

# HEAVY DUTY CONNECTORS

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**Rolling Stock**

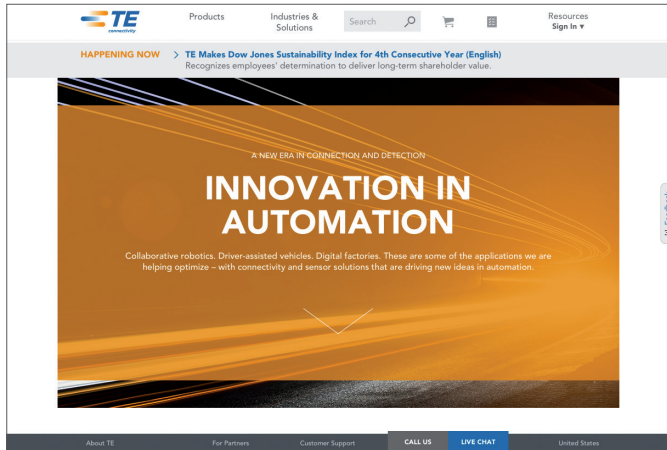


**Machinery**



**Factory Automation**

The broad range of Heavy Duty Connectors (HDC) are designed for reliably performing under the most demanding operating and harsh environmental conditions. With a tested salt spray and corrosion resistance of over 1000 hours and an IP 69 K rating, these connectors are suited for various applications in industrial environments. Thanks to their modular system, TE's Heavy Duty Connectors offer power, signal and data transmission in one connector.



### TE Connectivity Online

The TE Connectivity website is an innovative and interactive source for application information, product updates and technical solutions. Our step-by-step software makes our website intuitive and user-friendly to better serve you! Please contact us at: [te.com](http://te.com)

### Product Information Centers

You've got questions? TE's Product Information Centers (PIC) will help you get answers. Contact a technical product information specialist.

- Email us
- Call us
- Chat with us

Please go to [te.com/help](http://te.com/help) for more information.

### Internet

[te.com](http://te.com)

## Restriction on the Use of Hazardous Substances (RoHS)

At TE Connectivity (TE), we are ready to support your RoHS requirements. We have assessed more than 1.5 million end items/components for RoHS compliance, and issued new part numbers where any change was required to eliminate the restricted materials. Part numbers in this catalog are identified as:

### ROHS COMPLIANT

Part numbers in this catalog are RoHS Compliant, unless marked otherwise.

These products comply with European Union Directive 2002/95/EC as amended 1 January 2006 that restricts the use of lead, mercury, cadmium, hexavalent chromium, PBB, and PBDE in certain electric/electronic products sold into the EU as of 1 July 2006.

**Note:** For purposes of this Catalog, included within the definition of RoHS Compliant are products that are clearly “Out of Scope” of the RoHS Directive such as hand tools and other non-electrical accessories.

### NON-ROHS COMPLIANT

These part numbers are identified with a “◆” symbol. These products do not comply with the material restrictions of the European Union Directive 2002/95/EC.

### 5 OF 6 COMPLIANT

A “●” symbol identifies these part numbers. These products do not fully comply with the European Union Directive 2002/95/EC because they contain lead in solderable interfaces (they do not contain any of the other five restricted substances above allowable limits). However, these products may be suitable for use in RoHS applications where there is an application-based exception for lead in solders, such as the server, storage, or networking infrastructure exemption.

**Note:** Information regarding RoHS compliance is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information provided by our suppliers. This information is subject to change. For latest compliance status, refer to our website referenced below.

### GETTING THE INFORMATION YOU NEED





Our comprehensive on-line RoHS Customer Support Center provides a forum to answer your questions and support your RoHS needs. A RoHS FAQ (Frequently Asked Questions) is available with links to more detailed information. You can also submit RoHS questions and receive a response within 24 hours during a normal work week. The Support Center also provides:

- Cross-Reference from Non-compliant to Compliant Products
- Ability to browse RoHS Compliant Products in our on-line catalog:  
[te.com/customersupport/productcompliance](http://te.com/customersupport/productcompliance)
- More detailed information regarding the definitions used above

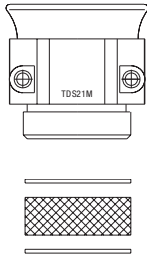
So whatever your questions when it comes to RoHS, we've got the answers at [www.te.com/leadfree](http://www.te.com/leadfree)

RoHS  
Customer  
Support  
Center 

## General overview of heavy duty connectors

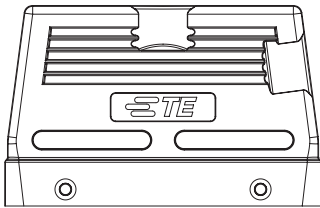
<p><b>General features</b></p>	<p>TE's HDC product series is designed for data, signal and power connections in harsh environments. The modular connector design provides a high degree of flexibility so solutions can be customized for different applications such as machinery, robotics, railway, wind energy and conventional energy generation and distribution.</p>
<p><b>Inserts</b></p>	<p>HDC products consist of three key elements: inserts, contacts and hoods and housings. The inserts and contacts are modular and assembled together to provide electrical performance offering crimp-, screw- and spring-clamp termination technology.</p>
<p><b>Enclosures</b></p>	<p>The hoods and housings are made of powder coated die cast aluminum alloy or of thermoplastic and are protecting the connector inserts against the ingress of dust or water according to the degree of protection IP 65, IP 68 and IP 69 K. Cable glands in different versions or DIN-rail mounts are completing the connector-solutions as accessories.</p>
<p><b>Customized design</b></p>	<p>For customer's special requirement, we can provide customized design. Please contact us.</p>
<p><b>Specifications, Standards and Approvals</b></p>	<p>1. Specifications            DIN VDE 0110 Concerning clearance and creepage distances            DIN VDE 0627 Connectors and plug devices</p> <p>2. Standards            DIN EN 175 301-801            DIN EN 60664-1            DIN EN 61 984            IEC 60 529</p> <p>3. Approvals</p> <p>     </p>

## Connector components



### CABLE FITTING

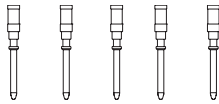
Special cable fittings for protection up to IP69K and for electro-magnetic compatibility available



### HOOD

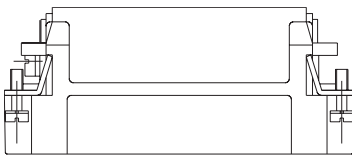
Standard and corrosion-resistant connector hoods:

- low and high construction
- 4 different locking systems
- different cable entries and directions:
  - M Thread
  - PG Thread



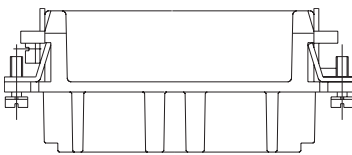
### CONTACTS

Silver or gold plated  
Solid machined contacts with screw, spring or crimp termination  
Stamped and formed contacts



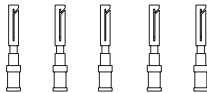
### MALE INSERT

Screw, Spring clamp or crimp terminal



### FEMALE INSERT

Screw, Spring clamp or crimp terminal



### HOOD AND HOUSING

Standard and corrosion-resistant bottom-entry, surface-mounted and cable-to-cable hoods:

- low and high construction (bottom-entry and cable-to-cable hood) with/without cover
- 4 different locking systems



## Terminal types

### Screw dimensions and tightening torque for screw terminals

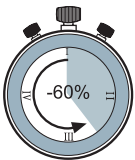
Wire gauge (mm <sup>2</sup> )	1.5	2.5	4.0	6.0	10	16
Screw thread	M3	M3	M3.5	M4	M4	M6
Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2
Min. pull-out for stranded wire (N)	40	50	60	80	90	100

### Spring terminal

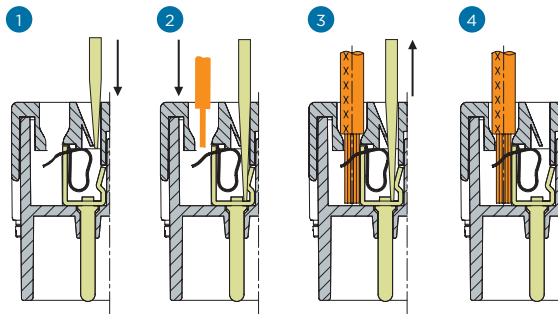
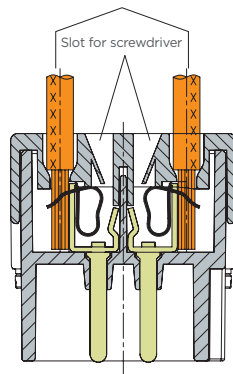
No special tools



60% faster



One conductor per termination



3.5x0.5mm

Screwdriver width: 3.5x0.5mm

### SCREW TERMINAL

The screw terminal is the most common type of connection. Ratings are based on VDE 0609/EN 60 999. Please refer to the table at the left for the tightening torque.

The series HE, HSB, HAVE are equipped with a wire protection, thus the use of ferrules is not necessary. The series HA is not equipped with wire protection and ferrules must be used.

### SPRING TERMINAL

The spring terminal offers a vibration proof termination for solid and stranded wires with cross sections ranging from 0.14 mm<sup>2</sup> to 2.5 mm<sup>2</sup> (AWG 26-14).

Easy operation of the spring terminal with a screw driver, which is inserted in the same direction of the cable opening.

Internationally approved by UL, CSA, VDE.

### CRIMP TERMINATION

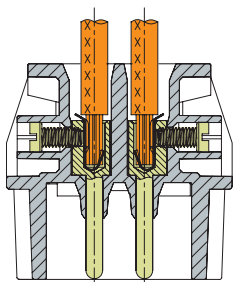
A proper crimp connection is gastight, therefore corrosion free and represents a cold weld of the parts being connected. Wires to be connected must be matched with the correct size of crimp contacts. The crimp termination represents a highly reliable vibration proof connection with low contact resistance and highest contact density which can be applied with manual and automatic crimping tools.



## Terminal types

### SCREW TERMINAL

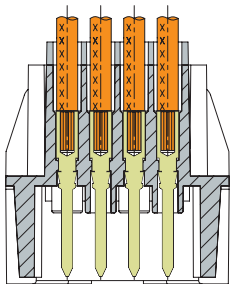
HA series  
HE, HVE series  
HSB series  
HK series  
HWK series  
HEAV series



Inserts	Max. wire gauge		Stripping length L (mm)
	mm <sup>2</sup>	AWG	
HA-003, HA-004	2.5	14	4.5
HA, HEAV	2.5	14	7.5
HE, HVE	2.5	14	7.5
HSB	6.0	10	7.5
HK, HWK	35.0	2.0	10.5

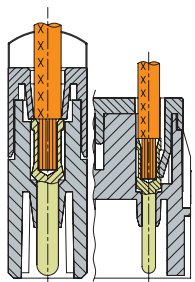
### CRIMP TERMINAL

HD series  
HDD series



Inserts	Max. wire gauge		Stripping length L (mm)
	mm <sup>2</sup>	AWG	
HD HDD HMN(10A) HQ(10A) HK(10A)	0.5	20	8.0
	0.75	18	8.0
	1.0	18	8.0
	1.5	16	8.0
	2.5	14	6.2

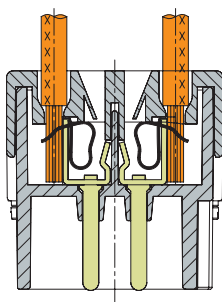
HAC, HEC series  
HEEE, HEE series  
HMN(16A/40A) series  
HQ(16A/40A) series  
HK(16A/40A) series



Inserts	Max. wire gauge		Stripping length L (mm)	
	mm <sup>2</sup>	AWG	16A	40A
HAC HEC HEE/HEEE HMN(16A/40A) HQ(16A/40A) HK(16A/40A)	0.5	20	7.5	-
	0.75	18	7.5	-
	1.0	18	7.5	9.2
	1.5	16	7.5	9.2
	2.5	14	7.5	9.2
	4.0	12	7.5	9.2
	6.0	10	-	9.2

### SPRING TERMINAL

HAS series  
HES series  
HESAV series



Inserts	Max. wire gauge		Stripping length L (mm)
	mm <sup>2</sup>	AWG	
HAS, HES, HESAV	2.5	14	9-11

### RECOMMENDED TIGHTENING TORQUE AND SIZE OF SCREW DRIVER

Size of screw	Connector type	Tightening torque [Nm]	Tightening torque [lbf·ft]	Recommended size of screwdriver
M3	Screw terminal HA-003/HA-004/HQ-005	0.25	0.20	0.4x2.5
M3	Screw terminal HA-010, HA-016	0.50	0.40	0.5x3.5 or ±size 1
M3	HE, HVAE Screw terminal HE, HVAE fixing screws of all kinds, guiding pins and bushes	0.50	0.40	0.5x3.5
M4	Ground terminal HA, HE, HD, HDD	1.20	0.90	0.5x3.5 or ±size 1+2
M4	Terminal blocks HSB	1.20	0.90	0.8x4.5
M5	Ground terminal HSB	2.00	1.40	0.8x4.5/1.2x8.0

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## Notes

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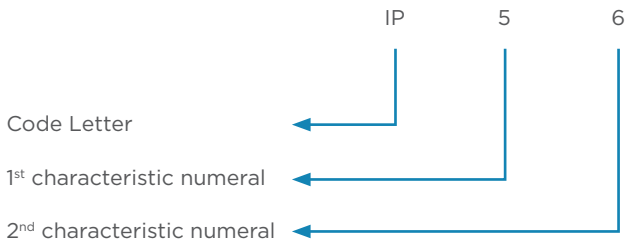
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## Degree of protection provided by enclosures

For safety reasons, electrical equipment needs to be protected against outside influences. The basis for the determination is the standard IEC 529 titled 'Degree of protection provided by enclosures (IP-Code)'.

Using a standardized test procedure the extent of the protection class is verified. To classify different housings according to their protection class, a designation system is used which consists of the code - letters 'IP' and two code numbers.

### ARRANGEMENT OF THE IP-CODE (INTERNATIONAL/INGRESS PROTECTION)



### MEANING OF THE 1ST CHARACTERISTIC NUMERAL

The first numeral describes the protection of the housing against intrusion of foreign bodies as well as the protection of people against dangerous parts or influences. Because of this, there are two descriptions and definitions for each of the first code letter.

1 <sup>st</sup> numeral	Protection against solid objects and against access to hazardous parts	
	short description	definition
0	No protection	
1	<ul style="list-style-type: none"> <li>protection against solid foreign bodies of Ø 50mm</li> <li>protection against access to hazardous parts with the back of a hand</li> </ul>	A sphere of Ø 50mm, must not intrude
2	<ul style="list-style-type: none"> <li>protection against solid foreign bodies of Ø 12mm</li> <li>protection against access to hazardous parts with the finger</li> </ul>	A sphere of Ø 12mm diameter, must not intrude
3	<ul style="list-style-type: none"> <li>protection against solid foreign bodies of 2.5mm diameter and bigger</li> <li>protection against access to hazardous parts with a tool</li> </ul>	A sphere of Ø 2.5mm diameter, must not intrude
4	<ul style="list-style-type: none"> <li>protection against solid foreign bodies of 1.0mm diameter and bigger</li> <li>protection against access to hazardous parts with a wire</li> </ul>	The probe, sphere of Ø 1.0mm, must not intrude
5	Protected against dust	The infiltration of dust is not completely prevented, but it does not infiltrate to such an extent that the operation or the safety of the device is affected
6	Dust proof	No infiltration of dust

## MEANING OF THE 2ND CHARACTERISTIC NUMERAL

The second numeral describes the protection of the housing against the intrusion of water with harmful effects.

2 <sup>nd</sup> numeral	Protection degrees against the intrusion of water, designated by the second code digit	
	short description	definition
0	Not protected	-
1	Protected against dripping water	Vertically falling drops shall have not harmful effects
2	Protected against dripping water when the housing is at an angle of up to 15°	Vertically falling drops shall have not harmful effects when the enclosure is tilted up to 15°
3	Protected against water spray	Water sprayed at an angle up to 60°, shall have no harmful effects
4	Protected against splash water	Water splashed against the enclosure from any direction, shall have no harmful effects
4K	Protected against splash water with increased pressure	Water splashed against the enclosure with increased pressure from any direction, shall have no harmful effects (Applies acc. to DIN 40050-9 only for road vehicles)
5	Protected against jets of water	Water splashes against the enclosure from any direction as a water jet, shall have no harmful effects
6	Protected against strong jets of water	Water splashes against the enclosure from any direction as a strong water jet, shall have no harmful effects
6K	Protected against strong jets of water with increased pressure	Water splashes directly against the enclosure from any direction as a strong water jet with increased pressure, shall have no harmful effects (Applies acc. to DIN 40050-9 only for road vehicles)
7	Protection against the effects of temporary submersion in water	Quantity of water that ingresses an enclosure, when it is temporarily immersed under standardized conditions of pressure and time, shall have no harmful effects
8	Protection against the effects of continuous submersion in water	Quantity of water that ingresses an enclosure, when it is continuously immersed under conditions of pressure and time, shall have no harmful effects. The conditions must, however be harder than for code digit 7 and agreed between user and producer
9K	Protected against water during high-pressure / jet-stream cleaning	Water that is directed against the housing with greatly increased pressure from any direction must not have any detrimental effect (Applies acc. to DIN 40050-9 only for road vehicles)

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## Standards

### SPECIFICATIONS

TE connectors are still made on IEC 664/664 A, DIN VDE 0110/01.89 and DIN VDE 0627/06.86 standards. The standards have defined normal rules and requirements which include features construction and requirements.

To determine the minimum clearances and creepage distance, the recent applicable standard is the IEC 60664-1 standard (10.92), a fundamental safety standard to which all product in the committees should refer.

If no notice to products in the catalogue, clearance and creepage distances of all products in the catalogue are based on DIN VDE 0110:1989-01 and degrees pollution 3.

#### **Include some contents:**

1. Over-voltage categories (I, II, III, IV)
2. Degrees of pollution
3. Insulating material
4. Determination of clearances

### OVER-VOLTAGE CATEGORIES

#### **1. Over-voltage category I**

Equipment in over-voltage category I is only intended for use in apparatus or parts of systems in which no over-voltages will occur or are specially protected against over-voltages by means of surge voltages, filters or capacitors.

#### **2. Over-voltage category II**

Equipment in over-voltage category II is intended for use in systems or parts there of in which lightning over-voltages do not have to be taken into account.

#### **3. Over-voltage category III**

Equipment in over-voltage category III is intended for use in equipment for fixed installation, i.e. protective devices, relays, switches and plug devices.

## Insulation Coordination for Electrical Connectors in Low Voltage Plants

Dimensioning of Clearance and Creeping Distances acc. to DIN EN60664-1; following pages show only a part of the standards.

### INSULATION COORDINATION

Insulation coordination includes the design of the electrical insulation of a connector depending on its use and environment. This occurs either by design of the clearance distances (basis is the expected power surge) or by design of the creeping distance (basis is the operating voltage as well as the quality of the insulating material). Furthermore, insulation-changing conditions are taken into account (pollution, protective measures against pollution, air pressure, thermal or chemical influences).

Air distances are measured according to the outer or inner power surge expected. The four power surge classes (power surge categories I to IV) take the different use of the connector into account. Depending on the homogeneity of the field between the electrodes (case A – inhomogenous field, case B – homogenous field) the air distances can be determined according to table 2a (minimum air distances); industrial connectors are always determined according to case A.

The influence from pollution when determining the air- and creeping distances is taken into account by using four degrees of severity (pollution degree 1 to 4).

Basis of the creeping distances is the rated voltage which is deduced from the operating voltage. The minimum creeping distances are allocated in table 4 depending on the severity of pollution. If the product descriptions do not contain any additional information the products listed in this catalogue were rated according to norm DIN VDE 0110 for surge category III and severity of pollution 3.

### SURGE CATEGORY I TO IV

- Resources of surge category I are goods for the termination of fixed electrical installations of a building. Measures for the limitation of transient surges were taken either in the fixed installation or between the fixed installation and the equipment.
- Resources of surge category II are resources which use power and are fed from a fixed installation. Note: e.g. domestic appliances, portable tools and other appliances as well as similar consumers.
- Resources of surge category III are part of a fixed installation. They are resources from which a high degree of availability is expected. Note: Examples for such appliances are e.g. industrial connectors, distribution panels, power switches, distributors, switches, sockets.
- Devices of surge category IV are for use at the supply terminal of the installation. Note: Examples for such appliances are electricity counters, overload cut-out switches.

### POLLUTION DEGREE 1 TO 4

DIN VDE 0110 defines the pollution degrees as follows:

#### **Pollution Degree 1:**

There is no or only dry, non-conductive pollution. The pollution is without influence.

#### **Pollution Degree 2:**

There is only non-conductive pollution. Occasional momentary conductivity due to condensation.

#### **Pollution Degree 3:**

There is conductive pollution or dry non-conductive pollution, which becomes conductive due to condensation.

#### **Pollution Degree 4:**

There is a continuous conductivity due to conductive dust, rain or moisture.

### **Insulation Material**

The insulation materials are divided into the following four groups depending on their comparative tracking index (CTI):

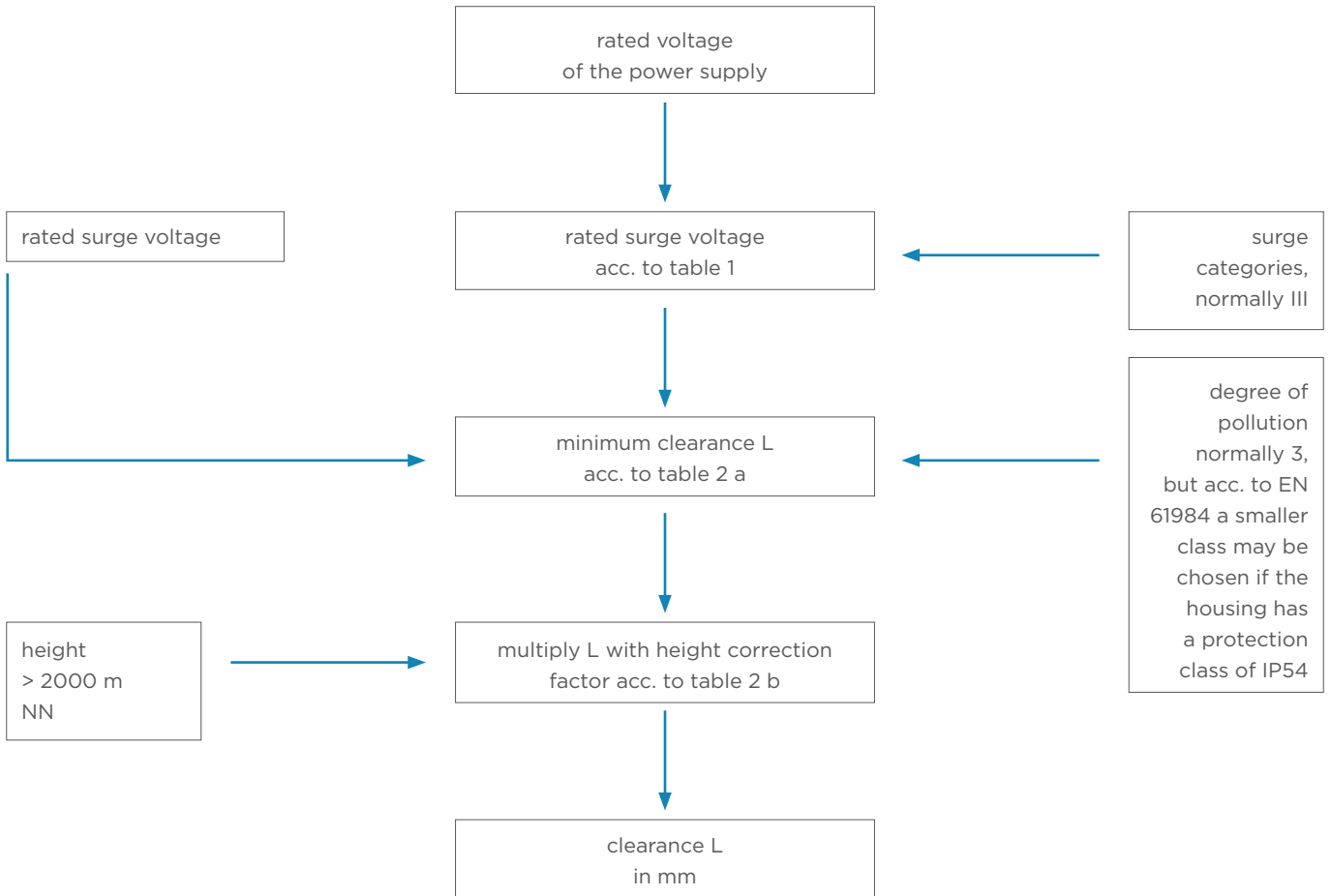
Insulation material I: ..... 600 ≤ CTI

Insulation material II: ..... 400 ≤ CTI < 600

Insulation material III a: ..... 175 ≤ CTI < 400

## Measurement of Clearances

### DIAGRAM FOR THE DETERMINATION OF CLEARANCES



### RATED SURGE VOLTAGE FOR UTILITIES

Rated voltage of the power supply* in V		Rated Surge Voltage in kV (1.2/50ms) for			
3-phase systems	single systems in the centre	utilities at the feed of the installation (surge category IV)	utilities as part of a fixed installation (surge category III)	utilities for connection to fixed installations (surge category II)	Specially protected utilities (surge category I)
	120 up to 240	4	2.5	1.5	0.8
230/400** 277/480**		6	4	2.5	1.5
400/690**		8	6	4	2.5
1000		12	8	6	4

\*) chosen voltage values

\*\*) the / dash is for a 3-phase system with 4 lines. The lower value is for phase to neutral, the higher value is for phase to phase

## MINIMUM CLEARANCE IN AIR AT INSTALLATION HEIGHTS OF UP TO 2000 M ABOVE SEA LEVEL (NN)

"rated surge voltage [kV]"	case A, inhomogenous field, degree of pollution				case B, homogenous field, degree of pollution			
	1 (mm)	2 (mm)	3 (mm)	4 (mm)	1 (mm)	2 (mm)	3 (mm)	4 (mm)
0.33 _)	0.01	_)	0.80	1.6	0.01	_)	0.8	1.6
0.40	0.02				0.02			
0.5 _)	0.04				0.04			
0.60	0.06				0.06			
0.80 _)	0.10				0.10			
1.0	0.15	0.25	0.2	0.15	0.3	0.3	0.3	
1.2	0.25			0.2				
1.5 _)	0.5	0.5	1.0	2	0.3	0.3	1.2	
2.0	1.0	1.0			0.45	0.5		
2.5 _)	1.5	1.5			0.6	0.6		
3.0	2	2	2	2	0.8	0.8	2	
4.0 _)	3	3	3	3	1.2	1.2		1.2
5.0	4	4	4	4	1.5	1.5	1.5	
6.0 _)	5.5	5.5	5.5	5.5	2	2	2	2
8.0 _)	8	8	8	8	3	3	3	3
10	11	11	11	11	3.5	3.5	3.5	3.5
12 _)	14	14	14	14	4.5	4.5	4.5	4.5
15	18	18	18	18	5.5	5.5	5.5	5.5
20	25	25	25	25	8	8	8	8
25	33	33	33	33	10	10	10	10
30	40	40	40	40	12.5	12.5	12.5	12.5
40	60	60	60	60	17	17	17	17
50	75	75	75	75	22	22	22	22
60	90	90	90	90	27	27	27	27
80	130	130	130	130	35	35	35	35
100	170	170	170	170	45	45	45	45

1) This voltage is

- for functional insulation: the maximum impulse voltage expected to occur across the clearance
- for basic insulation directly exposed by transient overvoltages
- for other basic insulation

\_ ) Preferred values

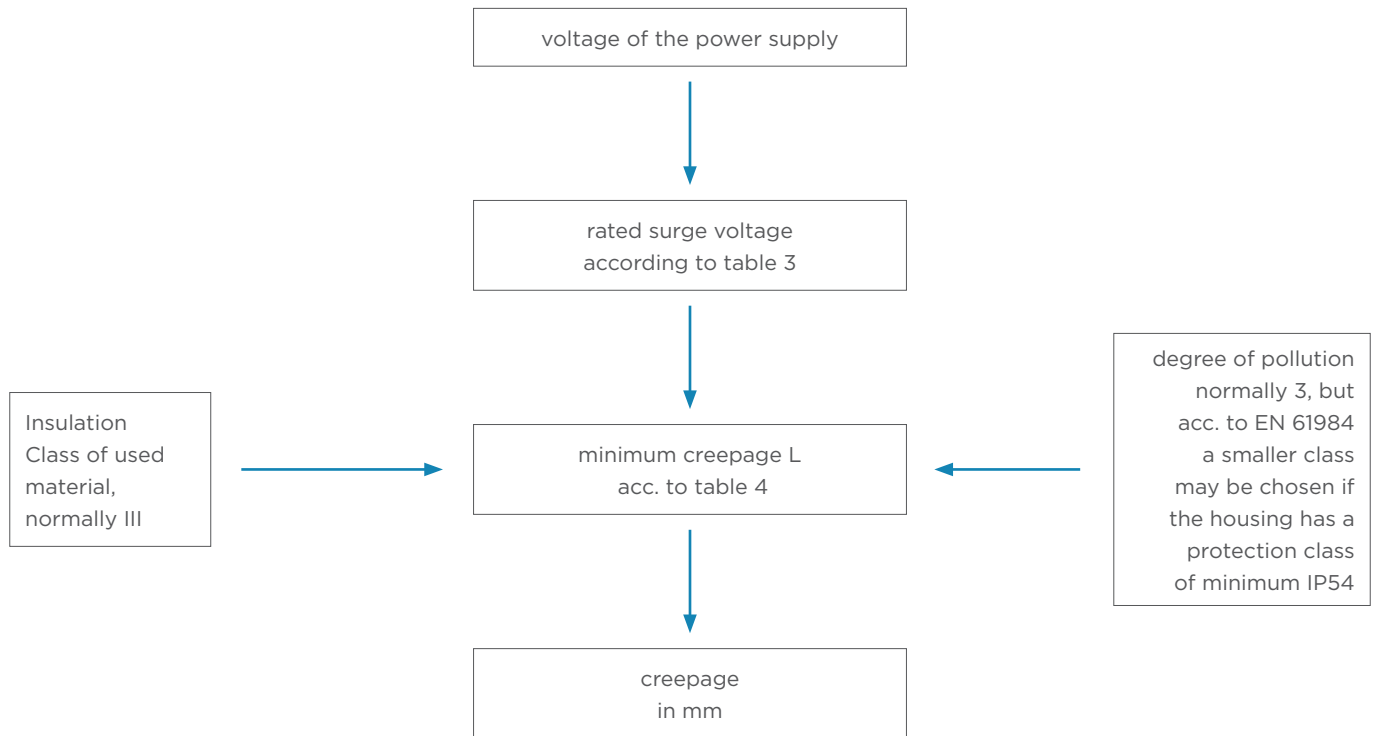
## FACTORS FOR HEIGHT CORRECTION

height in m	normal air pressure in kPa	multiplication factor for distances
2000	80.0	1.00
3000	70.0	1.14
4000	62.0	1.29
5000	54.0	1.48
6000	47.0	1.70
7000	41.0	1.95
8000	35.5	2.25
9000	30.5	2.62
10000	26.5	3.02
15000	12.0	6.67
20000	5.5	14.50



## Measurement of creepage

### DIAGRAM FOR THE DETERMINATION OF CREEPAGE



voltage of the power supply [V]	rated voltage [V]
60	63
110/120/127	125
150	160
208	200
220/230/240	250
300	320
380/400/415	400
440	500
480/500	500
575	630
600	630
660/690	630
720/830	800
960	1000
1000	1000

Table 3

\*the above shown table does not give the entire correlation of world-wide used networks and rated voltages; it is reduced to the most common ones; further details, see DIN EN60664-1

### CREEPAGES IN [MM] FOR ELECTRICAL EQUIPMENTS

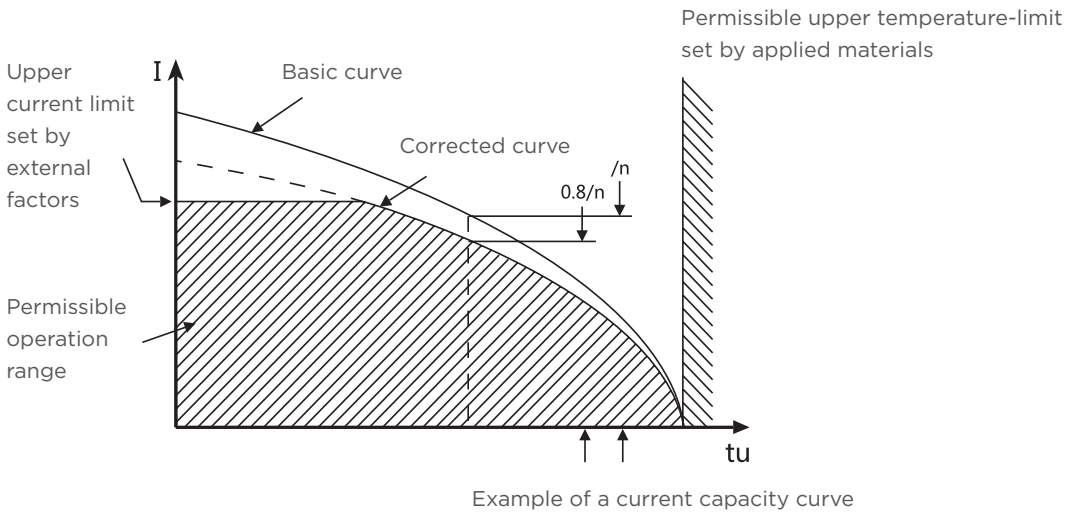
rated voltage [V]	degree of pollution									
	1 All Insulator Classes	2 Insulation Class			3 Insulation Class			4 Insulation Class		
		I	II	III	I	II	III	I	II	III
10	0.08	0.40	0.40	0.40	1.00	1.00	1.00	1.6	1.6	1.6
12.5	0.09	0.42	0.42	0.42	1.05	1.05	1.05	1.6	1.6	1.6
16	0.10	0.45	0.45	0.45	1.10	1.10	1.10	1.6	1.6	1.6
20	0.110	0.48	0.48	0.48	1.20	1.20	1.20	1.6	1.6	1.6
25	0.125	0.50	0.50	0.50	1.25	1.25	1.25	1.7	1.7	1.7
32	0.140	0.53	0.53	0.53	1.30	1.30	1.30	1.8	1.8	1.8
40	0.16	0.56	0.80	1.10	1.4	1.6	1.8	1.9	2.4	3.0
50	0.18	0.60	0.85	1.20	1.5	1.7	1.9	2.0	2.5	3.2
63	0.20	0.63	0.90	1.25	1.6	1.8	2.0	2.1	2.6	3.4
80	0.22	0.67	0.95	1.3	1.7	1.9	2.1	2.2	2.8	3.6
100	0.25	0.71	1.00	1.4	1.8	2.0	2.2	2.4	3.0	3.8
125	0.28	0.75	1.05	1.5	1.9	2.1	2.4	2.5	3.2	4.0
160	0.32	0.80	1.1	1.6	2.0	2.2	2.5	3.2	4.0	5.0
200	0.42	1.00	1.4	2.0	2.5	2.8	3.2	4.0	5.0	6.3
250	0.56	1.25	1.8	2.5	3.2	3.6	4.0	5.0	6.3	8.0
320	0.75	1.60	2.2	3.2	4.0	4.5	5.0	6.3	8.0	10.0
400	1.00	2.00	2.8	4.0	5.0	5.6	6.3	8.0	10.0	12.5
500	1.30	2.50	3.6	5.0	6.3	7.1	8.0	10.0	12.5	16.0
630	1.8	3.2	4.5	6.3	8.0	9	10.0	12.5	16	20
800	2.4	4.0	5.6	8.0	10.0	11	12.5	16.0	20	25
1000	3.2	5.0	7.1	10.0	12.5	14	16.0	20.0	25	32

Table 4

## Standards

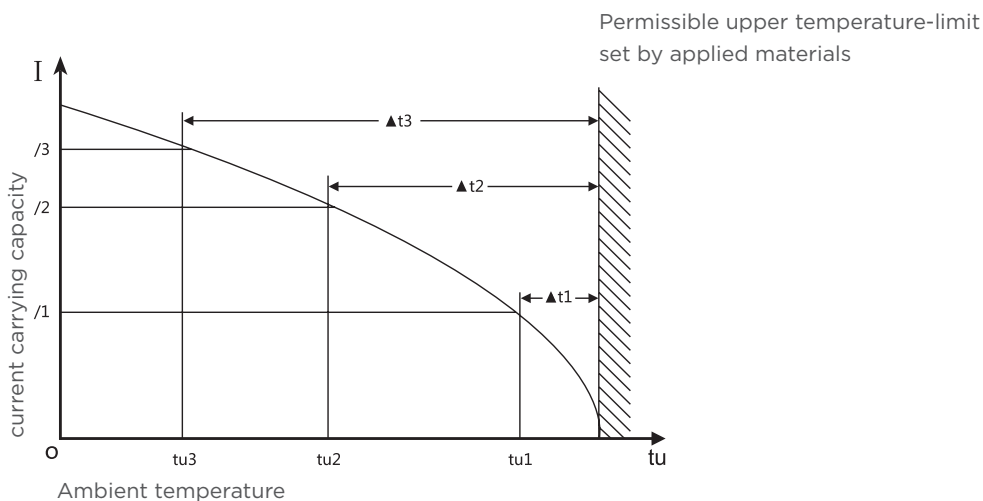
### CURRENT CARRYING CAPACITY

The current carrying capacity is determined in tests which are conducted on the basis of the DIN IEC 60 512 part 3. The current carrying capacity is limited by the thermal properties of materials which are used for inserts as well as by the insulating materials. These components have a maximum temperature which should not be exceeded.



The relationship between the current, the temperature rise (loss at the contact resistance) and the ambient temperature of the connector is represented by a curve. On a linear coordinate system the current lies on the vertical line (ordinate) and the ambient temperature on the horizontal line (abscissa) which ends at the permissible upper-limit temperature.

In another measurement the self-heating ( $\Delta t$ ) at different currents is determined. The corrected current carrying capacity curve is derived from this basic curve. The reasons for the correction are external factors that bring an additional limitation to the current carrying capacity, i.e. connectable wire gauge or an unequal dispersion of current. In practice it is not usual to load all terminals simultaneously with the maximum current. In such a case one contact can be loaded with a higher current as permitted by the current capacity curve, if less than 20% of the whole is loaded.



## Standards

### TIGHTENING TORQUE OF TERMINAL BLOCK SCREWS

IEC 60 947-1:1996/EN 60 947-1:1977 modified, table 4 specifies tightening torques for screw connections based on the type and size of the screw for electrical and mechanical type tests. Tightening contact terminal block to this torque guarantees that the connected conductors are reliably connected. The technical product data given in this catalog differ from this value. However they indicate a practical range of tightening torques which provides a gas-tightening contact and offers long-term contact stability.

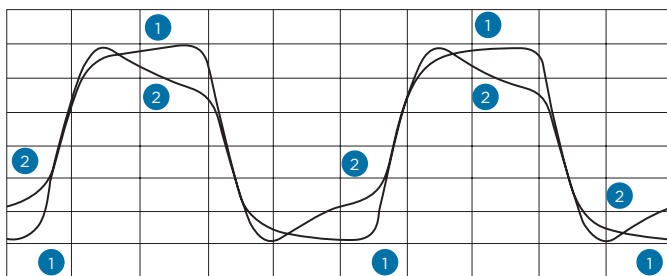
#### Extract from IEC 60 947-1/EN 60 947, Table 4

The torque according to IEC, EN

Thread Type	Head screw with slot		
	Torque [Nm]	CuZn or CuSN screw [Nm]	Steel screw [Nm]
M2.5	0.4	0.6	0.8
M3	0.5	0.8	1.0
M3.5	0.8	1.2	-
M4	1.2	1.8	2.0
M5	2.0	3.0	4.5
M6	2.5	4.0	8.0

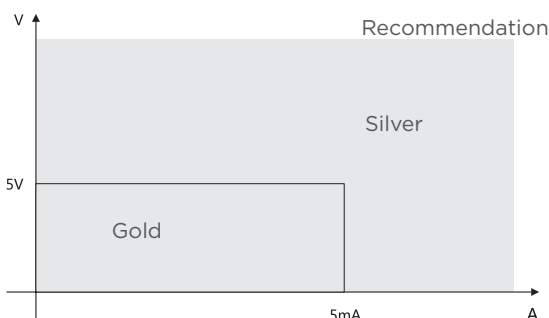
### LOW CURRENTS AND VOLTAGES

Standard contacts have a silver plated surface. This precious metal has excellent conductive properties. In the course of a contact's lifetime, the silver surface generates a black oxide layer due to its affinity to sulphur. This layer is smooth and very thin and is partly interrupted. When the contacts are mated and unmated, thus guaranteeing very a low contact resistances. In the case of very low currents or voltages small changes to the transmitted signal may be encountered. This is illustrated below where an artificially aged contact representing a twenty year life is compared with a new contact.



