
Petrol ether	□	□	□	□
Petroleum	●	●	●	●
Petroleum spirit (dry cleaning)	□	□	x	x
Potassium carbonate	●	●	●	●
Potassium chlorate	●	●	x	●
Potassium chloride	●	●	●	●
Potassium cyanide, aqueous solution	●	●	●	●
Potassium di-chromate	□	□	●	●
Potassium iodide	□	□	●	●
Potassium nitrate	□	x	x	●
Potassium persulphate	□	□	x	●
Potassium sulphate	□	□	●	●
<b>S</b>				
Sea water	●	●	●	●
Silicon oil	●	●	●	x
Soap solution	□	●	●	●
Sodium bicarbonate (oxide)	●	●	●	●
Sodium carbonate (washing soda)	●	●	●	●
Sodium chlorate	●	●	x	●
Sodium chloride (kitchen salt)	●	●	●	●
Sodium bisulphate, aqueous solution	●	●	●	●
Sodium hydroxide (caustic soda)	x	x	●	●
Sodium hydroxide 12,5% (liscivia)	□	x	●	●
Sodium Hypochlorite	x	x	●	●

	T-TYPE	T-TYPE / W	T-TYPE / H	T-TYPE / C
<b>S</b>				
Sodium nitrate	●	●	●	x
Sodium nitrite	□	□	●	x
Sodium perborate	●	●	●	●
Sodium phosphate	●	●	●	x
Sodium silicate	●	x	x	●
Sodium sulphate	●	●	●	●
Sodium sulphide	●	●	●	●
Sodium Thiosulphate (photographic fixer)	●	●	●	●
Solution for photographic processing	●	●	●	●
Starch, aqueous (amylum)	●	●	●	●
Stearic acid	●	●	●	●
Succinic acid (butanedioic acid)	●	●	●	●
Sulphur	●	●	x	x
Sulphur dioxide (sulphurous anhydride)	□	x	x	□
Sulphuric acid, 2% aqueous solution	x	x	□	□
<b>T</b>				
Tallow	●	●	●	●
Tar	□	□	x	□
Tartaric acid	●	●	●	●
Toluene	x	x	x	x
Transformer oil (dielectric)	●	●	●	●
Trichloroethylene	x	x	x	x
Tricresyl phosphate	●	●	x	x
Turpentine essence	x	□	□	x
<b>U</b>				
Urine	●	●	●	●
<b>V</b>				
Vegetable oil	●	●	●	●
Vinegar	x	□	●	□
<b>W</b>				
Water	●	●	●	●
White alcohol (isopropanol + ethanol)	□	●	●	●
<b>X</b>				
Xylene	x	x	x	x

**Legend**

● : Resistant    □ : Limited resistance    x : Not resistant

## T-TYPE standard

### For modular and standard inserts

Alongside the wide range of traditional metallic enclosures for multipole connectors, ILME first "pioneered" a **series of enclosures in self-extinguishing thermoplastic material** in the most common sizes "44.27", "57.27", "77.27" and "104.27".

**Quality and money saving** are the main features of these enclosures, as an outcome of careful product studies.

**Valuable characteristics** of these new versions of enclosures:

- **significant structural solidity** and mechanical robustness by virtue of **substantial thickness**;
- **external dimensions** of the bulkhead mounting housings are **similar to those of the corresponding metallic enclosures**; **hole fixing centres are unchanged**;
- **pre-fastened gaskets** for easier installation;
- **wide space inside the enclosures** for cables, with mounted connector inserts, similar to the corresponding "high construction" versions;
- possibility of making **total insulation** constructions (equivalent to Class II) ☐ ;
- **absence of powder paint** for environments in which these are not recommended (e.g. to avoid food contamination).

#### STANDARD APPLICATIONS

##### SUM-UP

- ☑ Enclosures in thermoplastic material, dark grey RAL 7012 colour, with high thicknesses providing structural solidity and durability
- ☑ Built-in polyurethane gaskets
- ☑ Locking levers in thermoplastic material colour grey RAL 7001
- ☑ M25, M32 and M40 threaded cable entries
- ☑ IP65 degree of protection according to EN 60529
- ☑ UL TYPE 12 degree of protection according to ANSI/UL50
- ☑ Each enclosure carries its own part number, thread/size, conformity markings and UL type rating
- ☑ Ambient temperature range: -40 °C / +90 °C



#### Interchangeability with other ILME series

T-TYPE series housings can be coupled with metal hoods.

Insulating hoods can be coupled with "V-TYPE" metal housings.

Hoods "57.27", "77.27" and "104.07" can be mounted on COB TCG and COB BC frames simply by replacing the supplied levers with COB L levers (to be purchased separately).

Insulating enclosures are ideal for mounting of all ILME inserts with the exception of series models CT 40/ 64 and CTS 40/ 64 connector.

Inserts with 45° terminals of the CT series (screw-type terminals) and CTSE (spring terminals) are only insertable from the front (therefore not from the back) of the bulkhead mounting housings.

Being made by insulating material, they do not require a special reinforced insulation as metal ones do, for use with series CME higher voltage connector inserts (screw-type terminals).

With the exception of the limitations described below, it is generally possible to mount the MIXO series modular connectors and frames with the ground and screen anchors dedicated to this series.

#### Limitations

With respect to enclosures in metal alloy, ILME insulating enclosures have some limitations of use in combination with particular accessories:

- CRZ 06/ 10/ 16/ 24 reduction plates cannot be mounted with bulkhead mounting housings due to increased dimensions of the fastening flange of these insulating enclosures.
- The CYG 16 in-line joint cannot be mounted on the bulkhead mounting housings T-TYPE series because the gaskets of the latter do not fit together with the joint profile.
- The CYR 16.3 and CYR 24.4 round cable feed-throughs are difficult to position on their respective bulkhead mounting housings T-TYPE series.
- CPT 24 disposable protection cover cannot be mounted on insulating enclosures due to increased outer dimensions of these enclosures.
- MIXO series insert anchors cannot be mounted on TMAO 06/10 enclosures.
- CN insert anchors cannot be mounted on TMAO 06/10 enclosures.
- When using both cable entries of surface mounting housings, the conduit shall be of insulating type.

## FOCUS ON:

### 1 Construction

By using the BC-MUL® moulding technique together with the use of MIL.BOX® material, **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 means for fastening the connector inserts to the enclosures consist of four M3 threaded metal inserts. Compared with metal construction enclosures, which – in order to comply with the electrical installation safety norms – must be earthed via a metal connection to the protective earth terminal of the inserts mounted inside the enclosures, this series of enclosures offers a solution for **total insulation constructions** (equivalent to class II) where necessary. The thermoplastic material used is RAL 7012 dark grey colour and **UL 94V-2** grade self-extinguishing and has passed the glow wire testing (GWEPT) in accordance with the EN IEC 60695-2-11 at **850 °C**, in excess of what required by the intended uses. The **surface mounting** high construction housings are supplied **with an open threaded entry** and diametrically opposite a closed threaded entry, which can be **opened** by the user, if required (with suitable tool). Manufactured from insulating material, they do not require **special reinforced insulation** as the metal versions do, for use with series **CME higher voltage** connector inserts (screw-type terminals), available only upon request.

### 2 Gaskets

T-TYPE standard sealing 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 mounting housings for easier installation.

**T-TYPE standard: Built-in polyurethane gaskets**

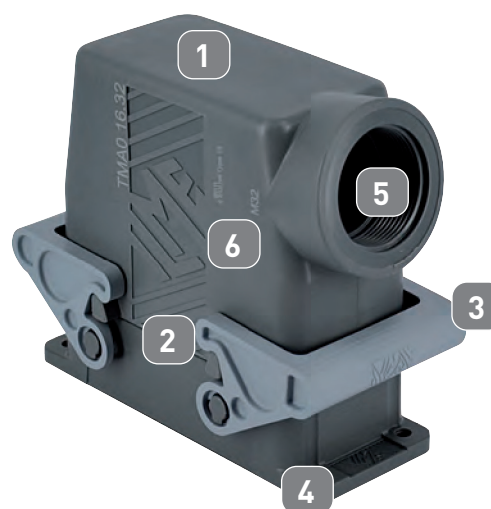
### 3 Levers

The locking levers have been produced in self-extinguishing thermoplastic material, grey RAL 7001 colour.

### 4 Dimensions

The internal dimensions allow mounting of all connector inserts in their relevant sizes. The external dimensions of the bulkhead mounting housings are similar to those of the corresponding metallic enclosures; hole fixing centres are unchanged.

Hoods offer an inner cabling space similar to that of the “high” construction models of the corresponding metal enclosures. Other characteristics are in compliance with the applicable safety standard for electrical connectors, IEC/EN 61984.



### 5 Cable entries

The housing and hood cable entries are available with metric thread, respectively:

**Q M25 or M32** for smaller sizes “44.27” and “57.27”.

**Q M32 or M40** for larger sizes “77.27” and “104.27”.

The recent standard IEC/EN 61076-7-100 regarding metric cable entries for multipole electrical connectors for heavy duty uses, which standardises some main dimensions for entries and their related accessories (gaskets, pressure nuts), have been carefully considered in the product design.

### 6 Markings

Each enclosure carries its own part number and conformity markings.