- 1 New contact
- 2 After ageing

Changes to the transmitted signal after artificial ageing



Left is a table derived from actual experiences

## Selection guide

### TECHNICAL INFORMATION OF INSERTS

Insert	Type	Poles	Current	Voltage	Terminal	Contacts	Shells
HA	HA-003	3+PE	10A	250 V	screw	-	H3A
	HA-004	4+PE	10A	250V	screw	-	H3A
	HA-010	10+PE	16A	250V	screw crimp	CEM/F(16A) DEM/F(16A)	H10A
	HA-016	16+PE	16A	250V			H16A
	HA-032	32+PE	16A	250V			H32A
	HAS-003	003+PE	10A	400V	spring	-	H3A
	HAS-004	004+PE	10A	400V	spring	-	H3A
HD	HD-007	7+PE	10A	250V	crimp	CDM/F(10A) DDM/F(10A) CJM/F(10A)	H3A
	HD-008	8	10A	50V			H3A
	HD-015	15+PE	10A	250V			H10A
	HD-025	25+PE	10A	250V			H16A
	HD-040	40+PE	10A	250V			H16B
	HD-050	50+PE	10A	250V			H32A
	HD-064	64+PE	10A	250V			H24B
	HD-080	80+PE	10A	250V			H32B
	HD-128	128+PE	10A	250V			H48B
HDD	HDD-016	16+PE	10A	250V	crimp	CDM/F(10A) DDM/F(10A) CJM/F(10A)	H6B
	HDD-024	24+PE	10A	250V			H6B
	HDD-042	128+PE	10A	250V			H10B
	HDD-072	128+PE	10A	250V			H16B
	HDD-108	128+PE	10A	250V			H24B
	HDD-144	128+PE	10A	250V			H32B
	HDD-216	128+PE	10A	250V			H48B
HE	HE-006	6+PE	16A	500V	screw crimp spring double spring	CEM/F(16A) DEM/F(16A)	H6B
	HE-010	10+PE	16A	500V			H10B
	HE-016	16+PE	16A	500V			H16B
	HE-024	24+PE	16A	500V			H24B
	HE-032	32+PE	16A	500V			H32B
	HE-048	48+PE	16A	500V			H48B
HEE	HEE-010	10+PE	16A	500V	crimp	CEM/F(16A) DEM/F(16A)	H6B
	HEE-018	18+PE	16A	500V			H10B
	HEE-032	32+PE	16A	500V			H16B
	HEE-046	46+PE	16A	500V			H24B
	HEE-064	64+PE	16A	500V			H32B
	HEE-092	92+PE	16A	500V			H48B
	HEE-015	14+PE	16A	200V		CSF(16A)	-

## Selection guide

### TECHNICAL INFORMATION OF INSERTS

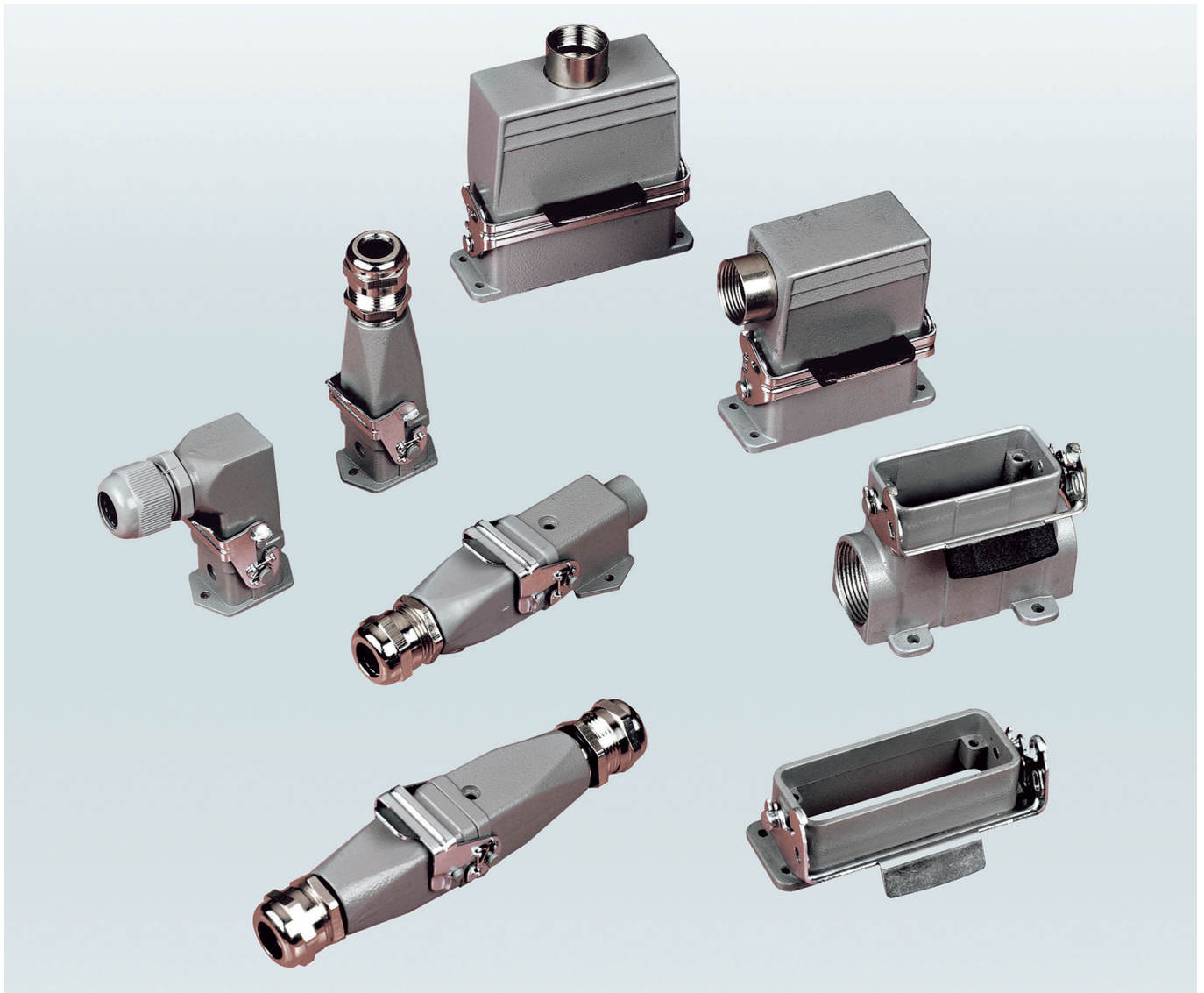
Insert	Type	Poles	Current	Voltage	Terminal	Contacts	Shells
HEEE	HEEE-020	20+PE	16A	400V	crimp	CEM/F(16A) DEM/F(16A)	H6B
	HEEE-032	32+PE	16A	400V			H10B
	HEEE-040	40+PE	16A	500V			H16B
	HEEE-048	48+PE	16A	400V			H16B
	HEEE-064	64+PE	16A	500V			H24B
	HEEE-072	72+PE	16A	400V			H24B
	HEEE-080	80+PE	16A	500V			H32B
	HEEE-096	96+PE	16A	400V			H32B
	HEEE-128	128+PE	16A	500V			H48B
	HEEE-144	144+PE	16A	400V			H48B
HVE	HVE-003	3+PE+2	16A	830V	screw crimp spring	CEM/F(16A) DEM/F(16A)	H10B
	HVE-006	6+PE+2	16A	830V			H16B
	HVE-010	10+PE+2	16A	830V			H24B
HSB	HSB-006	6+PE	35A	400/690V	screw	-	H16B
	HSB-012	12+PE	35A	400/690V	screw	-	H32B
HQ	HQ-005	5+PE	16A	400V	crimp	CEM/F(16A) DEM/F(16A)	H3A
	HQ-007	7+PE	10A	400V		CDM/F(10A) DDM/F(10A)	H3A
	HQ-008	8+PE	16A	500V		CEM/F(16A) DEM/F(16A)	H8A
	HQ-012	12+PE	10A	400V		CDM/F(10A) DDM/F(10A)	H3A
	HQ-017	17+PE	10A	250V			H8A
	HQ4/2	4+PE+2	40A+10A	600V+250V		CDM/F(10A) DDM/F(10A) CMM/F(40A) DMM/F(40A)	H8A
HEAV	HEAV-006	6+PE	16A	500V	screw spring	-	H6B
	HEAV-010	10+PE	16A	500V		-	H10B
	HEAV-016	16+PE	16A	500V		-	H16B
	HEAV-024	24+PE	16A	500V		-	H24B
HMN	HMN-001	1	200A	1000V	crimp	CHM/F(200A)	-
	HMN-D2	2	100A	1000V	crimp	CNM/F(100A)	-
	HMN-002	2	70A	1000V	crimp	CSM/F(70A)	-
	HMN-003	3	40A	690V	crimp	CMM/F(40A) DMM/F(40A)	-
	HMN-004	4	40A	830V	crimp	CMM/F(40A) DMM/F(40A)	-
	HMN-004SC	4	-	-	-	-	-
	HMN-005	5	16A	400V	spring	-	-
	HMN-006	6	16A	500V	crimp	CEM/F(16A) DEM/F(16A)	-
	HMN-006P	6	16A	830V	crimp		-

## Selection guide

### TECHNICAL INFORMATION OF INSERTS

Insert	Type	Poles	Current	Voltage	Terminal	Contacts	Shells
HMN	HMN-008	8	16A	400V	crimp	CEM/F(16A) DEM/F(16A)	-
	HMN-012	12	10A	250V	crimp	CDM/F(10A) DDM/F(10A)	-
	HMN-017	17	10A	160V	crimp	CDM/F(10A) DDM/F(10A)	-
	HMN-020	20	16A	500V	crimp	CEM/F(16A) DEM/F(16A)	-
	HMN-025	25	5A	50V	crimp	CAM/F(5A) DAM/F(5A)	-
	HMN-009	9	5A	50V	crimp	CAM/F(5A) DAM/F(5A)	-
	HMN-RJ45	8	1A	50V	crimp	-	-
	HMN-Q1	1+1	16A	50V	crimp	CEM/F(16A) DEM/F(16A)	-
	HMN-Q2	4+4	10A	50V	crimp	CDM/F(10A) DDM/F(10A)	-
	HMN-Q3	8+8	5A	50V	crimp	CAM/F(5A) DAM/F(5A)	-
	PIN-Q1	1	16A	50V	crimp	CEM/F(16A) DEM/F(16A)	-
	PIN-Q2	4	10A	50V	crimp	CDM/F(10A) DDM/F(10A)	-
	PIN-Q3	8	5A	50V	crimp	CAM/F(5A) DAM/F(5A)	-
	HMN-DM	-	-	-	-	-	-
HK/ HWK	HK4/0	4+PE	80A	690V	screw	-	H16B
	HK4/2	4+PE+2	80A+16A	690V+400V	screw	-	H16B
	HK6/12	6+PE+12	40A+10A	690V+230/400V	screw	-	H16B
	HK12/2	12+PE+2	40A+10A	690V+250V	crimp	CMM/F(40A) DMM/F(40A) CDM/F(10A) DDM/F(10A)	H16B
	HK6/36	6+PE+36	40A+10A	690V+160V	crimp	CMM/F(40A) DMM/F(40A) CDM/F(10A) DDM/F(10A)	H16B
	HK4/8	4+PE+8	80A+16A	400V	screw	-	H24B
	HK8/24	8+PE+24	16A+10A	230/400V+160V	crimp	CEM/F(16A) DEM/F(16A) CDM/F(10A) DDM/F(10A)	H10B
	HWK6/6	6+PE+6	40A+16A	690V+400V	screw	-	H16B
	HWK3/3/6	3+PE+3+6	100A+40A+16A	400/690V+400/ 690V+250/400V	screw	-	H24B

## HA Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60664-1

DIN EN 61 984

### 3. Approvals





## HD technical characteristics

Specifications .....	DIN VDE 0627
.....	DIN VDE 0110
Standards .....	DIN 43 652
.....	CECC 75 301-801
Number of contacts .....	7,8,15,25,40,50(2x25),64,
.....	80(2x40),128(2x64) + PE

### INSERTS

Working current .....	10A max
(See current carrying capacity)	
Working voltage .....	(8D is 50V)
.....	250V, Insulation group C
Test voltage urms .....	4KV(8D is 0.8KV)
Pollution degree .....	3
Pollution degree 2 also 10A; 250V/400V	
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate or Polybutylece
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

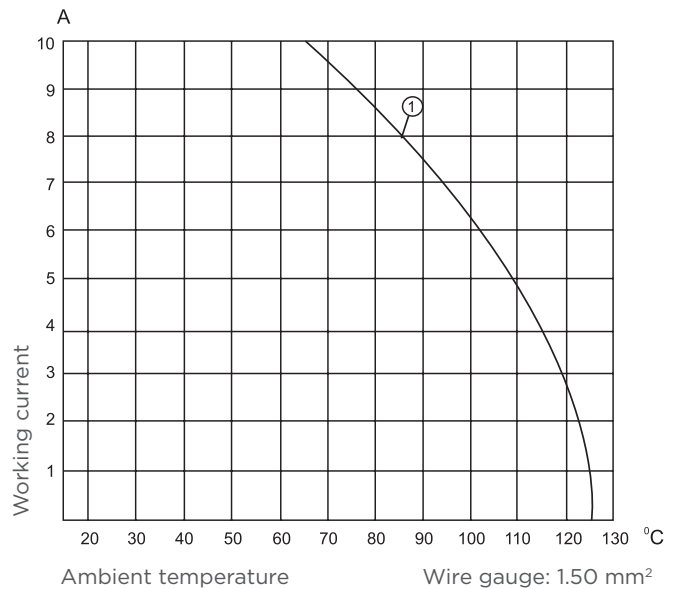
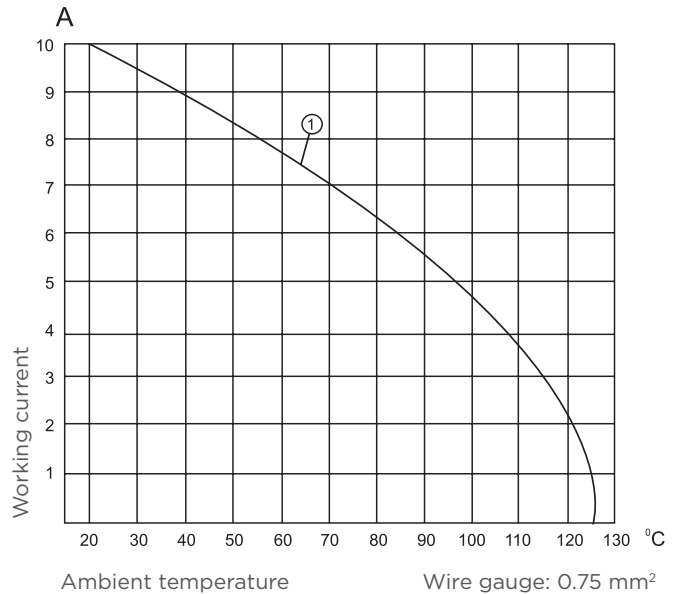
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.15-2.5mm <sup>2</sup>
- AWG .....	26-14

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



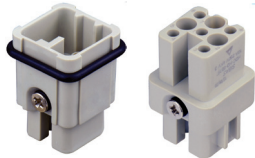
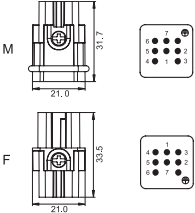
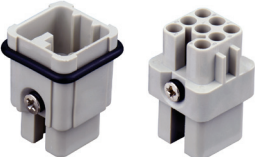
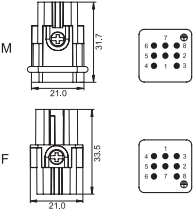
1 HD-007

## HD-007/008 inserts


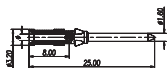

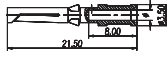
INSERTS FOR H3A HOOD/HOUSING

250V/50V 10A

7+   
8

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
250V/10A 		T 2 02 007 2101-000		HD-007-M
			T 2 02 007 2201-000	HD-007-F
50V/10A 		T 2 02 008 2101-000		HD-008-M
			T 2 02 008 2201-000	HD-008-F

### 10A Contact

Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	<b>10A Female crimp contacts</b> 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HA technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61984
Number of contacts .....	3,4,10,16,32(2x16) + PE

### INSERTS

Working current	
HA-3, HA-4 .....	10A
HA-10, HA-16, HA-32.....	16A
Working voltage	
HA-3, HA-4 .....	250V/400V
HA-10, HA-16, HA-32.....	250V
Test voltage urms	
HA-003, HAS-004, HA-10, HA-16, HA-32.....	4KV
HAS-003.....	6KV
HA-004.....	2.5KV
Pollution degree .....	2
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate or Polybutylece
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

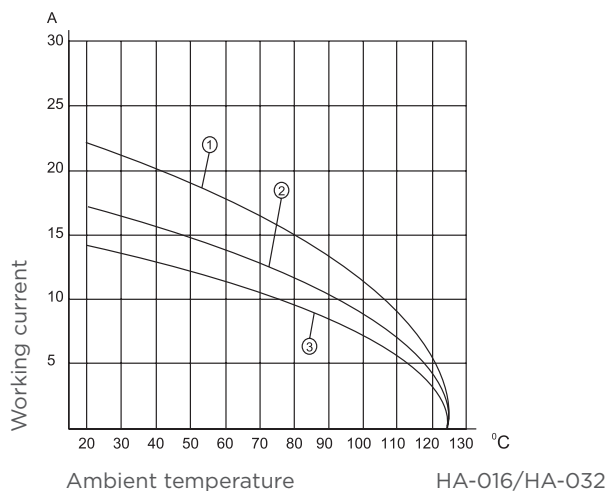
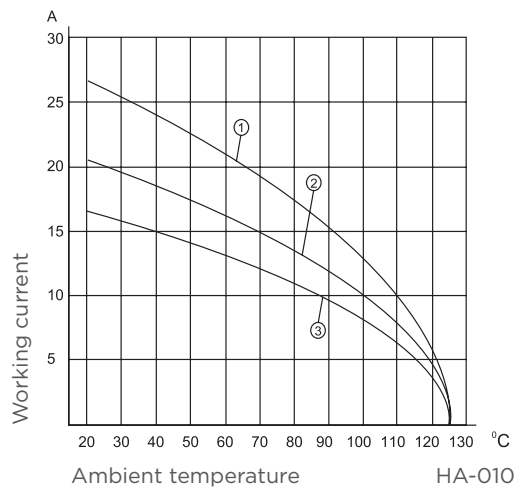
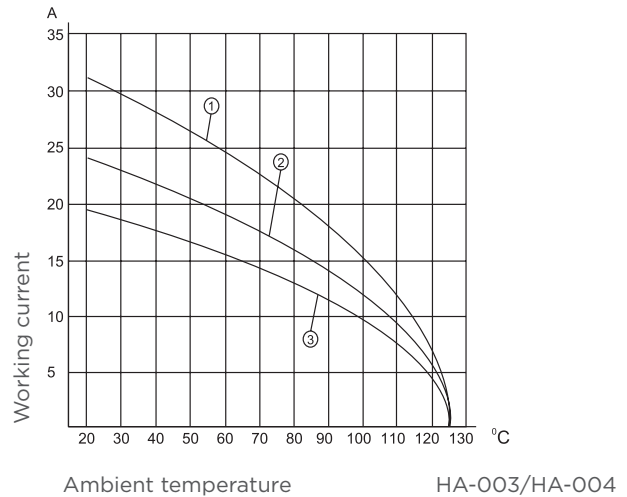
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-xplated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Screw terminal
.....	Crimp terminal
.....	Spring terminal
- mm <sup>2</sup> .....	0.5-2.5mm <sup>2</sup> /0.14-4.0mm <sup>2</sup> /0.5-2.5mm <sup>2</sup>
- AWG .....	20-14/26-14/20-14
- Tightening/test torque.....	0.5Nm: HA-010, HA-016, HA-032
.....	0.25Nm: HA-003, HA-004

### HOODS, HOUSINGS

Material .....	Die cast zinc
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +100°C/125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 Wire gauge: 2.5mm<sup>2</sup>
- 2 Wire gauge: 1.5mm<sup>2</sup>
- 3 Wire gauge: 1.0mm<sup>2</sup>

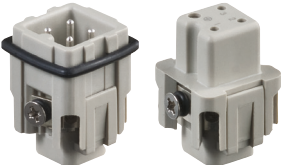
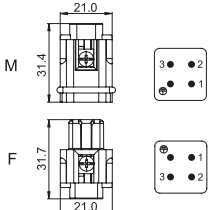

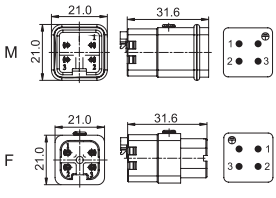

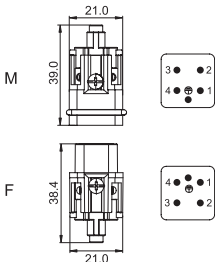

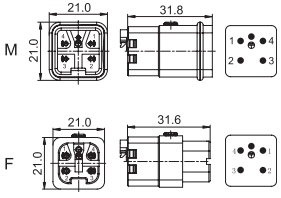
## HA-003/004 inserts

INSERTS FOR H3A HOOD/HOUSING

250V/400V 10A

3+⊕

4+⊕

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
Screw terminal				
250V/10A 		T 2 01 003 2101-000		HA-003-M
			T 2 01 003 2201-000	HA-003-F
Spring terminal				
400V/10A 		T 2 01 003 3101-000		HA-003-MS
			T 2 01 003 3201-000	HA-003-FS
Screw terminal				
250V/10A 		T 2 01 004 2101-000		HA-004-M
			T 2 01 004 2201-000	HA-004-F
Spring terminal				
400V/10A 		T 2 01 004 3101-000		HA-004-MS
			T 2 01 004 3201-000	HA-004-FS

## HQ technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	5,7,8,12,17 + PE

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

## INSERTS

Working current	
HQ-005,008.....	16A max
HQ-007,012,017 .....	10A max
Working voltage	
HQ-005,007,012.....	400V
HQ-008.....	500V
HQ-017.....	250V
Test voltage urms	
HQ-005,017 .....	4KV
HQ-007,008,012 .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	VO
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

## CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0/0.14-2.5/1.5-6mm <sup>2</sup>
- AWG .....	26-12/26-14/16-10
- Tightening/test torque .....	0.25Nm

## HOODS, HOUSINGS


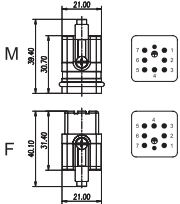

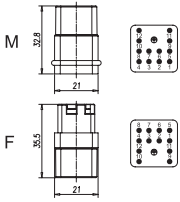
Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## HQ-007/012 inserts


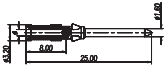


INSERTS FOR H3A HOOD/HOUSING

400V MAX. 10A

7+   
12+ 

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
Crimp terminal (Order crimp contacts separately)				
		T 2 08 007 2101-000		HQ-007-M
			T 2 08 007 2201-000	HQ-007-F
		T 2 08 012 2101-000		HQ-012-M
			T 2 08 012 2201-000	HQ-012-F

### 10A Contact


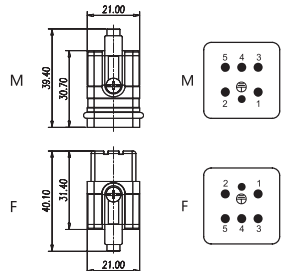
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
				0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HQ-005 inserts


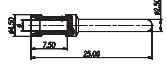

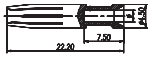
INSERTS FOR H3A HOOD/HOUSING

400V MAX. 16A

5+ (⊕)

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
Crimp terminal (Order crimp contacts separately)				
		T 2 08 005 2101-000		HQ-005-M
			T 2 08 005 2201-000	HQ-005-F

### 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## H3A metal hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Top entry</b>				
		M20	PG11 H3A-MTG-PG11 H3A-MTG-M20	T 1 32 903 0111-000 T 1 32 903 0120-000
<b>Side entry</b>				
		M20	PG11 H3A-MTS-PG11 H3A-MTS-M20	T 1 31 903 0111-000 T 1 31 903 0120-000
<b>Bulkhead mounting: Bottom entry</b>				
			H3A-MAG	T 150 903 0000-000
<b>Bulkhead mounting: Side entry</b>				
			H3A-MAGS	T 154 903 0000-000
<b>Surface mounting: Side entry</b>				
		M16 M20	PG11 H3A-MAGSV-PG11 H3A-MAGSV-M16 H3A-MAGSV-M20	T 1 61 903 0111-000 T 1 61 903 0116-000 T 1 61 903 0120-000
<b>Cable-to-cable hood:</b>				
		M20	PG11 H3A-MTGVB-PG11 H3A-MTGVB-M20	T 1 73 903 0111-000 T 1 73 903 0120-000
<b>Protection covers for hoods (thermoplastic)</b>				
	Note: For mounted male insert and hood			H3A-KDTP T 1 01 003 1100-000
<b>Metal protection covers for hoods</b>				
	Note: For mounted female insert and hood			H3A-KDB T 1 01 003 3100-000



## H3A thermoplastic hoods/housings

### THERMOPLASTIC HOODS, HOUSINGS

Dimensions (mm)		Metr.	PG	Type	Part Number	
Top entry						
		M20	PG11	H3A-TG-PG11 H3A-TG-M20	T 1 32 903 1111-000 T 1 32 903 1120-000	
Side entry						
		M20	PG11	H3A-TS-PG11 H3A-TS-M20	T 1 31 903 1111-000 T 1 31 903 1120-000	
Bulkhead mounting: Bottom entry						
				H3A-AG	T 1 50 903 1100-000	
Bulkhead mounting: Side entry						
				H3A-AGS	T 1 50 903 1111-000	
Surface mounting: Side entry						
		M16 M20	PG11	H3A-AGSV-PG11 H3A-AGSV-M16 H3A-AGSV-M20	T 1 61 903 1111-000 T 1 61 903 1116-000 T 1 61 903 1120-000	
Cable-to-cable hood:						
		M20	PG11	H3A-TGVB-PG11 H3A-TGVB-M20	T 1 73 903 1111-000 T 1 73 903 1120-000	
Protection covers for hoods (thermoplastic)						
	Note: For mounted male insert and hood				H3A-KDTP	T 1 01 003 1100-000
Protection covers for hoods						
	Note: For mounted female insert and hood				H3A-KDBP (White) H3A-KDBPG (Grey)	T 1 01 003 2100-000 T 1 01 003 2300-000
White	Grey					
Covers without sealing type						
				H3A-KDBP (White) H3A-KDBP (Grey)	T 1 01 003 3200-000 T 1 01 003 2200-000	

## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


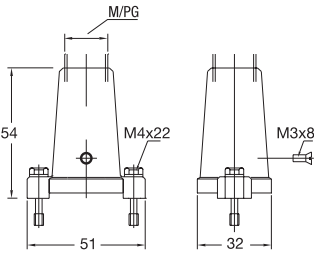

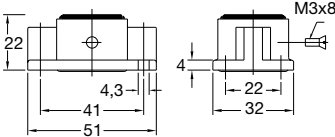

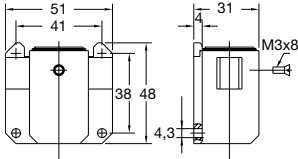
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number		
<b>Hood: Top entry</b>						
		M16	11	<b>HIP</b> HIP.3/4.STO.1.11.G HIP.3/4.STO.1.M16.G 1-1102600-5 0-1106408-1		
				M16 M20	11	<b>HIP-K</b> HIP-K.3/4.STO.1.11.G HIP-K.3/4.STO.1.M16.G HIP-K.3/4.STO.1.M20.G 2-1102600-5 0-1106408-2 0-1106408-3
						11
	<b>Surface mounted housing: Bottom entry</b>					
					<b>HIP</b> HIP.3/4.AG 1-1102603-5	
					<b>HIP-K</b> HIP-K.3/4.AG 2-1102603-5	
					<b>EMV-K</b> EMV-K.3/4.AG 4-1102703-5	
	<b>Surface mounted housing: Bottom entry (by panel cut-out)</b>					
					<b>HIP</b> HIP.3/4.SGF 1-1102602-5	
<b>HIP-K</b> HIP-K.3/4.SGF 2-1102602-5						
<b>EMV-K</b> EMV-K.3/4.SGF 4-1102702-5						

## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


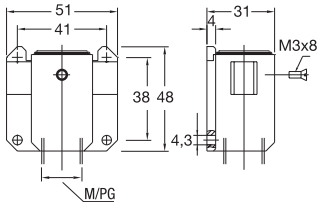

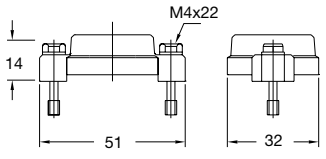
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K



Description	Metr.	PG	Type	Part Number	
<b>Surface mounted housing: Side entry</b>					
		M16 M20	<b>HIP</b> HIP.3/4.SG.1.11.G HIP.3/4.SG.1.M16.G HIP.3/4.SG.1.M20.G	1-1102601-5 0-1106407-1 0-1106401-4	
			M16	<b>HIP-K</b> HIP-K.3/4.SG.1.11.G HIP-K.3/4.SG.1.M16.G	2-1102601-5 0-1106407-2
			M16 M20	<b>EMV-K</b> EMV-K.3/4.SG.1.11.G EMV-K.3/4.SG.1.M16.G EMV-K.3/4.SG.1.M20.G	4-1102701-5 0-1106401-2 0-1106401-3
<b>Protective covers for housings</b>					
			<b>HIP/EMV</b> HIP/EMV.3/4.SKB	3-1106200-5	
			<b>HIP-K/EMV-K</b> HIP-K/EMV-K.3/4.SKB	4-1106200-5	

## HA.10 contact inserts

SCREW TERMINAL, SPRING CLAMP TERMINAL,  
CRIMP TERMINAL FOR SCREW MACHINED HE/HA CRIMP CONTACTS

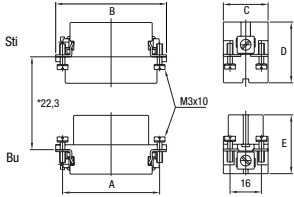
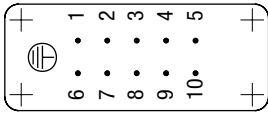
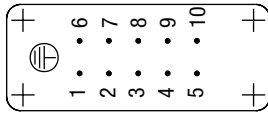
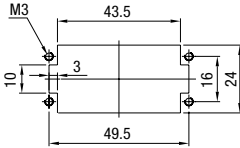
250V 16A

10+ Ⓢ

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		HA-010-M	T 2 01 010 2101-000	
		HA-010-F		T 2 01 010 2201-000
Spring Clamp terminal				
		HA.10.Sti.SC.B 1-10	7-1103414-1	
		HA.10.Bu.SC.B 1-10		7-1103415-1
Crimp terminal				
		HA.10.Sti.C.B 1-10	2-1103414-3	
		HA.10.Bu.C.B 1-10		2-1103415-3



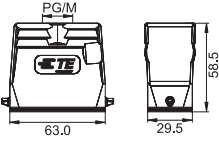
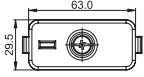
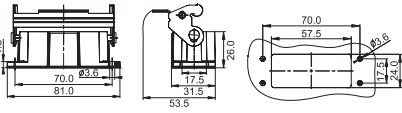
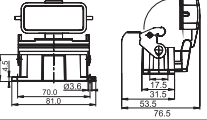
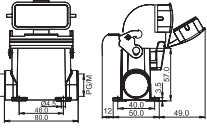

Dimensions	A	B	C	D	E
mm	49.5	57	23	31	28

Suitable crimp contacts and crimping tools: see page 48

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

# H10A metal hoods/housings

POWDER-COATED, RAL 7037


Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
		M20 M25	PG16 PG21	H10A-TS-PG16 H10A-TS-PG21 H10A-TS-M20 H10A-TS-M25	T 1 31 910 0116-000 T 1 31 910 0121-000 T 1 31 910 0120-000 T 1 31 910 0125-000						
Hood: Top entry											
		M20 M25	PG16 PG21	H10A-TG-PG16 H10A-TG-PG21 H10A-TG-M20 H10A-TG-M25	T 1 32 910 0116-000 T 1 32 910 0121-000 T 1 32 910 0120-000 T 1 32 910 0125-000						
Protection covers for hoods											
		With plastic rope		H10A-KDT	T 1 01 910 1101-000 T 1 01 910 1201-000						
Bulkhead mounted											
				H10A-AGS H10A-ADMS	T 1 50 910 1000-000 T 1 51 910 1000-000						
		With protection cover		H10A-ADMS	T 1 51 910 1000-000						
Surface mounted: Side entry											
		1 Side entry M20 M25	PG16 PG21	H10A-SGRS-PG16 H10A-SGRS-PG21 H10A-SGRS-M20 H10A-SGRS-M25	T 1 61 910 1116-000 T 1 61 910 1121-000 T 1 61 910 1120-000 T 1 61 910 1125-000						
		2 Side entry M20 M25	PG16 PG21	H10A-SGRS-2PG16 H10A-SGRS-2PG21 H10A-SGRS-2M20 H10A-SGRS-2M25	T 1 61 910 1216-000 T 1 61 910 1221-000 T 1 61 910 1220-000 T 1 61 910 1225-000						
		1 Side entry M20 M25	PG16 PG21	H10A-SDRMS-PG16 H10A-SDRMS-PG21 H10A-SDRMS-M20 H10A-SDRMS-M25	T 1 62 910 1116-000 T 1 62 910 1121-000 T 1 62 910 1120-000 T 1 62 910 1125-000						
		2 Side entry M20 M25	PG16 PG21	H10A-SDRMS-2PG16 H10A-SDRMS-2PG21 H10A-SDRMS-2M20 H10A-SDRMS-2M25	T 1 62 910 1216-000 T 1 62 910 1221-000 T 1 62 910 1220-000 T 1 62 910 1225-000						
Cable-to-cable hood											
	<table border="1" data-bbox="331 1921 550 2018"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>52.6</td> </tr> <tr> <td>High</td> <td>66.6</td> </tr> </table> 	Construction	H	Low	52.6	High	66.6	Low construction High construction M20 M25 M25	PG16 PG21	H10A-TBFS-PG16 H10A-TBFS-M20 H10A-TBFS-M25 H10A-TBFHS-PG21 H10A-TBFHS-M25	T 1 73 910 1116-000 T 1 73 910 1120-000 T 1 73 910 1125-000 T 1 77 910 1121-000 T 1 77 910 1125-000
Construction	H										
Low	52.6										
High	66.6										

## HA.16 contact inserts

SCREW TERMINAL, SPRING CLAMP TERMINAL,  
CRIMP TERMINAL FOR SCREW MACHINED HE/HA CRIMP CONTACTS

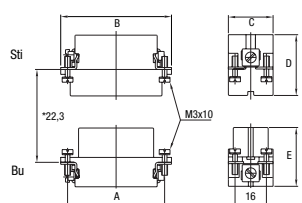
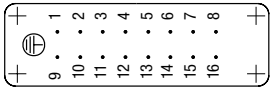
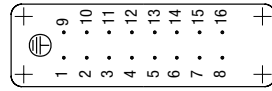
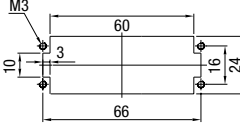
250V 16A

16+ 

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		HA-016-M	T 2 01 016 2101-000	
		HA-016-F		T 2 01 016 2201-000
Spring Clamp terminal				
		HA.16.Sti.SC.B 1-16	7-1103416-1	
		HA.16.Bu.SC.B 1-16		7-1103417-1
Crimp terminal				
		HA-016-MC	T 2 01 016 4101-000	
		HA-016-FC		T 2 01 016 4201-000



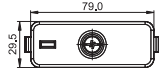

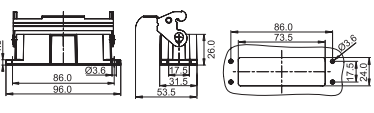
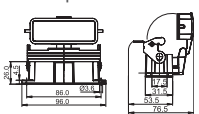

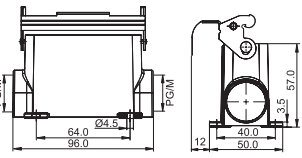
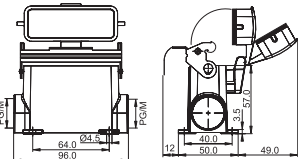

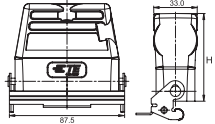
Dimensions	A	B	C	D	E
mm	66	73	23	31	28

Suitable crimp contacts and crimping tools: see page 48

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

# H16A metal hoods/housings

POWDER-COATED, RAL 7037

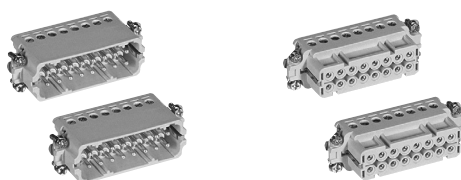
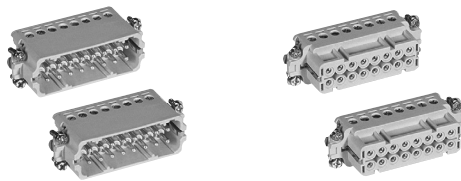
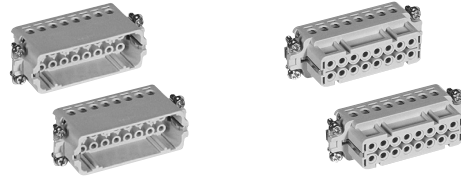
Dimensions (mm)		Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>					
	Low construction	M20 M25	PG16 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25	T 1 31 916 0116-000 T 1 31 916 0121-000 T 1 31 916 0120-000 T 1 31 916 0125-000
	High construction			M25	PG21
<b>Hood: Top entry</b>					
	Low construction	M20 M25	PG16 PG21	H16A-TG-PG16 H16A-TG-PG21 H16A-TG-M20 H16A-TG-M25	T 1 32 916 0116-000 T 1 32 916 0121-000 T 1 32 916 0120-000 T 1 32 916 0125-000
	High construction			M25	PG21
<b>Protection covers for hoods</b>					
	79.0 29.5		with plastic rope	H16A-KDT	T 1 01 916 1101-000 T 1 01 916 1201-000
<b>Bulkhead mounted</b>					
				H16A-AGS	T 1 50 916 1000-000
	With protection cover 			H16A-ADS H16A-ADMS	T 1 51 916 2000-000 T 1 51 916 1000-000
<b>Surface mounted: Side entry</b>					
		1 Side entry M20 M25	PG16 PG21	H16A-SGRS-PG16 H16A-SGRS-PG21 H16A-SGRS-M20 H16A-SGRS-M25 H16A-SGRS-2PG16 H16A-SGRS-2PG21 H16A-SGRS-2M20 H16A-SGRS-2M25	T 1 61 916 1116-000 T 1 61 916 1121-000 T 1 61 916 1120-000 T 1 61 916 1125-000 T 1 61 916 1216-000 T 1 61 916 1221-000 T 1 61 916 1220-000 T 1 61 916 1225-000
	With protection cover 	1 Side entry M20 M25	PG16 PG21	H16A-SDRMS-PG16 H16A-SDRMS-PG21 H16A-SDRMS-M20 H16A-SDRMS-M25 H16A-SDRMS-2PG16 H16A-SDRMS-2PG21 H16A-SDRMS-2M20 H16A-SDRMS-2M25	T 1 62 916 1116-000 T 1 62 916 1121-000 T 1 62 916 1120-000 T 1 62 916 1125-000 T 1 62 916 1216-000 T 1 62 916 1221-000 T 1 62 916 1220-000 T 1 62 916 1225-000
<b>Cable-to-cable hood</b>					
		Low construction	M20 M25	PG16 PG21	H16A-TBFS-PG16 H16A-TBFS-M20 H16A-TBFS-M25 H16A-TBFS-PG21 H16A-TBFS-M25
		High construction	M25		

## HA.32 contact inserts

SCREW TERMINAL, SPRING CLAMP TERMINAL,  
CRIMP TERMINAL FOR SCREW MACHINED HE/HA CRIMP CONTACT

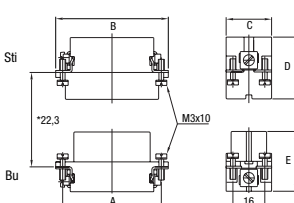
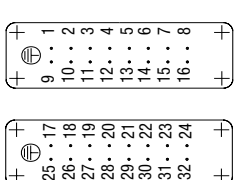
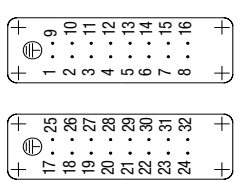
250V 16A

(2x16) 32+ Ⓢ

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		HA-016-M(1-16) HA-016-M(17-32)	T 2 01 016 2101-000 T 2 01 032 2101-000	
		HA-016-F(1-16) HA-016-F(17-32)		T 2 01 016 2201-000 T 2 01 032 2201-000
Spring Clamp terminal				
		HA.16.Sti.SC.B 1-16 HA.16.Sti.SC.B 17-32	7-1103416-1 7-1103416-7	
		HA.16.Bu.SC.B 1-16 HA.16.Bu.SC.B 17-32		7-1103417-1 7-1103417-7
Crimp terminal				
		HA-016-MC(1-16) HA-016-MC(17-32)	T 2 01 016 4101-000 T 2 01 032 4101-000	
		HA-016-FC(1-16) HA-016-FC(17-32)		T 2 01 016 4201-000 T 2 01 032 4201-000

Dimensions	A	B	C	D	E
mm	66	73	23	31	28


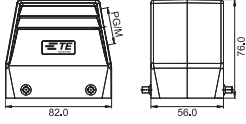

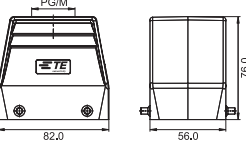

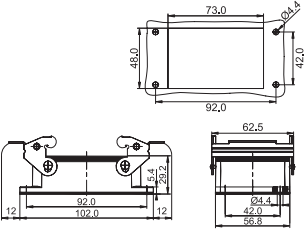

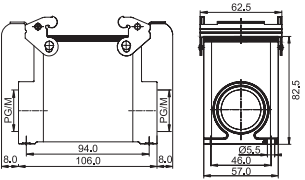
Suitable crimp contacts and crimping tools: see page 48

Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		



## H32A metal hoods/housings

POWDER-COATED, RAL 7037

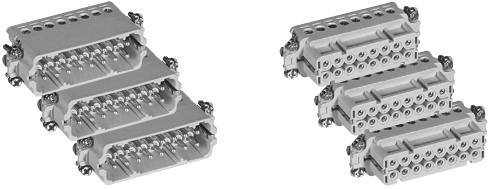
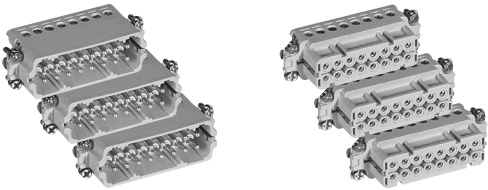
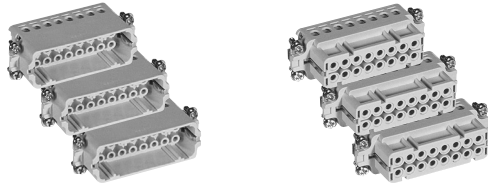
Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
 	M25 M32 M40	PG21 PG29 PG36	H32A-TS-PG21 H32A-TS-PG29 H32A-TS-PG36 H32A-TS-M25 H32A-TS-M32 H32A-TS-M40	T 1 31 932 0121-000 T 1 31 932 0129-000 T 1 31 932 0136-000 T 1 31 932 0125-000 T 1 31 932 0132-000 T 1 31 932 0140-000
<b>Hood: Top entry</b>				
 	M25 M32 M40	PG21 PG29 PG36	H32A-TG-PG21 H32A-TG-PG29 H32A-TG-PG36 H32A-TG-M25 H32A-TG-M32 H32A-TG-M40	T 1 32 932 0121-000 T 1 32 932 0129-000 T 1 32 932 0136-000 T 1 32 932 0125-000 T 1 32 932 0132-000 T 1 32 932 0140-000
<b>Bulkhead mounted</b>				
 			H32A-AG	T 1 41 932 0000-000
<b>Surface mounted: Side entry</b>				
 	1 Side entry M25 M32  2 Side entry M25 M32	PG21 PG29  PG21 PG29	H32A-SGR-PG21 H32A-SGR-PG29 H32A-SGR-M25 H32A-SGR-M32 H32A-SGR-2PG21 H32A-SGR-2PG29 H32A-SGR-2M25 H32A-SGR-2M32	T 1 44 932 0121-000 T 1 44 932 0129-000 T 1 44 932 0125-000 T 1 44 932 0132-000 T 1 44 932 0221-000 T 1 44 932 0229-000 T 1 44 932 0225-000 T 1 44 932 0232-000

## HA.48 contact inserts

SCREW TERMINAL, SPRING CLAMP TERMINAL,  
CRIMP TERMINAL FOR SCREW MACHINED HE/HA CRIMP CONTACT

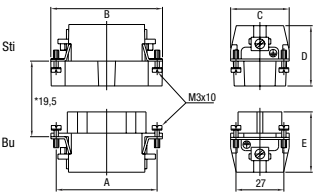
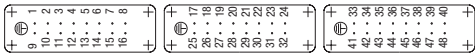
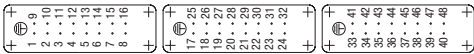
250V 16A

(3x16) 48+ Ⓢ

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		HA.16.Sti.S.B 1-16 HA.16.Sti.S.B 17-32 HA.16.Sti.S.B 33-48	1-1103416-1 1-1103416-7 1-1103416-8	
		HA.16.Bu.S.B 1-16 HA.16.Bu.S.B 17-32 HA.16.Bu.S.B 33-48		1-1103417-1 1-1103417-7 1-1103417-8
Spring Clamp terminal				
		HA.16.Sti.SC.B 1-16 HA.16.Sti.SC.B 17-32 HA.16.Sti.SC.B 33-48	7-1103416-1 7-1103416-7 7-1103416-8	
		HA.16.Bu.SC.B 1-16 HA.16.Bu.SC.B 17-32 HA.16.Bu.SC.B 33-48		7-1103417-1 7-1103417-7 7-1103417-8
Crimp terminal				
		HA.16.Sti.C.B 1-16 HA.16.Sti.C.B 17-32 HA.16.Sti.C.B 33-48	2-1103416-3 2-1103416-7 2-1103416-8	
		HA.16.Bu.C.B 1-16 HA.16.Bu.C.B 17-32 HA.16.Bu.C.B 33-48		2-1103417-3 2-1103417-7 2-1103417-8

Dimensions	A	B	C	D	E
mm	77.5	83.5	33	34	35

Suitable crimp contacts and crimping tools: see page 48


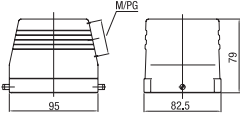

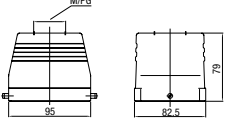

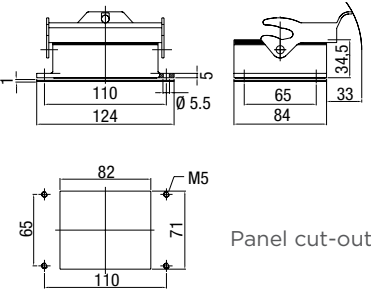

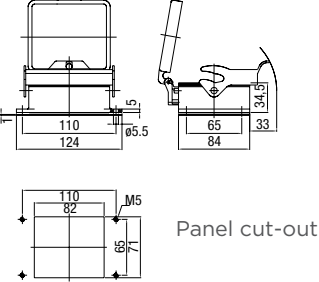
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## HA.48 housings

POWDER-COATED, SILVER-GREY

### Side clip at housing bottom

IP 65


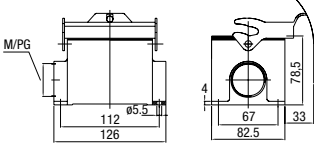

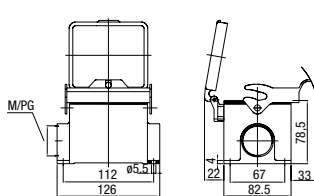
Description	Metr.	PG	Type	Part Number
Hood: Side entry, Standard construction				
 	M32	29	HA.48.STS-GR.1.29.G HA.48.STS-GR.1.M32.G	1-1102172-7 0-1102877-1
Hood: Top entry, Standard construction				
 	M32	29	HA.48.STO-GR.1.29.G HA.48.STO-GR.1.M32.G	1-1102175-7 0-1102877-2
Surface mounted housing: Bottom entry				
 			HA.48.AG-LB	1-1102176-2
Surface mounted housing with covers: Bottom entry				
 			HA.48.AGD-LB	1-1102177-2

## HA.48 housings

POWDER-COATED, SILVER-GREY

### Side clip at housing bottom

IP 65

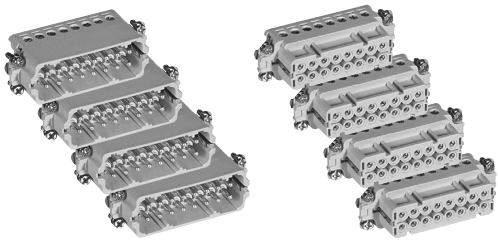
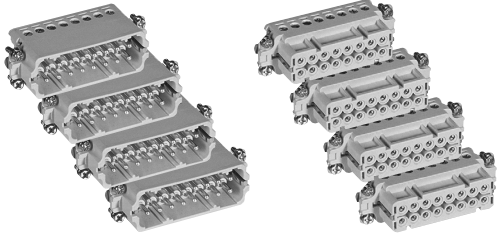
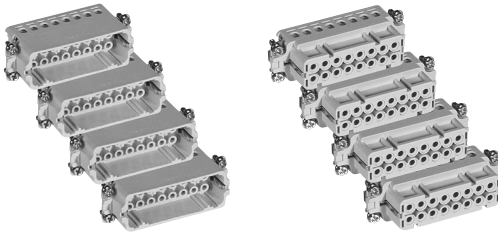
Description	Metr.	PG	Type	Part Number
Surface mounted housing: Side entry, Standard construction				
 		29 2x29	HA.48.SG-LB.1.29.Z HA.48.SG-LB.2.29.Z	1-1102179-2 1-1102181-2
Surface mounted housing: Side entry, Standard construction				
 	M32 2xM32	29 2x29	HA.48.SGD-LB.1.29.Z HA.48.SGD-LB.2.29.Z HA.48.SGD-LB.1.M32.G HA.48.SGD-LB.2.M32.G	1-1102183-2 1-1102185-2 0-1102879-1 0-1102879-2

## HA.64 contact inserts

SCREW TERMINAL, SPRING CLAMP TERMINAL,  
CRIMP TERMINAL FOR SCREW MACHINED HE CRIMP CONTACTS

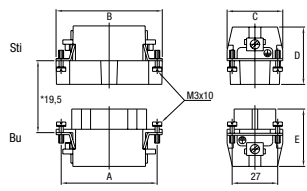
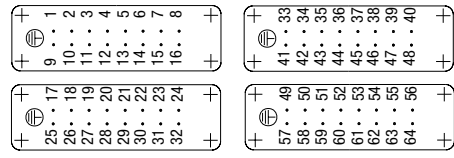
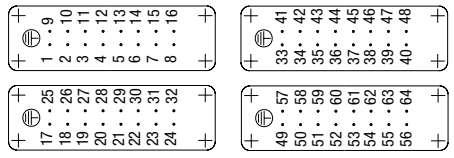
250V 16A

(4x16) 64+ Ⓢ

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		HA.16.Sti.S.B 1-16	1-1103416-1	
		HA.16.Sti.S.B 17-32	1-1103416-7	
		HA.16.Sti.S.B 33-48	1-1103416-8	
		HA.16.Sti.S.B 49-64	1-1103416-9	
		HA.16.Bu.S.B 1-16		1-1103417-1
		HA.16.Bu.S.B 17-32		1-1103417-7
		HA.16.Bu.S.B 33-48		1-1103417-8
		HA.16.Bu.S.B 49-64		1-1103417-9
Spring Clamp terminal				
		HA.16.Sti.SC.B 1-16	7-1103416-1	
		HA.16.Sti.SC.B 17-32	7-1103416-7	
		HA.16.Sti.SC.B 33-48	7-1103416-8	
		HA.16.Sti.SC.B 49-64	7-1103416-9	
		HA.16.Bu.SC.B 1-16		7-1103417-1
		HA.16.Bu.SC.B 17-32		7-1103417-7
		HA.16.Bu.SC.B 33-48		7-1103417-8
		HA.16.Bu.SC.B 49-64		7-1103417-9
Crimp terminal				
		HA.16.Sti.C.B 1-16	2-1103416-3	
		HA.16.Sti.C.B 17-32	2-1103416-7	
		HA.16.Sti.C.B 33-48	2-1103416-8	
		HA.16.Sti.C.B 49-64	2-1103416-9	
		HA.16.Bu.C.B 1-16		2-1103417-3
		HA.16.Bu.C.B 17-32		2-1103417-7
		HA.16.Bu.C.B 33-48		2-1103417-8
		HA.16.Bu.C.B 49-64		2-1103417-9

Dimensions	A	B	C	D	E
mm	77.5	83.5	33	34	35

Suitable crimp contacts and crimping tools: see page 48


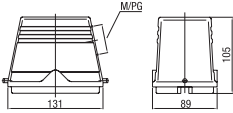
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

# HA.64 housings

POWDER-COATED, SILVER-GREY

## Side clip at housing bottom


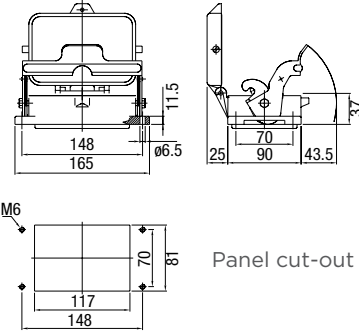
IP 65

Description	Metr.	PG	Type	Part Number	
Hood: Side entry, Standard construction					
		M50	29	HA.64.STS-GR.1.29.G	1-1102002-7
			36	HA.64.STS-GR.1.36.G	1-1102005-7
			42	HA.64.STS-GR.1.42.G	1-1102008-7
				HA.64.STS-GR.1.M50.G	0-1106480-2

## Hood: Top entry, Standard construction

		M50	29	HA.64.STO-GR.1.29.G	1-1102027-7
			36	HA.64.STO-GR.1.36.G	1-1102030-7
			42	HA.64.STO-GR.1.42.G	1-1102033-7
				HA.64.STO-GR.1.M50.G	0-1106480-1

## Surface mounted housing: Bottom entry, Standard construction


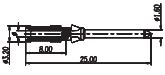

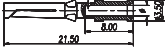
				HA.64.AGD-LB	1-1102009-2

## Surface mounted housing: Side entry, Standard construction





		2xM40	29	HA.64.SGD-LB.1.29.Z	1-1102011-2
			2x29	HA.64.SGD-LB.2.29.Z	1-1102013-2
			36	HA.64.SGD-LB.1.36.Z	1-1102015-2
			2x36	HA.64.SGD-LB.2.36.Z	1-1102017-2
				HA.64.SGD-LB.2.M40.Z	0-1106479-1

## Crimp contacts HN.D series

### 10A Contact


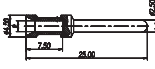

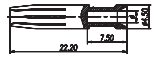
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## Crimping tools HN.D series





Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CDM/CDF contact series		REMOV-HD	T 3 10 000 0003-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000

## Crimp contacts HE/HA series

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000
0.5	20			7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
0.75	18			7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## Crimping tools HE/HA series

Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CEM/CEF contact series		REMOV-HEE	T 3 10 000 0002-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000



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## Notes

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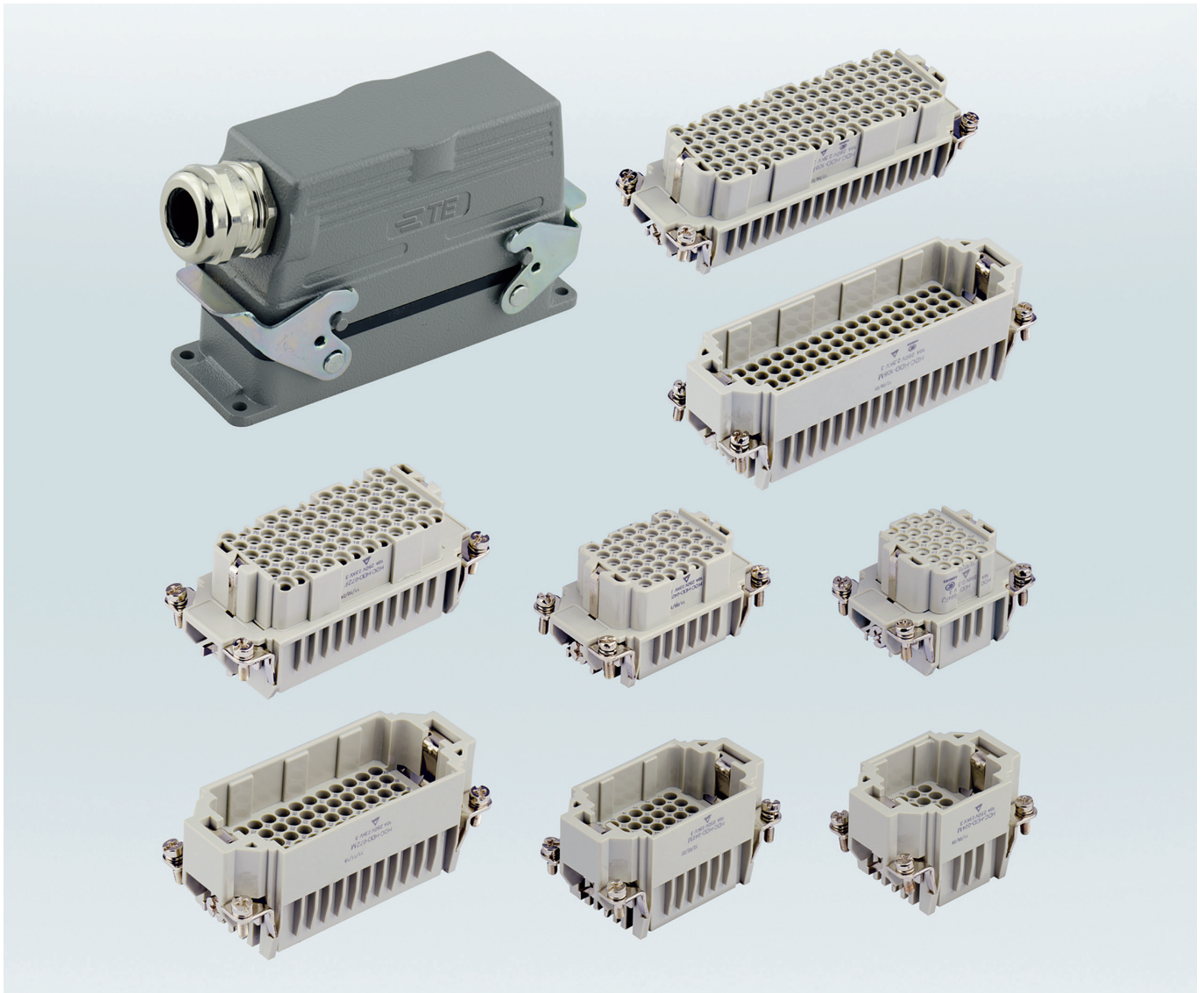
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## HD, HDD Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 175 301-801

DIN EN 61984

### 3. Approvals



## HD technical characteristics

Specifications .....	DIN VDE 0627
.....	DIN VDE 0110
Standards .....	DIN 43 652
.....	CECC 75 301-801
Number of contacts .....	7,8,15,25,40,50(2x25),64,
.....	80(2x40),128(2x64) + PE

### INSERTS

Working current .....	10A max
(See current carrying capacity)	
Working voltage .....	(8D is 50V)
.....	250V, Insulation group C
Test voltage urms .....	4KV(8D is 0.8KV)
Pollution degree .....	2
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate or Polybutylece
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

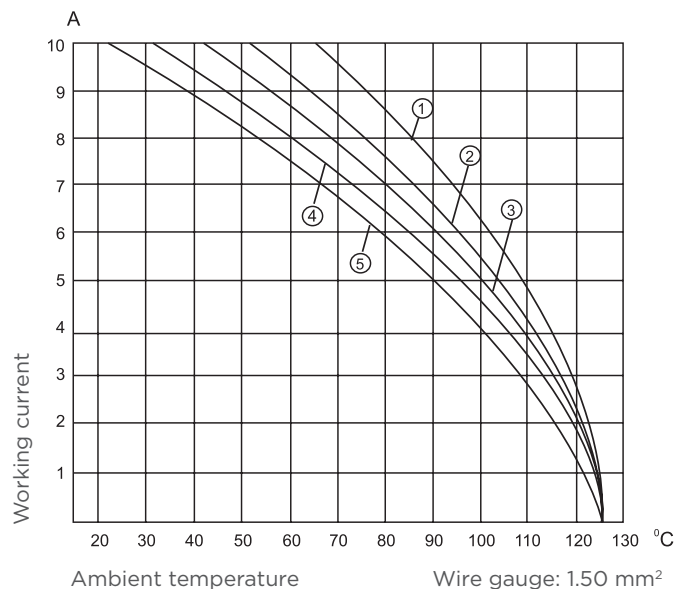
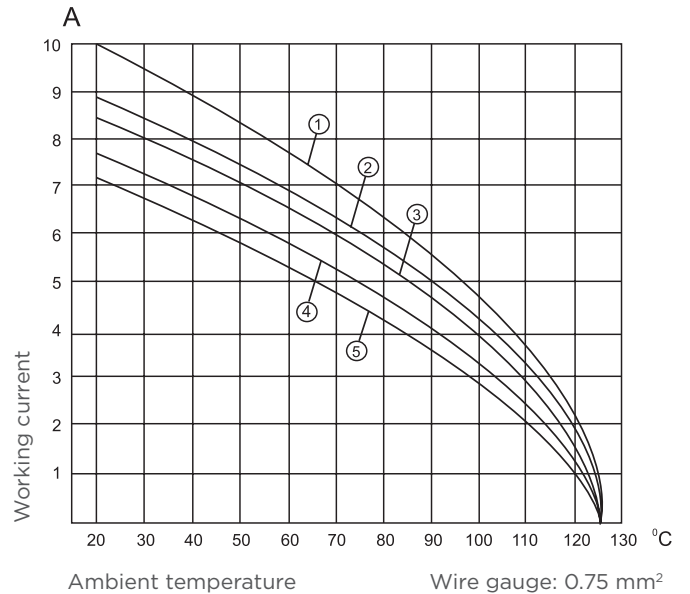
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.15-2.5mm <sup>2</sup>
- AWG .....	26-14

### HOODS/HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 HD-007
- 2 HD-015
- 3 HD-025
- 4 HD-040
- 5 HD-064

## HDD technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	16,24,42,72,84(2x42),
.....	144(2x72) + PE

### INSERTS

Working current .....	10A max
(See current carrying capacity)	
Working voltage .....	250V, Insulation group C
Test voltage urms .....	2.5KV
Pollution degree .....	2
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	500V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

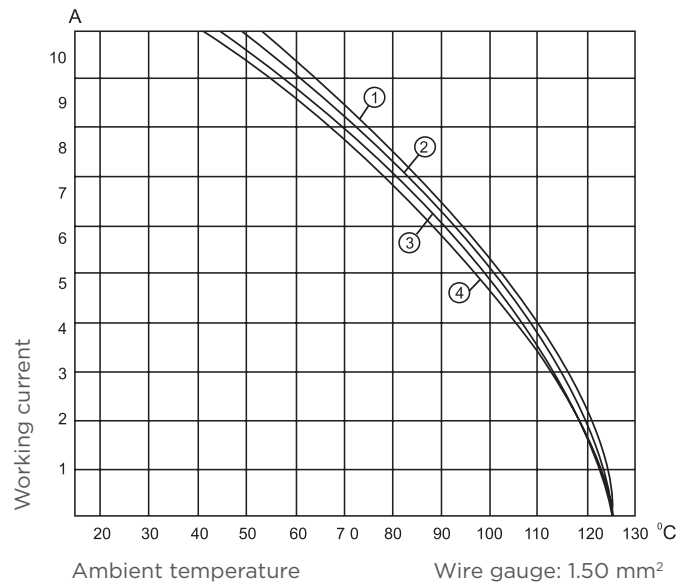
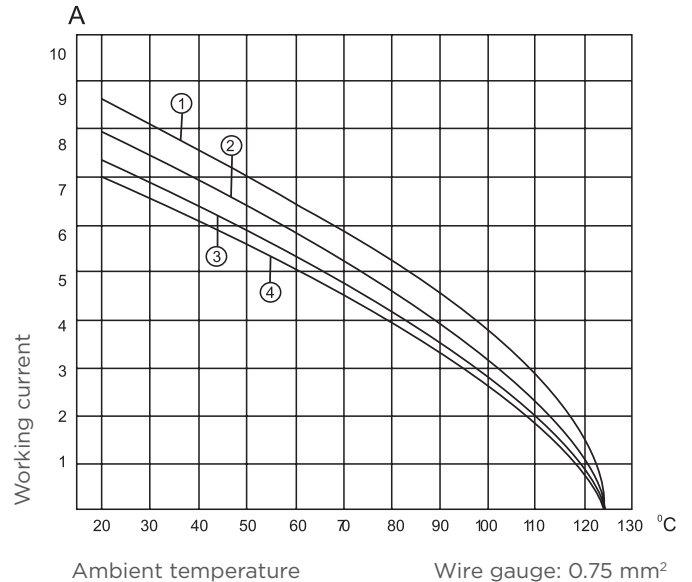
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.14-2.5mm <sup>2</sup>
- AWG .....	26-14

### HOODS/HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 HDD-024
- 2 HDD-042
- 3 HDD-072
- 4 HDD-108

## HD, HDD series

### MODIFIED CONTACT ARRANGEMENT

The connector series HDD and HD equipped with all contacts may be used for voltages up to 250V-insulation group C. A modified contact loading arrangement permits use up to 500V-also in insulation group C.

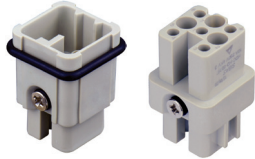
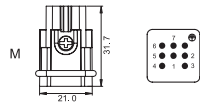
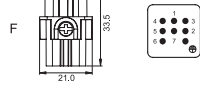
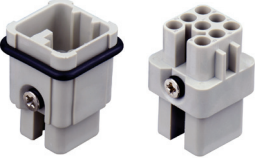
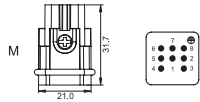
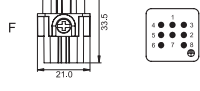
		Contact arrangement view from termination side			
		Working contact	Without contact	Male insert	Female insert
Series HDD 380V-Insulation group C					
500V-Insulation group C					
Series HD 500V - Pollution degree 3					

## HD-007/008 inserts


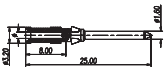

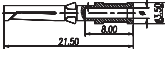
INSERTS FOR H3A HOOD/HOUSING

250V/50V 10A

7+   
8

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
250V/10A 	 	T 2 02 007 2101-000		HD-007-M
			T 2 02 007 2201-000	HD-007-F
50V/10A 	 	T 2 02 008 2101-000		HD-008-M
			T 2 02 008 2201-000	HD-008-F

### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## H3A metal hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number	
Top entry						
		M20	PG11	H3A-MTG-PG11 H3A-MTG-M20	T 1 32 903 0111-000 T 1 32 903 0120-000	
Side entry						
		M20	PG11	H3A-MTS-PG11 H3A-MTS-M20	T 1 31 903 0111-000 T 1 31 903 0120-000	
Bulkhead mounting: Bottom entry						
				H3A-MAG	T 150 903 0000-000	
Bulkhead mounting: Side entry						
				H3A-MAGS	T 154 903 0000-000	
Surface mounting: Side entry						
		M16 M20	PG11	H3A-MAGSV-PG11 H3A-MAGSV-M16 H3A-MAGSV-M20	T 1 61 903 0111-000 T 1 61 903 0116-000 T 1 61 903 0120-000	
Cable-to-cable hood:						
		M20	PG11	H3A-MTGVB-PG11 H3A-MTGVB-M20	T 1 73 903 0111-000 T 1 73 903 0120-000	
Protection covers for hoods (thermoplastic)						
	Note: For mounted male insert and hood				H3A-KDTP	T 1 01 003 1100-000
Metal protection covers for hoods						
	Note: For mounted female insert and hood				H3A-KDB	T 1 01 003 3100-000

## H3A thermoplastic hoods/housings

### THERMOPLASTIC HOODS, HOUSINGS

Dimensions (mm)		Metr.	PG	Type	Part Number
Top entry					
		M20	PG11	H3A-TG-PG11 H3A-TG-M20	T 1 32 903 1111-000 T 1 32 903 1120-000
Side entry					
		M20	PG11	H3A-TS-PG11 H3A-TS-M20	T 1 31 903 1111-000 T 1 31 903 1120-000
Bulkhead mounting: Bottom entry					
				H3A-AG	T 1 50 903 1100-000
Bulkhead mounting: Side entry					
				H3A-AGS	T 1 50 903 1111-000
Surface mounting: Side entry					
		M16 M20	PG11	H3A-AGSV-PG11 H3A-AGSV-M16 H3A-AGSV-M20	T 1 61 903 1111-000 T 1 61 903 1116-000 T 1 61 903 1120-000
Cable-to-cable hood:					
		M20	PG11	H3A-TGVB-PG11 H3A-TGVB-M20	T 1 73 903 1111-000 T 1 73 903 1120-000
Protection covers for hoods (thermoplastic)					
	Note: For mounted male insert and hood			H3A-KDTP	T 1 01 003 1100-000
Protection covers for hoods					
	Note: For mounted female insert and hood			H3A-KDBP (White) H3A-KDBPG (Grey)	T 1 01 003 2100-000 T 1 01 003 2300-000
Covers without sealing type					
				H3A-KDBP (White) H3A-KDBP (Grey)	T 1 01 003 3200-000 T 1 01 003 2200-000



## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


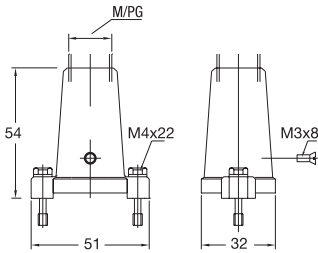

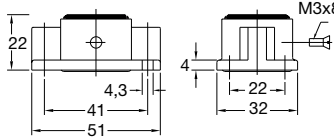

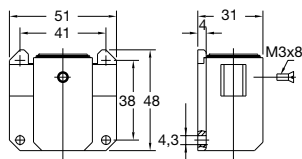
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number			
<b>Hood: Top entry</b>							
		M16	11	<b>HIP</b> HIP.3/4.STO.1.11.G HIP.3/4.STO.1.M16.G	1-1102600-5 0-1106408-1		
				M16 M20	11	<b>HIP-K</b> HIP-K.3/4.STO.1.11.G HIP-K.3/4.STO.1.M16.G HIP-K.3/4.STO.1.M20.G	2-1102600-5 0-1106408-2 0-1106408-3
						M16 M20	11
	<b>Surface mounted housing: Bottom entry</b>						
					<b>HIP</b> HIP.3/4.AG		
					<b>HIP-K</b> HIP-K.3/4.AG	2-1102603-5	
					<b>EMV-K</b> EMV-K.3/4.AG	4-1102703-5	
	<b>Surface mounted housing: Bottom entry (by panel cut-out)</b>						
					<b>HIP</b> HIP.3/4.SGF	1-1102602-5	
<b>HIP-K</b> HIP-K.3/4.SGF					2-1102602-5		
<b>EMV-K</b> EMV-K.3/4.SGF					4-1102702-5		

## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


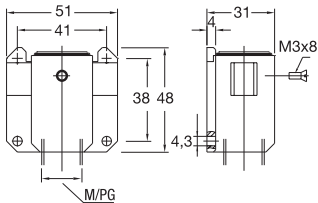
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Side entry</b>				
		M16 M20	<b>HIP</b>	1-1102601-5 0-1106407-1 0-1106401-4
			HIP.3/4.SG.1.11.G	
			HIP.3/4.SG.1.M16.G HIP.3/4.SG.1.M20.G	
	M16	PG11	<b>HIP-K</b>	2-1102601-5 0-1106407-2
			HIP-K.3/4.SG.1.11.G	
			HIP-K.3/4.SG.1.M16.G	
M16 M20	PG11	<b>EMV-K</b>	4-1102701-5 0-1106401-2 0-1106401-3	
		EMV-K.3/4.SG.1.11.G		
		EMV-K.3/4.SG.1.M16.G EMV-K.3/4.SG.1.M20.G		

### Protective covers for housings


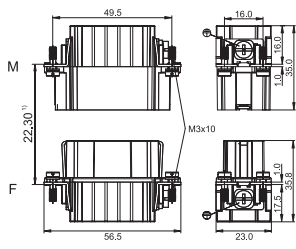
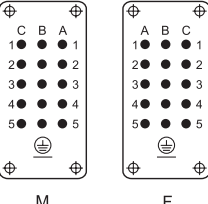
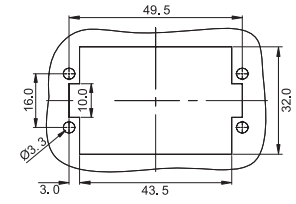
				<b>HIP/EMV</b>	3-1106200-5
				HIP/EMV.3/4.SKB	
				<b>HIP-K/EMV-K</b>	4-1106200-5
				HIP-K/EMV-K.3/4.SKB	

## HD-015 inserts


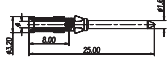

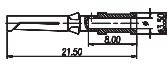
INSERTS FOR H10A HOOD/HOUSING

250V 10A

15+⊕ (machined contacts)

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HD-015-M	T 2 02 015 2101-000	
		HD-015-F		T 2 02 015 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings			
				

### 10A Contact

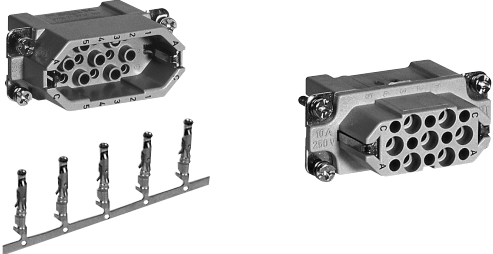
Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	<b>10A Female crimp contacts</b> 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HD-015 inserts

INSERTS FOR H10A HOOD/HOUSING

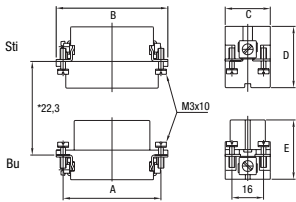
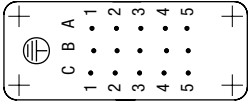
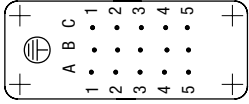
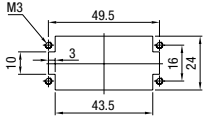
250V 10A

15+⊕ (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		HD.15.Sti.C	2-1103004-3	
		HD.15.Bu.C		2-1103005-3


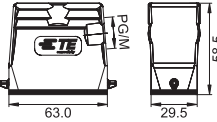

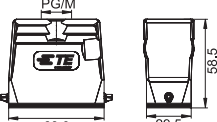
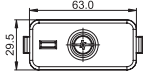

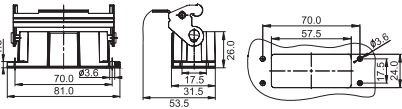

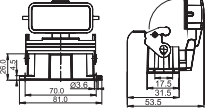

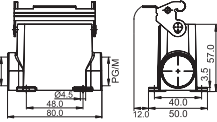

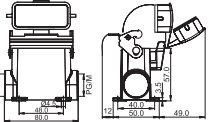

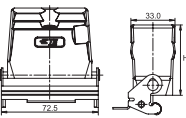
Dimensions	A	B	C	D	E
mm	49.5	57	23	35	35

Suitable crimp contacts and crimping tools: see page 111

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

# H10A metal hoods/housings

POWDER-COATED, RAL 7037


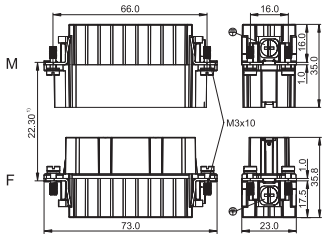

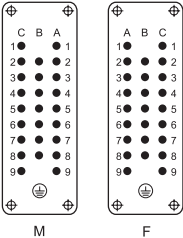
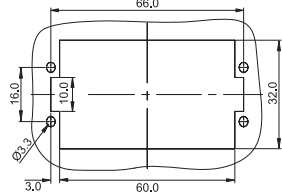
Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
		M20 M25	PG16 PG21	H10A-TS-PG16 H10A-TS-PG21 H10A-TS-M20 H10A-TS-M25	T 1 31 910 0116-000 T 1 31 910 0121-000 T 1 31 910 0120-000 T 1 31 910 0125-000						
Hood: Top entry											
		M20 M25	PG16 PG21	H10A-TG-PG16 H10A-TG-PG21 H10A-TG-M20 H10A-TG-M25	T 1 32 910 0116-000 T 1 32 910 0121-000 T 1 32 910 0120-000 T 1 32 910 0125-000						
Protection covers for hoods											
	63.0 29.5	With plastic rope		H10A-KDT	T 1 01 910 1101-000 T 1 01 910 1201-000						
Bulkhead mounted											
				H10A-AGS H10A-ADMS	T 1 50 910 1000-000 T 1 51 910 1000-000						
	With protection cover 			H10A-ADMS	T 1 51 910 1000-000						
Surface mounted: Side entry											
		1 Side entry M20 M25 2 Side entry M20 M25	PG16 PG21 PG16 PG21	H10A-SGRS-PG16 H10A-SGRS-PG21 H10A-SGRS-M20 H10A-SGRS-M25 H10A-SGRS-2PG16 H10A-SGRS-2PG21 H10A-SGRS-2M20 H10A-SGRS-2M25	T 1 61 910 1116-000 T 1 61 910 1121-000 T 1 61 910 1120-000 T 1 61 910 1125-000 T 1 61 910 1216-000 T 1 61 910 1221-000 T 1 61 910 1220-000 T 1 61 910 1225-000						
	With protection cover 	1 Side entry M20 M25 2 Side entry M20 M25	PG16 PG21 PG16 PG21	H10A-SDRMS-PG16 H10A-SDRMS-PG21 H10A-SDRMS-M20 H10A-SDRMS-M25 H10A-SDRMS-2PG16 H10A-SDRMS-2PG21 H10A-SDRMS-2M20 H10A-SDRMS-2M25	T 1 62 910 1116-000 T 1 62 910 1121-000 T 1 62 910 1120-000 T 1 62 910 1125-000 T 1 62 910 1216-000 T 1 62 910 1221-000 T 1 62 910 1220-000 T 1 62 910 1225-000						
Cable-to-cable hood											
	<table border="1"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>52.6</td> </tr> <tr> <td>Hight</td> <td>66.6</td> </tr> </table> 	Construction	H	Low	52.6	Hight	66.6	Low construction High construction M20 M25 M25	PG16 PG21	H10A-TBFS-PG16 H10A-TBFS-M20 H10A-TBFS-M25 H10A-TBFHS-PG21 H10A-TBFHS-M25	T 1 73 910 1116-000 T 1 73 910 1120-000 T 1 73 910 1125-000 T 1 77 910 1121-000 T 1 77 910 1125-000
Construction	H										
Low	52.6										
Hight	66.6										

## HD-025 inserts


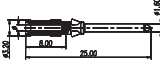

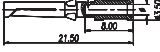
INSERTS FOR H16A HOOD/HOUSING

250V 10A

25+ Ⓢ (machined contacts)

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HD-025-M	T 2 02 025 2101-000
		HD-025-F	T 2 02 025 2201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

## 10A Contact

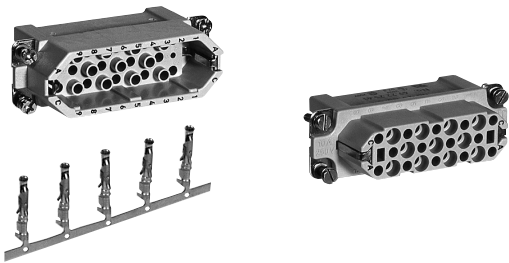
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HD-025 inserts

INSERTS FOR H16A HOOD/HOUSING

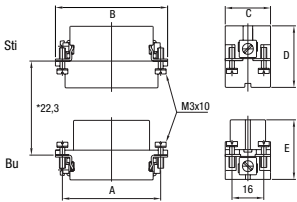
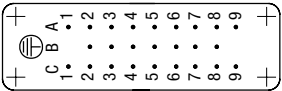
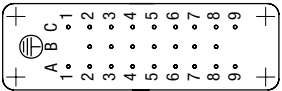
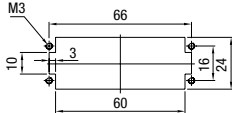
250V 10A

25+  (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HD.25.Sti.C	2-1103010-3	
		HD.25.Bu.C		2-1103011-3



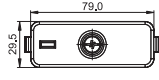

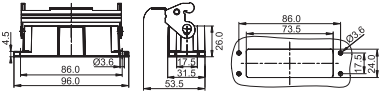

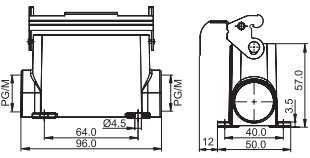

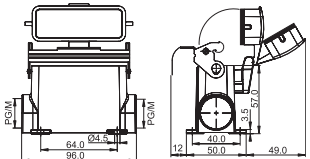

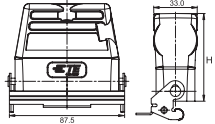
Dimensions	A	B	C	D	E
mm	66	73	23	35	35

Suitable crimp contacts and crimping tools: see page 111

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

# H16A metal hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>					
	Low construction	M20 M25	PG16 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25	T 1 31 916 0116-000 T 1 31 916 0121-000 T 1 31 916 0120-000 T 1 31 916 0125-000
	High construction				
	Low construction	M20 M25	PG16 PG21	H16A-TG-PG16 H16A-TG-PG21 H16A-TG-M20 H16A-TG-M25	T 1 32 916 0116-000 T 1 32 916 0121-000 T 1 32 916 0120-000 T 1 32 916 0125-000
	High construction	M25	PG21	H16A-TGH-PG21 H16A-TGH-M25	T 1 34 916 0121-000 T 1 34 916 0125-000
<b>Protection covers for hoods</b>					
			with plastic rope	H16A-KDT	T 1 01 916 1101-000 T 1 01 916 1201-000
<b>Bulkhead mounted</b>					
				H16A-AGS	T 1 50 916 1000-000
	With protection cover			H16A-ADS H16A-ADMS	T 1 51 916 2000-000 T 1 51 916 1000-000
<b>Surface mounted: Side entry</b>					
		1 Side entry M20 M25	PG16 PG21	H16A-SGRS-PG16 H16A-SGRS-PG21 H16A-SGRS-M20 H16A-SGRS-M25	T 1 61 916 1116-000 T 1 61 916 1121-000 T 1 61 916 1120-000 T 1 61 916 1125-000
	With protection cover	2 Side entry M20 M25	PG16 PG21	H16A-SGRS-2PG16 H16A-SGRS-2PG21 H16A-SGRS-2M20 H16A-SGRS-2M25	T 1 61 916 1216-000 T 1 61 916 1221-000 T 1 61 916 1220-000 T 1 61 916 1225-000
		1 Side entry M20 M25	PG16 PG21	H16A-SDRMS-PG16 H16A-SDRMS-PG21 H16A-SDRMS-M20 H16A-SDRMS-M25	T 1 62 916 1116-000 T 1 62 916 1121-000 T 1 62 916 1120-000 T 1 62 916 1125-000
		2 Side entry M20 M25	PG16 PG21	H16A-SDRMS-2PG16 H16A-SDRMS-2PG21 H16A-SDRMS-2M20 H16A-SDRMS-2M25	T 1 62 916 1216-000 T 1 62 916 1221-000 T 1 62 916 1220-000 T 1 62 916 1225-000
<b>Cable-to-cable hood</b>					
		Low construction M20 M25	PG16	H16A-TBFS-PG16 H16A-TBFS-M20 H16A-TBFS-M25	T 1 73 916 1116-000 T 1 73 916 1120-000 T 1 73 916 1125-000
		High construction M25	PG21	H16A-TBFHS-PG21 H16A-TBFHS-M25	T 1 77 916 1121-000 T 1 77 916 1125-000




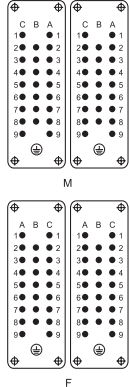


## HD-050 inserts


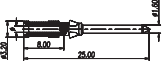
INSERTS FOR H32A HOOD/HOUSING

250V 10A

50 (2x25)+⊕ (Turning contacts)