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

\*) only for standard insulating version TCHI

## housings with single lever

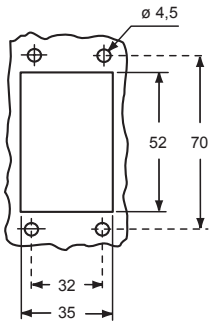


## hoods with 2 pegs

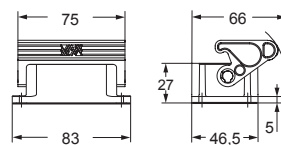


description	part No.		entry	
			M	M
bulkhead mounting housing with thermoplastic lever	<b>TCHI 06 L</b>			
surface mounting housing with thermoplastic lever, high construction	<b>TMAP 06 L25</b>		25	
surface mounting housing with thermoplastic lever, high construction	<b>TMAP 06 L32</b>		32	
with pegs, side entry, high construction				<b>TMAO 06 L25</b> 25
with pegs, side entry, high construction				<b>TMAO 06 L32</b> 32
with pegs, top entry, high construction				<b>TMAV 06 L25</b> 25
with pegs, top entry, high construction				<b>TMAV 06 L32</b> 32

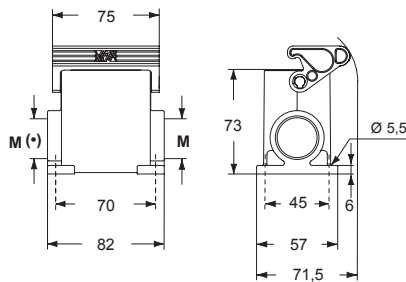
panel cut-out for bulkhead mounting housings



### TCHI L

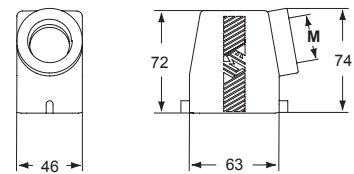


### TMAP L

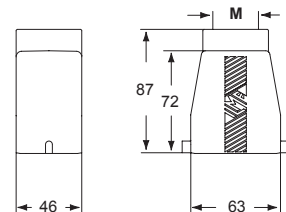


(\*) The surface mounting, high construction housings are supplied with an open threaded entry (\*) and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

### TMAO L



### TMAV L



**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

\*) only for standard size "44.27"

## hoods with single lever top entry

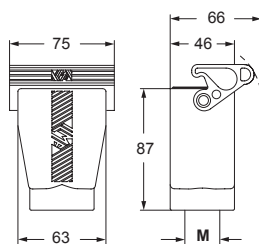


## covers

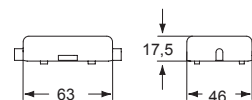


description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
with thermoplastic lever and gasket, high construction	<b>TMAV 06 LG25</b>	25		
with thermoplastic lever and gasket, high construction	<b>TMAV 06 LG32</b>	32		
with pegs			<b>TCHC 06 L</b>	<b>TCHC 06 SL</b>
with thermoplastic lever and gasket				<b>TCHC 06 LG</b>

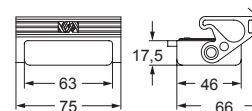
### TMAV LG



### TCHC L (SL)



### TCHC LG



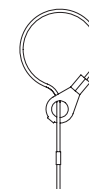
For fixing on housings

eyelet



For fixing on hoods

loop



**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

T-TYPE STANDARD



# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

\*) only for standard insulating version TCHI

## housings with double lever

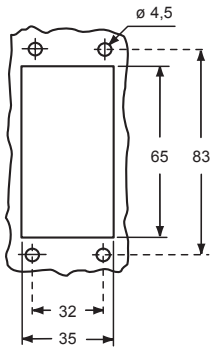


## hoods with 4 pegs

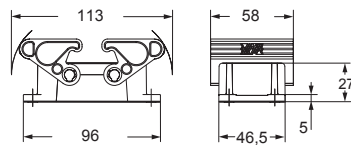


description	part No.		entry	
			M	M
bulkhead mounting housing with thermoplastic levers	<b>TCHI 10</b>			
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 10.25</b>		25	
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 10.32</b>		32	
with pegs, side entry, high construction				<b>TMAO 10.25</b> 25
with pegs, side entry, high construction				<b>TMAO 10.32</b> 32
with pegs, top entry, high construction				<b>TMAV 10.25</b> 25
with pegs, top entry, high construction				<b>TMAV 10.32</b> 32

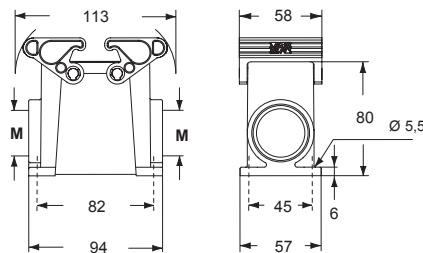
panel cut-out for bulkhead mounting housings



### TCHI

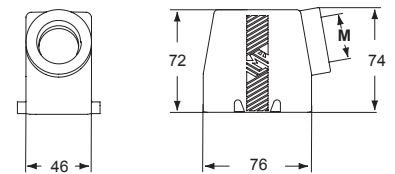


### TMAP

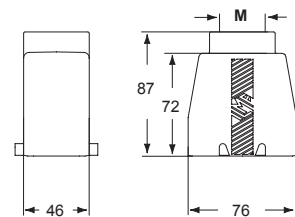


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

### TMAO



### TMAV



**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

T-TYPE STANDARD

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

\*) only for standard insulating version TCHI

## hoods with double lever top entry

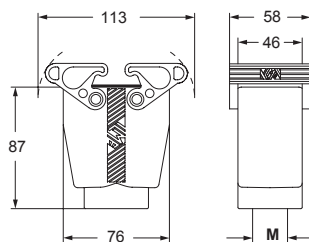


## covers

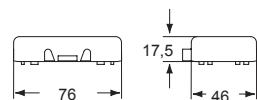


description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
with thermoplastic levers and gasket, high construction	<b>TMAV 10 G25</b>	25		
with thermoplastic levers and gasket, high construction	<b>TMAV 10 G32</b>	32		
with 4 pegs			<b>TCHC 10</b>	<b>TCHC 10 S</b>
with 2 thermoplastic levers and gasket				<b>TCHC 10 G</b>

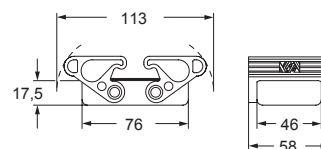
### TMAV G



### TCHC (S)

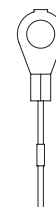


### TCHC G



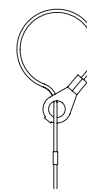
For fixing on housings

eyelet



For fixing on hoods

loop



**CRUS**® Type 12



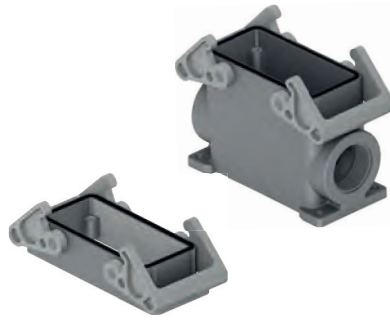
ambient temperature limits -40 °C / +90 °C

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	16 poles + ⊕	162
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

\*) only for standard insulating version TCHI

## housings with double lever

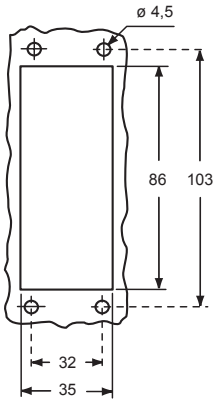


## hoods with 4 pegs

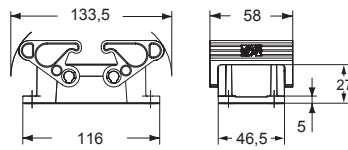


description	part No.	entry M	part No.	entry M
bulkhead mounting housing with thermoplastic levers	<b>TCHI 16</b>			
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 16.32</b>	32		
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 16.40</b>	40		
with pegs, side entry, high construction			<b>TMAO 16.32</b>	32
with pegs, side entry, high construction			<b>TMAO 16.40</b>	40
with pegs, top entry, high construction			<b>TMAV 16.32</b>	32
with pegs, top entry, high construction			<b>TMAV 16.40</b>	40

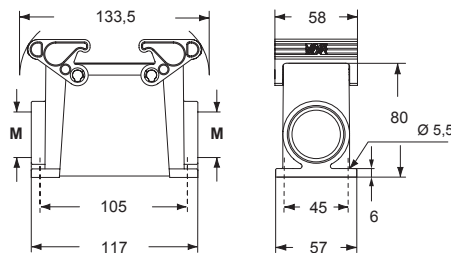
### panel cut-out for bulkhead mounting housings



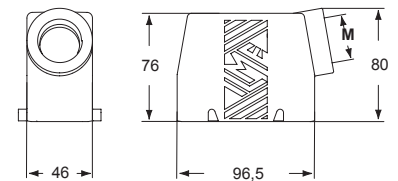
### TCHI



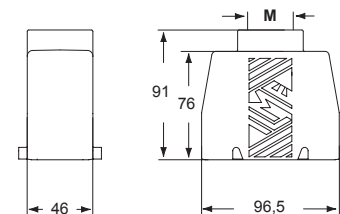
### TMAP



### TMAO



### TMAV



The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

T-TYPE STANDARD

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	16 poles + ⊕	162
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

\*) only for standard insulating version TCHI

## hoods with double lever top entry

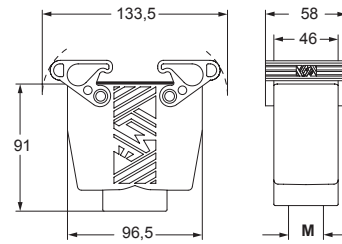


## covers

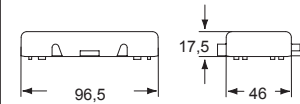


description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
with thermoplastic levers and gasket, high construction	<b>TMAV 16 G32</b>	32		
with thermoplastic levers and gasket, high construction	<b>TMAV 16 G40</b>	40		
with 4 pegs			<b>TCHC 16</b>	<b>TCHC 16 S</b>
with 2 thermoplastic levers and gasket				<b>TCHC 16 G</b>