Dimensions (mm)	Contact arrangement view from termination side	Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HD-025-M(1-25) HD-025-M(26-50)	T 2 02 025 2101-000 T 2 02 050 2101-000	
		HD-025-F(1-25) HD-025-F(26-50)		T 2 02 025 2201-000 T 2 02 050 2201-000

### 10A Contact

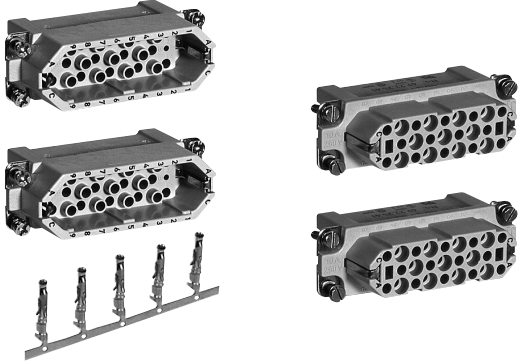
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated			
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number		
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000		
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000		
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000		
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000		
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000		
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000		
				0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
				0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
				0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
				1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
1.5	16			8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000		
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000		

# HD-050 inserts

INSERTS FOR H32A HOOD/HOUSING

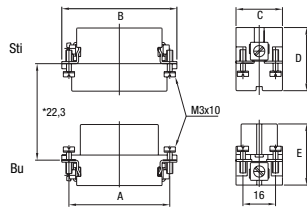
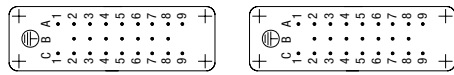
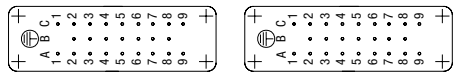
250V 10A

50 (2x25)+⊕ (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		HD.25.Sti.C	2-1103010-3	
		HD.25.Bu.C		2-1103011-3


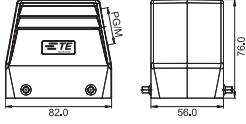

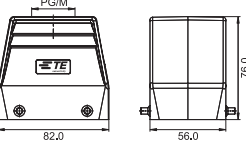

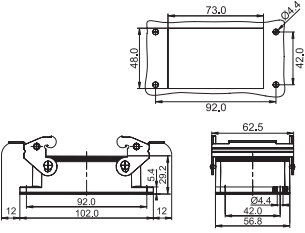

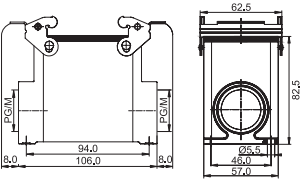
Dimensions	A	B	C	D	E
mm	66	73	23	35	35

Suitable crimp contacts and crimping tools: see page 111

Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## H32A metal hoods/housings

POWDER-COATED, RAL 7037


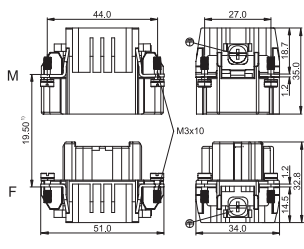
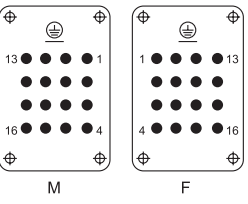
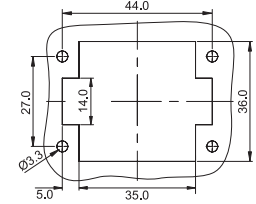
Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
 	M25 M32 M40	PG21 PG29 PG36	H32A-TS-PG21 H32A-TS-PG29 H32A-TS-PG36 H32A-TS-M25 H32A-TS-M32 H32A-TS-M40	T 1 31 932 0121-000 T 1 31 932 0129-000 T 1 31 932 0136-000 T 1 31 932 0125-000 T 1 31 932 0132-000 T 1 31 932 0140-000
<b>Hood: Top entry</b>				
 	M25 M32 M40	PG21 PG29 PG36	H32A-TG-PG21 H32A-TG-PG29 H32A-TG-PG36 H32A-TG-M25 H32A-TG-M32 H32A-TG-M40	T 1 32 932 0121-000 T 1 32 932 0129-000 T 1 32 932 0136-000 T 1 32 932 0125-000 T 1 32 932 0132-000 T 1 32 932 0140-000
<b>Bulkhead mounted</b>				
 			H32A-AG	T 1 41 932 0000-000
<b>Surface mounted: Side entry</b>				
 	1 Side entry M25 M32 2 Side entry M25 M32	PG21 PG29 PG21 PG29	H32A-SGR-PG21 H32A-SGR-PG29 H32A-SGR-M25 H32A-SGR-M32 H32A-SGR-2PG21 H32A-SGR-2PG29 H32A-SGR-2M25 H32A-SGR-2M32	T 1 44 932 0121-000 T 1 44 932 0129-000 T 1 44 932 0125-000 T 1 44 932 0132-000 T 1 44 932 0221-000 T 1 44 932 0229-000 T 1 44 932 0225-000 T 1 44 932 0232-000

## HDD-016 inserts


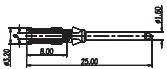


INSERTS FOR H6B HOOD/HOUSING

250V 10A

16+⊕ (machined contacts)

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HDD-016-M	T 2 03 016 2101-000	
		HDD-016-F		T 2 03 016 2201-000
Contact arrangement view from termination side		Panel cut out for inserts for use without hoods/housings		
				

## 10A Contact



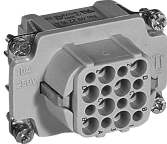
Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	<b>10A Female crimp contacts</b> 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HDD-016 inserts

INSERTS FOR H6B HOOD/HOUSING

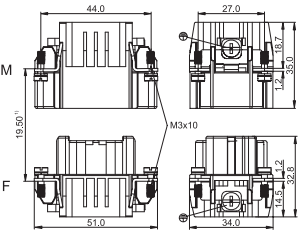
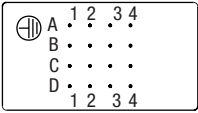
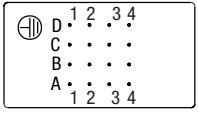
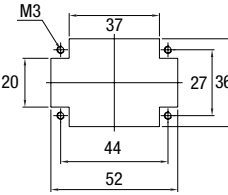
250V 10A

16+  (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
  		HD.16.Sti.C	2-1103006-3	
		HD.16.Bu.C		2-1103007-3


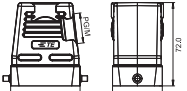

Dimensions	A	B	C	D	E
mm	44	51	33	35	35

Suitable crimp contacts and crimping tools: see page 111

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			


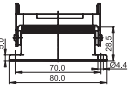

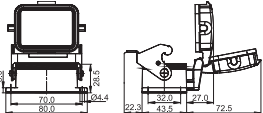

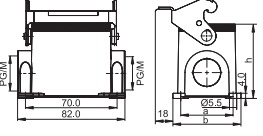

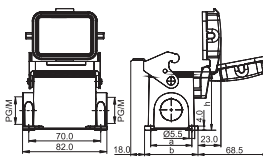
## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
 <p>Low construction</p> 	M20 M25	PG16 PG21	H6B-TS-PG16 H6B-TS-PG21 H6B-TS-M20 H6B-TS-M25	T 1 31 006 0116-000 T 1 31 006 0121-000 T 1 31 006 0120-000 T 1 31 006 0125-000						
 <p>High construction</p> 	M20 M25 M32	PG21 PG29	H6B-TSH-PG21 H6B-TSH-PG29 H6B-TSH-M20 H6B-TSH-M25 H6B-TSH-M32	T 1 33 006 0121-000 T 1 33 006 0129-000 T 1 33 006 0120-000 T 1 33 006 0125-000 T 1 33 006 0132-000						
<b>Hood: Top entry</b>										
 <p>Low construction</p> 	M20 M25	PG16 PG21	H6B-TG-PG16 H6B-TG-PG21 H6B-TG-M20 H6B-TG-M25	T 1 32 006 0116-000 T 1 32 006 0121-000 T 1 32 006 0120-000 T 1 32 006 0125-000						
 <p>High construction</p> 	M20 M25 M32	PG21 PG29	H6B-TGH-PG21 H6B-TGH-PG29 H6B-TGH-M20 H6B-TGH-M25 H6B-TGH-M32	T 1 34 006 0121-000 T 1 34 006 0129-000 T 1 34 006 0120-000 T 1 34 006 0125-000 T 1 34 006 0132-000						
<b>Cable-to-cable hood</b>										
 <p>Low construction</p>  <table border="1" data-bbox="534 1377 750 1467"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table> <p>High construction</p>	Construction	H	Low	62.5	High	74.5	M20 M25	PG16 PG21 PG29	H6B-TBFS-PG16 H6B-TBFS-M20 H6B-TBFS-M25 H6B-TBFHS-PG21 H6B-TBFHS-PG29 H6B-TBFHS-M20 H6B-TBFHS-M25 H6B-TBFHS-M32	T 1 73 006 2116-000 T 1 73 006 2120-000 T 1 73 006 2125-000 T 1 77 006 2121-000 T 1 77 006 2129-000 T 1 77 006 2120-000 T 1 77 006 2125-000 T 1 77 006 2132-000
Construction	H									
Low	62.5									
High	74.5									
<b>Protection covers for hoods</b>										
 <p>71.0 60.0 60.0</p> 			H6B-KDTP	T 1 01 006 1400-000						

## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number																																						
Bulkhead mounted																																										
			H6B-AGS	T 1 50 006 2000-000																																						
	With protection cover 		H6B-ADS	T 1 51 006 2100-000																																						
Surface mounted: Side entry																																										
	 <table border="1" data-bbox="347 1144 703 1234"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	<table border="1" data-bbox="735 875 767 1267"> <tbody> <tr> <td rowspan="2">Low construction</td> <td>1 Side entry</td> <td>M20</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25</td> <td rowspan="2">T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000</td> </tr> <tr> <td>2 Side entry</td> <td>M20 M25</td> </tr> <tr> <td rowspan="2">High construction</td> <td>1 Side entry</td> <td>M20 M25</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25</td> <td rowspan="2">T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000</td> </tr> <tr> <td>2 Side entry</td> <td>M25 M32</td> </tr> <tr> <td colspan="2"></td> <td></td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32</td> <td rowspan="2">T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000</td> </tr> <tr> <td colspan="2"></td> <td></td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32</td> <td rowspan="2">T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000</td> </tr> </tbody> </table>	Low construction	1 Side entry	M20	PG16 PG21	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000	2 Side entry	M20 M25	High construction	1 Side entry	M20 M25	PG16 PG21	H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25	T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000	2 Side entry	M25 M32				PG21 PG29	H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32	T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000				PG21 PG29	H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000
Construction	A	B	H																																							
Low	40	52	56																																							
Hight	45	57	74																																							
Low construction	1 Side entry	M20	PG16 PG21	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000																																					
	2 Side entry	M20 M25																																								
High construction	1 Side entry	M20 M25	PG16 PG21	H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25	T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000																																					
	2 Side entry	M25 M32																																								
			PG21 PG29	H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32	T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000																																					
						PG21 PG29	H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000																																		
	With protection cover  <table border="1" data-bbox="347 1559 703 1648"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H				Low	40	52	56	Hight	45	57	74	<table border="1" data-bbox="735 1279 767 1671"> <tbody> <tr> <td rowspan="2">Low construction</td> <td>1 Side entry</td> <td>M20</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25</td> <td rowspan="2">T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000</td> </tr> <tr> <td>2 Side entry</td> <td>M20 M25</td> </tr> <tr> <td rowspan="2">High construction</td> <td>1 Side entry</td> <td>M20 M25</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25</td> <td rowspan="2">T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000</td> </tr> <tr> <td>2 Side entry</td> <td>M25 M32</td> </tr> <tr> <td colspan="2"></td> <td></td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32</td> <td rowspan="2">T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000</td> </tr> <tr> <td colspan="2"></td> <td></td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32</td> <td rowspan="2">T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000</td> </tr> </tbody> </table>	Low construction	1 Side entry	M20	PG16 PG21	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000	2 Side entry	M20 M25	High construction	1 Side entry	M20 M25	PG16 PG21	H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25	T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000	2 Side entry	M25 M32				PG21 PG29	H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32	T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000			
Construction	A	B	H																																							
Low	40	52	56																																							
Hight	45	57	74																																							
Low construction	1 Side entry	M20	PG16 PG21	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000																																					
	2 Side entry	M20 M25																																								
High construction	1 Side entry	M20 M25	PG16 PG21	H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25	T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000																																					
	2 Side entry	M25 M32																																								
			PG21 PG29	H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32	T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000																																					
						PG21 PG29	H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32	T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000																																		

## HIP.6/16, HIP-K.6/16, EMV-K.6/16 housings


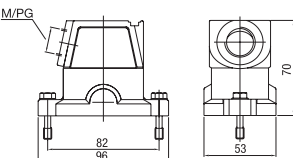

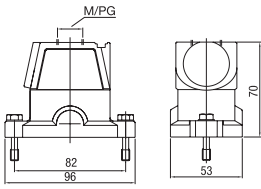

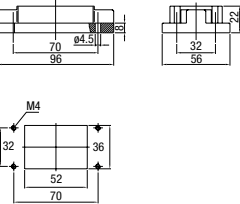

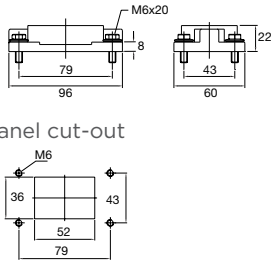
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry</b>					
		M25	16	<b>HIP</b> HIP.6/16.STS.1.16.G HIP.6/16.STS.1.M25.G  <b>HIP-K</b> HIP-K.6/16.STS.1.16.G HIP-K.6/16.STS.1.21.G HIP-K.6/16.STS.1.M25.G	1-1102631-5 0-1106425-2  2-1102631-5 2-1102633-5 0-1106425-4
		M25	16 21	<b>EMV-K</b> EMV-K.6/16.STS.1.16.G EMV-K.6/16.STS.1.M25.G	4-1102704-5 0-1106416-4
		M25	16	<b>EMV-K</b> EMV-K.6/16.STS.1.16.G EMV-K.6/16.STS.1.M25.G	4-1102704-5 0-1106416-4
<b>Hood: Top entry</b>					
		M32	16	<b>HIP</b> HIP.6/16.STO.1.16.G HIP.6/16.STO.1.M32.G	1-1102635-5 0-1106425-1
		M25 M32	16 21	<b>HIP-K</b> HIP-K.6/16.STO.1.16.G HIP-K.6/16.STO.1.21.G HIP-K.6/16.STO.1.M25.G HIP-K.6/16.STO.1.M32.G	2-1102635-5 2-1102637-5 0-1106425-6 0-1106425-3
		M32	13 16 21	<b>EMV-K</b> EMV-K.6/16.STO.1.13.G EMV-K.6/16.STO.1.16.G EMV-K.6/16.STO.1.21.G EMV-K.6/16.STO.1.M32.G	0-1108719-1 4-1102706-5 4-1102707-5 0-1106416-3
<b>Surface mounted housing: Bottom entry</b>					
				<b>HIP</b> HIP.6/16.AG	1-1102638-5
				<b>HIP-K</b> HIP-K.6/16.AG	2-1102638-5
				<b>EMV-K</b> EMV-K.6/16.AG	4-1102710-5
	 <p>Panel cut-out</p>			<b>HIP</b> HIP.6/16.AG.M6	1-1102606-5
				<b>HIP-K</b> HIP-K.6/16.AG.M6	2-1102606-5
				<b>EMV-K</b> EMV-K.6/16.AG.M6	4-1102712-5


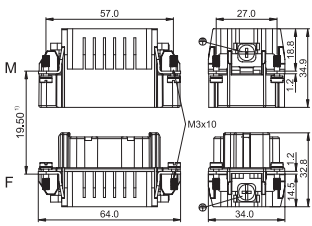
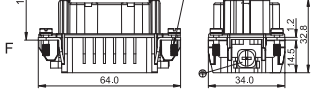
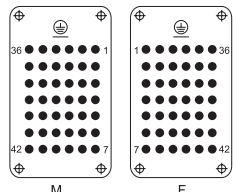
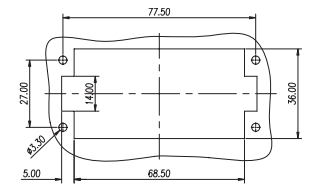


## HDD-042 inserts


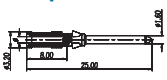

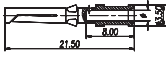
INSERTS FOR H10B HOOD/HOUSING

250V 10A

42+  (machined contacts)

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HDD-042-M	T 2 03 042 2101-000
		HDD-042-F	T 2 03 042 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

## 10A Contact

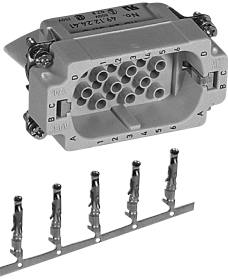

Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> $\leq 3m\Omega$ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	<b>10A Female crimp contacts</b> 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HDD-024 inserts

INSERTS FOR H10B HOOD/HOUSING

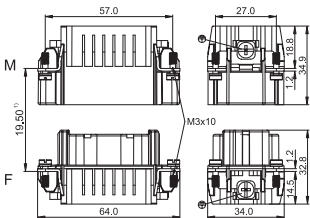
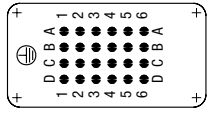
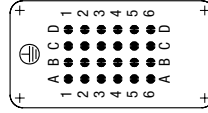
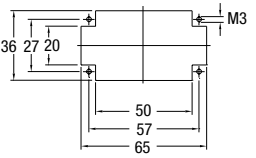
250V 10A

24+  (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		HD.24.Sti.C	2-1103008-3	
		HD.24.BU.C		2-1103009-3


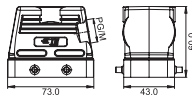

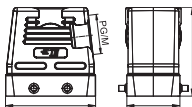

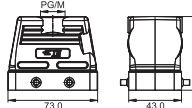

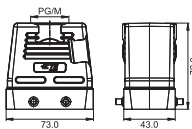

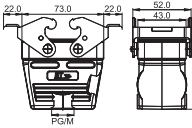

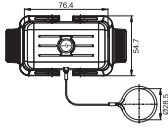

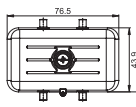
Dimensions	A	B	C	D	E
mm	57	64	33	35	35

Suitable crimp contacts and crimping tools: see page 111

Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			


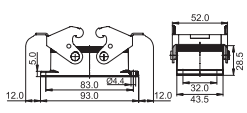

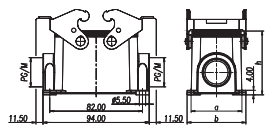

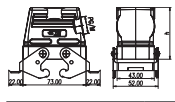

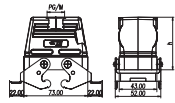


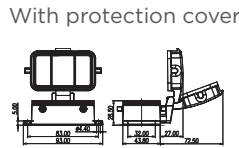
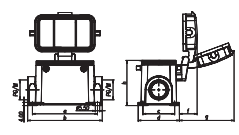
## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Low construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25</p> </div> </div>		PG16 PG21	H10B-TS-PG16 H10B-TS-PG21 H10B-TS-M20 H10B-TS-M25	T 1 21 010 0116-000 T 1 21 010 0121-000 T 1 21 010 0120-000 T 1 21 010 0125-000						
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>High construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25 M32</p> </div> </div>		PG21 PG29	H10B-TSH-PG21 H10B-TSH-PG29 H10B-TSH-M20 H10B-TSH-M25 H10B-TSH-M32	T 1 23 010 0121-000 T 1 23 010 0129-000 T 1 23 010 0120-000 T 1 23 010 0125-000 T 1 23 010 0132-000						
<b>Hood: Top entry</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Low construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25</p> </div> </div>		PG16 PG21	H10B-TG-PG16 H10B-TG-PG21 H10B-TG-M20 H10B-TG-M25	T 1 22 010 0116-000 T 1 22 010 0121-000 T 1 22 010 0120-000 T 1 22 010 0125-000						
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>High construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25 M32</p> </div> </div>		PG21 PG29	H10B-TGH-PG21 H10B-TGH-PG29 H10B-TGH-M20 H10B-TGH-M25 H10B-TGH-M32	T 1 24 010 0121-000 T 1 24 010 0129-000 T 1 24 010 0120-000 T 1 24 010 0125-000 T 1 24 010 0132-000						
<b>Cable-to-cable hood</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="margin-left: 10px;"> <table border="1"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table> </div> </div>	Construction	H	Low	62.5	High	74.5	<p>Low construction</p> <p>M20 M25</p> <p>High construction</p> <p>M25 M32</p>	PG16  PG21 PG29	<p>H10B-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25</p> <p>H10B-TBFHS-PG21 H10B-TBFHS-PG29 H10B-TBFHS-M25 H10B-TBFHS-M32</p>	<p>T 1 71 010 1116-000 T 1 71 010 1120-000 T 1 71 010 1125-000</p> <p>T 1 75 010 1121-000 T 1 75 010 1129-000 T 1 75 010 1125-000 T 1 75 010 1132-000</p>
Construction	H									
Low	62.5									
High	74.5									
<b>Protection covers for hoods</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> </div>			H10B-KDTP	T 1 01 010 1400-000						
<b>Housing protection cover</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> </div>			H10B-KDBP	T 1 01 010 2100-000						


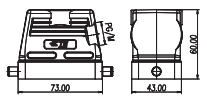

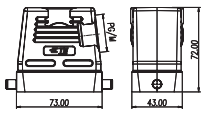

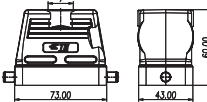

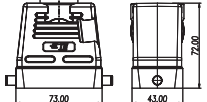

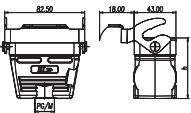

## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number																								
Bulkhead mounted																												
 			H10B-AGS	T 1 41 010 1000-000																								
Surface mounted: Side entry																												
  <table border="1" data-bbox="311 840 670 940"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	56	High	45	57	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29 PG21 PG29	H10B-SGRS-PG16 H10B-SGRS-PG21 H10B-SGRS-M20 H10B-SGRS-M25 H10B-SGRS-2PG16 H10B-SGRS-2PG21 H10B-SGRS-2M20 H10B-SGRS-2M25 H10B-SGRHS-PG21 H10B-SGRHS-PG29 H10B-SGRHS-M25 H10B-SGRHS-M32 H10B-SGRHS-2PG21 H10B-SGRHS-2PG29 H10B-SGRHS-2M25 H10B-SGRHS-2M32	T 1 44 010 1116-000 T 1 44 010 1121-000 T 1 44 010 1120-000 T 1 44 010 1125-000 T 1 44 010 1216-000 T 1 44 010 1221-000 T 1 44 010 1220-000 T 1 44 010 1225-000 T 1 47 010 1121-000 T 1 47 010 1129-000 T 1 47 010 1125-000 T 1 47 010 1132-000 T 1 47 010 1221-000 T 1 47 010 1229-000 T 1 47 010 1225-000 T 1 47 010 1232-000												
Construction	A	B	H																									
Low	40	52	56																									
High	45	57	74																									
Side entry housing with two levers																												
  <table border="1" data-bbox="311 1176 518 1265"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>72</td> </tr> </tbody> </table>	Construction	H	Low	60	High	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TSBS-PG16 H10B-TSBS-PG21 H10B-TSBS-M20 H10B-TSBS-M25 H10B-TSBHS-PG21 H10B-TSBHS-PG29 H10B-TSBHS-M25 H10B-TSBHS-M32	T 1 25 010 3116-000 T 1 25 010 3121-000 T 1 25 010 3120-000 T 1 25 010 3125-000 T 1 27 010 3121-000 T 1 27 010 3129-000 T 1 27 010 3125-000 T 1 27 010 3132-000																		
Construction	H																											
Low	60																											
High	72																											
Top entry housing with two levers																												
  <table border="1" data-bbox="311 1422 534 1523"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>72</td> </tr> </tbody> </table>	Construction	H	Low	60	High	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TGBS-PG16 H10B-TGBS-PG21 H10B-TGBS-M20 H10B-TGBS-M25 H10B-TGBHS-PG21 H10B-TGBHS-PG29 H10B-TGBHS-M25 H10B-TGBHS-M32	T 1 26 010 3116-000 T 1 26 010 3121-000 T 1 26 010 3120-000 T 1 26 010 3125-000 T 1 28 010 3121-000 T 1 28 010 3129-000 T 1 28 010 3125-000 T 1 28 010 3132-000																		
Construction	H																											
Low	60																											
High	72																											
Bulkhead mounted with 4 bolts																												
    <table border="1" data-bbox="311 1937 694 2016"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>F</th> <th>G</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>82</td> <td>94</td> <td>40</td> <td>52</td> <td>22</td> <td>67</td> <td>54</td> </tr> <tr> <td>High</td> <td>82</td> <td>94</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	C	D	F	G	H	Low	82	94	40	52	22	67	54	High	82	94	45	57	20	65	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-AD-BO H10B-SDR-BO-PG16 H10B-SDR-BO-PG21 H10B-SDR-BO-M20 H10B-SDR-BO-M25 H10B-SDR-BO-2PG16 H10B-SDR-BO-2PG21 H10B-SDR-BO-2M20 H10B-SDR-BO-2M25 H10B-SDRH-BO-PG21 H10B-SDRH-BO-PG29 H10B-SDRH-BO-M25 H10B-SDRH-BO-M32 H10B-SDRH-BO-2PG21 H10B-SDRH-BO-2PG29 H10B-SDRH-BO-2M25 H10B-SDRH-BO-2M32	T 1 43 010 0000-000 T 1 46 010 0116-000 T 1 46 010 0121-000 T 1 46 010 0120-000 T 1 46 010 0125-000 T 1 46 010 0216-000 T 1 46 010 0221-000 T 1 46 010 0220-000 T 1 46 010 0225-000 T 1 49 010 0121-000 T 1 49 010 0129-000 T 1 49 010 0125-000 T 1 49 010 0132-000 T 1 49 010 0221-000 T 1 49 010 0229-000 T 1 49 010 0225-000 T 1 49 010 0232-000
Construction	A	B	C	D	F	G	H																					
Low	82	94	40	52	22	67	54																					
High	82	94	45	57	20	65	74																					


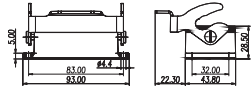

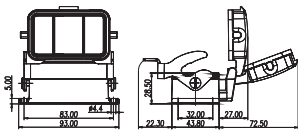

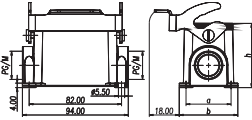

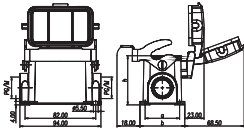
## H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M20 M25	PG16 PG21	H10B-TS-RO-PG16 H10B-TS-RO-PG21 H10B-TS-RO-M20 H10B-TS-RO-M25	T 1 31 010 0116-000 T 1 31 010 0121-000 T 1 31 010 0120-000 T 1 31 010 0125-000						
	<p>High construction</p> 	M20 M25 M32	PG21 PG29	H10B-TSH-RO-PG21 H10B-TSH-RO-PG29 H10B-TSH-RO-M20 H10B-TSH-RO-M25 H10B-TSH-RO-M32	T 1 33 010 0121-000 T 1 33 010 0129-000 T 1 33 010 0120-000 T 1 33 010 0125-000 T 1 33 010 0132-000						
Hood: Top entry											
	<p>Low construction</p> 	M20 M25	PG16 PG21	H10B-TG-RO-PG16 H10B-TG-RO-PG21 H10B-TG-RO-M20 H10B-TG-RO-M25	T 1 32 010 0116-000 T 1 32 010 0121-000 T 1 32 010 0120-000 T 1 32 010 0125-000						
	<p>High construction</p> 	M20 M25 M32	PG21 PG29	H10B-TGH-RO-PG21 H10B-TGH-RO-PG29 H10B-TGH-RO-M20 H10B-TGH-RO-M25 H10B-TGH-RO-M32	T 1 34 010 0121-000 T 1 34 010 0129-000 T 1 34 010 0120-000 T 1 34 010 0125-000 T 1 34 010 0132-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="534 1400 750 1512"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	74.5	M20 M25  M25 M32	PG16  PG21 PG29	H10B-TBF-LB-PG16 H10B-TBF-LB-M20 H10B-TBF-LB-M25  H10B-TBFH-LB-PG21 H10B-TBFH-LB-PG29 H10B-TBFH-LB-M25 H10B-TBFH-LB-M32	T 1 73 010 3116-000 T 1 73 010 3120-000 T 1 73 010 3125-000  T 1 77 010 3121-000 T 1 77 010 3129-000 T 1 77 010 3125-000 T 1 77 010 3132-000
Construction	H										
Low	62.5										
High	74.5										
Protection covers for hoods											
				H10B-KDTP-LB	T 1 01 010 1500-000						

## H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																																																																																			
Bulkhead mounted																																																																																								
				H10B-AG-LB	T 1 50 010 3000-000																																																																																			
	With protection cover 			H10B-AD-LB H10B-ADM-LB	T 1 51 010 3000-000 T 1 51 010 3001-000																																																																																			
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	 <table border="1" data-bbox="316 1227 671 1317"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74			<table border="0"> <tr> <td rowspan="2">1 Side entry Low construction</td> <td>M20</td> <td>PG16</td> <td>H10B-SGR-LB-PG16</td> <td>T 1 61 010 3116-000</td> </tr> <tr> <td>M25</td> <td>PG21</td> <td>H10B-SGR-LB-PG21</td> <td>T 1 61 010 3121-000</td> </tr> <tr> <td rowspan="2">2 Side entry Low construction</td> <td>M20</td> <td>PG16</td> <td>H10B-SGR-LB-M20</td> <td>T 1 61 010 3120-000</td> </tr> <tr> <td>M25</td> <td>PG21</td> <td>H10B-SGR-LB-M25</td> <td>T 1 61 010 3125-000</td> </tr> <tr> <td rowspan="2">1 Side entry High construction</td> <td>M20</td> <td>PG16</td> <td>H10B-SGR-LB-2PG16</td> <td>T 1 61 010 3216-000</td> </tr> <tr> <td>M25</td> <td>PG21</td> <td>H10B-SGR-LB-2PG21</td> <td>T 1 61 010 3221-000</td> </tr> <tr> <td rowspan="2">2 Side entry High construction</td> <td>M20</td> <td>PG16</td> <td>H10B-SGR-LB-2M20</td> <td>T 1 61 010 3220-000</td> </tr> <tr> <td>M32</td> <td>PG29</td> <td>H10B-SGR-LB-2M25</td> <td>T 1 61 010 3225-000</td> </tr> <tr> <td rowspan="2">1 Side entry Low construction</td> <td>M25</td> <td>PG21</td> <td>H10B-SGRH-LB-PG21</td> <td>T 1 65 010 3121-000</td> </tr> <tr> <td>M32</td> <td>PG29</td> <td>H10B-SGRH-LB-PG29</td> <td>T 1 65 010 3129-000</td> </tr> <tr> <td rowspan="2">2 Side entry High construction</td> <td>M25</td> <td>PG21</td> <td>H10B-SGRH-LB-M25</td> <td>T 1 65 010 3125-000</td> </tr> <tr> <td>M32</td> <td>PG29</td> <td>H10B-SGRH-LB-M32</td> <td>T 1 65 010 3132-000</td> </tr> <tr> <td rowspan="2">1 Side entry Low construction</td> <td>M25</td> <td>PG21</td> <td>H10B-SGRH-LB-2PG21</td> <td>T 1 65 010 3221-000</td> </tr> <tr> <td>M32</td> <td>PG29</td> <td>H10B-SGRH-LB-2PG29</td> <td>T 1 65 010 3229-000</td> </tr> <tr> <td rowspan="2">2 Side entry High construction</td> <td>M25</td> <td>PG21</td> <td>H10B-SGRH-LB-2M25</td> <td>T 1 65 010 3225-000</td> </tr> <tr> <td>M32</td> <td>PG29</td> <td>H10B-SGRH-LB-2M32</td> <td>T 1 65 010 3232-000</td> </tr> </table>	1 Side entry Low construction	M20	PG16	H10B-SGR-LB-PG16	T 1 61 010 3116-000	M25	PG21	H10B-SGR-LB-PG21	T 1 61 010 3121-000	2 Side entry Low construction	M20	PG16	H10B-SGR-LB-M20	T 1 61 010 3120-000	M25	PG21	H10B-SGR-LB-M25	T 1 61 010 3125-000	1 Side entry High construction	M20	PG16	H10B-SGR-LB-2PG16	T 1 61 010 3216-000	M25	PG21	H10B-SGR-LB-2PG21	T 1 61 010 3221-000	2 Side entry High construction	M20	PG16	H10B-SGR-LB-2M20	T 1 61 010 3220-000	M32	PG29	H10B-SGR-LB-2M25	T 1 61 010 3225-000	1 Side entry Low construction	M25	PG21	H10B-SGRH-LB-PG21	T 1 65 010 3121-000	M32	PG29	H10B-SGRH-LB-PG29	T 1 65 010 3129-000	2 Side entry High construction	M25	PG21	H10B-SGRH-LB-M25	T 1 65 010 3125-000	M32	PG29	H10B-SGRH-LB-M32	T 1 65 010 3132-000	1 Side entry Low construction	M25	PG21	H10B-SGRH-LB-2PG21	T 1 65 010 3221-000	M32	PG29	H10B-SGRH-LB-2PG29	T 1 65 010 3229-000	2 Side entry High construction	M25	PG21	H10B-SGRH-LB-2M25	T 1 65 010 3225-000	M32	PG29	H10B-SGRH-LB-2M32	T 1 65 010 3232-000
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## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


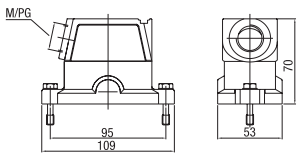

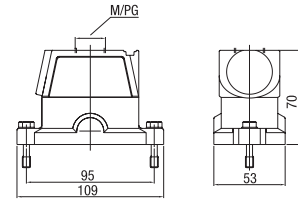

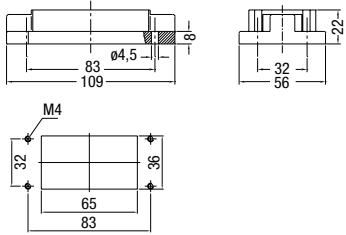
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry, Standard construction</b>					
		M25	16 21	<b>HIP</b> HIP.10/24.STS.1.16.G HIP.10/24.STS.1.21.G HIP.10/24.STS.1.M25.G	1-1102640-5 1-1102642-5 0-1106436-2
		M25 M32	21	<b>HIP-K</b> HIP-K.10/24.STS.1.21.G HIP-K.10/24.STS.1.M25.G HIP-K.10/24.STS.1.M32.G	2-1102642-5 0-1106436-4 0-1106436-6
		M25 M32	21	<b>EMV-K</b> EMV-K.10/24.STS.1.21.G EMV-K.10/24.STS.1.M25.G EMV-K.10/24.STS.1.M32.G	4-1102714-5 0-1106427-3 1-1106427-0
<b>Hood: Top entry</b>					
		M25	16 21	<b>HIP</b> HIP.10/24.STO.1.16.G HIP.10/24.STO.1.21.G HIP.10/24.STO.1.M25.G	1-1102644-5 1-1102646-5 0-1106436-1
		M25 M32	16	<b>HIP-K</b> HIP-K.10/24.STO.1.16.G HIP-K.10/24.STO.1.M25.G HIP-K.10/24.STO.1.M32.G	2-1102644-5 0-1106436-3 0-1106436-5
		M25	21	<b>EMV-K</b> EMV-K.10/24.STO.1.21.G EMV-K.10/24.STO.1.M25.G	4-1102715-5 0-1106427-4
<b>Surface mounted housing: Bottom entry</b>					
				<b>HIP</b> HIP.10/24.AG	1-1102647-5
				<b>HIP-K</b> HIP-K.10/24.AG	2-1102647-5
				<b>EMV-K</b> EMV-K.10/24.AG	4-1102718-5

## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


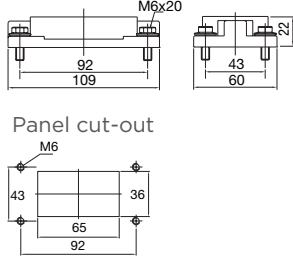

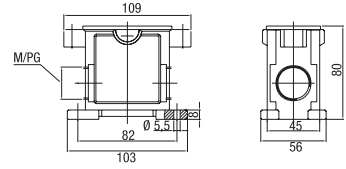

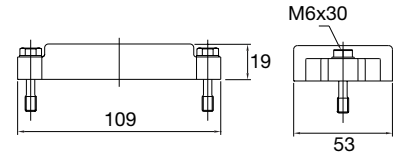
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Bottom entry</b>				
 			<b>HIP</b> HIP.10/24.AG.M6  <b>HIP-K</b> HIP-K.10/24.AG.M6  <b>EMV-K</b> EMV-K.10/24.AG.M6	1-1102612-5  2-1102612-5  4-1102720-5
<b>Surface mounted housing: Side entry</b>				
 	2xM32	21 2x21	<b>HIP</b> HIP.10/24.SG.1.21.G HIP.10/24.SG.2.21.G HIP.10/24.SG.2.M32.G  <b>HIP-K</b> HIP-K.10/24.SG.1.21.G HIP-K.10/24.SG.2.21.G  <b>EMV-K</b> EMV-K.10/24.SG.1.21.G EMV-K.10/24.SG.2.21.G EMV-K.10/24.SG.2.M32.G	1-1102610-5 1-1102611-5 0-1106435-1  5-1102610-5 2-1102611-5  5-1102716-5 4-1102717-5 0-1106426-2
<b>Protective covers for hoods and housing</b>				
 			<b>HIP</b> HIP/EMV.10/24.SKB  <b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB	3-1106202-5  4-1106202-5


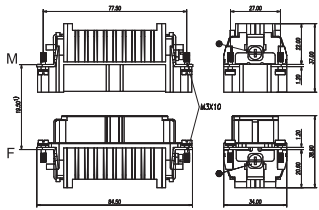
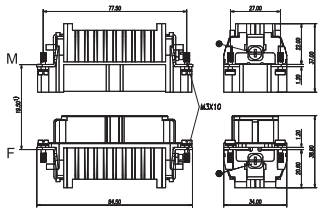
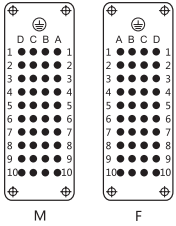
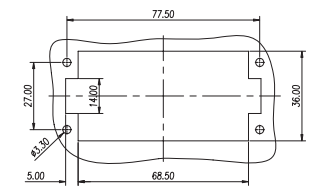


## HD-040 inserts


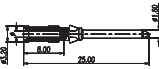

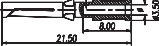
INSERTS FOR H16B HOOD/HOUSING

250V 10A

40+ (⊕) (machined contacts)

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HD-040-M	T 2 02 040 2101-000
		HD-040-F	T 2 02 040 2201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

## 10A Contact

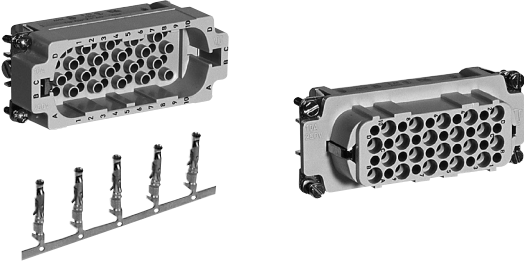
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Stripping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HD-040 inserts

INSERTS FOR H16B HOOD/HOUSING

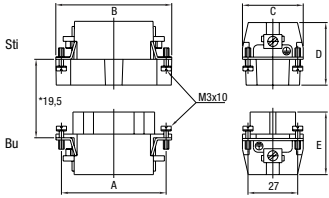
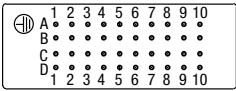
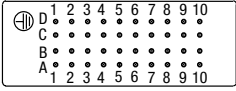
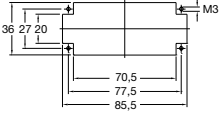
250V 10A

40+⊕ (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		HD.40.Sti.C	2-1103012-3	
		HD.40.BU.C		2-1103013-3

Dimensions	A	B	C	D	E
mm	77.5	84.5	33	35	35

Suitable crimp contacts and crimping tools: see page 111


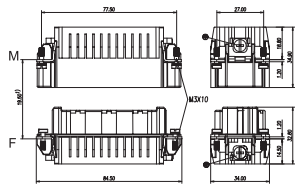
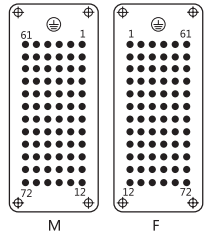
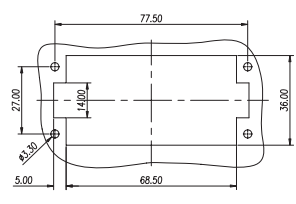
Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

## HDD-072 inserts

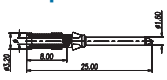


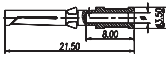
INSERTS FOR H16B HOOD/HOUSING

250V 10A

72+ Ⓢ (machined contacts)


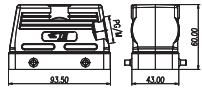

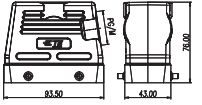

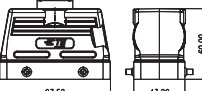

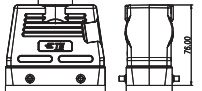

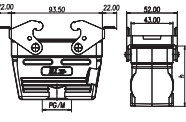

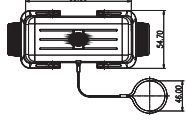

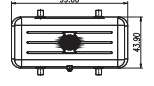
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HDD-072-M	T 2 03 072 2101-000	
		HDD-072-F	T 2 03 072 2201-000	
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 			

## 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection <b>CDM/Male</b>	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000


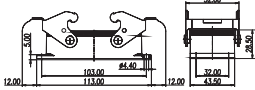

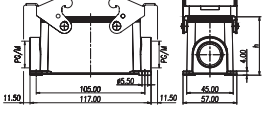

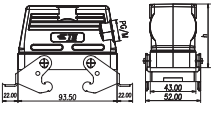

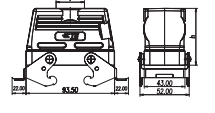

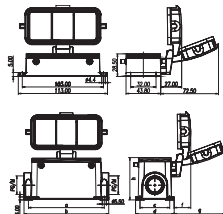
## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	M20 M25 M32	PG16 PG21	H16B-TS-PG16 H16B-TS-PG21 H16B-TS-M20 H16B-TS-M25 H16B-TS-M32	T 1 21 016 0116-000 T 1 21 016 0121-000 T 1 21 016 0120-000 T 1 21 016 0125-000 T 1 21 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TSH-PG21 H16B-TSH-PG29 H16B-TSH-M25 H16B-TSH-M32 H16B-TSH-M40	T 1 23 016 0121-000 T 1 23 016 0129-000 T 1 23 006 0125-000 T 1 23 016 0132-000 T 1 23 016 0140-000						
Hood: Top entry											
	Low construction 	M25 M32	PG16 PG21	H16B-TG-PG16 H16B-TG-PG21 H16B-TG-M25 H16B-TG-M32	T 1 22 016 0116-000 T 1 22 016 0121-000 T 1 22 016 0125-000 T 1 22 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TGH-PG21 H16B-TGH-PG29 H16B-TGH-M25 H16B-TGH-M32 H16B-TGH-M40	T 1 24 016 0121-000 T 1 24 016 0129-000 T 1 24 016 0125-000 T 1 24 016 0132-000 T 1 24 016 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="533 1352 740 1433"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	74.5	M25 M32	PG21	H16B-TBFS-PG21 H16B-TBFS-M25 H16B-TBFS-M32	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000
Construction	H										
Low	62.5										
High	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFHS-PG21 H16B-TBFHS-PG29 H16B-TBFHS-M25 H16B-TBFHS-M32 H16B-TBFHS-M40	T 1 75 016 1121-000 T 1 75 016 1129-000 T 1 75 016 1125-000 T 1 75 016 1132-000 T 1 75 016 1140-000						
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						


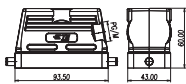

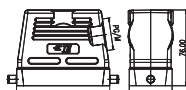

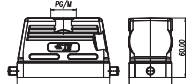

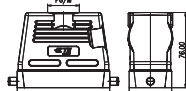

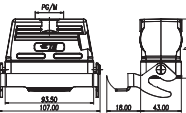

## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																									
Bulkhead mounted																														
				H16B-AGS	T 1 41 016 1000-000																									
Surface mounted: Side entry																														
	 <table border="1" data-bbox="319 862 534 963"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29 PG21 PG29	H16B-SGRS-PG21 H16B-SGRS-M25 H16B-SGRS-2PG21 H16B-SGRS-2M25 H16B-SGRHS-PG21 H16B-SGRHS-PG29 H16B-SGRHS-M25 H16B-SGRHS-M32 H16B-SGRHS-2PG21 H16B-SGRHS-2PG29 H16B-SGRHS-2M25 H16B-SGRHS-2M32	T 1 44 016 1121-000 T 1 44 016 1125-000 T 1 44 016 1221-000 T 1 44 016 1225-000 T 1 47 016 1121-000 T 1 47 016 1129-000 T 1 47 016 1125-000 T 1 47 016 1132-000 T 1 47 016 1221-000 T 1 47 016 1229-000 T 1 47 016 1225-000 T 1 47 016 1232-000																		
Construction	H																													
Low	56																													
High	81																													
Side entry housing with two levers																														
	 <table border="1" data-bbox="319 1198 534 1288"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TSBS-PG16 H16B-TSBS-PG21 H16B-TSBS-M20 H16B-TSBS-M25 H16B-TSBHS-PG21 H16B-TSBHS-PG29 H16B-TSBHS-M25 H16B-TSBHS-M32	T 1 25 016 3116-000 T 1 25 016 3121-000 T 1 25 016 3120-000 T 1 25 016 3125-000 T 1 27 016 3121-000 T 1 27 016 3129-000 T 1 27 016 3125-000 T 1 27 016 3132-000																		
Construction	H																													
Low	60																													
High	76																													
Top entry housing with two levers																														
	 <table border="1" data-bbox="319 1500 534 1590"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TGBS-PG16 H16B-TGBS-PG21 H16B-TGBS-M20 H16B-TGBS-M25 H16B-TGBHS-PG21 H16B-TGBHS-PG29 H16B-TGBHS-M25 H16B-TGBHS-M32	T 1 26 016 3116-000 T 1 26 016 3121-000 T 1 26 016 3120-000 T 1 26 016 3125-000 T 1 28 016 3121-000 T 1 28 016 3129-000 T 1 28 016 3125-000 T 1 28 016 3132-000																		
Construction	H																													
Low	60																													
High	76																													
Bulkhead mounted with 4 bolts																														
	With protection cover  <table border="1" data-bbox="311 1948 694 2027"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> <td>G</td> <td>H</td> </tr> <tr> <td>Low</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>56</td> </tr> <tr> <td>High</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>81</td> </tr> </table>	Construction	A	B	C	D	F	G	H	Low	105	117	45	57	20	65	56	High	105	117	45	57	20	65	81	Low construction High construction	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H16B-AD-BO H16B-SDR-BO-PG21 H16B-SDR-BO-M25 H16B-SDR-BO-2PG21 H16B-SDR-BO-2M25 H16B-SDRH-BO-PG21 H16B-SDRH-BO-PG29 H16B-SDRH-BO-M25 H16B-SDRH-BO-M32 H16B-SDRH-BO-2PG21 H16B-SDRH-BO-2PG29 H16B-SDRH-BO-2M25 H16B-SDRH-BO-2M32	T 1 43 016 0000-000 T 1 46 016 0121-000 T 1 46 016 0125-000 T 1 46 016 0221-000 T 1 46 016 0225-000 T 1 49 016 0121-000 T 1 49 016 0129-000 T 1 49 016 0125-000 T 1 49 016 0132-000 T 1 49 016 0221-000 T 1 49 016 0229-000 T 1 49 016 0225-000 T 1 49 016 0232-000
Construction	A	B	C	D	F	G	H																							
Low	105	117	45	57	20	65	56																							
High	105	117	45	57	20	65	81																							


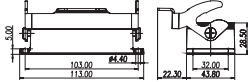

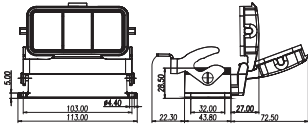

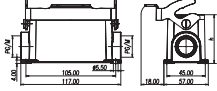

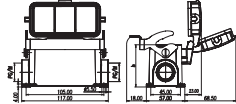
## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H16B-TS-RO-PG21 H16B-TS-RO-PG29 H16B-TS-RO-M25 H16B-TS-RO-M32	T 1 31 016 0121-000 T 1 31 016 0129-000 T 1 31 016 0125-000 T 1 31 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TSH-RO-PG21 H16B-TSH-RO-PG29 H16B-TSH-RO-M25 H16B-TSH-RO-M32 H16B-TSH-RO-M40	T 1 33 016 0121-000 T 1 33 016 0129-000 T 1 33 016 0125-000 T 1 33 016 0132-000 T 1 33 016 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H16B-TG-RO-PG21 H16B-TG-RO-PG29 H16B-TG-RO-M25 H16B-TG-RO-M32	T 1 32 016 0121-000 T 1 32 016 0129-000 T 1 32 016 0125-000 T 1 32 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TGH-RO-PG21 H16B-TGH-RO-PG29 H16B-TGH-RO-M25 H16B-TGH-RO-M32 H16B-TGH-RO-M40	T 1 34 016 0121-000 T 1 34 016 0129-000 T 1 34 016 0125-000 T 1 34 016 0132-000 T 1 34 016 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="528 1346 751 1442"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M25 M32	PG21 PG29	H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32	T 1 73 016 3121-000 T 1 73 016 3129-000 T 1 73 016 3125-000 T 1 73 016 3132-000
Construction	H										
Low	62.5										
Hight	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFH-LB-PG21 H16B-TBFH-LB-PG29 H16B-TBFH-LB-M25 H16B-TBFH-LB-M32 H16B-TBFH-LB-M40	T 1 77 016 3121-000 T 1 77 016 3129-000 T 1 77 016 3125-000 T 1 77 016 3132-000 T 1 77 016 3140-000						
Protection covers for hoods											
				H16B-KDTP-LB	T 1 01 016 1500-000						

## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
 			H16B-AG-LB	T 1 50 016 3000-000						
 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry										
  <table border="1" data-bbox="325 1151 542 1245"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SGR-LB-PG16 H16B-SGR-LB-PG21 H16B-SGR-LB-M20 H16B-SGR-LB-M25 H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25 H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M25 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32	T 1 61 016 3116-000 T 1 61 016 3121-000 T 1 61 016 3120-000 T 1 61 016 3125-000 T 1 61 016 3216-000 T 1 61 016 3221-000 T 1 61 016 3220-000 T 1 61 016 3225-000 T 1 65 016 3121-000 T 1 65 016 3129-000 T 1 65 016 3125-000 T 1 65 016 3132-000 T 1 65 016 3221-000 T 1 65 016 3229-000 T 1 65 016 3225-000 T 1 65 016 3232-000
Construction	H									
Low	56									
High	81									
  <table border="1" data-bbox="325 1568 542 1662"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SDR-LB-PG16 H16B-SDR-LB-PG21 H16B-SDR-LB-M20 H16B-SDR-LB-M25 H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25 H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M25 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32	T 1 62 016 3116-000 T 1 62 016 3121-000 T 1 62 016 3120-000 T 1 62 016 3125-000 T 1 62 016 3216-000 T 1 62 016 3221-000 T 1 62 016 3220-000 T 1 62 016 3225-000 T 1 66 016 3121-000 T 1 66 016 3129-000 T 1 66 016 3125-000 T 1 66 016 3132-000 T 1 66 016 3221-000 T 1 66 016 3229-000 T 1 66 016 3225-000 T 1 66 016 3232-000
Construction	H									
Low	56									
High	81									

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings


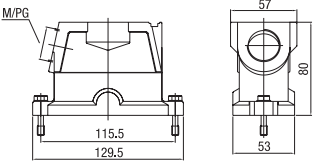

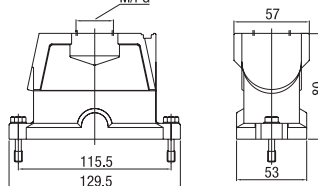

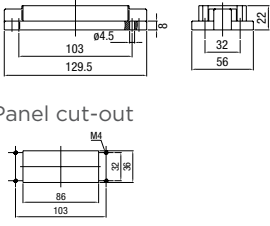

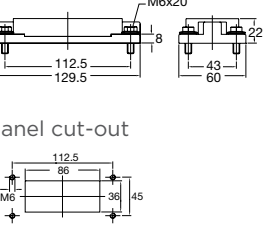
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32	21 29	<b>HIP</b> HIP.16/40.STS.1.21.G HIP.16/40.STS.1.29.G HIP.16/40.STS.1.M32.G  1-1102649-5 1-1102651-5 0-1106454-2
		M32	29	<b>HIP-K</b> HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G  2-1102651-5 0-1106444-2
		M32	29 21	<b>EMV-K</b> EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G  4-1102723-5 0-1106446-4 4-1102722-5
<b>Hood: Top entry</b>				
		M32	21 29	<b>HIP</b> HIP.16/40.STO.1.21.G HIP.16/40.STO.1.29.G HIP.16/40.STO.1.M32.G  1-1102653-5 1-1102655-5 0-1106454-1
		M32	21 29	<b>HIP-K</b> HIP-K.16/40.STO.2.21.G HIP-K.16/40.STO.1.29.G HIP-K.16/40.STO.1.M32.G  0-1108534-1 2-1102655-5 0-1106444-1
		M32	29	<b>EMV-K</b> EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G  4-1102725-5 0-1106446-3
<b>Surface mounted housing: Bottom entry</b>				
				<b>HIP</b> HIP.16/40.AG  1-1102656-5
				<b>HIP-K</b> HIP-K.16/40.AG  2-1102656-5
				<b>EMV-K</b> EMV-K.16/40.AG  4-1102728-5
				<b>HIP</b> HIP.16/40.AG.M6  1-1102618-5
				<b>HIP-K</b> HIP-K.16/40.AG.M6  2-1102618-5
				<b>EMV-K</b> EMV-K.16/40.AG.M6  4-1102730-5



## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings



**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

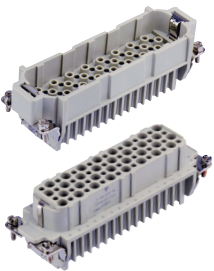
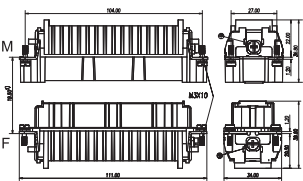
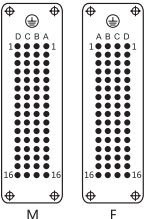
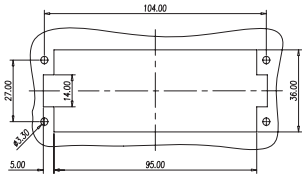
Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Side entry</b>				
	2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G	1-1102616-5
			HIP.16/40.SG.2.21.G	1-1102617-5
			HIP.16/40.SG.2.M32.G	0-1106453-1
	2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G	5-1102616-5
			HIP-K.16/40.SG.2.21.G	2-1102617-5
			HIP-K.16/40.SG.2.M32.G	0-1106443-1
	2xM32	21 2x21	<b>EMV-K</b> EMV-K.16/40.SG.1.21.Z	4-1102726-5
			EMV-K.16/40.SG.2.21.Z	4-1102727-5
			EMV-K.16/40.SG.2.M32.G	0-1106445-2
<b>Protective covers for housings</b>				
			<b>HIP</b> HIP/EMV.16/40.SKB	3-1106203-5
			<b>HIP-K</b> HIP-K.16/40.SKB	4-1106203-5

## HD-064 inserts


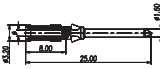

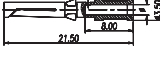
INSERTS FOR H24B HOOD/HOUSING

250V 10A

64+ (♁) (machined contacts)

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HD-064-M	T 2 02 064 2101-000
		HD-064-F	T 2 02 064 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## HD-064 inserts

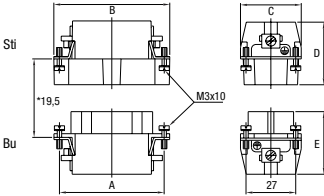
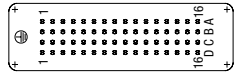
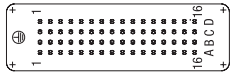
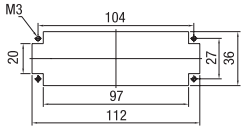
INSERTS FOR H24B HOOD/HOUSING

250V 10A

64+  $\oplus$  (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		HD.64.Sti.C	2-1103032-3	
		HD.64.BU.C		2-1103033-3

Suitable crimp contacts and crimping tools: see page 111


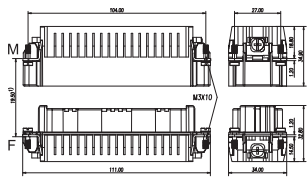
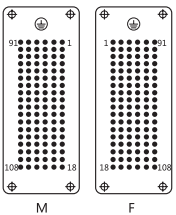
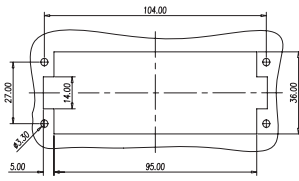
Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

## HDD-108 inserts


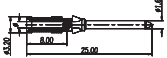

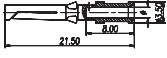
INSERTS FOR H24B HOOD/HOUSING

250V 10A

108+⊕ (machined contacts)


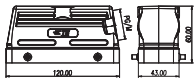

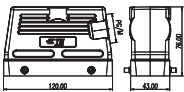

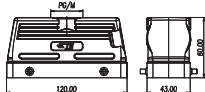

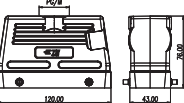

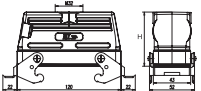

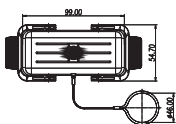

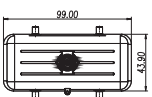
Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HDD-108-M	T 2 03 108 2101-000
	HDD-108-F		T 2 03 108 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

## 10A Contact

Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
<b>CDF/Female</b> 	<b>10A Female crimp contacts</b> 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000


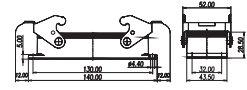

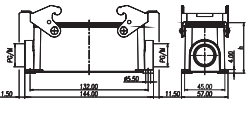

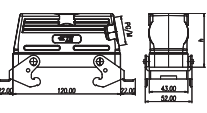

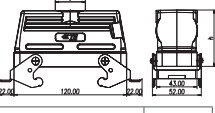

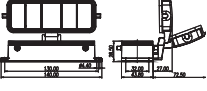

## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H24B-TS-PG16 H24B-TS-PG21 H24B-TS-M25 H24B-TS-M32	T 1 21 024 0116-000 T 1 21 024 0121-000 T 1 21 024 0125-000 T 1 21 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TSH-PG21 H24B-TSH-PG29 H24B-TSH-M25 H24B-TSH-M32 H24B-TSH-M40	T 1 23 024 0121-000 T 1 23 024 0129-000 T 1 23 024 0125-000 T 1 23 024 0132-000 T 1 23 024 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H24B-TG-PG16 H24B-TG-PG21 H24B-TG-M25 H24B-TG-M32	T 1 22 024 0116-000 T 1 22 024 0121-000 T 1 22 024 0125-000 T 1 22 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TGH-PG21 H24B-TGH-PG29 H24B-TGH-M25 H24B-TGH-M32 H24B-TGH-M40	T 1 24 024 0121-000 T 1 24 024 0129-000 T 1 24 024 0125-000 T 1 24 024 0132-000 T 1 24 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="531 1361 751 1458"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32	PG21	H24B-TBFS-PG21 H24B-TBFS-M25 H24B-TBFS-M32	T 1 71 024 1121-000 T 1 71 024 1125-000 T 1 71 024 1132-000
Construction	H										
Low	62.5										
High	78.5										
		M25 M32 M40	PG21 PG29	H24B-TBFHS-PG21 H24B-TBFHS-PG29 H24B-TBFHS-M25 H24B-TBFHS-M32 H24B-TBFHS-M40	T 1 75 024 1121-000 T 1 75 024 1129-000 T 1 75 024 1125-000 T 1 75 024 1132-000 T 1 75 024 1140-000						
Protection covers for hoods											
				H24B-KDTP	T 1 01 024 1400-000						
Housing protection cover											
				H24B-KDBP	T 1 01 024 2100-000						


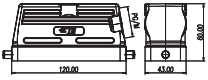

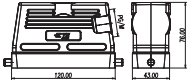



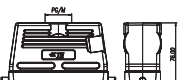



## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																			
Bulkhead mounted																								
				H24B-AGS	T 1 41 024 1000-000																			
Surface mounted: Side entry																								
	 <table border="1"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	Side entry Low construction M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H24B-SGRS-PG21 H24B-SGRS-M25 H24B-SGRS-2PG21 H24B-SGRS-2M25 H24B-SGRHS-PG21 H24B-SGRHS-PG29 H24B-SGRHS-M25 H24B-SGRHS-M32 H24B-SGRHS-2PG21 H24B-SGRHS-2PG29 H24B-SGRHS-2M25 H24B-SGRHS-2M32	T 1 44 024 1121-000 T 1 44 024 1125-000 T 1 44 024 1221-000 T 1 44 024 1225-000 T 1 47 024 1121-000 T 1 47 024 1129-000 T 1 47 024 1125-000 T 1 47 024 1132-000 T 1 47 024 1221-000 T 1 47 024 1229-000 T 1 47 024 1225-000 T 1 47 024 1232-000													
		Construction	H																					
Low	56																							
High	81																							
Side entry housing with two levers																								
	 <table border="1"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H24B-TSBS-PG16 H24B-TSBS-PG21 H24B-TSBS-M20 H24B-TSBS-M25 H24B-TSBHS-PG21 H24B-TSBHS-PG29 H24B-TSBHS-M25 H24B-TSBHS-M32	T 1 25 024 3116-000 T 1 25 024 3121-000 T 1 25 024 3120-000 T 1 25 024 3125-000 T 1 27 024 3121-000 T 1 27 024 3129-000 T 1 27 024 3125-000 T 1 27 024 3132-000													
Construction	H																							
Low	60																							
High	76																							
Top entry housing with two levers																								
	 <table border="1"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H24B-TGBS-PG16 H24B-TGBS-PG21 H24B-TGBS-M20 H24B-TGBS-M25 H24B-TGBHS-PG21 H24B-TGBHS-PG29 H24B-TGBHS-M25 H24B-TGBHS-M32	T 1 26 024 3116-000 T 1 26 024 3121-000 T 1 26 024 3120-000 T 1 26 024 3125-000 T 1 28 024 3121-000 T 1 28 024 3129-000 T 1 28 024 3125-000 T 1 28 024 3132-000													
Construction	H																							
Low	60																							
High	76																							
Bulkhead mounted with 4 bolts																								
	With protection cover 	Side entry Low construction M25 M25 High construction M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H24B-AD-BO H24B-SDR-BO-PG21 H24B-SDR-BO-M25 H24B-SDR-BO-2PG21 H24B-SDR-BO-2M25 H24B-SDRH-BO-PG21 H24B-SDRH-BO-PG29 H24B-SDRH-BO-M25 H24B-SDRH-BO-M32 H24B-SDRH-BO-2PG21 H24B-SDRH-BO-2PG29 H24B-SDRH-BO-2M25 H24B-SDRH-BO-2M32	T 1 43 024 0000-000 T 1 46 024 0121-000 T 1 46 024 0125-000 T 1 46 024 0221-000 T 1 46 024 0225-000 T 1 49 024 0121-000 T 1 49 024 0129-000 T 1 49 024 0125-000 T 1 49 024 0132-000 T 1 49 024 0221-000 T 1 49 024 0229-000 T 1 49 024 0225-000 T 1 49 024 0232-000																			
	 <table border="1"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> <td>G</td> <td>H</td> </tr> <tr> <td>Low</td> <td>132</td> <td>144</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>56</td> </tr> <tr> <td>High</td> <td>132</td> <td>144</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>81</td> </tr> </table>					Construction	A	B	C	D	F	G	H	Low	132	144	45	57	20	65	56	High	132	144
Construction	A	B	C	D	F	G	H																	
Low	132	144	45	57	20	65	56																	
High	132	144	45	57	20	65	81																	


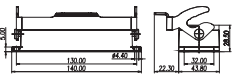

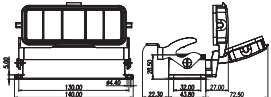

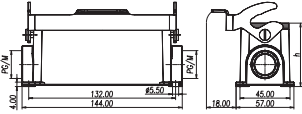

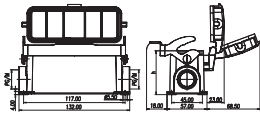
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H24B-TS-RO-PG21 H24B-TS-RO-PG29 H24B-TS-RO-M25 H24B-TS-RO-M32	T 1 31 024 0121-000 T 1 31 024 0129-000 T 1 31 024 0125-000 T 1 31 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TSH-RO-PG21 H24B-TSH-RO-PG29 H24B-TSH-RO-M25 H24B-TSH-RO-M32 H24B-TSH-RO-M40	T 1 33 024 0121-000 T 1 33 024 0129-000 T 1 33 024 0125-000 T 1 33 024 0132-000 T 1 33 024 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H24B-TG-RO-PG21 H24B-TG-RO-PG29 H24B-TG-RO-M25 H24B-TG-RO-M32	T 1 32 024 0121-000 T 1 32 024 0129-000 T 1 32 024 0125-000 T 1 32 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TGH-RO-PG21 H24B-TGH-RO-PG29 H24B-TGH-RO-M25 H24B-TGH-RO-M32 H24B-TGH-RO-M40	T 1 34 024 0121-000 T 1 34 024 0129-000 T 1 34 024 0125-000 T 1 34 024 0132-000 T 1 34 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="531 1339 743 1429"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32	PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000
Construction	H										
Low	62.5										
High	78.5										
		M25 M32 M40	PG21 PG29	H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 77 024 3121-000 T 1 77 024 3129-000 T 1 77 024 3125-000 T 1 77 024 3132-000 T 1 77 024 3140-000						
Protection covers for hoods											
				H24B-KDTP-LB	T 1 01 024 1500-000						

## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
			H24B-AG-LB	T 1 50 024 3000-000						
	With protection cover 		H24B-AD-LB	T 1 51 024 3000-000						
Surface mounted: Side entry										
	 <table border="1" data-bbox="320 1160 539 1256"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>Hight</td><td>81</td></tr> </table>	Construction	H	Low	56	Hight	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M20 M25 M20 M25 M25 M32 M25 M32 PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H24B-SGR-LB-PG16 H24B-SGR-LB-PG21 H24B-SGR-LB-M20 H24B-SGR-LB-M25 H24B-SGR-LB-2PG16 H24B-SGR-LB-2PG21 H24B-SGR-LB-2M20 H24B-SGR-LB-2M25 H24B-SGRH-LB-PG21 H24B-SGRH-LB-PG29 H24B-SGRH-LB-M25 H24B-SGRH-LB-M32 H24B-SGRH-LB-2PG21 H24B-SGRH-LB-2PG29 H24B-SGRH-LB-2M25 H24B-SGRH-LB-2M32 T 1 61 024 3116-000 T 1 61 024 3121-000 T 1 61 024 3120-000 T 1 61 024 3125-000 T 1 61 024 3216-000 T 1 61 024 3221-000 T 1 61 024 3220-000 T 1 61 024 3225-000 T 1 65 024 3121-000 T 1 65 024 3129-000 T 1 65 024 3125-000 T 1 65 024 3132-000 T 1 65 024 3221-000 T 1 65 024 3229-000 T 1 65 024 3225-000 T 1 65 024 3232-000
Construction	H									
Low	56									
Hight	81									
	With protection cover  <table border="1" data-bbox="320 1608 539 1704"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>Hight</td><td>81</td></tr> </table>	Construction	H	Low	56	Hight	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M20 M25 M20 M25 M25 M32 M25 M32 PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H24B-SDR-LB-PG16 H24B-SDR-LB-PG21 H24B-SDR-LB-M20 H24B-SDR-LB-M25 H24B-SDR-LB-2PG16 H24B-SDR-LB-2PG21 H24B-SDR-LB-2M20 H24B-SDR-LB-2M25 H24B-SDRH-LB-PG21 H24B-SDRH-LB-PG29 H24B-SDRH-LB-M25 H24B-SDRH-LB-M32 H24B-SDRH-LB-2PG21 H24B-SDRH-LB-2PG29 H24B-SDRH-LB-2M25 H24B-SDRH-LB-2M32 T 1 62 024 3116-000 T 1 62 024 3121-000 T 1 62 024 3120-000 T 1 62 024 3125-000 T 1 62 024 3216-000 T 1 62 024 3221-000 T 1 62 024 3220-000 T 1 62 024 3225-000 T 1 66 024 3121-000 T 1 66 024 3129-000 T 1 66 024 3125-000 T 1 66 024 3132-000 T 1 66 024 3221-000 T 1 66 024 3229-000 T 1 66 024 3225-000 T 1 66 024 3232-000
Construction	H									
Low	56									
Hight	81									



## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings


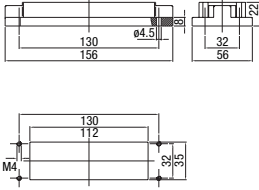

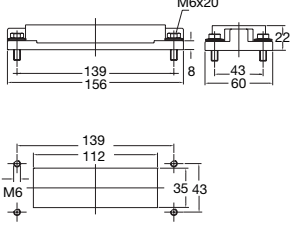

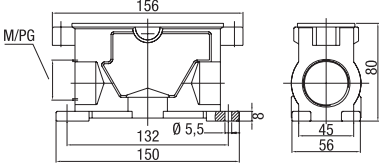

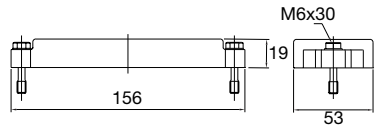
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number			
<b>Surface mounted housing: Bottom entry, Standard construction</b>							
			<b>HIP</b> HIP.24/64.AG	1-1102665-5			
			<b>HIP-K</b> HIP-K.24/64.AG	2-1102665-5			
			<b>EMV-K</b> EMV-K.24/64.AG	4-1102760-5			
			<b>HIP</b> HIP.24/64.AG.M6	1-1102626-5			
			<b>HIP-K</b> HIP-K.24/64.AG.M6	2-1102626-5			
			<b>HIP-K</b> HIP-K.24/64.AG.M6.D	2-1102628-5			
			<b>HIP-K</b> HIP-K-1.24/64.AG.M6.D	0-1108533-1			
<b>EMV-K</b> EMV-K.24/64.AG.M6	4-1102736-5						
<b>Surface mounted housing: Side entry, Standard construction</b>							
		2xM40	29 2x29	<b>HIP</b> HIP.24/64.SG.1.29.G HIP.24/64.SG.2.29.G HIP.24/64.SG.2.M40.G	1-1102624-5 1-1102625-5 0-1106472-1		
			29 2x29	<b>HIP-K</b> HIP-K.24/64.SG.1.29.G HIP-K.24/64.SG.2.29.G HIP-K.24/64.SG.2.M40.G	5-1102624-5 2-1102625-5 0-1106472-2		
			29 2x29	<b>EMV-K</b> EMV-K.24/64.SG.1.29.G EMV-K.24/64.SG.2.29.G EMV-K.24/64.SG.2.M40.G	4-1102734-5 4-1102735-5 0-1106460-2		
			<b>Protective cover housings</b>				
						<b>HIP</b> HIP/EMV.24/64.SKB	3-1106204-5
						<b>HIP-K/EMV-K</b> HIP-K/EMV-K.24/64.SKB	4-1106204-5

## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings


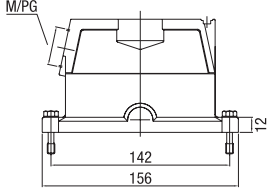


**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Hood: Side entry, Standard construction</b>				
		M40	<b>HIP</b> HIP.24/64.STS.1.21.G HIP.24/64.STS.1.29.G HIP.24/64.STS.1.M40.G	1-1102658-5 1-1102660-5 0-1106473-2
		M40	<b>HIP-K</b> HIP-K.24/64.STS.1.29.G HIP-K.24/64.STS.1.M40.G	2-1102660-5 0-1106473-4
		M25 M32 M40	<b>EMV-K</b> EMV-K.24/64.STS.1.29.G EMV-K.24/64.STS.1.M25.G EMV-K.24/64.STS.1.M32.G EMV-K.24/64.STS.1.M40.G	4-1102755-5 0-1102983-1 0-1106461-8 0-1106461-3
		M40	<b>HIP</b> HIP-KF.24/64.STS.1.29.G HIP-KF.24/64.STS.1.36.G HIP-KF.24/64.STS.1.M40.G	1-1102622-5 1-1102623-5 0-1106474-1
		M40	<b>HIP-K</b> HIP-KF/K.24/64.STS.1.29.G HIP-KF/K.24/64.STS.1.36.G HIP-KF/K.24/64.STS.1.M40.G	2-1102622-5 2-1102623-5 0-1106474-2
		M40	<b>EMV-K</b> EMV-KF/K.24/64.STS.1.29.G EMV-KF/K.24/64.STS.1.36.G EMV-KF/K.24/64.STS.1.M40.G	4-1102732-5 4-1102733-5 0-1106462-2
<b>Hood: Top entry, Standard construction</b>				
		M40	<b>HIP</b> HIP.24/64.STO.1.21.G HIP.24/64.STO.1.29.G HIP.24/64.STO.1.M40.G	1-1102662-5 1-1102664-5 0-1106473-1
		2xM32 M40	<b>HIP-K</b> HIP-K.24/64.STO.1.29.G HIP-K.24/64.STO.2.M32.G HIP-K.24/64.STO.1.M40.G	2-1102664-5 0-1102792-1 0-1106473-3
		2xM40	<b>EMV-K</b> EMV-K.24/64.STO.1.29.G EMV-K.24/64.STO.1.M40.G	4-1102759-5 0-1106461-4
		2xM40		


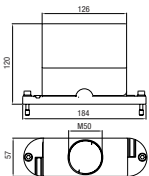

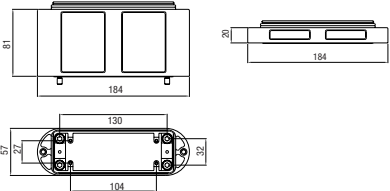

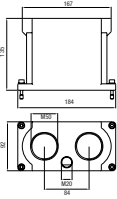

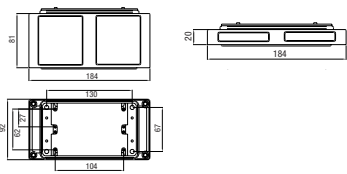
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood


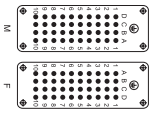

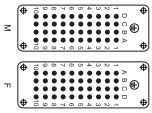
Description	Metr.	PG	Type	Part Number
Hood				
		1xM50 1xM50 2xM40 2xM40	HF-HIP-K.8.Sto.1.M50G HF.8.EMV-K.8.Sto.1.M50G HF.HIP-K.8.Sto.2.M40G HF.EMV-K.8.Sto.2.M40G	0-1102839-4 0-1102839-3 0-1102839-2 0-1102839-1
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.8.AG.N HF-EMV-K.8.AG.N HF-HIP-K.8.AG HF-EMV-K.8.AG	0-1102837-2 0-1102837-1 0-1102836-2 0-1102836-1
Hood				
		2xM40 2xM40 2xM50 2xM50	HF-HIP-K.12.Sto.2.M40G HF-EMV-K.12.Sto.2.M40G HF-HIP-K.12.Sto.2.M50G HF-EMV-K.12.Sto.2.M50G	0-1102840-2 0-1102840-1 0-1102840-4 0-1102840-3
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMV-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1

## HD-080 inserts


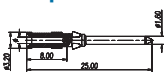

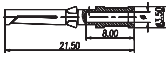
INSERTS FOR H32B HOOD/HOUSING

250V 10A

80 (2x40)+ $\oplus$  (machined contacts)

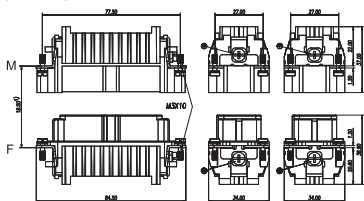
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HD-040-M(1-40) HD-040-M(41-80)	T 2 02 040 2101-000 T 2 02 080 2101-000	
		HD-040-F(1-40) HD-040-F(41-80)		T 2 02 040 2201-000 T 2 02 080 2201-000

### 10A Contact

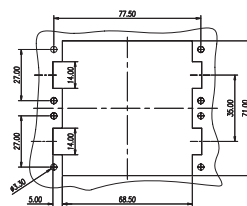
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Stripping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

### Distance for contact max. 24mm

Crimp terminal



### Panel cut-out for inserts for use without hoods/housings

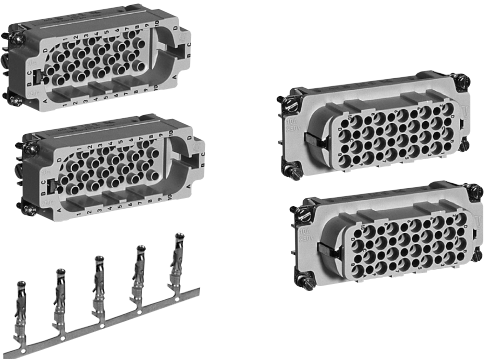


## HD-080 inserts

INSERTS FOR H32B HOOD/HOUSING

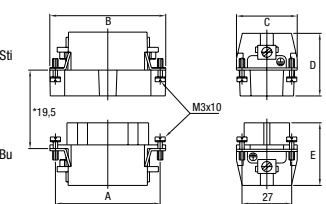
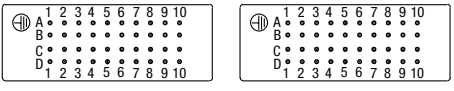
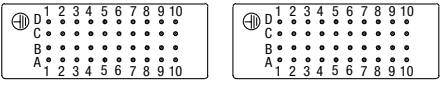
250V 10A

80 (2x40)+ $\oplus$  (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Screw terminal				
		2xHD.40.Sti.C	2-1103012-3	
		2xHD.40.Bu.C		2-1103013-3

Dimensions	A	B	C	D	E
mm	77.5	84.5	33	35	35

Suitable crimp contacts and crimping tools: see page 111


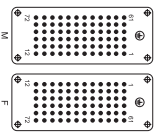

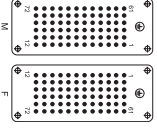
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

# HDD-144 inserts

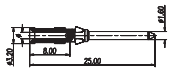

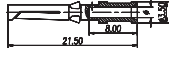
INSERTS FOR H32B HOOD/HOUSING

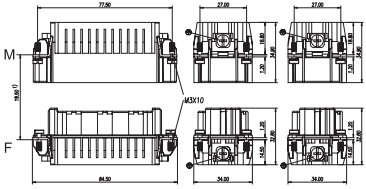
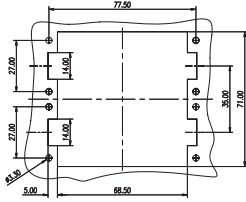
250V 10A

144 (2x72)+ $\oplus$  (machined contacts)

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HDD-072-M(1-72) HDD-072-M(73-144)	T 2 03 072 2101-000 T 2 03 144 2101-000	
		HDD-072-F(1-72) HDD-072-F(73-144)		T 2 03 072 2201-000 T 2 03 144 2201-000

## 10A Contact


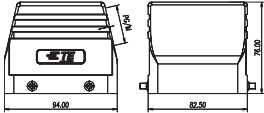

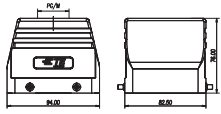

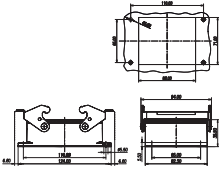

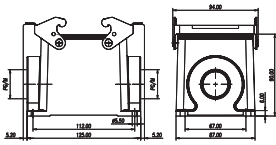

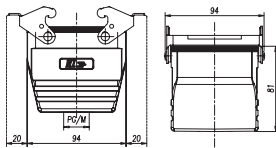

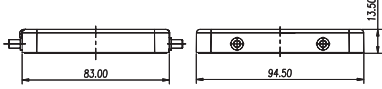
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection <b>CDM/Male</b>	10A Male crimp contacts 	Wire gauge		Stripping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
				0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

Distance for contact max. 24mm	Panel cut-out for inserts for use without hoods/housings
Crimp terminal 	




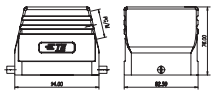

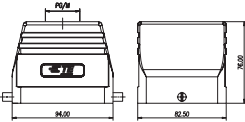

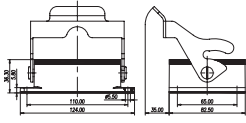

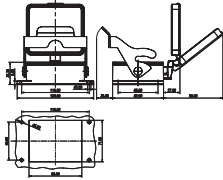

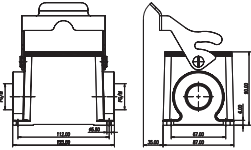

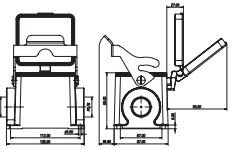
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32 M40	PG29 PG36 H32B-TS-PG29 H32B-TS-PG36 H32B-TS-M32 H32B-TS-M40	T 1 21 032 0129-000 T 1 21 032 0136-000 T 1 21 032 0132-000 T 1 21 032 0140-000
<b>Hood: Top entry</b>				
		M25 M32 M40 M50	PG21 PG29 PG36 PG42 H32B-TG-PG21 H32B-TG-PG29 H32B-TG-PG36 H32B-TG-PG42 H32B-TG-M25 H32B-TG-M32 H32B-TG-M40 H32B-TG-M50	T 1 22 032 0121-000 T 1 22 032 0129-000 T 1 22 032 0136-000 T 1 22 032 0142-000 T 1 22 032 0125-000 T 1 22 032 0132-000 T 1 22 032 0140-000 T 1 22 032 0150-000
<b>Bulkhead mounted</b>				
			H32B-AG	T 1 41 032 2000-000
<b>Surface mounted: Side entry</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H32B-SGR-PG29 H32B-SGR-PG36 H32B-SGR-PG42 H32B-SGR-M32 H32B-SGR-M40 H32B-SGR-M50 H32B-SGR-M63 PG29 PG36 PG42 H32B-SGR-2PG29 H32B-SGR-2PG36 H32B-SGR-2PG42 H32B-SGR-2M32 H32B-SGR-2M40 H32B-SGR-2M50 H32B-SGR-2M63	T 1 44 032 2129-000 T 1 44 032 2136-000 T 1 44 032 2142-000 T 1 44 032 2132-000 T 1 44 032 2140-000 T 1 44 032 2150-000 T 1 44 032 2163-000 T 1 44 032 2229-000 T 1 44 032 2236-000 T 1 44 032 2242-000 T 1 44 032 2232-000 T 1 44 032 2240-000 T 1 44 032 2250-000 T 1 44 032 2263-000
<b>Cable-to-cable hood</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H32B-TBF-PG29 H32B-TBF-PG36 H32B-TBF-PG42 H32B-TBF-M32 H32B-TBF-M40 H32B-TBF-M50 H32B-TBF-M63	T 1 71 032 2129-000 T 1 71 032 2136-000 T 1 71 032 2142-000 T 1 71 032 2132-000 T 1 71 032 2140-000 T 1 71 032 2150-000 T 1 71 032 2163-000
<b>Protection covers for hoods</b>				
			H32B-KDB	T 1 00 032 1220-000