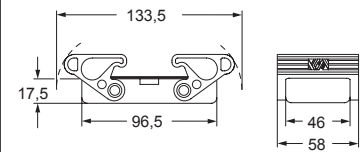
### TMAV G



### TCHC (S)

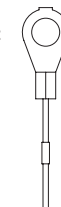


### TCHC G



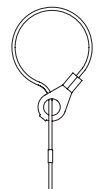
For fixing on housings

eyelet



For fixing on hoods

loop



**CRUS**® Type 12



ambient temperature limits -40 °C / +90 °C

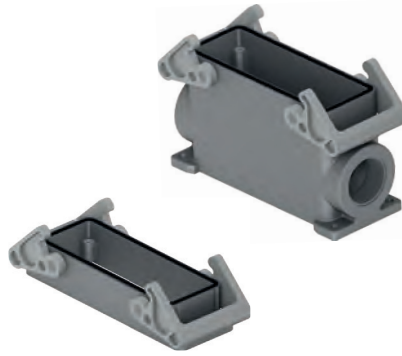
T-TYPE STANDARD

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204, 206
MIXO	6 modules	262 - 317

\*) only for standard insulating version TCHI

## housings with double lever

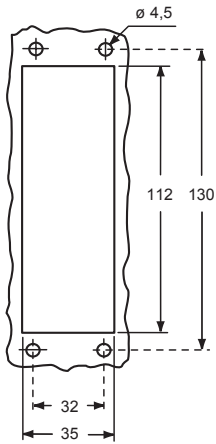


## hoods with 4 pegs

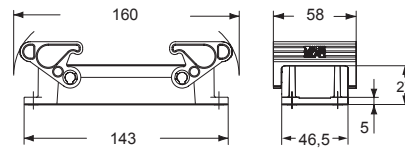


description	part No.	entry M	part No.	entry M
bulkhead mounting housing with thermoplastic levers	<b>TCHI 24</b>			
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 24.32</b>	32		
surface mounting housing, thermoplastic levers, high construction	<b>TMAP 24.40</b>	40		
with pegs, side entry, high construction			<b>TMAO 24.32</b>	32
with pegs, side entry, high construction			<b>TMAO 24.40</b>	40
with pegs, top entry, high construction			<b>TMAV 24.32</b>	32
with pegs, top entry, high construction			<b>TMAV 24.40</b>	40

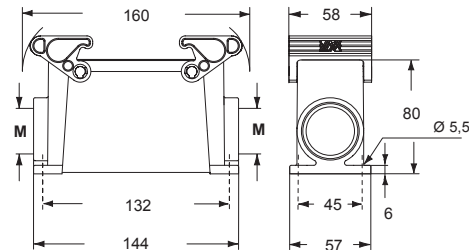
### panel cut-out for bulkhead mounting housings



### TCHI

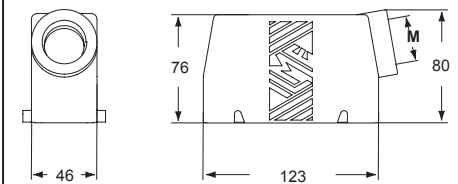


### TMAP

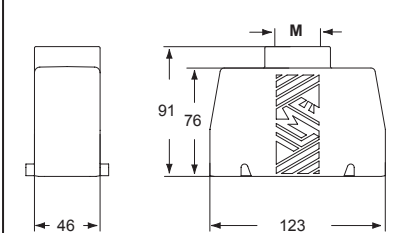


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

### TMAO



### TMAV



**CAUS**® Type 12



ambient temperature limits -40 °C / +90 °C

T-TYPE STANDARD

# T-TYPE insulating STANDARD APPLICATIONS

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
CT, CTSE (16A) *)	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204, 206
MIXO	6 modules	262 - 317

\*) only for standard insulating version TCHI

## hoods with double lever top entry

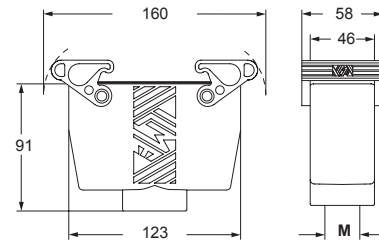


## covers

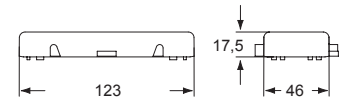


description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
with thermoplastic levers and gasket, high construction	<b>TMAV 24 G32</b>	32		
with thermoplastic levers and gasket, high construction	<b>TMAV 24 G40</b>	40		
with 4 pegs			<b>TCHC 24</b>	<b>TCHC 24 S</b>
with 2 thermoplastic levers and gasket				<b>TCHC 24 G</b>

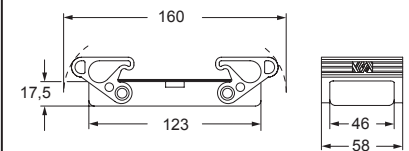
### TMAV G



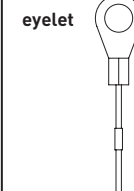
### TCHC (S)



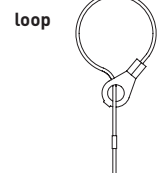
### TCHC G



For fixing on housings



For fixing on hoods



**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

T-TYPE STANDARD

## T-TYPE/W

## Aggressive environments

## AGGRESSIVE ENVIRONMENTS

## SUM-UP

- ☒ Enclosures in thermoplastic material, dark grey RAL 7012 colour, with high thicknesses providing structural solidity and durability
- ☒ Built-in FKM fluoroelastomer sealing gaskets
- ☒ Locking levers in thermoplastic material colour grey RAL 7001
- ☒ M25, M32 and M40 threaded cable entries
- ☒ IP66/IP69 degree of protection according to EN 60529
- ☒ UL TYPE 12 degree of protection according to ANSI/UL50
- ☒ Each enclosure carries its own part number, thread size and conformity markings and UL type rating
- ☒ Ambient temperature range: -40 °C / +90 °C

**Q NOTE:** As the characterizing element of the T-TYPE/W series is the different sealing gasket material, hoods and covers without sealing gaskets for this series are the same of T-TYPE Standard.

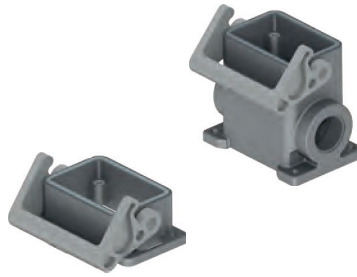


# T-TYPE / W insulating AGGRESSIVE ENVIRONMENTS

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
CT, CTSE (16A) *)	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

\*) only for standard insulating version THIW

## housings with single lever FKM gasket

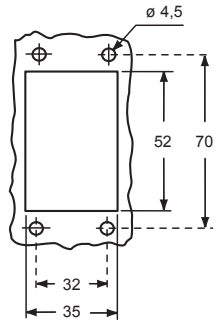


## hoods with single lever, top entry covers, FKM gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic lever	<b>THIW 06 L</b>				
surface mounting housing, thermoplastic lever, high construction	<b>TAPW 06 L25</b>	25			
surface mounting housing, thermoplastic lever, high construction	<b>TAPW 06 L32</b>	32			
with thermoplastic lever and gasket, high construction			<b>TAVW 06 LG25</b>	25	
with thermoplastic lever and gasket, high construction			<b>TAVW 06 LG32</b>	32	
cover with thermoplastic lever and gasket					<b>THCW 06 LG</b>

panel cut-out for bulkhead mounting housings

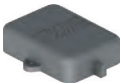


**TMAO  
Hoods  
(page 480)**

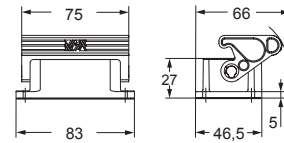


**TMAV  
Hoods  
(page 480)**

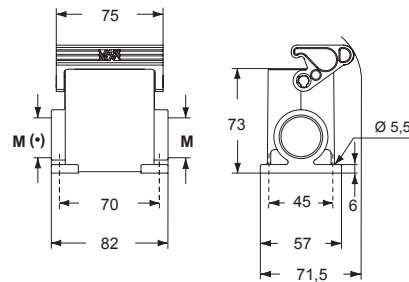
**TCHC L  
TCHC SL  
Covers  
with eyelet  
(page 481)**



### THIW L

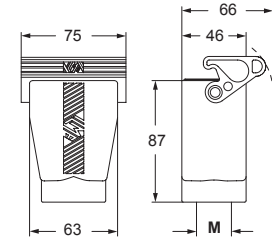


### TAPW L

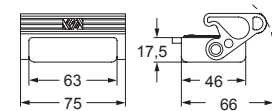


(\*) The surface mounting, high construction housings are supplied with an open threaded entry (\*) and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

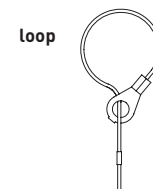
### TAVW LG



### THCW LG



For fixing on hoods



**CAIUS** Type 12



ambient temperature limits -40 °C / +90 °C

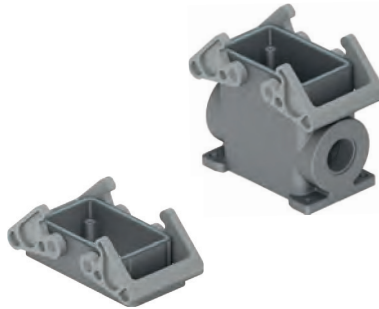


# T-TYPE / W insulating AGGRESSIVE ENVIRONMENTS

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
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

\*) only for standard insulating version THIW

## housings with double lever FKM gasket

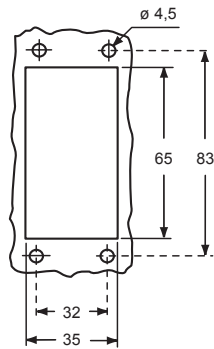


## hoods with double lever, top entry covers, FKM gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIW 10</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 10.25</b>	25			
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 10.32</b>	32			
with thermoplastic levers and gasket, high construction			<b>TAVW 10 G25</b>	25	
with thermoplastic levers and gasket, high construction			<b>TAVW 10 G32</b>	32	
cover with 2 thermoplastic levers and gasket					<b>THCW 10 G</b>

panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 482)