## H32B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32 M40	PG29 PG36 H32B-TS-RO-PG29 H32B-TS-RO-PG36 H32B-TS-RO-M32 H32B-TS-RO-M40	T 1 31 032 0129-000 T 1 31 032 0136-000 T 1 31 032 0132-000 T 1 31 032 0140-000
<b>Hood: Top entry</b>				
		M25 M32 M40 M50	PG21 PG29 PG36 PG42 H32B-TG-RO-PG21 H32B-TG-RO-PG29 H32B-TG-RO-PG36 H32B-TG-RO-PG42 H32B-TG-RO-M25 H32B-TG-RO-M32 H32B-TG-RO-M40 H32B-TG-RO-M50	T 1 32 032 0121-000 T 1 32 032 0129-000 T 1 32 032 0136-000 T 1 32 032 0142-000 T 1 32 032 0125-000 T 1 32 032 0132-000 T 1 32 032 0140-000 T 1 32 032 0150-000
<b>Bulkhead mounted</b>				
			H32B-AG-LB	T 1 50 032 2000-000
	With protection cover 		H32B-AD-LB	T 1 51 032 2000-000
<b>Surface mounted: Side entry</b>				
		1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SGR-LB-PG29 H32B-SGR-LB-M32 H32B-SGR-LB-M40 PG29 H32B-SGR-LB-2PG29 H32B-SGR-LB-2M32 H32B-SGR-LB-2M40	T 1 61 032 2129-000 T 1 61 032 2132-000 T 1 61 032 2140-000 T 1 61 032 2229-000 T 1 61 032 2232-000 T 1 61 032 2240-000
	With protection cover 	1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SDR-LB-PG29 H32B-SDR-LB-M32 H32B-SDR-LB-M40 PG29 H32B-SDR-LB-2PG29 H32B-SDR-LB-2M32 H32B-SDR-LB-2M40	T 1 62 032 0129-000 T 1 62 032 0132-000 T 1 62 032 0140-000 T 1 62 032 0229-000 T 1 62 032 0232-000 T 1 62 032 0240-000


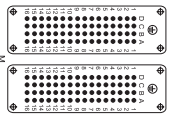
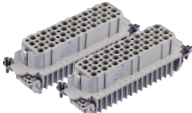
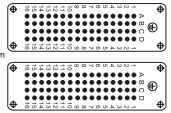


## HD-128 inserts


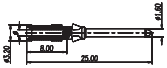

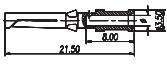
INSERTS FOR H48B HOOD/HOUSING

250V 10A

128 (2x64)+⊕ (machined contacts)

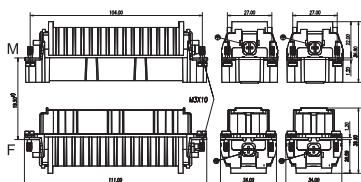
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HD-064-M(1-64) HD-064-M(65-128)	T 2 02 064 2101-000 T 2 02 128 2101-000	
		HD-064-F(1-64) HD-064-F(65-128)		T 2 02 064 2201-000 T 2 02 128 2201-000

### 10A Contact

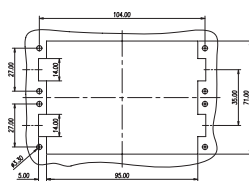
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
		0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

### Distance for contact max. 24mm

Crimp terminal



### Panel cut-out for inserts for use without hoods/housings

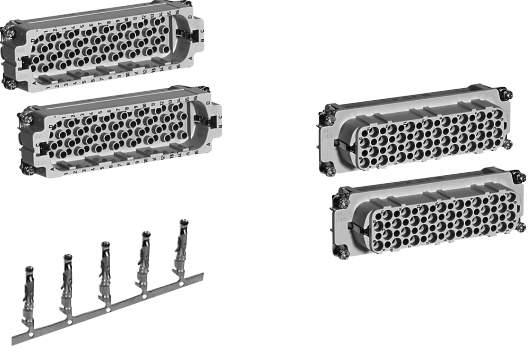


## HD.128/HEE 92 contact inserts

INSERTS FOR H48B HOOD/HOUSING

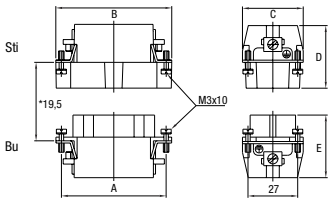
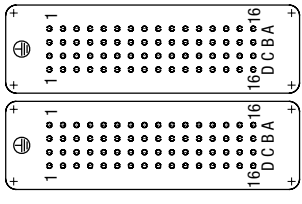
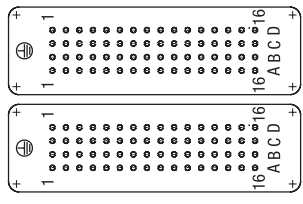
250V 10A

128 (2x64)+ (stamped and formed contacts)

Description		Type	Part Number	
Male insert	Female insert		Male insert	Female insert
Crimp terminal				
		2xHD.64.Sti.C	2-1103032-3	
		2xHD.64.Bu.C		2-1103033-3

Dimensions	A	B	C	D	E
mm	104	110	33	35	35

Suitable crimp contacts and crimping tools: see page 111


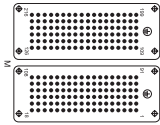
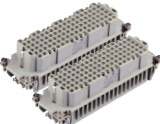
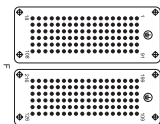
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## HDD-216 inserts

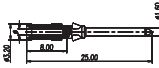

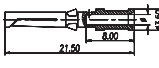
INSERTS FOR H48B HOOD/HOUSING

250V 10A

216 (2x108)+⊕ (machined contacts)

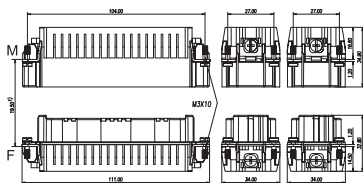
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HDD-108-M(1-108) HDD-108-M(109-216)	T 2 03 108 2101-000 T 2 03 216 2101-000	
		HDD-108-F(1-108) HDD-108-F(109-216)		T 2 03 108 2201-000 T 2 03 216 2201-000

### 10A Contact

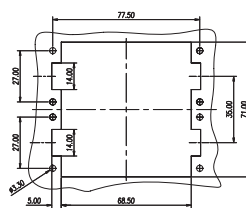
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated			
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number		
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000		
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000		
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000		
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000		
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000		
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000		
		CDF/Female	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
				0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
				0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
				1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
1.5	16			8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000		
2.5	14			6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000		

### Distance for contact max. 24mm

Crimp terminal


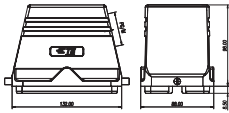

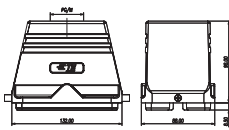

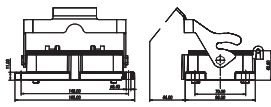

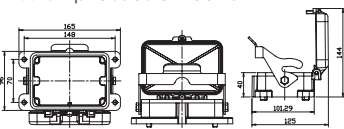

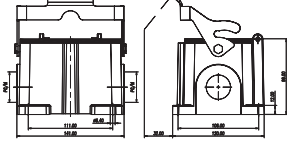

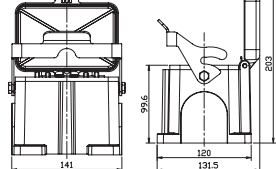


### Panel cut-out for inserts for use without hoods/housings



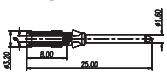


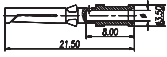
## H48B hoods/housings

POWDER-COATED, RAL 7037





Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H48B-TS-PG29 H48B-TS-PG36 H48B-TS-PG42 H48B-TS-M32 H48B-TS-M40 H48B-TS-M50 H48B-TS-M63	T 1 31 048 0129-000 T 1 31 048 0136-000 T 1 31 048 0142-000 T 1 31 048 0132-000 T 1 31 048 0140-000 T 1 31 048 0150-000 T 1 31 048 0163-000
<b>Hood: Top entry</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H48B-TG-PG29 H48B-TG-PG36 H48B-TG-PG42 H48B-TG-M32 H48B-TG-M40 H48B-TG-M50 H48B-TG-M63	T 1 32 048 0129-000 T 1 32 048 0136-000 T 1 32 048 0142-000 T 1 32 048 0132-000 T 1 32 048 0140-000 T 1 32 048 0150-000 T 1 32 048 0163-000
<b>Bulkhead mounted</b>				
			H48B-AG	T 1 50 048 2000-000
	With protection cover 		H48B-AD-LB	T 1 51 048 2000-000
<b>Surface mounted: Side entry</b>				
		1 Side entry M32 M40 M50 2 Side entry M32 M40 M50	PG29 PG36 PG42 H48B-SGR-PG29 H48B-SGR-PG36 H48B-SGR-PG42 H48B-SGR-M32 H48B-SGR-M40 H48B-SGR-M50 PG29 PG36 PG42 H48B-SGR-2PG29 H48B-SGR-2PG36 H48B-SGR-2PG42 H48B-SGR-2M32 H48B-SGR-2M40 H48B-SGR-2M50	T 1 61 048 2129-000 T 1 61 048 2136-000 T 1 61 048 2142-000 T 1 61 048 2132-000 T 1 61 048 2140-000 T 1 61 048 2150-000 T 1 61 048 2229-000 T 1 61 048 2236-000 T 1 61 048 2242-000 T 1 61 048 2232-000 T 1 61 048 2240-000 T 1 61 048 2250-000
<b>Surface mounted with cover</b>				
		1 Side entry M32 M40 M50 2 Side entry M32 M40 M50	PG29 PG36 PG42 H48B-SDR-PG29 H48B-SDR-PG36 H48B-SDR-PG42 H48B-SDR-M32 H48B-SDR-M40 H48B-SDR-M50 PG29 PG36 PG42 H48B-SDR-2PG29 H48B-SDR-2PG36 H48B-SDR-2PG42 H48B-SDR-2M32 H48B-SDR-2M40 H48B-SDR-2M50	T 1 62 048 0129-000 T 1 62 048 0136-000 T 1 62 048 0142-000 T 1 62 048 0132-000 T 1 62 048 0140-000 T 1 62 048 0150-000 T 1 62 048 0229-000 T 1 62 048 0236-000 T 1 62 048 0242-000 T 1 62 048 0232-000 T 1 62 048 0240-000 T 1 62 048 0250-000

## Crimp contacts HN.D series

### 10A Contact

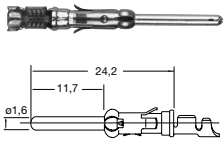
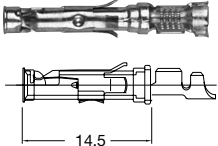
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## Crimping tools HN.D series

Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CDM/CDF contact series		REMOV-HD	T 3 10 000 0003-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000

## Crimp contacts HD.M series

### 10A Contact

<b>Tech data</b> <b>Material:</b> copper alloy Finish: tin plated tin plated hard gold <b>Contact resistance:</b> $\leq 3m\Omega$ <b>Crimp Terminal:</b> 0.14-2.5 mm <sup>2</sup> AWG: 26-14	<b>Description</b>		<b>Type</b>	<b>Part Number</b>	<b>Dimensions (mm<sup>2</sup>)</b>
	<b>Pin contact</b>	<b>Socket contact</b>			
			Pin contact tin plated Reel contact/pin tin plated Pin contact gold plated Reel contact/pin gold plated Socket contact tin plated Socket contact gold plated Reel contact/socket gold plated	1-1105000-3 2-1105000-3 4-1105000-3 0-0164161-9 0-0166824-2 1-1105000-2 3-1105000-2 0-0164160-4 0-0164161-4 1-1105001-3 2-1105001-3 4-1105001-3 1-1105001-2 3-1105001-2 1-0163087-1 0-0163083-7	0.3-0.56 0.5-1.5 1.5-2.5 0.5-1.5 1.5-2.5 0.3-0.56 0.8-1.5 0.3-0.56 0.8-1.5 0.3-0.56 0.5-1.5 1.5-2.5 0.3-0.56 0.8-1.5 0.3-0.56 0.8-1.5

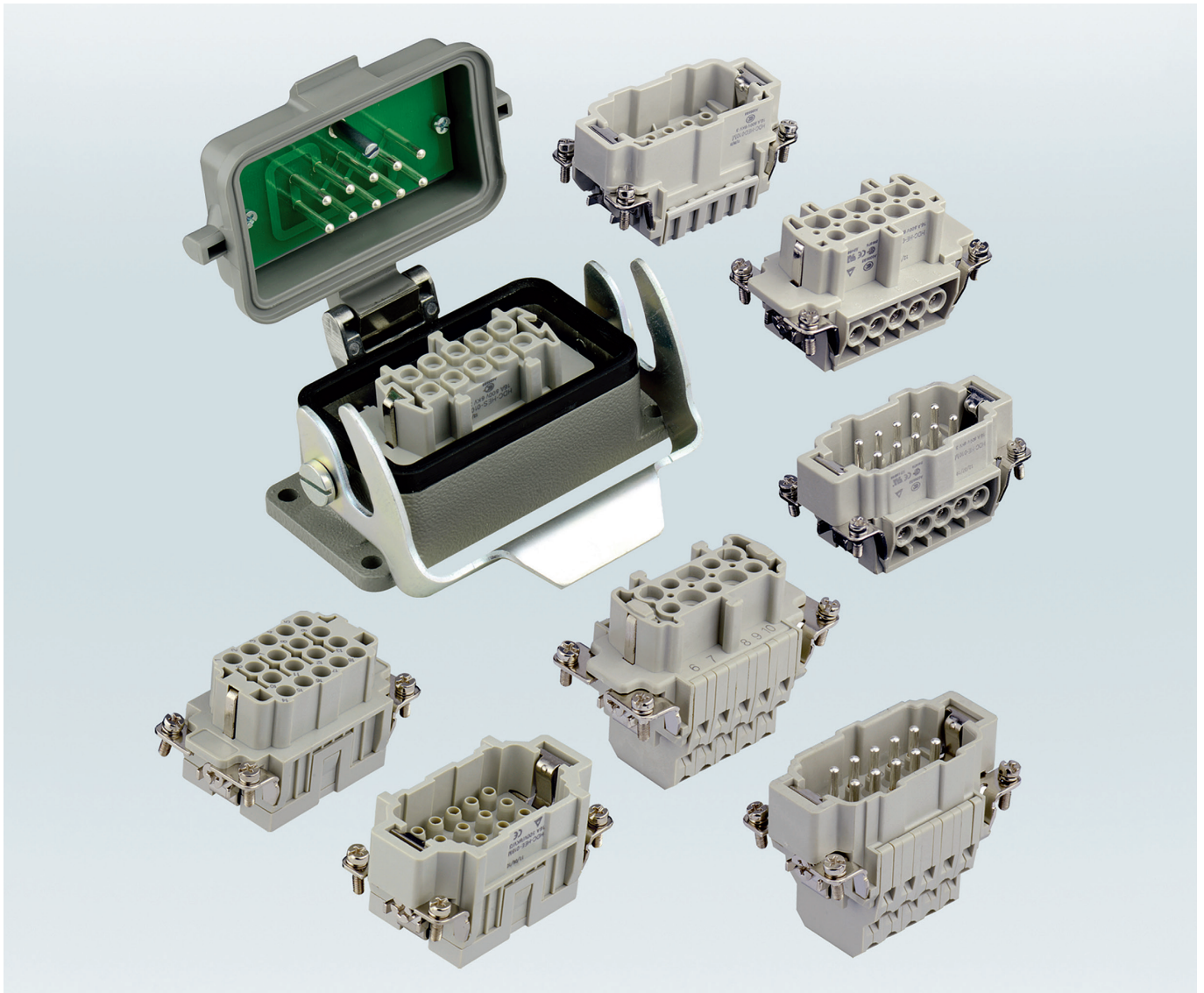
Type	Wire cross section	Stripping length
1	0.2-0.56 mm <sup>2</sup>	3.5 mm
2	0.5-1.5 mm <sup>2</sup>	3.5 mm
3	0.8-1.5 mm <sup>2</sup>	3.5 mm
4	1.5-2.5 mm <sup>2</sup>	3.5 mm

## Crimping tools HD.M series

Description		Designation	Part Number	Cross section (mm <sup>2</sup> )
Crimping tool without locator and die		RSZ.BAS	539635-1	
Locator and die		ERGO-DIE XII	539742-2	0.2-2.5mm <sup>2</sup> for contacts PN
Extraction tool HD.M		AWZG-HD.M-RSZ	0-1102855-1	all cross sections
Insertion tool		EWZG-RSZ	0-1102855-6	below 0.75mm <sup>2</sup>



## HE, HEE, HEEE Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1

DIN EN 61 984

### 3. Approvals





## HE technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	6,10,16,24,32(2x16),
.....	48(2x24) + PE

### INSERTS

Working current .....	16A max
(See current carrying capacity)	
Working voltage .....	500V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C...+125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

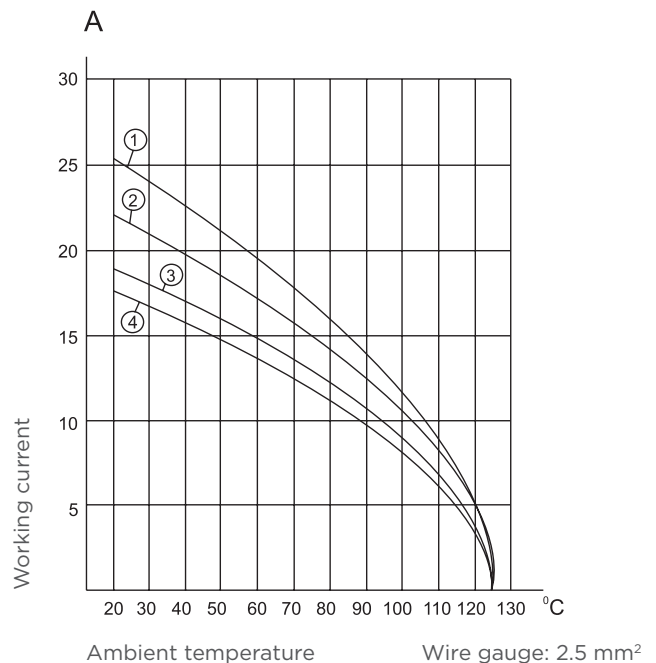
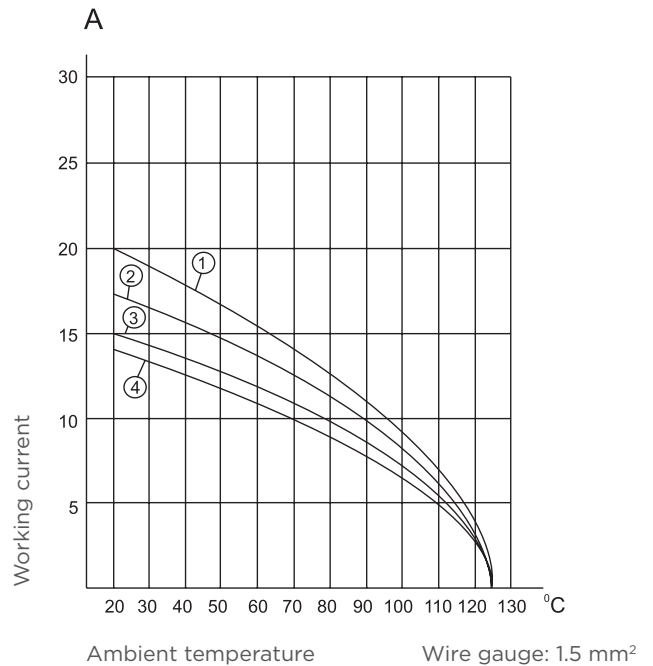
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	
.....	Crimp terminal
.....	Screw terminal
.....	Spring terminal
.....	Double Spring terminal
-mm <sup>2</sup>	
Crimp terminal .....	0.14-4.0
Screw terminal .....	0.5-2.5
Spring terminal .....	0.5-2.5
Double Spring terminal.....	0.2-2.5
-AWG	
Crimp terminal .....	26-12
Screw terminal .....	20-14
Spring terminal .....	20-14
Double Spring terminal.....	26-14
- Tightening/test torque .....	0.5 Nm

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 HDC-HE-006
- 2 HDC-HE-010
- 3 HDC-HE-016
- 4 HDC-HE-024

## HEE technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	10,18,32,46,64(2x32),
.....	92(2x46) + PE

### INSERTS

Working current .....	16A max
(See current carrying capacity)	
Working voltage .....	500V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles.....	$\geq 500$

### CONTACTS

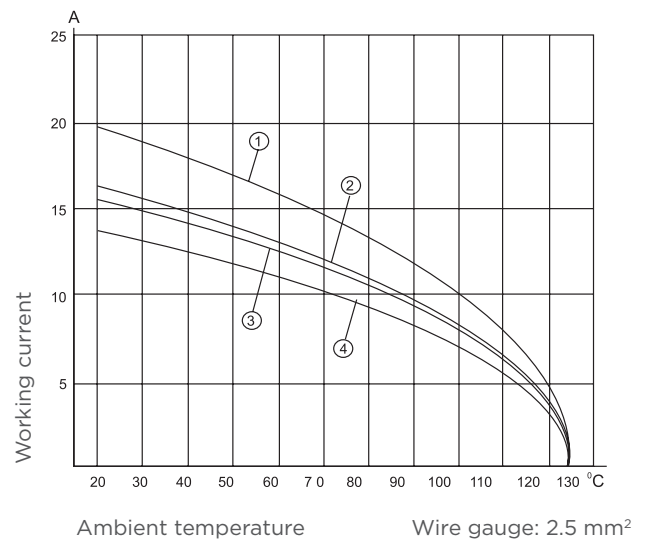
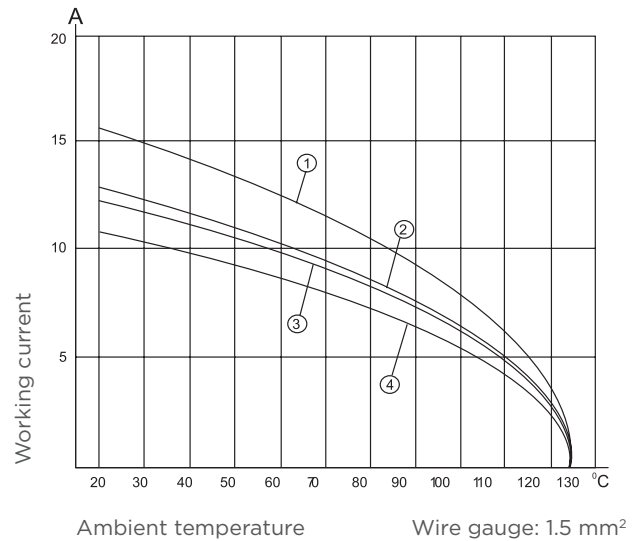
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 HDC-HEE-010
- 2 HDC-HEE-018
- 3 HDC-HEE-032
- 4 HDC-HEE-046

## HEEE technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	20,32,40,48,64,72,80(2x40)
.....	96(2x48),128(2x64), 144(2x72) + PE

### INSERTS

Working current .....	16A max
(See current carrying capacity)	
Working voltage .....	.....
HEEE-20,32,48,72,96,144 .....	400V
HEEE-40,64,80,128 .....	500V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

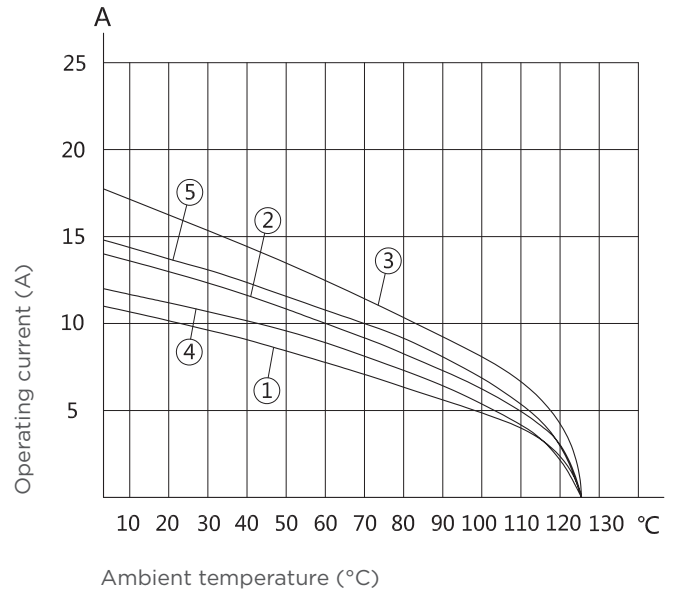
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 5m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element .....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals  
Control and test procedures according to DIN IEC 60512-3.



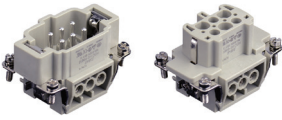
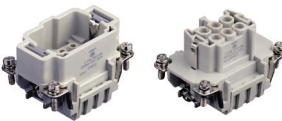

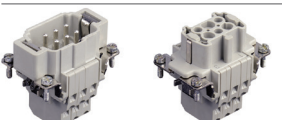
- 1 HEEE-064 / 1.5 mm<sup>2</sup>
- 2 HEEE-064 / 2.5 mm<sup>2</sup>
- 3 HEEE-064 / 4.0 mm<sup>2</sup>
- 4 HEEE-040 / 1.5 mm<sup>2</sup>
- 5 HEEE-040 / 2.5 mm<sup>2</sup>

## HE-006 inserts


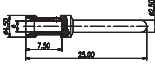

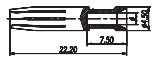
INSERTS FOR H6B HOOD/HOUSING

500V MAX. 16A

6+ (⊕)

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-006-M	T 2 04 006 2101-000	
	HE-006-F		T 2 04 006 2201-000
Spring terminal			
	HE-006-MS	T 2 04 006 3101-000	
	HE-006-FS		T 2 04 006 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-006-MC	T 2 04 006 4101-000	
	HE-006-FC		T 2 04 006 4201-000
Spring terminal (Two terminals per contact)			
	HE-006-MSS	T 2 04 006 5101-000	
	HE-006-FSS		T 2 04 006 5201-000

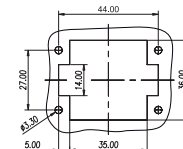
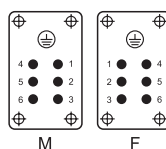
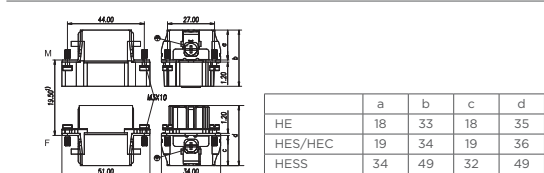
### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Stripping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEM-0.3	T2030001002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T2030001005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T2030001008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T2030001040-000	DEM-4.0	T 2 03 001 1040-000
		0.14-0.37	26-22	7.5	CEF-0.3	T2030002002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T2030002005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T2030002008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000		
1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000		
2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12	7.5	CEF-4.0	T2030002040-000	DEF-4.0	T 2 03 001 2040-000		

Distance for contact max. 21mm

Contact arrangement view from termination side

Panel cut-out for inserts for use without hoods/housings


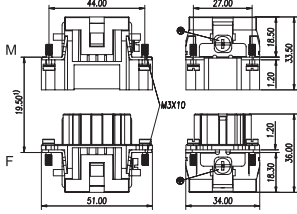
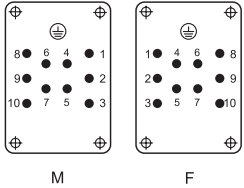
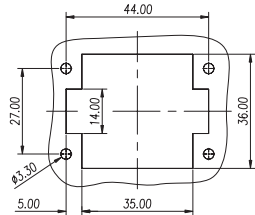


## HEE-010 inserts


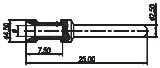

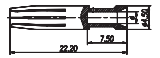
INSERTS FOR H6B HOOD/HOUSING

500V MAX. 16A

10+ ⊕

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HEE-010-M	T 2 05 010 2101-000	
		HEE-010-F		T 2 05 010 2201-000
<p>Contact arrangement view from termination side</p> 	<p>Panel cut out for inserts for use without hoods/housings</p> 			

## 16A Contact


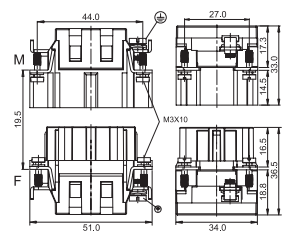
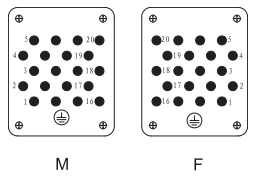
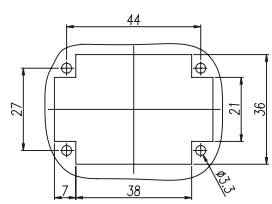
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## HEEE-020 inserts


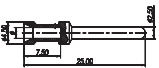

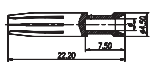
INSERTS FOR H6B HOOD/HOUSING

400V MAX. 16A

20+ 


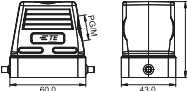

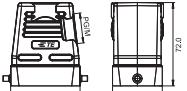

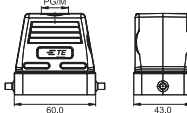

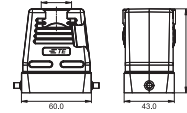


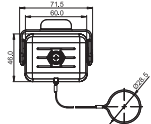
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HEEE-020-M	T 2 05 020 2101-000	
		HEEE-020-F		T 2 05 020 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings			
				

### 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000
0.5	20			7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
0.75	18			7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000


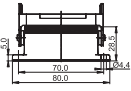

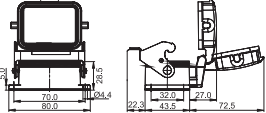

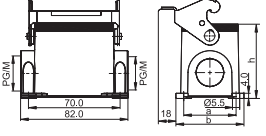

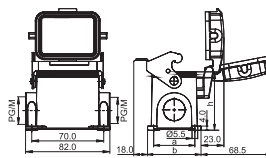
## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
 <p>Low construction</p> 	M20 M25	PG16 PG21	H6B-TS-PG16 H6B-TS-PG21 H6B-TS-M20 H6B-TS-M25	T 1 31 006 0116-000 T 1 31 006 0121-000 T 1 31 006 0120-000 T 1 31 006 0125-000						
 <p>High construction</p> 	M20 M25 M32	PG21 PG29	H6B-TSH-PG21 H6B-TSH-PG29 H6B-TSH-M20 H6B-TSH-M25 H6B-TSH-M32	T 1 33 006 0121-000 T 1 33 006 0129-000 T 1 33 006 0120-000 T 1 33 006 0125-000 T 1 33 006 0132-000						
<b>Hood: Top entry</b>										
 <p>Low construction</p> 	M20 M25	PG16 PG21	H6B-TG-PG16 H6B-TG-PG21 H6B-TG-M20 H6B-TG-M25	T 1 32 006 0116-000 T 1 32 006 0121-000 T 1 32 006 0120-000 T 1 32 006 0125-000						
 <p>High construction</p> 	M20 M25 M32	PG21 PG29	H6B-TGH-PG21 H6B-TGH-PG29 H6B-TGH-M20 H6B-TGH-M25 H6B-TGH-M32	T 1 34 006 0121-000 T 1 34 006 0129-000 T 1 34 006 0120-000 T 1 34 006 0125-000 T 1 34 006 0132-000						
<b>Cable-to-cable hood</b>										
 <p>Construction</p> <table border="1" data-bbox="534 1377 750 1467"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	74.5	M20 M25  M20 M25 M32	PG16  PG21 PG29	H6B-TBFS-PG16 H6B-TBFS-M20 H6B-TBFS-M25  H6B-TBFHS-PG21 H6B-TBFHS-PG29 H6B-TBFHS-M20 H6B-TBFHS-M25 H6B-TBFHS-M32	T 1 73 006 2116-000 T 1 73 006 2120-000 T 1 73 006 2125-000  T 1 77 006 2121-000 T 1 77 006 2129-000 T 1 77 006 2120-000 T 1 77 006 2125-000 T 1 77 006 2132-000
Construction	H									
Low	62.5									
High	74.5									
<b>Protection covers for hoods</b>										
 			H6B-KDTP	T 1 01 006 1400-000						

## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number																																
Bulkhead mounted																																				
			H6B-AGS	T 1 50 006 2000-000																																
	With protection cover 		H6B-ADS	T 1 51 006 2100-000																																
Surface mounted: Side entry																																				
	 <table border="1" data-bbox="347 1144 703 1238"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	56	High	45	57	74	<table border="0"> <tr> <td rowspan="2">Low construction</td> <td>1 Side entry</td> <td>M20</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25</td> <td rowspan="2">T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000</td> </tr> <tr> <td>2 Side entry</td> <td>M20 M25</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25</td> <td rowspan="2">T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000</td> </tr> <tr> <td rowspan="2">High construction</td> <td>1 Side entry</td> <td>M25</td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32</td> <td rowspan="2">T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000</td> </tr> <tr> <td>2 Side entry</td> <td>M32 M25</td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32</td> <td rowspan="2">T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000</td> </tr> </table>	Low construction	1 Side entry	M20	PG16 PG21	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000	2 Side entry	M20 M25	PG16 PG21	H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25	T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000	High construction	1 Side entry	M25	PG21 PG29	H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32	T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000	2 Side entry	M32 M25	PG21 PG29	H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000
Construction	A	B	H																																	
Low	40	52	56																																	
High	45	57	74																																	
Low construction	1 Side entry	M20	PG16 PG21	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000																															
	2 Side entry	M20 M25				PG16 PG21	H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25	T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000																												
High construction	1 Side entry	M25	PG21 PG29	H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32	T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000																															
	2 Side entry	M32 M25				PG21 PG29	H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 65 006 2221-000 T 1 65 006 2229-000 T 1 65 006 2225-000 T 1 65 006 2232-000																												
	With protection cover  <table border="1" data-bbox="347 1559 703 1653"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H				Low	40	52	56	High	45	57	74	<table border="0"> <tr> <td rowspan="2">Low construction</td> <td>1 Side entry</td> <td>M20</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25</td> <td rowspan="2">T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000</td> </tr> <tr> <td>2 Side entry</td> <td>M20 M25</td> <td rowspan="2">PG16 PG21</td> <td rowspan="2">H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25</td> <td rowspan="2">T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000</td> </tr> <tr> <td rowspan="2">High construction</td> <td>1 Side entry</td> <td>M25</td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32</td> <td rowspan="2">T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000</td> </tr> <tr> <td>2 Side entry</td> <td>M32 M25</td> <td rowspan="2">PG21 PG29</td> <td rowspan="2">H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32</td> <td rowspan="2">T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000</td> </tr> </table>	Low construction	1 Side entry	M20	PG16 PG21	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000	2 Side entry	M20 M25	PG16 PG21	H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25	T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000	High construction	1 Side entry	M25	PG21 PG29	H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32	T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000	2 Side entry	M32 M25
Construction	A	B	H																																	
Low	40	52	56																																	
High	45	57	74																																	
Low construction	1 Side entry	M20	PG16 PG21	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000																															
	2 Side entry	M20 M25				PG16 PG21	H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25	T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000																												
High construction	1 Side entry	M25	PG21 PG29	H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32	T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000																															
	2 Side entry	M32 M25				PG21 PG29	H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32	T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000																												



## HIP.6/16, HIP-K.6/16, EMV-K.6/16 housings


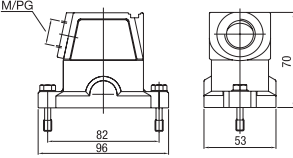

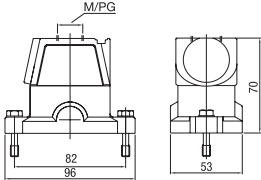

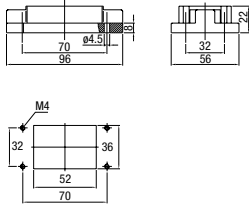

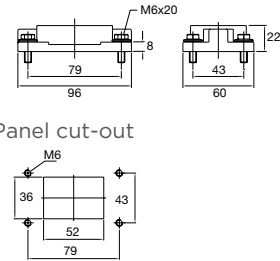
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry</b>					
		M25	16	<b>HIP</b> HIP.6/16.STS.1.16.G HIP.6/16.STS.1.M25.G	1-1102631-5 0-1106425-2
		M25	16 21	<b>HIP-K</b> HIP-K.6/16.STS.1.16.G HIP-K.6/16.STS.1.21.G HIP-K.6/16.STS.1.M25.G	2-1102631-5 2-1102633-5 0-1106425-4
		M25	16	<b>EMV-K</b> EMV-K.6/16.STS.1.16.G EMV-K.6/16.STS.1.M25.G	4-1102704-5 0-1106416-4
<b>Hood: Top entry</b>					
		M32	16	<b>HIP</b> HIP.6/16.STO.1.16.G HIP.6/16.STO.1.M32.G	1-1102635-5 0-1106425-1
		M25 M32	16 21	<b>HIP-K</b> HIP-K.6/16.STO.1.16.G HIP-K.6/16.STO.1.21.G HIP-K.6/16.STO.1.M25.G HIP-K.6/16.STO.1.M32.G	2-1102635-5 2-1102637-5 0-1106425-6 0-1106425-3
		M32	13 16 21	<b>EMV-K</b> EMV-K.6/16.STO.1.13.G EMV-K.6/16.STO.1.16.G EMV-K.6/16.STO.1.21.G EMV-K.6/16.STO.1.M32.G	0-1108719-1 4-1102706-5 4-1102707-5 0-1106416-3
<b>Surface mounted housing: Bottom entry</b>					
				<b>HIP</b> HIP.6/16.AG	1-1102638-5
				<b>HIP-K</b> HIP-K.6/16.AG	2-1102638-5
				<b>EMV-K</b> EMV-K.6/16.AG	4-1102710-5
				<b>HIP</b> HIP.6/16.AG.M6	1-1102606-5
				<b>HIP-K</b> HIP-K.6/16.AG.M6	2-1102606-5
				<b>EMV-K</b> EMV-K.6/16.AG.M6	4-1102712-5

## HIP.6/16, HIP-K.6/16, EMV-K.6/16 housings


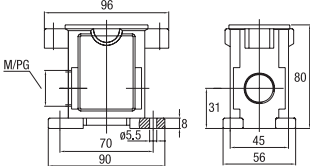

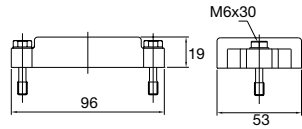
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

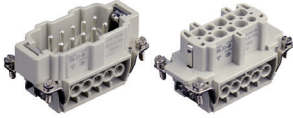


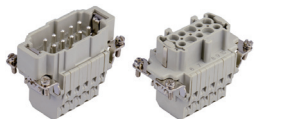
Description	Metr.	PG	Type	Part Number	
<b>Surface mounted housing: Side entry</b>					
		2xM32	<b>HIP</b> HIP.6/16.SG.1.16.G HIP.6/16.SG.2.16.G HIP.6/16.SG.2.M32.G	1-1102604-5 1-1102605-5 0-1106424-1	
			2xM25 2xM32	<b>HIP-K</b> HIP-K.6/16.SG.1.16.G HIP-K.6/16.SG.2.16.G HIP-K.6/16.SG.2.M25.G HIP-K.6/16.SG.2.M32.G	2-1102604-5 2-1102605-5 0-1102942-1 0-1106424-2
			2xM25 2xM32	<b>EMV-K</b> EMV-K.6/16.SG.1.16.G EMV-K.6/16.SG.2.16.G EMV-K.6/16.SG.2.M25.G EMV-K.6/16.SG.2.M32.G	5-1102708-5 5-1102709-5 0-1106413-3 0-1106415-2
<b>Protective covers for housings</b>					
			<b>HIP</b> HIP/EMV.6/16.SKB	3-1106201-5	
			<b>HIP-K</b> HIP-K/EMV-K.6/16.SKB	4-1106201-5	
			<b>EMV-K</b> HIP-K/EMV-K.6/16.SKB	4-1106201-5	

## HE-010 inserts


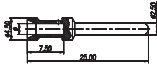

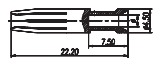
INSERTS FOR H10B HOOD/HOUSING

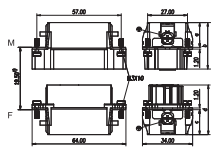
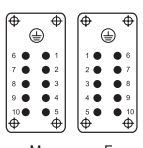
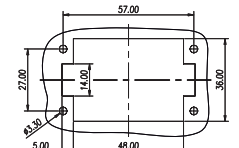
500V MAX. 16A

10+ (⊕)

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-010-M	T 2 04 010 2101-000	
	HE-010-F		T 2 04 010 2201-000
Spring terminal			
	HE-010-MS	T 2 04 010 3101-000	
	HE-010-FS		T 2 04 010 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-010-MC	T 2 04 010 4101-000	
	HE-010-FC		T 2 04 010 4201-000
Spring terminal (Two terminals per contact)			
	HE-010-MSS	T 2 04 010 5101-000	
	HE-010-FSS		T 2 04 010 5201-000

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated			
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type	Part Number	
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000		
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000		
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000		
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000		
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000		
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000		
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000		
		CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
				0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
				0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000		
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000		
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000		