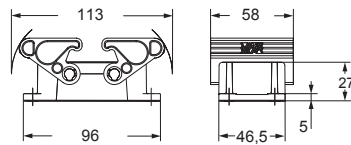


**TMAV**  
Hoods  
(page 482)

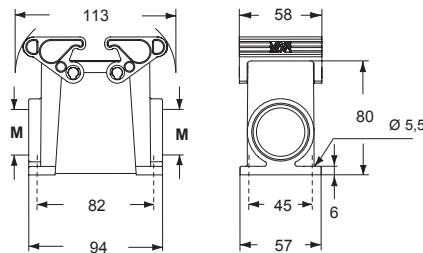
**TCHC**  
TCHC S  
Covers  
with eyelet  
(page 483)



### THIW

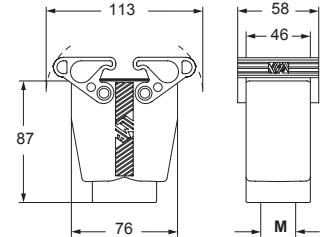


### TAPW

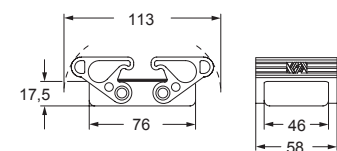


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

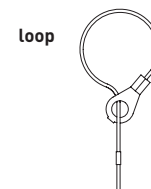
### TAVW G



### THCW G



For fixing on hoods



**CAIUS**® Type 12



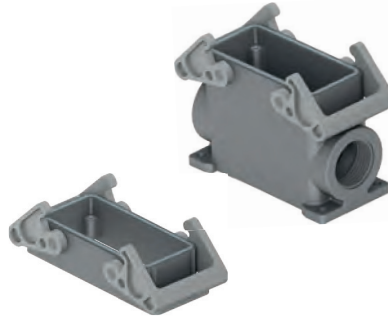
ambient temperature limits -40 °C / +90 °C

# T-TYPE / W insulating AGGRESSIVE ENVIRONMENTS

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
CT, CTSE (16A) *)	16 poles + ⊕	162
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

\*) only for standard insulating version THIW

## housings with double lever FKM gasket

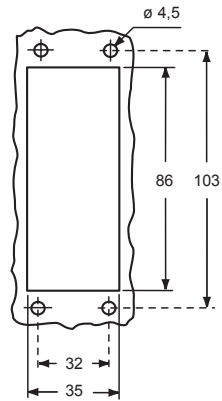


## hoods with double lever, top entry covers, FKM gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIW 16</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 16.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 16.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVW 16 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVW 16 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCW 16 G</b>

### panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 484)

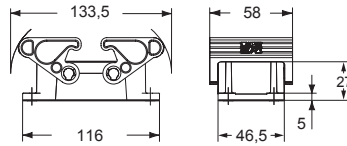


**TMAV**  
Hoods  
(page 484)

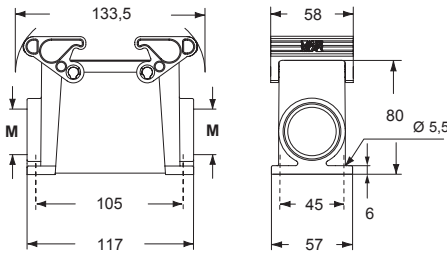
**TCHC**  
**TCHC S**  
Covers  
with eyelet  
(page 485)



### THIW

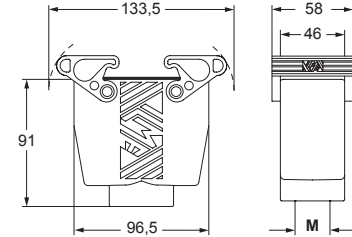


### TAPW

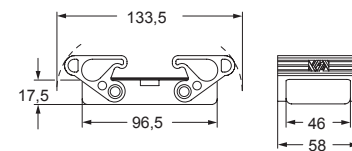


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

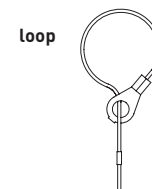
### TAVW G



### THCW G



### For fixing on hoods



**CAIUS**® Type 12

ambient temperature limits -40 °C / +90 °C

# T-TYPE / W insulating AGGRESSIVE ENVIRONMENTS

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
CT, CTSE (16A) *	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204, 206
MIXO	6 modules	262 - 317

\*) only for standard insulating version THIW

## housings with double lever FKM gasket

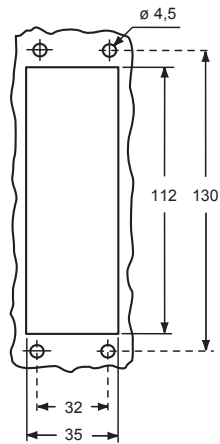


## hoods with double lever, top entry covers, FKM gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIW 24</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 24.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPW 24.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVW 24 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVW 24 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCW 24 G</b>

panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 486)

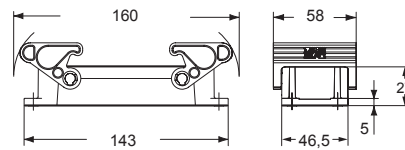


**TMAV**  
Hoods  
(page 486)

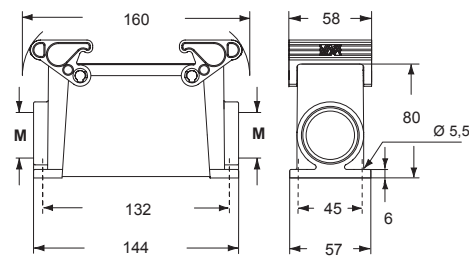
**TCHC**  
**TCHC S**  
Covers  
with eyelet  
(page 487)



### THIW

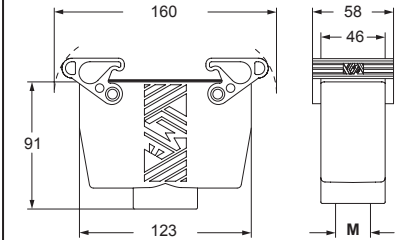


### TAPW

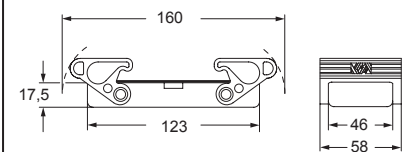


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

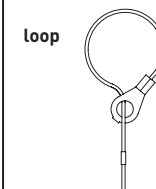
### TAVW G



### THCW G



For fixing on hoods



**CAIUS**® Type 12



ambient temperature limits -40 °C / +90 °C

# T-TYPE HYGIENIC

## Resistance of materials to detergents/disinfectants used in the food industry



ILME T-TYPE/H and T-TYPE/C enclosure materials have been selected to guarantee compatibility with the principal alkaline or acid detergents and disinfectants used in the food industry. In particular, series T-TYPE/H

and T-TYPE/C enclosures have been tested according to protocol **F&E/ P3-E n. 40-1** by **Ecolab**, leading multinational in the detergent sector, to verify their compatibility with the following cleaning fluids:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>● <b>Acid foaming detergents:</b> P3-topax 52, Topaz AC5, P3-topmaxx 520 and P3-topax 56.</li> <li>● <b>Alkaline foaming detergents:</b> P3-topax 19, Topaz MD3 and Ecofoam Basic.</li> <li>● <b>Strong alkaline foaming detergents:</b> P3-topax 36, Topaz HD1 and P3-topax 30.</li> </ul> | <ul style="list-style-type: none"> <li>● <b>Alkaline-chloride foaming detergents-disinfectants:</b> P3-topax 66, Ecofoam CL and P3-topax M95.</li> <li>● <b>Non-foaming peracetic based disinfectants:</b> P3-oxonia active, P3-topactive OKTO and P3-topactive DES.</li> <li>● <b>Neutral disinfectants:</b> P3-topax 990 and P3-topax 91.</li> </ul> |
|--|--|
- 
- Full immersion of parts in detergent/disinfectant solutions.
  - Water hardness of 200ppm CaCO<sub>3</sub>
  - Tests performed at concentrations 30% higher than those normally recommended in technical data sheets.
  - Test duration (each detergent): 28 days at 20 °C (equivalent to 6 years of daily cleaning).
  - Test solution renewed every 3-4 days for oxidizing products (P3-oxonia active, P3-topactive OKTO, P3-topax 66).
  - Test results evaluation: ISO 4068-1 (esthetic appearance and mass loss).

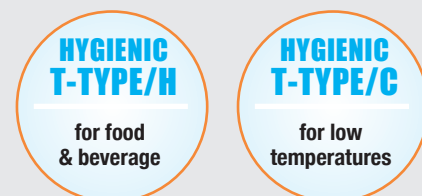
### Cleanability and degrees of protection used in the food industry

#### ECOLAB F&E/P3-E n. 40-1 Test Protocol see declaration of compatibility at pages 494-495

Series T-TYPE/H and T-TYPE/C enclosures have been designed to facilitate cleaning of surfaces that could potentially come into contact with food. For this purpose **Series T-TYPE/H and T-TYPE/C** enclosures have **IP66 and IP69 degrees of protection as per IEC 60529 Edition 2.2 (2013-08)** to allow jet washing, as typically used in the food industry.

The suitability of ILME products for the **cleanability** requirements stated by Machinery Directive 2006/42/EC for both Splash and Food Area zones (EN 1672-2 and EN ISO 14159) **depends on the specific installation of ILME products on the machine and must be evaluated by the machine manufacturer.**

In addition to the Hygienic version, aluminium enclosures are also available with degrees of protection up to IP68 (check for possible applicability).



Declaration of compatibility - By courtesy of ECOLAB s.r.l.



**DECLARATION OF COMPATIBILITY**  
between ECOLAB hygiene products  
and ILME enclosures for multiple connectors

**For the completely safe cleaning of your plant**



The ideal partner for Industrial Connections for power supply of plug connected devices, connections for auxiliary circuits and automation control:

T-type H and T-type C enclosures



The declaration proves the high resistance of these enclosures to Ecolab products commonly and worldwide used in Food and Beverage Industries.