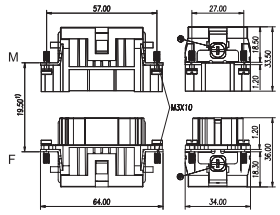
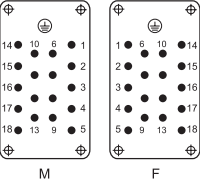
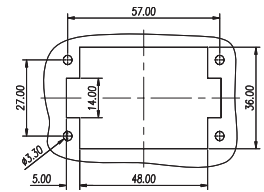
Distance for contact max. 21mm	Contact arrangement view from termination side	Panel cut-out for inserts for use without hoods/housings																				
 <table border="1"> <thead> <tr> <th></th> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>HE</td> <td>18</td> <td>33</td> <td>18</td> <td>35</td> </tr> <tr> <td>HES/HEC</td> <td>19</td> <td>34</td> <td>19</td> <td>36</td> </tr> <tr> <td>HESS</td> <td>34</td> <td>49</td> <td>32</td> <td>49</td> </tr> </tbody> </table>		a	b	c	d	HE	18	33	18	35	HES/HEC	19	34	19	36	HESS	34	49	32	49		
	a	b	c	d																		
HE	18	33	18	35																		
HES/HEC	19	34	19	36																		
HESS	34	49	32	49																		

# HEE-018 inserts

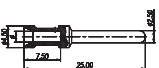

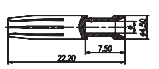

INSERTS FOR H10B HOOD/HOUSING

500V MAX. 16A

18+ ⚡

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HEE-018-M	T 2 05 018 2101-000
	HEE-018-F	T 2 05 018 2201-000	
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

## 16A Contact

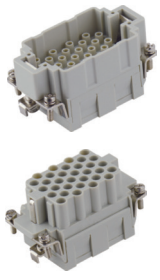
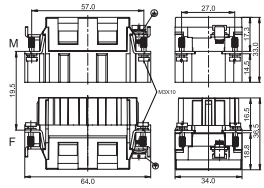
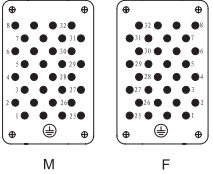
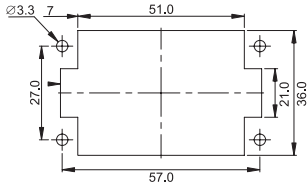
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b>								
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b>	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## HEEE-032 inserts


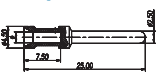

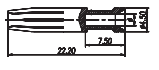
INSERTS FOR H10B HOOD/HOUSING

400V MAX. 16A

32+ 


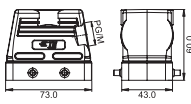

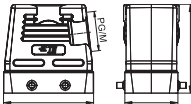

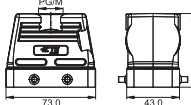

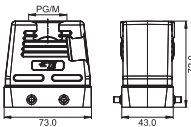

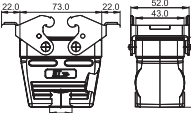

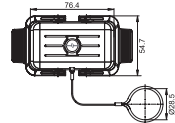

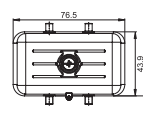
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
				<p>HEEE-032-M T 2 05 032 3101-000</p> <p>HEEE-032-F T 2 05 032 3201-000</p>
Contact arrangement view from termination side		Panel cut out for inserts for use without hoods/housings		
				

### 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000


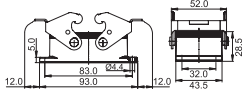

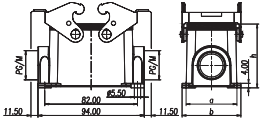

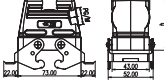

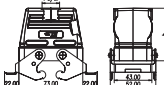


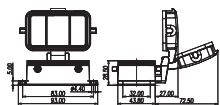
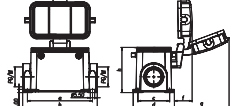
## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Low construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25</p> </div> </div>		PG16 PG21	H10B-TS-PG16 H10B-TS-PG21 H10B-TS-M20 H10B-TS-M25	T 1 21 010 0116-000 T 1 21 010 0121-000 T 1 21 010 0120-000 T 1 21 010 0125-000						
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>High construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25 M32</p> </div> </div>		PG21 PG29	H10B-TSH-PG21 H10B-TSH-PG29 H10B-TSH-M20 H10B-TSH-M25 H10B-TSH-M32	T 1 23 010 0121-000 T 1 23 010 0129-000 T 1 23 010 0120-000 T 1 23 010 0125-000 T 1 23 010 0132-000						
<b>Hood: Top entry</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>Low construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25</p> </div> </div>		PG16 PG21	H10B-TG-PG16 H10B-TG-PG21 H10B-TG-M20 H10B-TG-M25	T 1 22 010 0116-000 T 1 22 010 0121-000 T 1 22 010 0120-000 T 1 22 010 0125-000						
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> <p>High construction</p>  </div> <div style="margin-left: 10px;"> <p>M20 M25 M32</p> </div> </div>		PG21 PG29	H10B-TGH-PG21 H10B-TGH-PG29 H10B-TGH-M20 H10B-TGH-M25 H10B-TGH-M32	T 1 24 010 0121-000 T 1 24 010 0129-000 T 1 24 010 0120-000 T 1 24 010 0125-000 T 1 24 010 0132-000						
<b>Cable-to-cable hood</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <div style="margin-left: 10px;"> <table border="1"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table> </div> </div>	Construction	H	Low	62.5	High	74.5	<p>Low construction M20 M25</p> <p>High construction M25 M32</p>	PG16  PG21 PG29	H10B-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25  H10B-TBFHS-PG21 H10B-TBFHS-M25 H10B-TBFHS-M32	T 1 71 010 1116-000 T 1 71 010 1120-000 T 1 71 010 1125-000  T 1 75 010 1121-000 T 1 75 010 1129-000 T 1 75 010 1125-000 T 1 75 010 1132-000
Construction	H									
Low	62.5									
High	74.5									
<b>Protection covers for hoods</b>										
 <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> </div>			H10B-KDTP	T 1 01 010 1400-000						
<b>Housing protection cover</b>										
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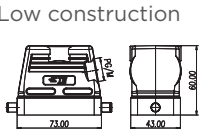

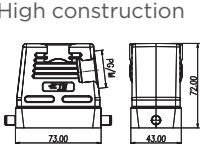

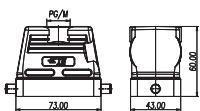

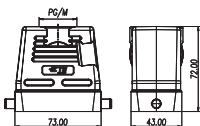

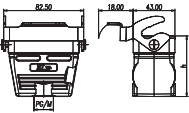

# H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number																								
<b>Bulkhead mounted</b>																												
 			H10B-AGS	T 1 41 010 1000-000																								
<b>Surface mounted: Side entry</b>																												
  <table border="1" data-bbox="316 869 671 958"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-SGRS-PG16 H10B-SGRS-PG21 H10B-SGRS-M20 H10B-SGRS-M25 H10B-SGRS-2PG16 H10B-SGRS-2PG21 H10B-SGRS-2M20 H10B-SGRS-2M25 H10B-SGRHS-PG21 H10B-SGRHS-PG29 H10B-SGRHS-M25 H10B-SGRHS-M32 H10B-SGRHS-2PG21 H10B-SGRHS-2PG29 H10B-SGRHS-2M25 H10B-SGRHS-2M32	T 1 44 010 1116-000 T 1 44 010 1121-000 T 1 44 010 1120-000 T 1 44 010 1125-000 T 1 44 010 1216-000 T 1 44 010 1221-000 T 1 44 010 1220-000 T 1 44 010 1225-000 T 1 47 010 1121-000 T 1 47 010 1129-000 T 1 47 010 1125-000 T 1 47 010 1132-000 T 1 47 010 1221-000 T 1 47 010 1229-000 T 1 47 010 1225-000 T 1 47 010 1232-000												
Construction	A	B	H																									
Low	40	52	56																									
Hight	45	57	74																									
<b>Side entry housing with two levers</b>																												
  <table border="1" data-bbox="316 1178 517 1261"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>Hight</td> <td>72</td> </tr> </tbody> </table>	Construction	H	Low	60	Hight	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TSBS-PG16 H10B-TSBS-PG21 H10B-TSBS-M20 H10B-TSBS-M25 H10B-TSBHS-PG21 H10B-TSBHS-PG29 H10B-TSBHS-M25 H10B-TSBHS-M32	T 1 25 010 3116-000 T 1 25 010 3121-000 T 1 25 010 3120-000 T 1 25 010 3125-000 T 1 27 010 3121-000 T 1 27 010 3129-000 T 1 27 010 3125-000 T 1 27 010 3132-000																		
Construction	H																											
Low	60																											
Hight	72																											
<b>Top entry housing with two levers</b>																												
  <table border="1" data-bbox="316 1429 536 1518"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>Hight</td> <td>72</td> </tr> </tbody> </table>	Construction	H	Low	60	Hight	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TGBS-PG16 H10B-TGBS-PG21 H10B-TGBS-M20 H10B-TGBS-M25 H10B-TGBHS-PG21 H10B-TGBHS-PG29 H10B-TGBHS-M25 H10B-TGBHS-M32	T 1 26 010 3116-000 T 1 26 010 3121-000 T 1 26 010 3120-000 T 1 26 010 3125-000 T 1 28 010 3121-000 T 1 28 010 3129-000 T 1 28 010 3125-000 T 1 28 010 3132-000																		
Construction	H																											
Low	60																											
Hight	72																											
<b>Bulkhead mounted with 4 bolts</b>																												
    <table border="1" data-bbox="316 1939 695 2018"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>F</th> <th>G</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>82</td> <td>94</td> <td>40</td> <td>52</td> <td>22</td> <td>67</td> <td>54</td> </tr> <tr> <td>Hight</td> <td>82</td> <td>94</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	C	D	F	G	H	Low	82	94	40	52	22	67	54	Hight	82	94	45	57	20	65	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-AD-BO H10B-SDR-BO-PG16 H10B-SDR-BO-PG21 H10B-SDR-BO-M20 H10B-SDR-BO-M25 H10B-SDR-BO-2PG16 H10B-SDR-BO-2PG21 H10B-SDR-BO-2M20 H10B-SDR-BO-2M25 H10B-SDRH-BO-PG21 H10B-SDRH-BO-PG29 H10B-SDRH-BO-M25 H10B-SDRH-BO-M32 H10B-SDRH-BO-2PG21 H10B-SDRH-BO-2PG29 H10B-SDRH-BO-2M25 H10B-SDRH-BO-2M32	T 1 43 010 0000-000 T 1 46 010 0116-000 T 1 46 010 0121-000 T 1 46 010 0120-000 T 1 46 010 0125-000 T 1 46 010 0216-000 T 1 46 010 0221-000 T 1 46 010 0220-000 T 1 46 010 0225-000 T 1 49 010 0121-000 T 1 49 010 0129-000 T 1 49 010 0125-000 T 1 49 010 0132-000 T 1 49 010 0221-000 T 1 49 010 0229-000 T 1 49 010 0225-000 T 1 49 010 0232-000
Construction	A	B	C	D	F	G	H																					
Low	82	94	40	52	22	67	54																					
Hight	82	94	45	57	20	65	74																					

## H10B with 1 lever on the hoods/housings


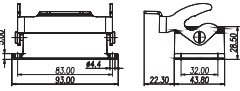

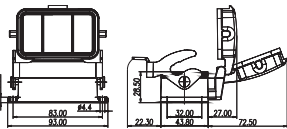

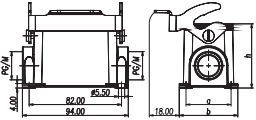

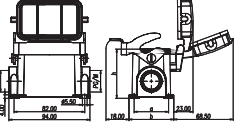
POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Hood: Side entry										
		M20 M25	PG16 PG21	H10B-TS-RO-PG16 H10B-TS-RO-PG21 H10B-TS-RO-M20 H10B-TS-RO-M25 T 1 31 010 0116-000 T 1 31 010 0121-000 T 1 31 010 0120-000 T 1 31 010 0125-000						
		M20 M25 M32	PG21 PG29	H10B-TSH-RO-PG21 H10B-TSH-RO-PG29 H10B-TSH-RO-M20 H10B-TSH-RO-M25 H10B-TSH-RO-M32 T 1 33 010 0121-000 T 1 33 010 0129-000 T 1 33 010 0120-000 T 1 33 010 0125-000 T 1 33 010 0132-000						
Hood: Top entry										
		M20 M25	PG16 PG21	H10B-TG-RO-PG16 H10B-TG-RO-PG21 H10B-TG-RO-M20 H10B-TG-RO-M25 T 1 32 010 0116-000 T 1 32 010 0121-000 T 1 32 010 0120-000 T 1 32 010 0125-000						
		M20 M25 M32	PG21 PG29	H10B-TGH-RO-PG21 H10B-TGH-RO-PG29 H10B-TGH-RO-M20 H10B-TGH-RO-M25 H10B-TGH-RO-M32 T 1 34 010 0121-000 T 1 34 010 0129-000 T 1 34 010 0120-000 T 1 34 010 0125-000 T 1 34 010 0132-000						
Cable-to-cable hood										
	 <table border="1" data-bbox="528 1402 746 1496"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M20 M25  M25 M32	PG16  PG21 PG29	H10B-TBF-LB-PG16 H10B-TBF-LB-M20 H10B-TBF-LB-M25 H10B-TBFH-LB-PG21 H10B-TBFH-LB-PG29 H10B-TBFH-LB-M25 H10B-TBFH-LB-M32 T 1 73 010 3116-000 T 1 73 010 3120-000 T 1 73 010 3125-000 T 1 77 010 3121-000 T 1 77 010 3129-000 T 1 77 010 3125-000 T 1 77 010 3132-000
Construction	H									
Low	62.5									
Hight	74.5									
Protection covers for hoods										
				H10B-KDTP-LB T 1 01 010 1500-000						



## H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number												
Bulkhead mounted																	
				H10B-AG-LB	T 1 50 010 3000-000												
	With protection cover 			H10B-AD-LB H10B-ADM-LB	T 1 51 010 3000-000 T 1 51 010 3001-000												
Surface mounted: Side entry																	
	 <table border="1" data-bbox="316 1227 671 1317"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	1 Side entry Low construction 2 Side entry M20 M25 M20 M25 High construction M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-SGR-LB-PG16 H10B-SGR-LB-PG21 H10B-SGR-LB-M20 H10B-SGR-LB-M25 H10B-SGR-LB-2PG16 H10B-SGR-LB-2PG21 H10B-SGR-LB-2M20 H10B-SGR-LB-2M25 H10B-SGRH-LB-PG21 H10B-SGRH-LB-PG29 H10B-SGRH-LB-M25 H10B-SGRH-LB-M32 H10B-SGRH-LB-2PG21 H10B-SGRH-LB-2PG29 H10B-SGRH-LB-2M25 H10B-SGRH-LB-2M32	T 1 61 010 3116-000 T 1 61 010 3121-000 T 1 61 010 3120-000 T 1 61 010 3125-000 T 1 61 010 3216-000 T 1 61 010 3221-000 T 1 61 010 3220-000 T 1 61 010 3225-000 T 1 65 010 3121-000 T 1 65 010 3129-000 T 1 65 010 3125-000 T 1 65 010 3132-000 T 1 65 010 3221-000 T 1 65 010 3229-000 T 1 65 010 3225-000 T 1 65 010 3232-000
Construction	A	B	H														
Low	40	52	54														
Hight	45	57	74														
	With protection cover  <table border="1" data-bbox="316 1630 671 1720"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>Hight</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	1 Side entry Low construction 2 Side entry M20 M25 M20 M25 High construction M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-SDR-LB-PG16 H10B-SDR-LB-PG21 H10B-SDR-LB-M20 H10B-SDR-LB-M25 H10B-SDR-LB-2PG16 H10B-SDR-LB-2PG21 H10B-SDR-LB-2M20 H10B-SDR-LB-2M25 H10B-SDRH-LB-PG21 H10B-SDRH-LB-PG29 H10B-SDRH-LB-M25 H10B-SDRH-LB-M32 H10B-SDRH-LB-2PG21 H10B-SDRH-LB-2PG29 H10B-SDRH-LB-2M25 H10B-SDRH-LB-2M32	T 1 62 010 3116-000 T 1 62 010 3121-000 T 1 62 010 3120-000 T 1 62 010 3125-000 T 1 62 010 3216-000 T 1 62 010 3221-000 T 1 62 010 3220-000 T 1 62 010 3225-000 T 1 66 010 3121-000 T 1 66 010 3129-000 T 1 66 010 3125-000 T 1 66 010 3132-000 T 1 66 010 3221-000 T 1 66 010 3229-000 T 1 66 010 3225-000 T 1 66 010 3232-000
Construction	A	B	H														
Low	40	52	54														
Hight	45	57	74														

## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


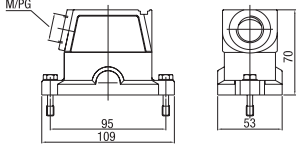

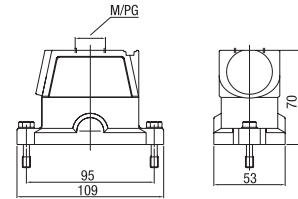

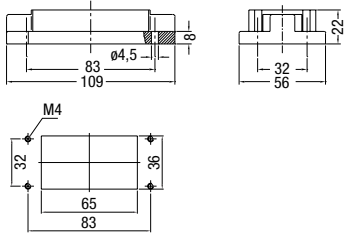
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Hood: Side entry, Standard construction</b>				
		M25	16 21	<b>HIP</b> HIP.10/24.STS.1.16.G HIP.10/24.STS.1.21.G HIP.10/24.STS.1.M25.G  1-1102640-5 1-1102642-5 0-1106436-2
		M25 M32	21	<b>HIP-K</b> HIP-K.10/24.STS.1.21.G HIP-K.10/24.STS.1.M25.G HIP-K.10/24.STS.1.M32.G  2-1102642-5 0-1106436-4 0-1106436-6
		M25 M32	21	<b>EMV-K</b> EMV-K.10/24.STS.1.21.G EMV-K.10/24.STS.1.M25.G EMV-K.10/24.STS.1.M32.G  4-1102714-5 0-1106427-3 1-1106427-0
<b>Hood: Top entry</b>				
		M25	16 21	<b>HIP</b> HIP.10/24.STO.1.16.G HIP.10/24.STO.1.21.G HIP.10/24.STO.1.M25.G  1-1102644-5 1-1102646-5 0-1106436-1
		M25 M32	16	<b>HIP-K</b> HIP-K.10/24.STO.1.16.G HIP-K.10/24.STO.1.M25.G HIP-K.10/24.STO.1.M32.G  2-1102644-5 0-1106436-3 0-1106436-5
		M25	21	<b>EMV-K</b> EMV-K.10/24.STO.1.21.G EMV-K.10/24.STO.1.M25.G  4-1102715-5 0-1106427-4
<b>Surface mounted housing: Bottom entry</b>				
				<b>HIP</b> HIP.10/24.AG  1-1102647-5  <b>HIP-K</b> HIP-K.10/24.AG  2-1102647-5  <b>EMV-K</b> EMV-K.10/24.AG  4-1102718-5

## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


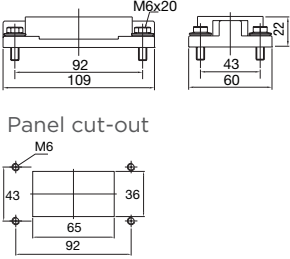

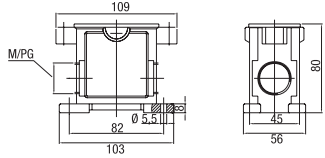

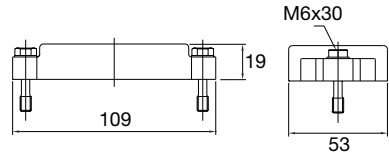
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K




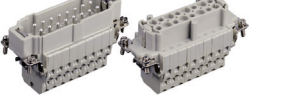
Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Bottom entry</b>				
 			<b>HIP</b> HIP.10/24.AG.M6  <b>HIP-K</b> HIP-K.10/24.AG.M6  <b>EMV-K</b> EMV-K.10/24.AG.M6	1-1102612-5  2-1102612-5  4-1102720-5
<b>Surface mounted housing: Side entry</b>				
 	2xM32	21 2x21	<b>HIP</b> HIP.10/24.SG.1.21.G HIP.10/24.SG.2.21.G HIP.10/24.SG.2.M32.G  <b>HIP-K</b> HIP-K.10/24.SG.1.21.G HIP-K.10/24.SG.2.21.G  <b>EMV-K</b> EMV-K.10/24.SG.1.21.G EMV-K.10/24.SG.2.21.G EMV-K.10/24.SG.2.M32.G	1-1102610-5 1-1102611-5 0-1106435-1  5-1102610-5 2-1102611-5  5-1102716-5 4-1102717-5 0-1106426-2
<b>Protective covers for hoods and housing</b>				
 			<b>HIP</b> HIP/EMV.10/24.SKB  <b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB	3-1106202-5  4-1106202-5

## HE-016 inserts


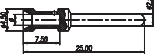


INSERTS FOR H16B HOOD/HOUSING

500V MAX. 16A

16+ 

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-016-M	T 2 04 016 2101-000	
	HE-016-F		T 2 04 016 2201-000
Spring terminal			
	HE-016-MS	T 2 04 016 3101-000	
	HE-016-FS		T 2 04 016 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-016-MC	T 2 04 016 4101-000	
	HE-016-FC		T 2 04 016 4201-000
Spring terminal (Two terminals per contact)			
	HE-016-MSS	T 2 04 016 5101-000	
	HE-016-FSS		T 2 04 016 5201-000

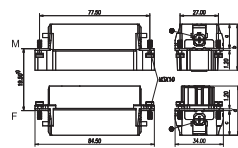
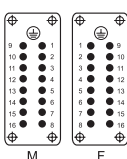
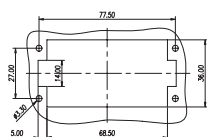
### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000		
1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000		
2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000		

Distance for contact max. 21mm

Contact arrangement view  
from termination side

Panel cut-out for inserts for use  
without hoods/housings


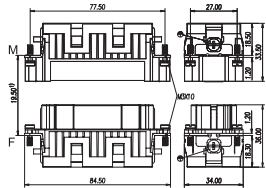
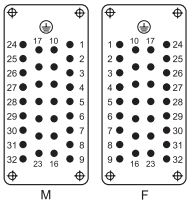
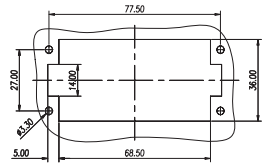
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	a	b	c	d																		
HE	18	33	18	35																		
HES/HEC	19	34	19	36																		
HESS	34	49	32	49																		

## HEE-032 inserts


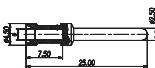

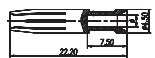
INSERTS FOR H16B HOOD/HOUSING

500V MAX. 16A

32+Ⓢ

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HEE-032-M	T 2 05 032 2101-000
		HEE-032-F	T 2 05 032 2201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

## 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

# HEEE-040 inserts

INSERTS FOR H16B HOOD/HOUSING

500V MAX. 16A

40+

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HEEE-040-M	T 2 05 040 2101-000
		HEEE-040-F	T 2 05 040 2201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

## 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000


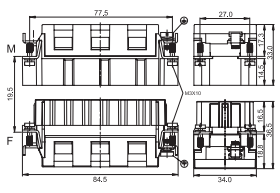
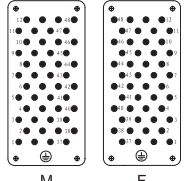
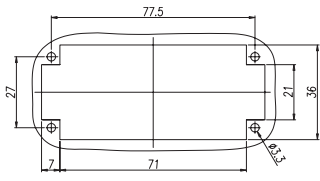


## HEEE-048 inserts


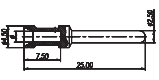

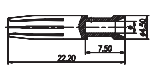
INSERTS FOR H16B HOOD/HOUSING

400V MAX. 16A

48+


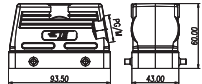

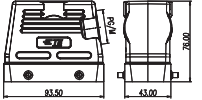

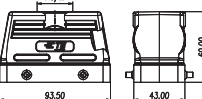

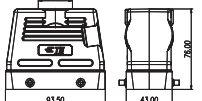

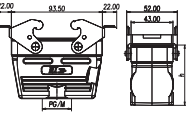

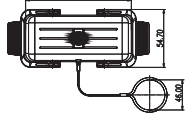

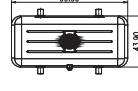
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HEEE-048-F	T 2 05 048 2101-000	
		HEEE-048-F		T 2 05 048 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings			
				

## 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M20 M25 M32	PG16 PG21	H16B-TS-PG16 H16B-TS-PG21 H16B-TS-M20 H16B-TS-M25 H16B-TS-M32	T 1 21 016 0116-000 T 1 21 016 0121-000 T 1 21 016 0120-000 T 1 21 016 0125-000 T 1 21 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TSH-PG21 H16B-TSH-PG29 H16B-TSH-M25 H16B-TSH-M32 H16B-TSH-M40	T 1 23 016 0121-000 T 1 23 016 0129-000 T 1 23 006 0125-000 T 1 23 016 0132-000 T 1 23 016 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H16B-TG-PG16 H16B-TG-PG21 H16B-TG-M25 H16B-TG-M32	T 1 22 016 0116-000 T 1 22 016 0121-000 T 1 22 016 0125-000 T 1 22 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TGH-PG21 H16B-TGH-PG29 H16B-TGH-M25 H16B-TGH-M32 H16B-TGH-M40	T 1 24 016 0121-000 T 1 24 016 0129-000 T 1 24 016 0125-000 T 1 24 016 0132-000 T 1 24 016 0140-000						
Cable-to-cable hood											
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Construction	H										
Low	62.5										
High	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFHS-PG21 H16B-TBFHS-PG29 H16B-TBFHS-M25 H16B-TBFHS-M32 H16B-TBFHS-M40	T 1 75 016 1121-000 T 1 75 016 1129-000 T 1 75 016 1125-000 T 1 75 016 1132-000 T 1 75 016 1140-000						
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						




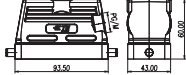

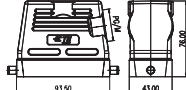

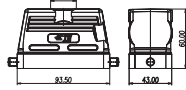

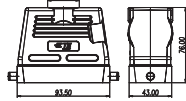

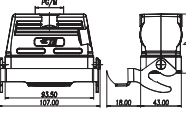

# H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																								
Bulkhead mounted																													
				H16B-AGS	T 1 41 016 1000-000																								
Surface mounted: Side entry																													
		1 Side entry Low construction 2 Side entry High construction	M25	PG21	H16B-SGRS-PG21	T 1 44 016 1121-000																							
			M25	PG21	H16B-SGRS-M25	T 1 44 016 1125-000																							
			M25	PG21	H16B-SGRS-2PG21	T 1 44 016 1221-000																							
			M25	PG21	H16B-SGRS-2M25	T 1 44 016 1225-000																							
			M25	PG29	H16B-SGRHS-PG21	T 1 47 016 1121-000																							
			M32	PG29	H16B-SGRHS-PG29	T 1 47 016 1129-000																							
	<table border="1"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>High</td><td>81</td></tr> </table>	Construction	H	Low	56	High	81			H16B-SGRHS-M25	T 1 47 016 1125-000																		
Construction	H																												
Low	56																												
High	81																												
				H16B-SGRHS-M32	T 1 47 016 1132-000																								
				H16B-SGRHS-2PG21	T 1 47 016 1221-000																								
				H16B-SGRHS-2PG29	T 1 47 016 1229-000																								
				H16B-SGRHS-2M25	T 1 47 016 1225-000																								
				H16B-SGRHS-2M32	T 1 47 016 1232-000																								
Side entry housing with two levers																													
		Low construction High construction	M20	PG16	H16B-TSBS-PG16	T 1 25 016 3116-000																							
			M25	PG21	H16B-TSBS-PG21	T 1 25 016 3121-000																							
			M25	PG21	H16B-TSBS-M20	T 1 25 016 3120-000																							
			M25	PG21	H16B-TSBS-M25	T 1 25 016 3125-000																							
			M25	PG29	H16B-TSBHS-PG21	T 1 27 016 3121-000																							
			M32	PG29	H16B-TSBHS-PG29	T 1 27 016 3129-000																							
	<table border="1"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>60</td></tr> <tr><td>High</td><td>76</td></tr> </table>	Construction	H	Low	60	High	76			H16B-TSBHS-M25	T 1 27 016 3125-000																		
Construction	H																												
Low	60																												
High	76																												
				H16B-TSBHS-M32	T 1 27 016 3132-000																								
Top entry housing with two levers																													
		Low construction High construction	M20	PG16	H16B-TGBS-PG16	T 1 26 016 3116-000																							
			M25	PG21	H16B-TGBS-PG21	T 1 26 016 3121-000																							
			M25	PG21	H16B-TGBS-M20	T 1 26 016 3120-000																							
			M25	PG21	H16B-TGBS-M25	T 1 26 016 3125-000																							
			M25	PG29	H16B-TGBHS-PG21	T 1 28 016 3121-000																							
			M32	PG29	H16B-TGBHS-PG29	T 1 28 016 3129-000																							
	<table border="1"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>60</td></tr> <tr><td>High</td><td>76</td></tr> </table>	Construction	H	Low	60	High	76			H16B-TGBHS-M25	T 1 28 016 3125-000																		
Construction	H																												
Low	60																												
High	76																												
				H16B-TGBHS-M32	T 1 28 016 3132-000																								
Bulkhead mounted with 4 bolts																													
	With protection cover		1 Side entry Low construction 2 Side entry High construction	PG21 PG21 PG21 PG29 PG21 PG29 PG21 PG29	H16B-AD-BO	T 1 43 016 0000-000																							
		M25			H16B-SDR-BO-PG21	T 1 46 016 0121-000																							
		M25			H16B-SDR-BO-M25	T 1 46 016 0125-000																							
		M25			H16B-SDR-BO-2PG21	T 1 46 016 0221-000																							
		M25			H16B-SDR-BO-2M25	T 1 46 016 0225-000																							
		M25			H16B-SDRH-BO-PG21	T 1 49 016 0121-000																							
		M32			H16B-SDRH-BO-PG29	T 1 49 016 0129-000																							
		M25			H16B-SDRH-BO-M25	T 1 49 016 0125-000																							
		M32			H16B-SDRH-BO-M32	T 1 49 016 0132-000																							
		M25			H16B-SDRH-BO-2PG21	T 1 49 016 0221-000																							
		M25			H16B-SDRH-BO-2PG29	T 1 49 016 0229-000																							
		M25			H16B-SDRH-BO-2M25	T 1 49 016 0225-000																							
M32		H16B-SDRH-BO-2M32	T 1 49 016 0232-000																										
	<table border="1"> <tr><td>Construction</td><td>A</td><td>B</td><td>C</td><td>D</td><td>F</td><td>G</td><td>H</td></tr> <tr><td>Low</td><td>105</td><td>117</td><td>45</td><td>57</td><td>20</td><td>65</td><td>56</td></tr> <tr><td>High</td><td>105</td><td>117</td><td>45</td><td>57</td><td>20</td><td>65</td><td>81</td></tr> </table>	Construction	A	B	C	D	F	G	H	Low	105	117	45	57	20	65	56	High	105	117	45	57	20	65	81				
Construction	A	B	C	D	F	G	H																						
Low	105	117	45	57	20	65	56																						
High	105	117	45	57	20	65	81																						


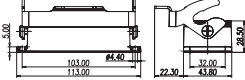

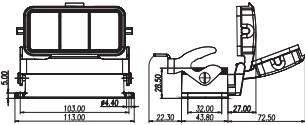

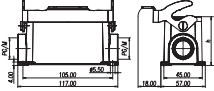

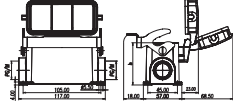
# H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	M25 M32	PG21 PG29	H16B-TS-RO-PG21 H16B-TS-RO-PG29 H16B-TS-RO-M25 H16B-TS-RO-M32	T 1 31 016 0121-000 T 1 31 016 0129-000 T 1 31 016 0125-000 T 1 31 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TSH-RO-PG21 H16B-TSH-RO-PG29 H16B-TSH-RO-M25 H16B-TSH-RO-M32 H16B-TSH-RO-M40	T 1 33 016 0121-000 T 1 33 016 0129-000 T 1 33 016 0125-000 T 1 33 016 0132-000 T 1 33 016 0140-000						
Hood: Top entry											
	Low construction 	M25 M32	PG21 PG29	H16B-TG-RO-PG21 H16B-TG-RO-PG29 H16B-TG-RO-M25 H16B-TG-RO-M32	T 1 32 016 0121-000 T 1 32 016 0129-000 T 1 32 016 0125-000 T 1 32 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TGH-RO-PG21 H16B-TGH-RO-PG29 H16B-TGH-RO-M25 H16B-TGH-RO-M32 H16B-TGH-RO-M40	T 1 34 016 0121-000 T 1 34 016 0129-000 T 1 34 016 0125-000 T 1 34 016 0132-000 T 1 34 016 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="533 1357 751 1447"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M25 M32	PG21 PG29	H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32	T 1 73 016 3121-000 T 1 73 016 3129-000 T 1 73 016 3125-000 T 1 73 016 3132-000
Construction	H										
Low	62.5										
Hight	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFH-LB-PG21 H16B-TBFH-LB-PG29 H16B-TBFH-LB-M25 H16B-TBFH-LB-M32 H16B-TBFH-LB-M40	T 1 77 016 3121-000 T 1 77 016 3129-000 T 1 77 016 3125-000 T 1 77 016 3132-000 T 1 77 016 3140-000						
Protection covers for hoods											
				H16B-KDTP-LB	T 1 01 016 1500-000						

# H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
 			H16B-AG-LB	T 1 50 016 3000-000						
 <p>With protection cover</p> 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry										
  <table border="1" data-bbox="325 1151 544 1245"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SGR-LB-PG16 H16B-SGR-LB-PG21 H16B-SGR-LB-M20 H16B-SGR-LB-M25 H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25 H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M25 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32	T 1 61 016 3116-000 T 1 61 016 3121-000 T 1 61 016 3120-000 T 1 61 016 3125-000 T 1 61 016 3216-000 T 1 61 016 3221-000 T 1 61 016 3220-000 T 1 61 016 3225-000 T 1 65 016 3121-000 T 1 65 016 3129-000 T 1 65 016 3125-000 T 1 65 016 3132-000 T 1 65 016 3221-000 T 1 65 016 3229-000 T 1 65 016 3225-000 T 1 65 016 3232-000
Construction	H									
Low	56									
High	81									
 <p>With protection cover</p>  <table border="1" data-bbox="325 1570 544 1664"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SDR-LB-PG16 H16B-SDR-LB-PG21 H16B-SDR-LB-M20 H16B-SDR-LB-M25 H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25 H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M25 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32	T 1 62 016 3116-000 T 1 62 016 3121-000 T 1 62 016 3120-000 T 1 62 016 3125-000 T 1 62 016 3216-000 T 1 62 016 3221-000 T 1 62 016 3220-000 T 1 62 016 3225-000 T 1 66 016 3121-000 T 1 66 016 3129-000 T 1 66 016 3125-000 T 1 66 016 3132-000 T 1 66 016 3221-000 T 1 66 016 3229-000 T 1 66 016 3225-000 T 1 66 016 3232-000
Construction	H									
Low	56									
High	81									

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings


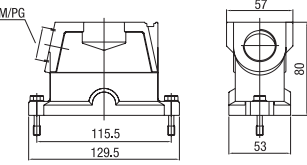

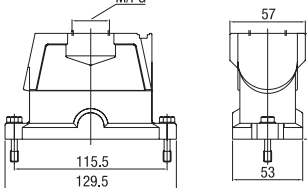

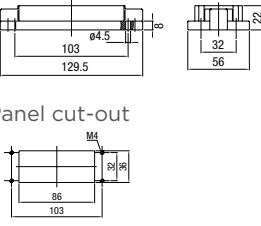

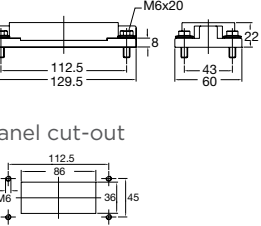
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry</b>					
		M32	<b>HIP</b> HIP.16/40.STS.1.21.G HIP.16/40.STS.1.29.G HIP.16/40.STS.1.M32.G	1-1102649-5 1-1102651-5 0-1106454-2	
		M32	29	<b>HIP-K</b> HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G	2-1102651-5 0-1106444-2
		M32	29	<b>EMV-K</b> EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G	4-1102723-5 0-1106446-4 4-1102722-5
<b>Hood: Top entry</b>					
		M32	<b>HIP</b> HIP.16/40.STO.1.21.G HIP.16/40.STO.1.29.G HIP.16/40.STO.1.M32.G	1-1102653-5 1-1102655-5 0-1106454-1	
		M32	21 29	<b>HIP-K</b> HIP-K.16/40.STO.2.21.G HIP-K.16/40.STO.1.29.G HIP-K.16/40.STO.1.M32.G	0-1108534-1 2-1102655-5 0-1106444-1
		M32	29	<b>EMV-K</b> EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G	4-1102725-5 0-1106446-3
<b>Surface mounted housing: Bottom entry</b>					
			<b>HIP</b> HIP.16/40.AG	1-1102656-5	
			<b>HIP-K</b> HIP-K.16/40.AG	2-1102656-5	
			<b>EMV-K</b> EMV-K.16/40.AG	4-1102728-5	
			<b>HIP</b> HIP.16/40.AG.M6	1-1102618-5	
			<b>HIP-K</b> HIP-K.16/40.AG.M6	2-1102618-5	
			<b>EMV-K</b> EMV-K.16/40.AG.M6	4-1102730-5	

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings


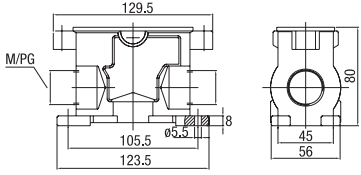

**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K




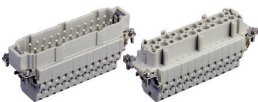
Description	Metr.	PG	Type	Part Number	
<b>Surface mounted housing: Side entry</b>					
	2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G	1-1102616-5	
			HIP.16/40.SG.2.21.G	1-1102617-5	
			HIP.16/40.SG.2.M32.G	0-1106453-1	
	2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G	5-1102616-5	
			HIP-K.16/40.SG.2.21.G	2-1102617-5	
			HIP-K.16/40.SG.2.M32.G	0-1106443-1	
	2xM32	21 2x21	<b>EMV-K</b> EMV-K.16/40.SG.1.21.Z	4-1102726-5	
			EMV-K.16/40.SG.2.21.Z	4-1102727-5	
			EMV-K.16/40.SG.2.M32.G	0-1106445-2	
					
	<b>Protective covers for housings</b>				
				<b>HIP</b> HIP/EMV.16/40.SKB	3-1106203-5
				<b>HIP-K</b> HIP-K.16/40.SKB	4-1106203-5

## HE-024 inserts


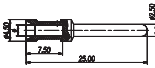

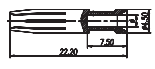
INSERTS FOR H24B HOOD/HOUSING

500V MAX. 16A

24+⊕

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-024-M	T 2 04 024 2101-000	
	HE-024-F		T 2 04 024 2201-000
Spring terminal			
	HE-024-MS	T 2 04 024 3101-000	
	HE-024-FS		T 2 04 024 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-024-MC	T 2 04 024 4101-000	
	HE-024-FC		T 2 04 024 4201-000
Spring terminal (Two terminals per contact)			
	HE-024-MSS	T 2 04 024 5101-000	
	HE-024-FSS		T 2 04 024 5201-000

### 16A Contact

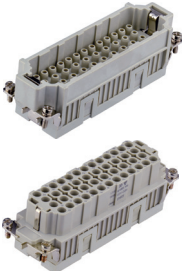
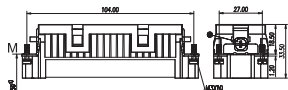

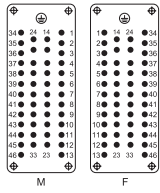
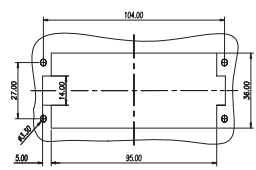
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## HEE-046 inserts


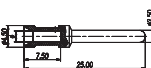

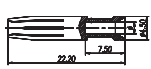
INSERTS FOR H24B HOOD/HOUSING

500V MAX. 16A

46+ 

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
	 HEE-046-M	T 2 05 046 2101-000	
	 HEE-046-F	T 2 05 046 2201-000	
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

## 16A Contact


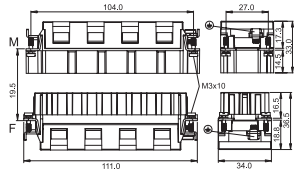
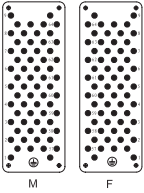
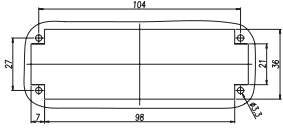
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## HEEE-064 inserts


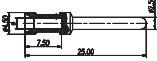

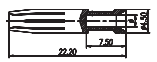
INSERTS FOR H24B HOOD/HOUSING

500V MAX. 16A

64+ (⊕)

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HEEE-064-M	T 2 05 064 3101-000
		HEEE-064-F	T 2 05 064 3201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

## 16A Contact


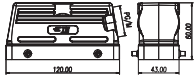

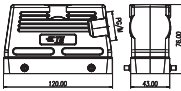

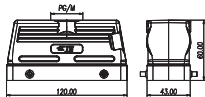

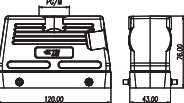

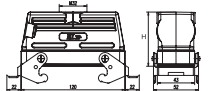

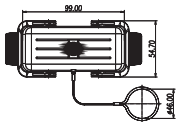

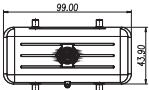
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000