ILME S.p.a.  
Via Marco Antonio Colonna, 9 - 20149 Milano (MI)  
[www.ilme.com](http://www.ilme.com)



Supplier of hygiene solutions for Food and Beverage industries

**Products**



**Equipments**



**Services**



Ecolab s.r.l.  
Via Paracelso 6 - 20864 Agrate Brianza (MB)  
[www.it.ecolab.eu](http://www.it.ecolab.eu)

T-TYPE HYGIENIC



### Compatible products with T-type/C and T-type/H ILME enclosures

See below for the test procedure

PRODUCT	%	T-TYPE ENCLOSURE	DEFECT QUANTITY	DEFECT QUALITY	COLOR VARIATION
P3-topax 52 - Topaz AC5	6	C and H	0	0	0
P3-topax 19 - Topaz MD3	6	C and H	0	0	0
P3-topax 36 - Topaz HD1	6	C and H	0	0	0
P3-topax 91	6	C and H	0	0	0
P3-topax 990	6	C and H	0	0	0
P3-oxonia active	1	C and H	0	0	0
P3-topactive okto	3	C and H	0	0	0
P3-topax 66	6	C and H	0	0	0

DEFECT QUANTITY: 0 means - No detectable defect  
 DEFECT QUALITY: 0 means - Up to 10x magnification no detectable defect  
 COLOR VARIATION: 0 means - Unchanged, no discoloration

### Test procedure

- Test performed by Ecolab Technical Application Service
- Ecolab reference method 40.1 – ISO 4068-1 for the evaluation
- Full immersion of parts in detergent/disinfectant solutions
- Water hardness of 200ppm CaCO<sub>3</sub>
- 28 days total time at 20°C (equivalent to the contact time that occurs in 6 years of daily cleaning)
- Concentrations tested 30% higher than those normally recommended
- Test solution renewed every 3-4 days for oxidizing products (P3-oxonia active, P3-topactive OKTO, P3-topax 66)

### Final statement

- The Ecolab Technical Application Service Italy certifies that the ILME enclosures for multipole connectors T-type/C and T-type/H are perfectly compatible with the above listed Ecolab detergents and disinfectants used in a concentration 30% higher than those normally recommended.

February 2016

## HYGIENIC

### Requirements on materials in contact or that may come into contact with food products

T-TYPE/H and T-TYPE/C materials have been selected to satisfy the requirements of EHEDG Guideline n° 32 "Materials of construction for food equipment in contact with food" and point 2.1.1, letter a) in Annex I of the Machinery Directive 2006/42/EC. Paragraph 91 of the Guide to the application of Machinery Directive 2006/42/EC specifies that the reference at Annex I, point 2.1.1, letter a) of the directive must be considered as a reference to EC regulation n. 1935/2004 and directive 2002/72/EC.

EU commission regulation n. 10/2011 dated 14 January 2011, concerning plastic material and objects designed for contact with food products, is a specific measure as provided for by article 5, paragraph 1 of the above-mentioned EC regulation n. 1935/2004.

It defines specific regulations for plastic materials and objects in order to guarantee their use in safe conditions and supersedes commission directive 2002/72/EC dated 6 August 2002 on plastic materials and objects designed for contact with food products. Art. 2, section 2 of the above-mentioned EU regulation n. 10/2011 specifies that rubber and silicone do not fall within the field of application of the regulation. EU regulation n. 10/2011 provides for the use of materials in positive lists of technological monomers, additives and adjuvants and the passing of global and specific migration tests in food simulants.

ILME T-TYPE/H and T-TYPE/C series enclosure materials have been selected according to EU n. 10/2011 regulation requirements and each component has been tested according to EU regulation n. 10/2011 and EC regulation n. 1935/2004.

Furthermore, T-TYPE/H and T-TYPE/C series gasket materials have been formulated according to FDA Guideline 21 CFR §177.2600 and T-TYPE enclosures and levers materials complying with FDA, 21 CFR, §177.1520 (a)(3)(i)(c)(1), (b) and (c)3.1a.



# HYGIENIC

## Risk Assessment and Critical Control Points in the food industry

Companies that work in the food sector must implement HACCP, i.e. Hazard Analysis and Critical Control Points system (EC Regulation 853/2004 on food product hygiene in force since 01/01/2006) and can voluntarily apply for various certificates (ISO 22000, BRC, ISF, etc.).

All those involved in primary food production (harvesting, milking, breeding), its preparation, transformation, manufacturing, packaging, storage, transport, distribution, handling, sales or supply, including consumer catering, are required to implement an HACCP system, i.e. a series of procedures aimed at preventing food contamination hazards. HACCP is based on monitoring food processing points where biological, chemical or physical contamination hazards may arise. In 2006, HACCP was made mandatory for companies that deal with the food for animals (production of raw materials, mixtures and additives).

A company required to implement HACCP can initially divide its food processing machinery into three zones from the point of view of risk for food product hygiene. The choice of the zone in which the wiring and connectors are installed depends on the risk assessment the manufacturer must conduct as per Machinery Directive 2006/42/EC which, in chapter 2.1, sets out the additional requirements for the food industry (see Table 1).

**Table 1. According to EN 1672-2:2009 - Food processing machinery - Basic concepts - Part 2: Hygiene requirements**

Application Zones	Zone Requirements	Usable Products
No Food Area: Zone where there is <u>no contact risk</u> with food.	<u>No additional requirement</u> for the food industry.	Enclosures series T-TYPE, T-TYPE/W, C-TYPE, BIG, IP68, C7 IP67, W-TYPE, EMC, COB, ...
Splash Area: Zone where <u>components may come into contact with food</u> but <u>there is no risk</u> that <u>the food</u> that came into contact with the components in this area <u>returns to the production cycle</u> .	In this zone, <u>components</u> also come into contact with cleaning agents used in the food industry and <u>must therefore be cleanable and resistant to the washing process</u> (see "Resistance of materials to detergents/disinfectants used in the food industry" and "Cleanability and degrees of protection used in the food industry").	New <u>Hygienic</u> version enclosures series <u>T-TYPE/H and T-TYPE/C</u> .
Food Area: Zone where <u>components may come into contact with food</u> , with the risk that <u>the food</u> that came into contact with the components in this area <u>returns to the production cycle</u> .	In this zone, in addition to complying with the cleanability and washing requirements, the <u>components</u> are also subject to a series of more <u>stringent requirements</u> aimed at making negligible the <u>risk of food contamination</u> in the process (see paragraph "Requirements on materials in contact or that may come into contact with food products").	For more information about T-TYPE/C in special version, please contact our Offices.



# HYGIENIC

## T-TYPE/H & T-TYPE/C

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



The new Hygienic multi-pole connector enclosures version (series T-TYPE/H and T-TYPE/C) has been designed for installation on food industry machines and systems.

For this purpose, the following improvements to the T-TYPE series have been made in order to satisfy the requirements laid down by chapter 2.1 of Machinery Directive 2006/42/EC for the machines on which they are installed:

- material cleanability and resistance to the cleaning and sanitising agents normally used in the food industry;
- materials in terms of the requirements for accidental contact with food products.

The T-TYPE/H and T-TYPE/C series enclosures fit different sealing gaskets.

For T-Type/H series enclosures, the sealing gasket is in HNBR rubber, a material with excellent resistance to both acidic and alkaline detergents as well as any animal and vegetable fats it could come into contact with in food industry applications.

For T-TYPE/C series enclosures, the sealing gasket is made by silicone rubber, a material with good resistance to acidic and alkaline detergents as well as animal and vegetable fats. It is also characterised by its improved resistance to low temperatures (series suitable for uses as low as -50 °C), conditions that can arise in food industries that use the cold chain.



A dedicated variant of this new Hygienic version may be used where a high risk of accidental contact with food is occurring during production (see Table 1, Application Zones, Food Area). For more information about this possible special version, please contact our Offices.

In accordance with the requirements set forth in EHEDG Guideline n. 32 "Materials of construction for food equipment in contact with food" (EHEDG = European Hygienic Engineering & Design Group), the closing levers and sealing gaskets are coloured blue to easily identify any accidental contaminations in food products and to facilitate the visual identification of their complete cleanliness.

For this purpose, the following improvements to the T-TYPE series have been made in order to satisfy the requirements laid down by chapter 2.1 of **Machinery Directive 2006/42/EC** for the machines on which they are installed:

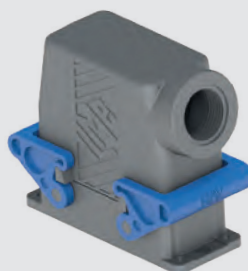
- material cleanability and resistance to the cleaning and sanitising agents normally used in the food industry;

- materials in terms of the requirements for accidental contact with food products.

## T-TYPE/H - PRODUCTION LINES APPLICATIONS

### SUM-UP

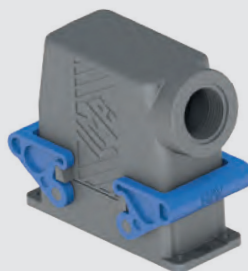
- ☑ Enclosures in thermoplastic material, dark grey RAL 7012 colour, with high thicknesses providing structural solidity and durability
- ☑ Sealing gaskets made by HNBR rubber formulated in accordance with FDA Guideline 21 CFR §177.2600
- ☑ Levers in thermoplastic material, blue colour
- ☑ M25, M32 and M40 threaded cable entries
- ☑ IP66 and IP69 degree of protection according to EN 60529
- ☑ Each enclosure carries its own part number, thread/size and conformity markings
- ☑ Ambient temperature range: -40 °C / +70 °C



## T-TYPE/C - LOW TEMPERATURE APPLICATIONS

### SUM-UP

- ☑ Enclosures in thermoplastic material, dark grey RAL 7012
- ☑ 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)
- ☑ Enclosures in thermoplastic material, dark grey RAL 7012 colour, with high thicknesses providing structural solidity and durability
- ☑ IP66 and IP69 degree of protection according to EN 60529
- ☑ 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
- ☑ ILME T-TYPE/C series enclosure materials have been selected according to EU n. 10/2011 regulation requirements and each component has been tested according to EU regulation n. 10/2011 and EC regulation n. 1935/2004



**Q NOTE:** As the characterizing elements of the Hygienic Series are the different sealing gasket material and the different locking lever, hoods and covers without sealing gaskets and locking levers are the same of series T-TYPE Standard.

# HYGIENIC

## T-TYPE/H & T-TYPE/C

### FOCUS ON:

#### 1 Construction

By using the BC-MUL® moulding technique together with the use of MIL.BOX® material, **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 means for fastening the connectors to the enclosures consist of four M3 threaded metal inserts. Compared with metal construction enclosures, which – in order to comply with electrical installation safety norms– must be earthed via a metal connection to the protective earth terminal of the connector insert inside the enclosure, this series of enclosures offers a solution for **total insulation constructions** ☐ (equivalent to class II) where necessary.

The thermoplastic material used is RAL 7012 dark grey colour and has passed **glow wire** testing (GWEPT) in accordance with the EN IEC 60695-2-11 at **850 °C**, in excess of what required by the intended uses.

The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

#### 2 Gaskets

Gaskets have been produced in **HNBR rubber or SILICONE rubber** and have been incorporated in the base flange on bulkhead mounting housings for easier installation.

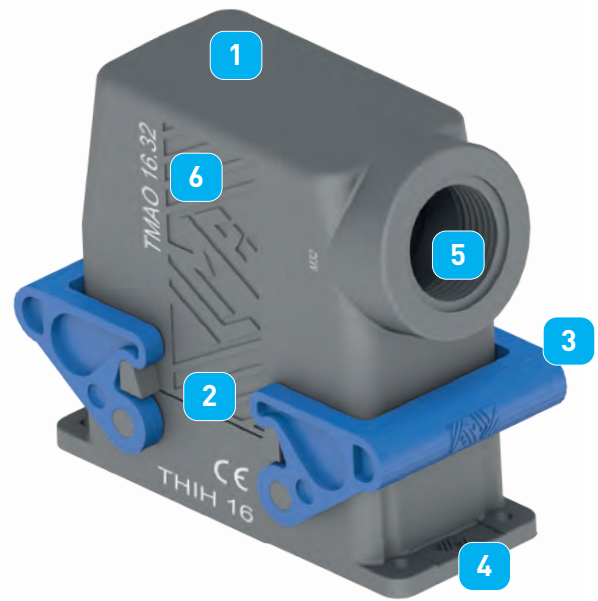
#### 3 Levers

The locking levers have been produced in **self-extinguishing thermoplastic material**, blue colour.

In accordance with the requirements set forth in **EHEDG Guideline n. 32** "Materials of construction for food equipment in contact with food" (EHEDG = European Hygienic Engineering & Design Group), the closing levers and sealing gaskets are coloured blue to easily identify any accidental contaminations in food products and to facilitate the visual identification of their complete cleanliness.

#### 4 Dimensions

The internal dimensions allow mounting of all connector inserts in their relevant sizes. The external dimensions of the bulkhead mounting housings are similar to those of the corresponding metallic enclosures; hole fixing centres are unchanged. Hoods offer an inner cabling space similar to that of the "high" construction models of the corresponding metal enclosures. Other characteristics are in compliance with the applicable safety standard for electrical connectors, **IEC/EN 61984**.



#### 5 Cable entries

The housing and hood 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".

The recent standard **IEC/EN 61076-7-100** regarding metric cable entries for multipole electrical connectors for heavy duty uses, which standardises some main dimensions for entries and their related accessories (gaskets, pressure nuts), have been carefully considered in the product design.

#### 6 Markings

Each enclosure carries its own part number and conformity markings.

# T-TYPE / H production lines HYGIENIC SERIES

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
CT, CTSE (16A) *)	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

\*) only for standard insulating version THIH

## housings with single lever HNBR gasket

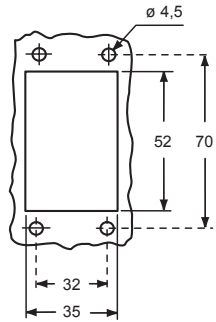


## hoods with single lever, top entry covers, HNBR gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic lever	<b>THIH 06 L</b>				
surface mounting housing, thermoplastic lever, high construction	<b>TAPH 06 L25</b>	25			
surface mounting housing, thermoplastic lever, high construction	<b>TAPH 06 L32</b>	32			
with thermoplastic lever and gasket, high construction			<b>TAVH 06 LG25</b>	25	
with thermoplastic lever and gasket, high construction			<b>TAVH 06 LG32</b>	32	
cover with thermoplastic lever and gasket					<b>THCH 06 LG</b>

panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 480)

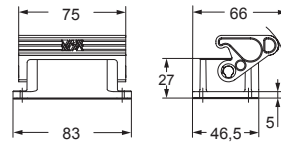


**TMAV**  
Hoods  
(page 480)

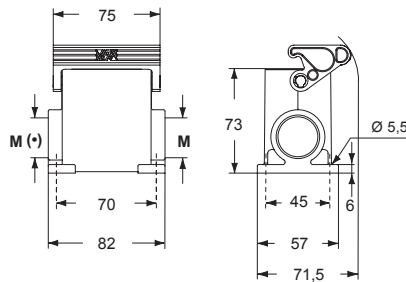
**TCHC L**  
**TCHC SL**  
Covers  
with eyelet  
(page 481)



### THIH L

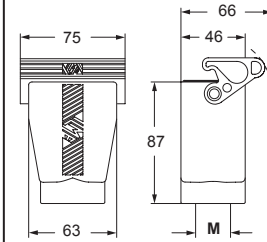


### TAPH L

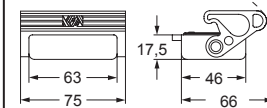


(\*) The surface mounting, high construction housings are supplied with an open threaded entry (\*) and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

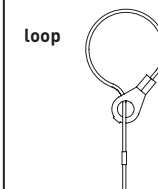
### TAVH LG



### THCH LG



For fixing on hoods



**CE** **UL** **US** Type 12



ambient temperature limits -40 °C / +70 °C

**T-TYPE / H production lines HYGIENIC SERIES**

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
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

\*) only for standard insulating version THIH

**housings with double lever  
HNBR gasket**

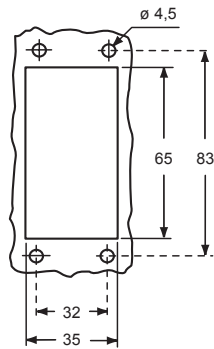


**hoods with double lever, top entry covers, HNBR gasket**



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIH 10</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 10.25</b>	25			
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 10.32</b>	32			
with thermoplastic levers and gasket, high construction			<b>TAVH 10 G25</b>	25	
with thermoplastic levers and gasket, high construction			<b>TAVH 10 G32</b>	32	
cover with 2 thermoplastic levers and gasket					<b>THCH 10 G</b>

panel cut-out for bulkhead mounting housings



**TMAO  
Hoods  
(page 482)**

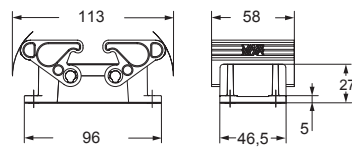


**TMAV  
Hoods  
(page 482)**

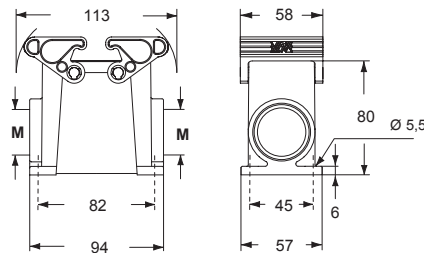
**THCH  
THCH S  
Covers  
with eyelet  
(page 483)**



**THIH**

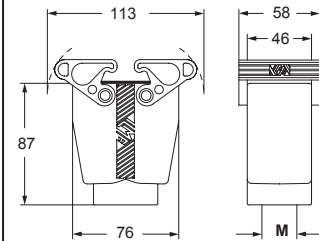


**TAPH**

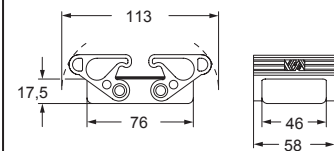


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

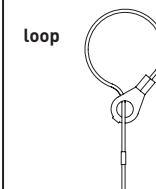
**TAVH G**



**THCH G**



**For fixing on hoods**



**CAUS** Type 12



ambient temperature limits -40 °C / +70 °C

# T-TYPE / H production lines HYGIENIC SERIES

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
CT, CTSE (16A) *	16 poles + ⊕	162
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

\*) only for standard insulating version THIH

## housings with double lever HNBR gasket

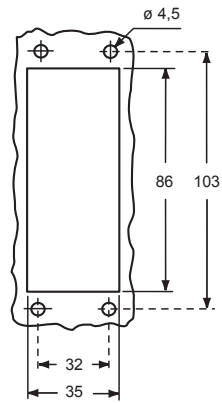


## hoods with double lever, top entry covers, HNBR gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIH 16</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 16.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 16.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVH 16 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVH 16 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCH 16 G</b>

### panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 484)

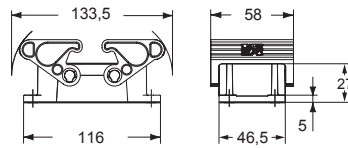


**TMAV**  
Hoods  
(page 484)

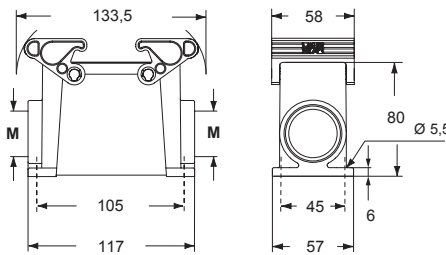
**TCHC**  
TCHC S  
Covers  
with eyelet  
(page 485)



### THIH

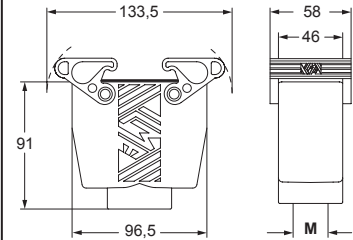


### TAPH

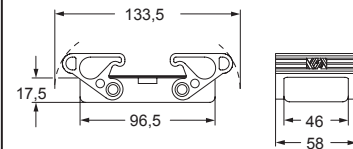


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

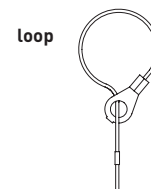
### TAVH G



### THCH G



### For fixing on hoods



**CE** **RU** **US** Type 12



ambient temperature limits -40 °C / +70 °C

T-TYPE / H production lines **HYGIENIC SERIES**

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
CT, CTSE (16A) *	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204, 206
MIXO	6 modules	262 - 317

\*) only for standard insulating version THIH

housings with double lever  
HNBR gasket

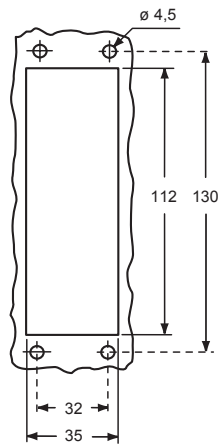


hoods with double lever, top entry covers, HNBR gasket



description	part No.	entry	part No.	entry	part No.
		M		M	
bulkhead mounting housing with thermoplastic levers	<b>THIH 24</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 24.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPH 24.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVH 24 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVH 24 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCH 24 G</b>

panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 486)

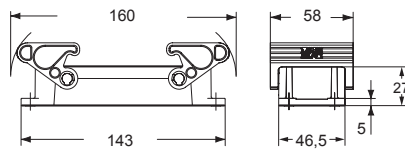


**TMAV**  
Hoods  
(page 486)

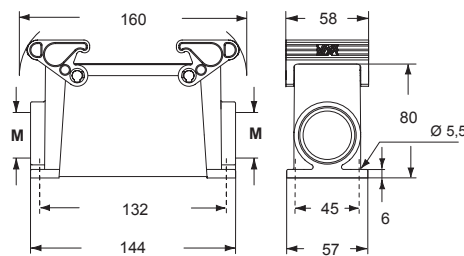
**TCHC**  
TCHC S  
Covers  
with eyelet  
(page 487)



**THIH**

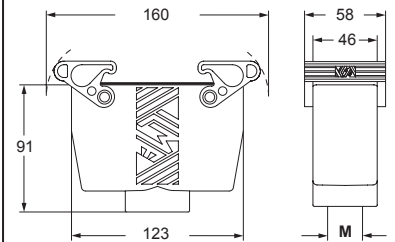


**TAPH**

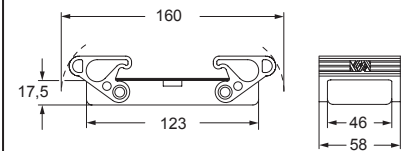


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

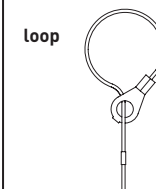
**TAVH G**



**THCH G**



For fixing on hoods



**CAVUS** Type 12



ambient temperature limits -40 °C / +70 °C

# AH M25IF(L) - AH M32IF(L) cable glands HYGIENIC SERIES

enclosures:  
HYGIENIC T-TYPE / H IP66/IP69  
(only M25 or M32)

page:  
501 - 504

## HYGIENIC M25 cable gland



## HYGIENIC M32 cable gland

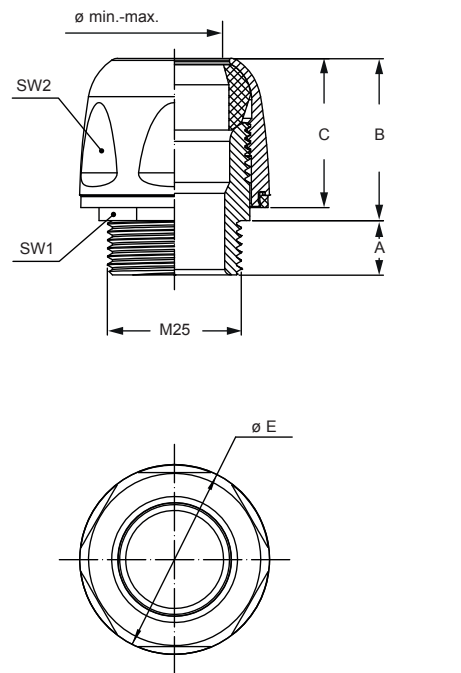


description	part No.	M threading	part No.	M threading
cable glands M25X1,5 for cable $\varnothing$ 12,0-15,0 for cable $\varnothing$ 15,0-18,0	<b>AH M25IF</b> <b>AH M25IFL</b>	M25 M25	<b>AH M32IF</b> <b>AH M32IFL</b>	M32 M32

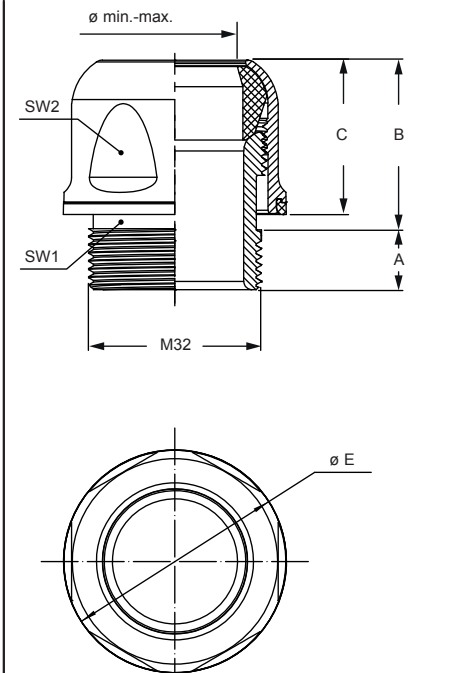
NOTE: For details about their installation refer to the instruction sheet accompanying the product:

- ECOLAB compliant
- EHEDG compliant
- IP68, IP69 degree of protection
- ambient temperature limit: -20 °C ... +85 °C
- us (UL Recognized Component for USA and Canada),  
 (UL Listed Product for USA and Canada),  
 certified

Designed and certified in accordance with the EHEDG guidelines



part No.	A	B	C	SW1	SW2	$\varnothing E$	$\varnothing \text{ min.-max.}$
<b>AH M25IF</b>	10	30	27	24	32	34,9	12,0-15,0
<b>AH M25IFL</b>	10	30	27	24	32	34,9	15,0-18,0



part No.	A	B	C	SW1	SW2	$\varnothing E$	$\varnothing \text{ min.-max.}$
<b>AH M32IF</b>	11	32	28	30	38	40,9	18,0-21,0
<b>AH M32IFL</b>	11	32	28	30	38	40,9	20,0-23,0

T-TYPE / H - CABLE GLANDS



# T-TYPE / C low-temperature HYGIENIC SERIES

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
CT, CTSE (16A) *)	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

\*) only for standard insulating version THIC

## housings with single lever SILICONE gasket

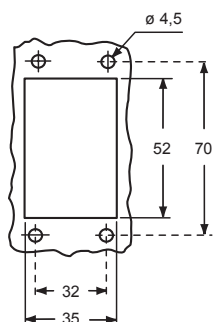


## hoods with single lever, top entry covers, SILICONE gasket

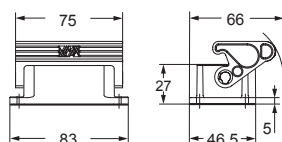


description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic lever	<b>THIC 06 L</b>				
surface mounting housing, thermoplastic lever, high construction	<b>TAPC 06 L25</b>	25			
surface mounting housing, thermoplastic lever, high construction	<b>TAPC 06 L32</b>	32			
with thermoplastic lever and gasket, high construction			<b>TAVC 06 LG25</b>	25	
with thermoplastic lever and gasket, high construction			<b>TAVC 06 LG32</b>	32	
cover with thermoplastic lever and gasket					<b>THCC 06 LG</b>

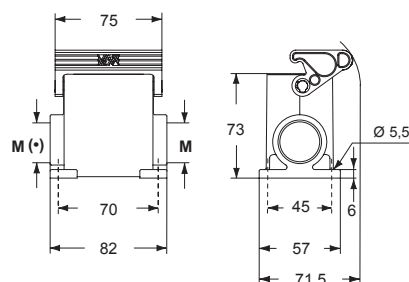
panel cut-out for bulkhead mounting housings



### THIC L

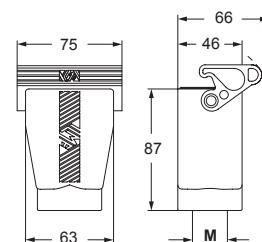


### TAPC L

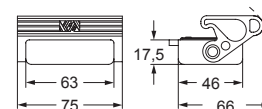


(+) The surface mounting, high construction housings are supplied with an open threaded entry (+) and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

### TAVC LG



### THCC LG



**TMAO  
Hoods  
(page 480)**



**TMAV  
Hoods  
(page 480)**

**TCHC L  
TCHC SL  
Covers  
with eyelet  
(page 481)**

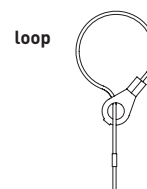


**CAUS** Type 12



ambient temperature limits -50 °C / +70 °C

For fixing on hoods



# T-TYPE / C low-temperature HYGIENIC SERIES

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
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

\*) only for standard insulating version THIC

## housings with double lever SILICONE gasket

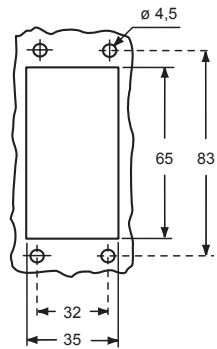


## hoods with double lever, top entry covers, SILICONE gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIC 10</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 10.25</b>	25			
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 10.32</b>	32			
with thermoplastic levers and gasket, high construction			<b>TAVC 10 G25</b>	25	
with thermoplastic levers and gasket, high construction			<b>TAVC 10 G32</b>	32	
cover with 2 thermoplastic levers and gasket					<b>THCC 10 G</b>

panel cut-out for bulkhead mounting housings



**TMAO  
Hoods  
(page 482)**

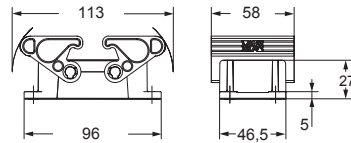


**TMAV  
Hoods  
(page 482)**

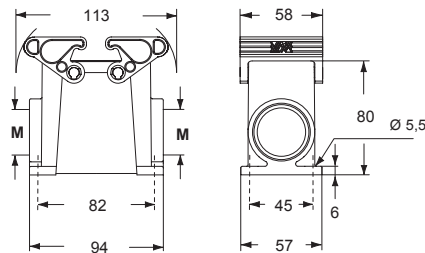
**TCHC  
TCHC S  
Covers  
with eyelet  
(page 483)**



### THIC

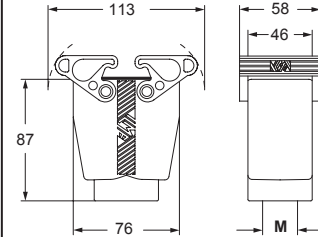


### TAPC

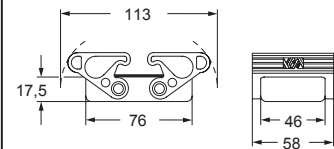


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

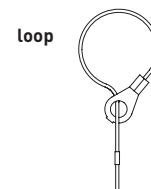
### TAVC G



### THCC G



For fixing on hoods



**CE** **RU** **US** Type 12



ambient temperature limits -50 °C / +70 °C

# T-TYPE / C low-temperature HYGIENIC SERIES

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
CT, CTSE (16A) *)	16 poles + ⊕	162
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

\*) only for standard insulating version THIC

## housings with double lever SILICONE gasket



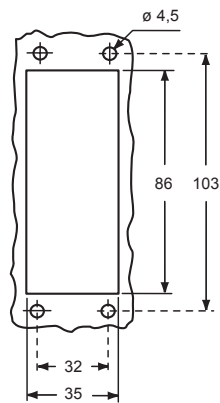
## hoods with double lever, top entry covers, SILICONE gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
-------------	----------	------------	----------	------------	-------------------------

bulkhead mounting housing with thermoplastic levers	<b>THIC 16</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 16.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 16.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVC 16 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVC 16 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCC 16 G</b>

panel cut-out for bulkhead mounting housings

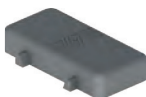


**TMAO**  
Hoods  
(page 484)

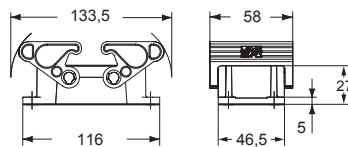


**TMAV**  
Hoods  
(page 484)

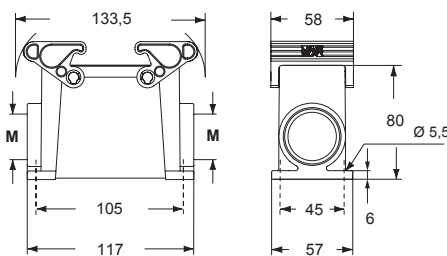
**TCHC**  
TCHC S  
Covers  
with eyelet  
(page 485)



### THIC

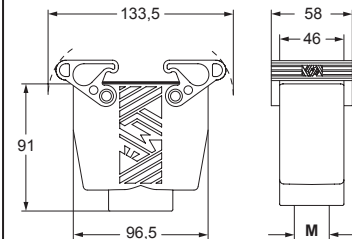


### TAPC

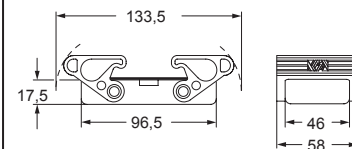


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

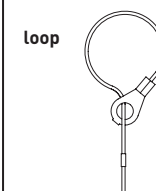
### TAVC G



### THCC G



For fixing on hoods



**CAUS** Type 12



ambient temperature limits -50 °C / +70 °C

# T-TYPE / C low-temperature HYGIENIC SERIES

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
CT, CTSE (16A) *)	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204, 206
MIXO	6 modules	262 - 317

\*) only for standard insulating version THIC

## housings with double lever SILICONE gasket

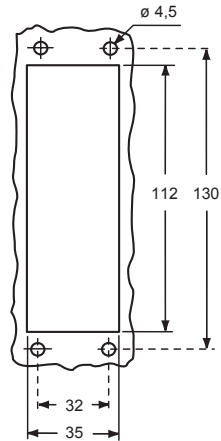


## hoods with double lever, top entry covers, SILICONE gasket



description	part No.	entry M	part No.	entry M	part No. (with loop)
bulkhead mounting housing with thermoplastic levers	<b>THIC 24</b>				
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 24.32</b>	32			
surface mounting housing, thermoplastic levers, high construction	<b>TAPC 24.40</b>	40			
with thermoplastic levers and gasket, high construction			<b>TAVC 24 G32</b>	32	
with thermoplastic levers and gasket, high construction			<b>TAVC 24 G40</b>	40	
cover with 2 thermoplastic levers and gasket					<b>THCC 24 G</b>

### panel cut-out for bulkhead mounting housings



**TMAO**  
Hoods  
(page 486)

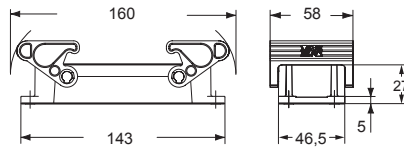


**TMAV**  
Hoods  
(page 486)

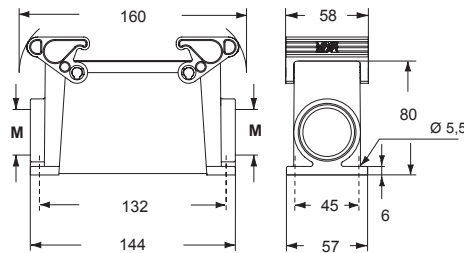
**TCHC**  
TCHC S  
Covers  
with eyelet  
(page 487)



### THIC

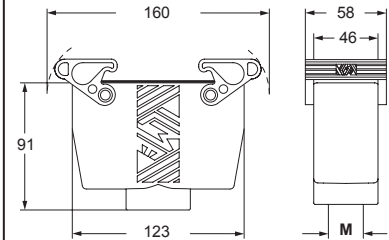


### TAPC

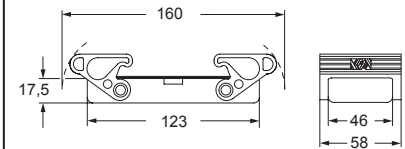


The surface mounting, high construction housings are supplied with an open threaded entry and diametrically opposite a closed threaded entry which can be opened by the user if required (with suitable tool).

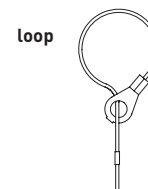
### TAVC G



### THCC G



### For fixing on hoods



**CAUS**® Type 12



ambient temperature limits -50 °C / +70 °C

# CR..BPE PE earth jumpers

inserts		page:
CD	40, 64 poles + ⊕	70, 72
CDD	24, 42, 72, 108 poles + ⊕	76 - 81
CDS	9, 18, 27, 42 poles + ⊕	-
CDSH	9, 18, 27, 42 poles + ⊕	86 - 89
CNE	6, 10, 16, 24 poles + ⊕	110 - 113
CSE	6, 10, 16, 24 poles + ⊕	-
CSH	6, 10, 16, 24 poles + ⊕	110 - 113
CSH S	6, 10, 16, 24 poles + ⊕	122 - 125
CCE	6, 10, 16, 24 poles + ⊕	130 - 133
CMSH	3, 6, 10 +2 (aux) poles + ⊕	136 - 140
CMCE	3, 6, 10 +2 (aux) poles + ⊕	137 - 141
CSS	6, 10, 16, 24 poles + ⊕	148 - 151
CT, CTSE	6, 10, 16, 24 poles + ⊕	160 - 163
CQE	10, 18, 32, 46 poles + ⊕	168 - 171
CQEE	40, 64 poles + ⊕	176 - 177
CP	6 poles + ⊕	178
CX	8/24, 6/36, 12/2 poles + ⊕	194 - 199

## PE optional earth jumpers



description

part No.

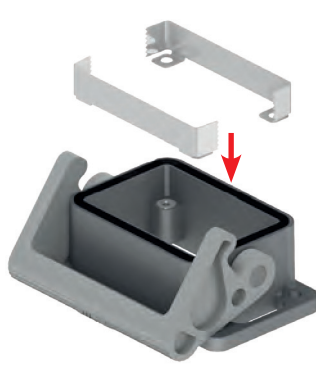
galvanized brass, to be optionally used with T-TYPE enclosures series:  
 for inserts "44.27" size  
 for inserts "57.27" size  
 for inserts "77.27" size  
 for inserts "104.27" size

**CR 06 BPE**  
**CR 10 BPE**  
**CR 16 BPE**  
**CR 24 BPE**

CR...BPE accessories PE (protective earth) jumpers could be mounted under the connector inserts for the connection of the two insert's PE plates.

To guarantee to proper alignment of the insert inside the enclosure, it is necessary to use both jumpers supplied (in the same housing or hood); the jumpers are not usable individually.

Furthermore the user is responsible for verifying the continuity of the PE connection ⊕ (male and female) independently of using CR...BPE earth jumpers.



Optional earth jumpers