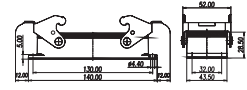

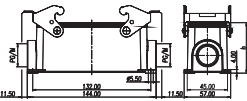

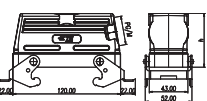

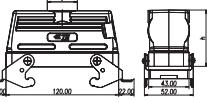


## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	M25 M32	PG16 PG21	H24B-TS-PG16 H24B-TS-PG21 H24B-TS-M25 H24B-TS-M32	T 1 21 024 0116-000 T 1 21 024 0121-000 T 1 21 024 0125-000 T 1 21 024 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H24B-TSH-PG21 H24B-TSH-PG29 H24B-TSH-M25 H24B-TSH-M32 H24B-TSH-M40	T 1 23 024 0121-000 T 1 23 024 0129-000 T 1 23 024 0125-000 T 1 23 024 0132-000 T 1 23 024 0140-000						
Hood: Top entry											
	Low construction 	M25 M32	PG16 PG21	H24B-TG-PG16 H24B-TG-PG21 H24B-TG-M25 H24B-TG-M32	T 1 22 024 0116-000 T 1 22 024 0121-000 T 1 22 024 0125-000 T 1 22 024 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H24B-TGH-PG21 H24B-TGH-PG29 H24B-TGH-M25 H24B-TGH-M32 H24B-TGH-M40	T 1 24 024 0121-000 T 1 24 024 0129-000 T 1 24 024 0125-000 T 1 24 024 0132-000 T 1 24 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="536 1361 754 1451"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32  M25 M32 M40	PG21  PG21 PG29	H24B-TBFS-PG21 H24B-TBFS-M25 H24B-TBFS-M32  H24B-TBFHS-PG21 H24B-TBFHS-PG29 H24B-TBFHS-M25 H24B-TBFHS-M32 H24B-TBFHS-M40	T 1 71 024 1121-000 T 1 71 024 1125-000 T 1 71 024 1132-000  T 1 75 024 1121-000 T 1 75 024 1129-000 T 1 75 024 1125-000 T 1 75 024 1132-000 T 1 75 024 1140-000
Construction	H										
Low	62.5										
High	78.5										
Protection covers for hoods											
				H24B-KDTP	T 1 01 024 1400-000						
Housing protection cover											
				H24B-KDBP	T 1 01 024 2100-000						


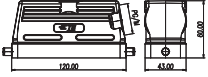

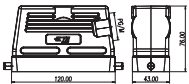

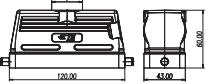

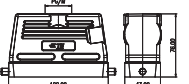

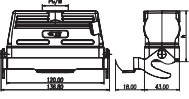

## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number		
Bulkhead mounted							
				H24B-AGS	T 1 41 024 1000-000		
Surface mounted: Side entry							
		1 Side entry Low construction	M25	PG21	H24B-SGRS-PG21	T 1 44 024 1121-000	
		2 Side entry Low construction	M25	PG21	H24B-SGRS-M25	T 1 44 024 1125-000	
		1 Side entry High construction	M25	PG21	H24B-SGRHS-PG21	T 1 47 024 1221-000	
		2 Side entry High construction	M32	PG29	H24B-SGRHS-2M25	T 1 44 024 1225-000	
			M25	PG21	H24B-SGRHS-PG21	T 1 47 024 1121-000	
			M32	PG29	H24B-SGRHS-PG29	T 1 47 024 1129-000	
			M25	PG21	H24B-SGRHS-M25	T 1 47 024 1125-000	
			M32	PG29	H24B-SGRHS-M32	T 1 47 024 1132-000	
			M25	PG21	H24B-SGRHS-2PG21	T 1 47 024 1221-000	
			M32	PG29	H24B-SGRHS-2PG29	T 1 47 024 1229-000	
			M25	PG21	H24B-SGRHS-2M25	T 1 47 024 1225-000	
			M32	PG29	H24B-SGRHS-2M32	T 1 47 024 1232-000	
Side entry housing with two levers							
		Low construction	M20	PG16	H24B-TSBS-PG16	T 1 25 024 3116-000	
		High construction	M25	PG21	H24B-TSBS-PG21	T 1 25 024 3121-000	
			M25	PG21	H24B-TSBS-M20	T 1 25 024 3120-000	
			M32	PG29	H24B-TSBS-M25	T 1 25 024 3125-000	
			M25	PG21	H24B-TSBHS-PG21	T 1 27 024 3121-000	
			M32	PG29	H24B-TSBHS-PG29	T 1 27 024 3129-000	
			M25	PG21	H24B-TSBHS-M25	T 1 27 024 3125-000	
			M32	PG29	H24B-TSBHS-M32	T 1 27 024 3132-000	
Top entry housing with two levers							
		Low construction	M20	PG16	H24B-TGBS-PG16	T 1 26 024 3116-000	
		High construction	M25	PG21	H24B-TGBS-PG21	T 1 26 024 3121-000	
			M25	PG21	H24B-TGBS-M20	T 1 26 024 3120-000	
			M32	PG29	H24B-TGBS-M25	T 1 26 024 3125-000	
			M25	PG21	H24B-TGBHS-PG21	T 1 28 024 3121-000	
			M32	PG29	H24B-TGBHS-PG29	T 1 28 024 3129-000	
			M25	PG21	H24B-TGBHS-M25	T 1 28 024 3125-000	
			M32	PG29	H24B-TGBHS-M32	T 1 28 024 3132-000	
Bulkhead mounted with 4 bolts							
	With protection cover		1 Side entry Low construction	M25	PG21	H24B-AD-BO	T 1 43 024 0000-000
						1 Side entry High construction	M25
						H24B-SDR-BO-2PG21	T 1 46 024 0221-000
						H24B-SDR-BO-2M25	T 1 46 024 0225-000
						H24B-SDRH-BO-PG21	T 1 49 024 0121-000
						H24B-SDRH-BO-PG29	T 1 49 024 0129-000
						H24B-SDRH-BO-M25	T 1 49 024 0125-000
						H24B-SDRH-BO-M32	T 1 49 024 0132-000
						H24B-SDRH-BO-2PG21	T 1 49 024 0221-000
						H24B-SDRH-BO-2PG29	T 1 49 024 0229-000
						H24B-SDRH-BO-2M25	T 1 49 024 0225-000
						H24B-SDRH-BO-2M32	T 1 49 024 0232-000


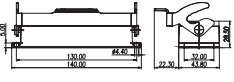

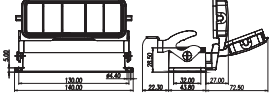

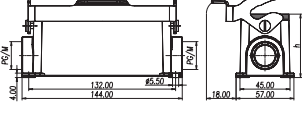

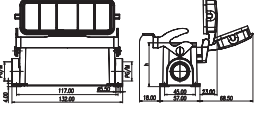
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	M25 M32	PG21 PG29	H24B-TS-RO-PG21 H24B-TS-RO-PG29 H24B-TS-RO-M25 H24B-TS-RO-M32	T 1 31 024 0121-000 T 1 31 024 0129-000 T 1 31 024 0125-000 T 1 31 024 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H24B-TSH-RO-PG21 H24B-TSH-RO-PG29 H24B-TSH-RO-M25 H24B-TSH-RO-M32 H24B-TSH-RO-M40	T 1 33 024 0121-000 T 1 33 024 0129-000 T 1 33 024 0125-000 T 1 33 024 0132-000 T 1 33 024 0140-000						
Hood: Top entry											
	Low construction 	M25 M32	PG21 PG29	H24B-TG-RO-PG21 H24B-TG-RO-PG29 H24B-TG-RO-M25 H24B-TG-RO-M32	T 1 32 024 0121-000 T 1 32 024 0129-000 T 1 32 024 0125-000 T 1 32 024 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H24B-TGH-RO-PG21 H24B-TGH-RO-PG29 H24B-TGH-RO-M25 H24B-TGH-RO-M32 H24B-TGH-RO-M40	T 1 34 024 0121-000 T 1 34 024 0129-000 T 1 34 024 0125-000 T 1 34 024 0132-000 T 1 34 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="533 1337 743 1435"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32	PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000
Construction	H										
Low	62.5										
High	78.5										
		M25 M32 M40	PG21 PG29	H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 77 024 3121-000 T 1 77 024 3129-000 T 1 77 024 3125-000 T 1 77 024 3132-000 T 1 77 024 3140-000						
Protection covers for hoods											
				H24B-KDTP-LB	T 1 01 024 1500-000						

## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
			H24B-AG-LB	T 1 50 024 3000-000						
	With protection cover 		H24B-AD-LB	T 1 51 024 3000-000						
Surface mounted: Side entry										
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Construction	H									
Low	56									
High	81									
	With protection cover  <table border="1" data-bbox="322 1585 539 1684"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>High</td><td>81</td></tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M20 M25 M20 M25 M25 M32 M25 M32 PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H24B-SDR-LB-PG16 H24B-SDR-LB-PG21 H24B-SDR-LB-M20 H24B-SDR-LB-M25 H24B-SDR-LB-2PG16 H24B-SDR-LB-2PG21 H24B-SDR-LB-2M20 H24B-SDR-LB-2M25 H24B-SDRH-LB-PG21 H24B-SDRH-LB-PG29 H24B-SDRH-LB-M25 H24B-SDRH-LB-M32 H24B-SDRH-LB-2PG21 H24B-SDRH-LB-2PG29 H24B-SDRH-LB-2M25 H24B-SDRH-LB-2M32 T 1 62 024 3116-000 T 1 62 024 3121-000 T 1 62 024 3120-000 T 1 62 024 3125-000 T 1 62 024 3216-000 T 1 62 024 3221-000 T 1 62 024 3220-000 T 1 62 024 3225-000 T 1 66 024 3121-000 T 1 66 024 3129-000 T 1 66 024 3125-000 T 1 66 024 3132-000 T 1 66 024 3221-000 T 1 66 024 3229-000 T 1 66 024 3225-000 T 1 66 024 3232-000
Construction	H									
Low	56									
High	81									



## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings


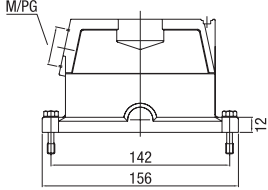

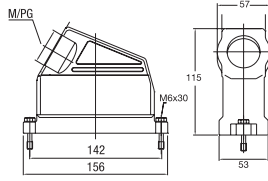
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry, Standard construction</b>					
		M40	21 29	<b>HIP</b> HIP.24/64.STS.1.21.G HIP.24/64.STS.1.29.G HIP.24/64.STS.1.M40.G	1-1102658-5 1-1102660-5 0-1106473-2
		M40	29	<b>HIP-K</b> HIP-K.24/64.STS.1.29.G HIP-K.24/64.STS.1.M40.G	2-1102660-5 0-1106473-4
		M25 M32 M40	29	<b>EMV-K</b> EMV-K.24/64.STS.1.29.G EMV-K.24/64.STS.1.M25.G EMV-K.24/64.STS.1.M32.G EMV-K.24/64.STS.1.M40.G	4-1102755-5 0-1102983-1 0-1106461-8 0-1106461-3
		M40	29 36	<b>HIP</b> HIP-KF.24/64.STS.1.29.G HIP-KF.24/64.STS.1.36.G HIP-KF.24/64.STS.1.M40.G	1-1102622-5 1-1102623-5 0-1106474-1
		M40	29 36	<b>HIP-K</b> HIP-KF/K.24/64.STS.1.29.G HIP-KF/K.24/64.STS.1.36.G HIP-KF/K.24/64.STS.1.M40.G	2-1102622-5 2-1102623-5 0-1106474-2
		M40	29 36	<b>EMV-K</b> EMV-KF/K.24/64.STS.1.29.G EMV-KF/K.24/64.STS.1.36.G EMV-KF/K.24/64.STS.1.M40.G	4-1102732-5 4-1102733-5 0-1106462-2
<b>Hood: Top entry, Standard construction</b>					
		M40			
		2xM32 M40	21 29	<b>HIP</b> HIP.24/64.STO.1.21.G HIP.24/64.STO.1.29.G HIP.24/64.STO.1.M40.G	1-1102662-5 1-1102664-5 0-1106473-1
		M40 2xM40	29	<b>HIP-K</b> HIP-K.24/64.STO.1.29.G HIP-K.24/64.STO.2.M32.G HIP-K.24/64.STO.1.M40.G	2-1102664-5 0-1102792-1 0-1106473-3
		29	<b>EMV-K</b> EMV-K.24/64.STO.1.29.G EMV-K.24/64.STO.1.M40.G	4-1102759-5 0-1106461-4	
		2xM40			
		2xM40			


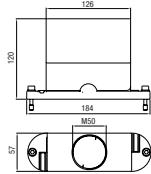

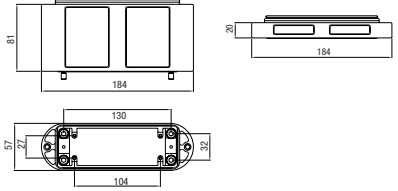

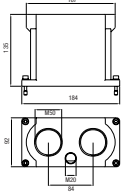

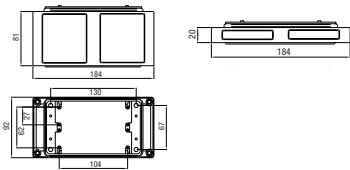
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

Description	Metr.	PG	Type	Part Number
Hood				
		1xM50 1xM50 2xM40 2xM40	HF-HIP-K.8.Sto.1.M50G HF.8.EMV-K.8.Sto.1.M50G HF.HIP-K.8.Sto.2.M40G HF.EMV-K.8.Sto.2.M40G	0-1102839-4 0-1102839-3 0-1102839-2 0-1102839-1
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.8.AG.N HF-EMV-K.8.AG.N HF-HIP-K.8.AG HF-EMV-K.8.AG	0-1102837-2 0-1102837-1 0-1102836-2 0-1102836-1
Hood				
		2xM40 2xM40 2xM50 2xM50	HF-HIP-K.12.Sto.2.M40G HF-EMV-K.12.Sto.2.M40G HF-HIP-K.12.Sto.2.M50G HF-EMV-K.12.Sto.2.M50G	0-1102840-2 0-1102840-1 0-1102840-4 0-1102840-3
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMV-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1



## HE-032 inserts

INSERTS FOR H32B HOOD/HOUSING

500V MAX. 16A

32 (2x16)+⊕

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-016-M(1-16) HE-016-M(17-32)	T 2 04 016 2101-000 T 2 04 032 2101-000	
	HE-016-F(1-16) HE-016-F(17-32)		T 2 04 016 2201-000 T 2 04 032 2201-000
Spring terminal			
	HE-016-MS(1-16) HE-016-MS(17-32)	T 2 04 016 3101-000 T 2 04 032 3101-000	
	HE-016-FS(1-16) HE-016-FS(17-32)		T 2 04 016 3201-000 T 2 04 032 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-016-MC(1-16) HE-016-MC(17-32)	T 2 04 016 4101-000 T 2 04 032 4101-000	
	HE-016-FC(1-16) HE-016-FC(17-32)		T 2 04 016 4201-000 T 2 04 032 4201-000
Spring terminal (Two terminals per contact)			
	HE-016-MSS(1-16) HE-016-MSS(17-32)	T 2 04 016 5101-000 T 2 04 032 5101-000	
	HE-016-FSS(1-16) HE-016-FSS(17-32)		T 2 04 016 5201-000 T 2 04 032 5201-000

### 16A Contact

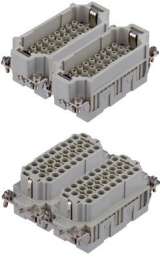
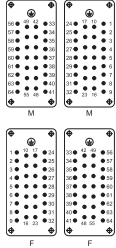
Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## HEE-064 inserts

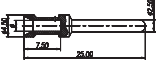

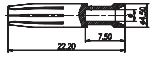
INSERTS FOR H32B HOOD/HOUSING

500V MAX. 16A

64 (2x32)+⊕

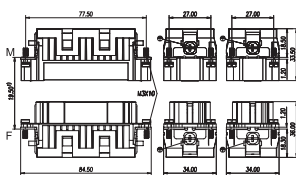
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEE-032-M(1-32) HEE-032-M(33-64)	T 2 05 032 2101-000 T 2 05 064 2101-000	
		HEE-032-F(1-32) HEE-032-F(33-64)		T 2 05 032 2201-000 T 2 05 064 2201-000

### 16A Contact

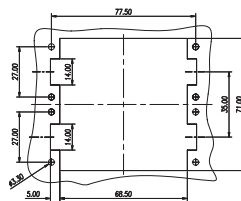
Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000		
1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000		
2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000		

### Distance for contact max. 21mm

Crimp terminal



### Panel cut-out for inserts for use without hoods/housings


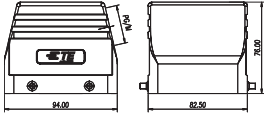

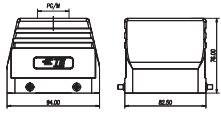

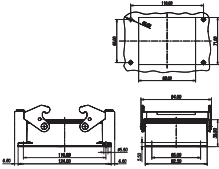

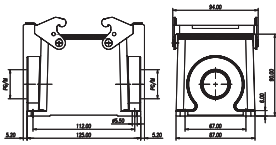

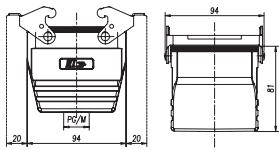

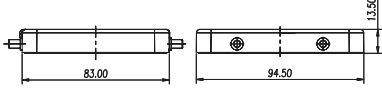







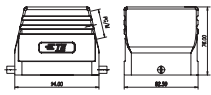

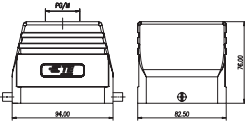

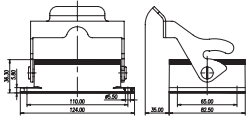

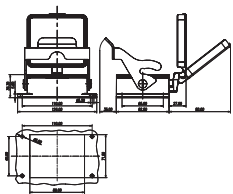

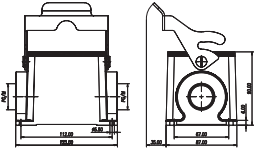

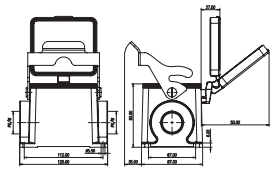
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number	
<b>Hood: Side entry</b>					
		M32 M40	PG29 PG36	H32B-TS-PG29 H32B-TS-PG36 H32B-TS-M32 H32B-TS-M40	T 1 21 032 0129-000 T 1 21 032 0136-000 T 1 21 032 0132-000 T 1 21 032 0140-000
<b>Hood: Top entry</b>					
		M25 M32 M40 M50	PG21 PG29 PG36 PG42	H32B-TG-PG21 H32B-TG-PG29 H32B-TG-PG36 H32B-TG-PG42 H32B-TG-M25 H32B-TG-M32 H32B-TG-M40 H32B-TG-M50	T 1 22 032 0121-000 T 1 22 032 0129-000 T 1 22 032 0136-000 T 1 22 032 0142-000 T 1 22 032 0125-000 T 1 22 032 0132-000 T 1 22 032 0140-000 T 1 22 032 0150-000
<b>Bulkhead mounted</b>					
				H32B-AG	T 1 41 032 2000-000
<b>Surface mounted: Side entry</b>					
		M32 M40 M50 M63	PG29 PG36 PG42	H32B-SGR-PG29 H32B-SGR-PG36 H32B-SGR-PG42 H32B-SGR-M32 H32B-SGR-M40 H32B-SGR-M50 H32B-SGR-M63	T 1 44 032 2129-000 T 1 44 032 2136-000 T 1 44 032 2142-000 T 1 44 032 2132-000 T 1 44 032 2140-000 T 1 44 032 2150-000 T 1 44 032 2163-000
		M32 M40 M50 M63	PG29 PG36 PG42	H32B-SGR-2PG29 H32B-SGR-2PG36 H32B-SGR-2PG42 H32B-SGR-2M32 H32B-SGR-2M40 H32B-SGR-2M50 H32B-SGR-2M63	T 1 44 032 2229-000 T 1 44 032 2236-000 T 1 44 032 2242-000 T 1 44 032 2232-000 T 1 44 032 2240-000 T 1 44 032 2250-000 T 1 44 032 2263-000
<b>Cable-to-cable hood</b>					
		M32 M40 M50 M63	PG29 PG36 PG42	H32B-TBF-PG29 H32B-TBF-PG36 H32B-TBF-PG42 H32B-TBF-M32 H32B-TBF-M40 H32B-TBF-M50 H32B-TBF-M63	T 1 71 032 2129-000 T 1 71 032 2136-000 T 1 71 032 2142-000 T 1 71 032 2132-000 T 1 71 032 2140-000 T 1 71 032 2150-000 T 1 71 032 2163-000
<b>Protection covers for hoods</b>					
				H32B-KDB	T 1 00 032 1220-000

## H32B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32 M40	PG29 PG36 H32B-TS-RO-PG29 H32B-TS-RO-PG36 H32B-TS-RO-M32 H32B-TS-RO-M40	T 1 31 032 0129-000 T 1 31 032 0136-000 T 1 31 032 0132-000 T 1 31 032 0140-000
<b>Hood: Top entry</b>				
		M25 M32 M40 M50	PG21 PG29 PG36 PG42 H32B-TG-RO-PG21 H32B-TG-RO-PG29 H32B-TG-RO-PG36 H32B-TG-RO-PG42 H32B-TG-RO-M25 H32B-TG-RO-M32 H32B-TG-RO-M40 H32B-TG-RO-M50	T 1 32 032 0121-000 T 1 32 032 0129-000 T 1 32 032 0136-000 T 1 32 032 0142-000 T 1 32 032 0125-000 T 1 32 032 0132-000 T 1 32 032 0140-000 T 1 32 032 0150-000
<b>Bulkhead mounted</b>				
			H32B-AG-LB	T 1 50 032 2000-000
	With protection cover 		H32B-AD-LB	T 1 51 032 2000-000
<b>Surface mounted: Side entry</b>				
		1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SGR-LB-PG29 H32B-SGR-LB-M32 H32B-SGR-LB-M40 PG29 H32B-SGR-LB-2PG29 H32B-SGR-LB-2M32 H32B-SGR-LB-2M40	T 1 61 032 2129-000 T 1 61 032 2132-000 T 1 61 032 2140-000 T 1 61 032 2229-000 T 1 61 032 2232-000 T 1 61 032 2240-000
	With protection cover 	1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SDR-LB-PG29 H32B-SDR-LB-M32 H32B-SDR-LB-M40 PG29 H32B-SDR-LB-2PG29 H32B-SDR-LB-2M32 H32B-SDR-LB-2M40	T 1 62 032 0129-000 T 1 62 032 0132-000 T 1 62 032 0140-000 T 1 62 032 0229-000 T 1 62 032 0232-000 T 1 62 032 0240-000





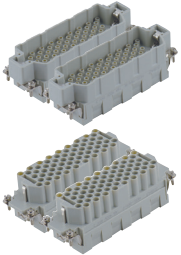
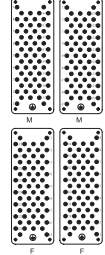


## HEEE-128 inserts

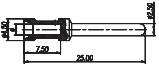

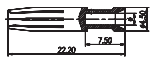
INSERTS FOR H48B HOOD/HOUSING

500V MAX. 16A

128+⊕

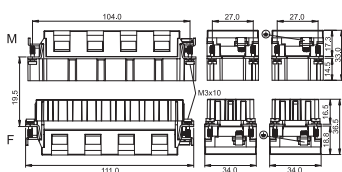
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEEE-064-M(1-64) HEEE-128-M(65-128)	T 2 05 064 3101-000 T 2 05 128 3101-000	
		HEEE-064-F(1-64) HEEE-128-F(65-128)		T 2 05 064 3201-000 T 2 05 128 3201-000

### 16A Contact

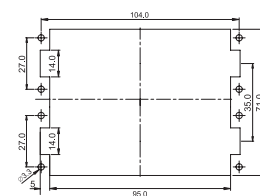
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
 CEF/Female	<b>16A Female crimp contacts</b> 	0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000		

### Distance for contact max. 21mm

Crimp terminal



### Panel cut-out for inserts for use without hoods/housings

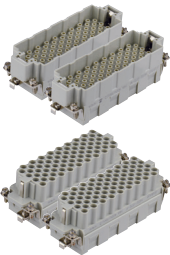
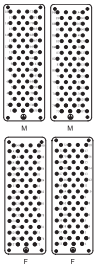


## HEEE-144 inserts

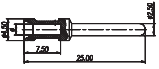

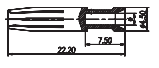
INSERTS FOR H48B HOOD/HOUSING

400V MAX. 16A

144+ ⊕

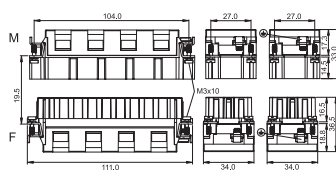
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEEE-072-M(1-72) HEEE-144-M(73-144)	T 2 05 072 2101-000 T 2 05 144 2101-000	
		HEEE-072-F(1-72) HEEE-144-F(73-144)		T 2 05 072 2201-000 T 2 05 144 2201-000

### 16A Contact

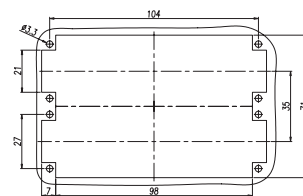
Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000		
1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000		
2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000		
4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000		

### Distance for contact max. 21mm

Crimp terminal


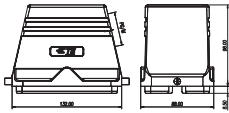

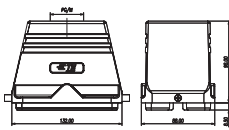

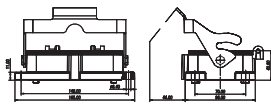

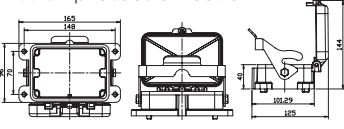

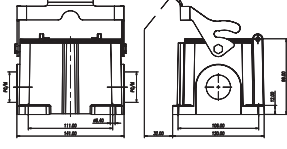

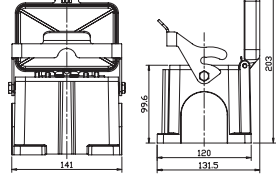


### Panel cut-out for inserts for use without hoods/housings




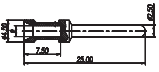


## H48B hoods/housings

POWDER-COATED, RAL 7037





Dimensions (mm)		Metr.	PG	Type	Part Number
Hood: Side entry					
		M32 M40 M50 M63	PG29 PG36 PG42	H48B-TS-PG29 H48B-TS-PG36 H48B-TS-PG42 H48B-TS-M32 H48B-TS-M40 H48B-TS-M50 H48B-TS-M63	T 1 31 048 0129-000 T 1 31 048 0136-000 T 1 31 048 0142-000 T 1 31 048 0132-000 T 1 31 048 0140-000 T 1 31 048 0150-000 T 1 31 048 0163-000
Hood: Top entry					
		M32 M40 M50 M63	PG29 PG36 PG42	H48B-TG-PG29 H48B-TG-PG36 H48B-TG-PG42 H48B-TG-M32 H48B-TG-M40 H48B-TG-M50 H48B-TG-M63	T 1 32 048 0129-000 T 1 32 048 0136-000 T 1 32 048 0142-000 T 1 32 048 0132-000 T 1 32 048 0140-000 T 1 32 048 0150-000 T 1 32 048 0163-000
Bulkhead mounted					
				H48B-AG	T 1 50 048 2000-000
	With protection cover 			H48B-AD-LB	T 1 51 048 2000-000
Surface mounted: Side entry					
		M32 M40 M50	PG29 PG36 PG42	H48B-SGR-PG29 H48B-SGR-PG36 H48B-SGR-PG42 H48B-SGR-M32 H48B-SGR-M40 H48B-SGR-M50	T 1 61 048 2129-000 T 1 61 048 2136-000 T 1 61 048 2142-000 T 1 61 048 2132-000 T 1 61 048 2140-000 T 1 61 048 2150-000
		M32 M40 M50	PG29 PG36 PG42	H48B-SGR-2PG29 H48B-SGR-2PG36 H48B-SGR-2PG42 H48B-SGR-2M32 H48B-SGR-2M40 H48B-SGR-2M50	T 1 61 048 2229-000 T 1 61 048 2236-000 T 1 61 048 2242-000 T 1 61 048 2232-000 T 1 61 048 2240-000 T 1 61 048 2250-000
Surface mounted with cover					
		M32 M40 M50	PG29 PG36 PG42	H48B-SDR-PG29 H48B-SDR-PG36 H48B-SDR-PG42 H48B-SDR-M32 H48B-SDR-M40 H48B-SDR-M50	T 1 62 048 0129-000 T 1 62 048 0136-000 T 1 62 048 0142-000 T 1 62 048 0132-000 T 1 62 048 0140-000 T 1 62 048 0150-000
		M32 M40 M50	PG29 PG36 PG42	H48B-SDR-2PG29 H48B-SDR-2PG36 H48B-SDR-2PG42 H48B-SDR-2M32 H48B-SDR-2M40 H48B-SDR-2M50	T 1 62 048 0229-000 T 1 62 048 0236-000 T 1 62 048 0242-000 T 1 62 048 0232-000 T 1 62 048 0240-000 T 1 62 048 0250-000

## Crimp contacts HE/HA series

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000
0.5	20			7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
0.75	18			7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## Crimping tools HE/HA series

Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CEM/CEF contact series		REMOV-HEE	T 3 10 000 0002-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000

## HVE technical characteristics

Specifications ..... DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 3+PE+2,6+PE+2,10+PE+2

### INSERTS

Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage .....830V  
 Test voltage urms .....8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

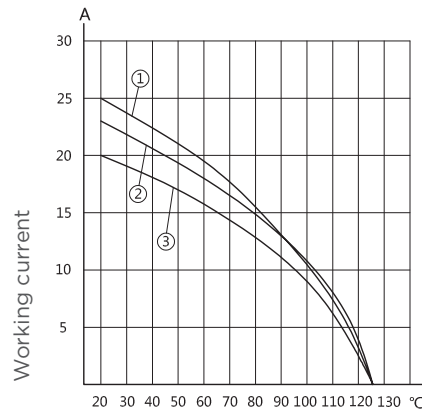
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 ..... Hard gold-plated  
 Contact resistance .....  $\leq 5m\Omega$   
 Terminal ..... Screw terminal  
 ..... Crimp terminal  
 ..... Spring terminal  
 - mm<sup>2</sup>  
 Screw terminal ..... 0.5-2.5mm<sup>2</sup>  
 Crimp terminal ..... 0.14-4mm<sup>2</sup>  
 Spring terminal ..... 0.5-2.5mm<sup>2</sup>  
 - AWG  
 Screw terminal ..... 20-14  
 Crimp terminal ..... 26-12  
 Spring terminal ..... 20-14  
 - Tightening/test torque ..... 0.5 Nm

### HOODS, HOUSINGS

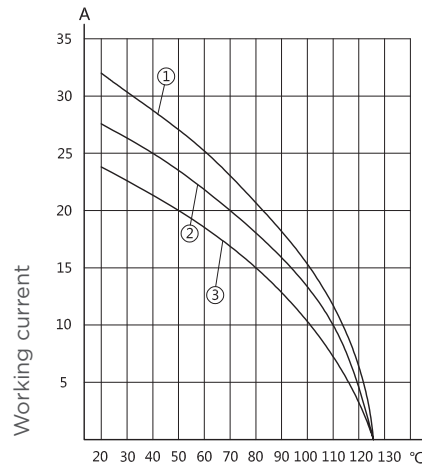
Material ..... Die cast aluminium  
 Surface ..... Powder-coated (RAL 7037)  
 Locking element ..... Stainless steel, steel-zinc plated  
 Temperature range ..... -40°C... +125°C  
 Degree of protection acc. to DIN40 050 ..... IP65

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



Ambient temperature







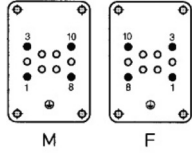
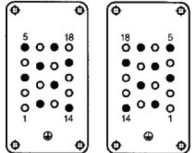
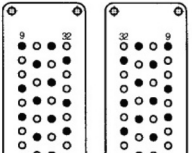
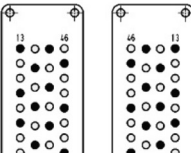
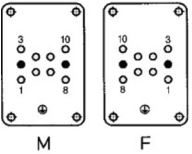
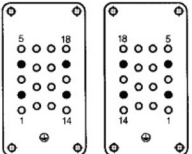
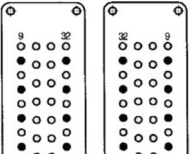
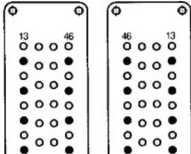
Ambient temperature

- 1 HVE-003
- 2 HVE-006
- 3 HVE-010

## HEE series (high voltage) inserts

### MODIFIED CONTACT ARRANGEMENT

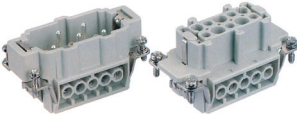
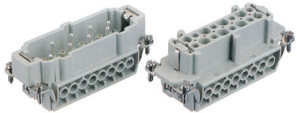
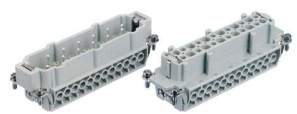
The connector series HEE equipped with all contacts may be used for voltages up to 500V-insulation group C. A modified contact loading arrangement permits use up to 1000V-also in insulation group C.

		Contact arrangement view from termination side			
		4+ 	8+ 	14+ 	20+ 
Series HEE 690V- Insulation group C					
1000V- Insulation group C					
		Working contact	Without contact	Male insert	Female insert

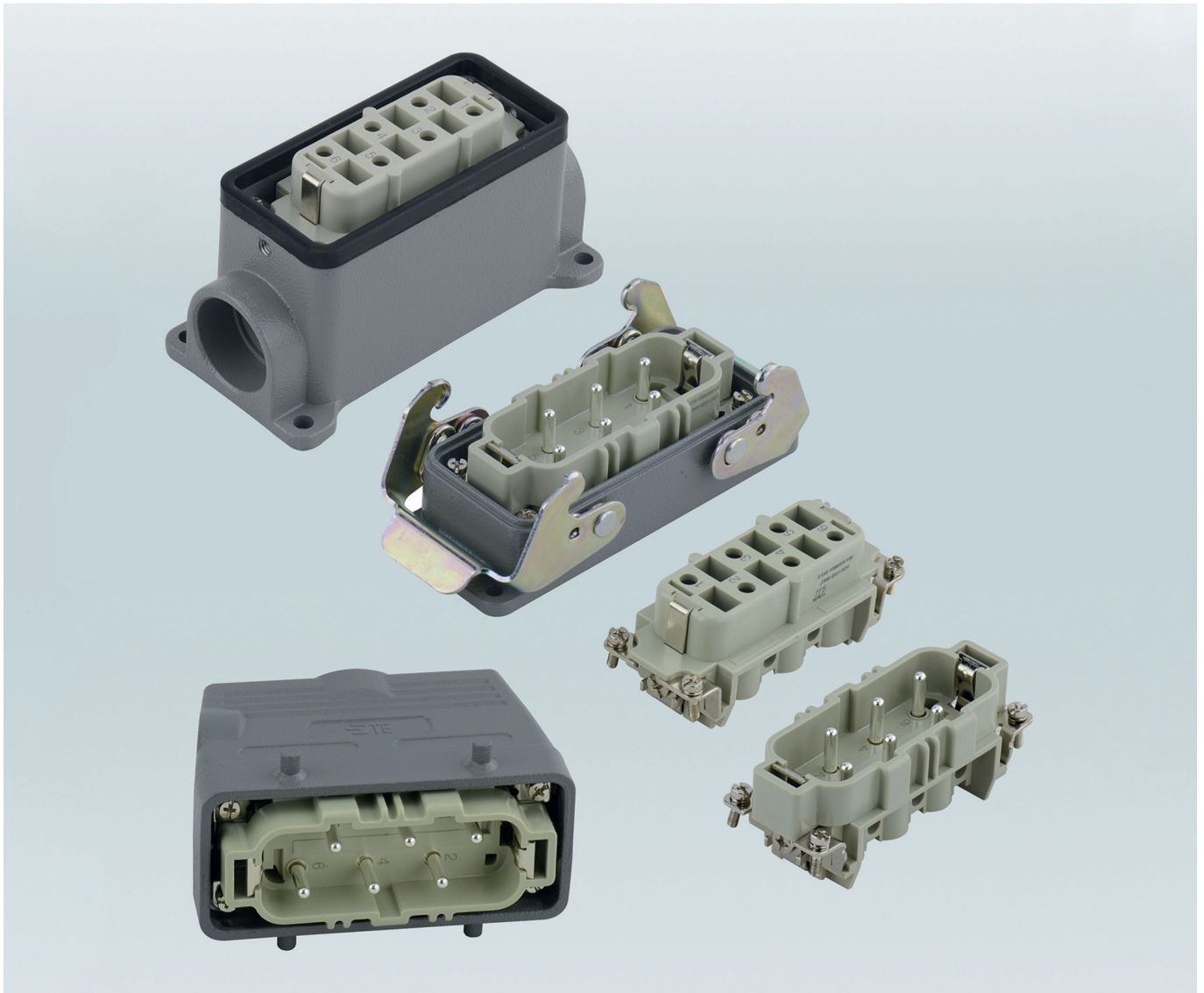
## HVE series

INSERTS FOR H10B, H16B, H24B HOOD/HOUSING

830V MAX. 16A

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
3+ $\oplus$ +2 Screw terminal			
	HVE-003-M	T 2 30 003 3101-000	
	HVE-003-F		T 2 30 003 3201-000
6+ $\oplus$ +2 Screw terminal			
	HVE-006-M	T 2 30 006 3101-000	
	HVE-006-F		T 2 30 006 3201-000
10+ $\oplus$ +2 Screw terminal			
	HVE-010-M	T 2 30 010 3101-000	
	HVE-010-F		T 2 30 010 3201-000

## HSB Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances  
DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1  
DIN EN 61 984

### 3. Approvals





## HSB technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	6,12(2x6) + PE

### INSERTS

Working current .....	35A max
(See current carrying capacity)	
Working voltage	
Conductor - ground .....	400 V
Conductor - conductor .....	690 V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

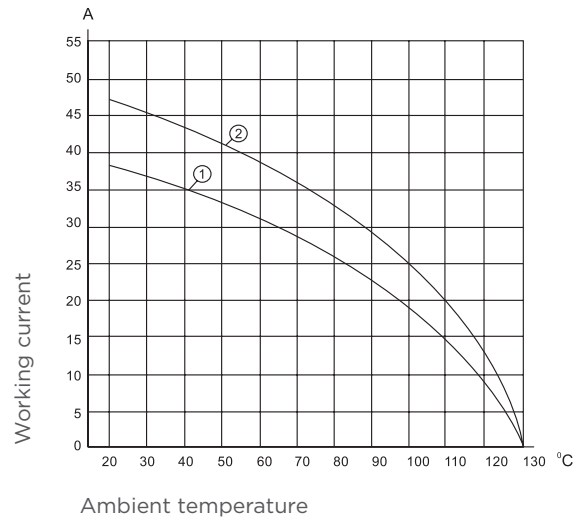
Material .....	Copper alloy
Surface .....	Hard silver-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Screw terminal
- mm <sup>2</sup> .....	1.5-6mm <sup>2</sup>
- AWG .....	16-10
- Tightening/test torque .....	1.2 Nm

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element .....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



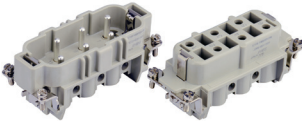
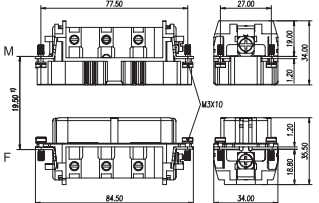
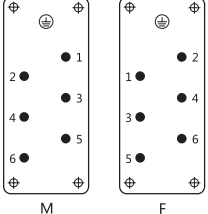
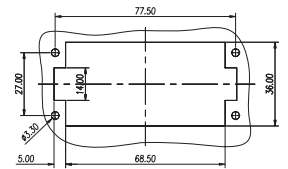
- 1 Wire gauge: 4.0mm<sup>2</sup>
- 2 Wire gauge: 6.0mm<sup>2</sup>

## HSB-006 inserts

INSERTS FOR H16B HOOD/HOUSING


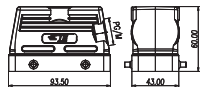

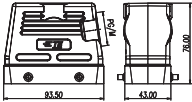

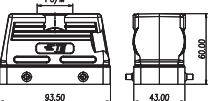

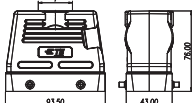

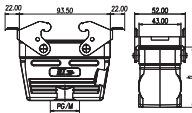

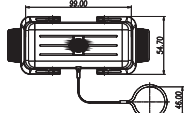

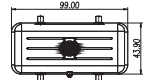
690V 35A

6+ 

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
		HSB-006-M	T 2 06 006 2101-000
		HSB-006-F	T 2 06 006 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			


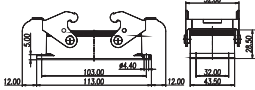

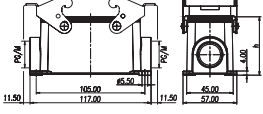

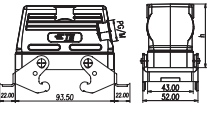

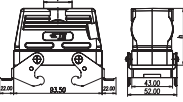

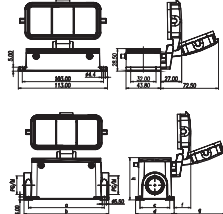
## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M20 M25 M32	PG16 PG21	H16B-TS-PG16 H16B-TS-PG21 H16B-TS-M20 H16B-TS-M25 H16B-TS-M32	T 1 21 016 0116-000 T 1 21 016 0121-000 T 1 21 016 0120-000 T 1 21 016 0125-000 T 1 21 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TSH-PG21 H16B-TSH-PG29 H16B-TSH-M25 H16B-TSH-M32 H16B-TSH-M40	T 1 23 016 0121-000 T 1 23 016 0129-000 T 1 23 006 0125-000 T 1 23 016 0132-000 T 1 23 016 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H16B-TG-PG16 H16B-TG-PG21 H16B-TG-M25 H16B-TG-M32	T 1 22 016 0116-000 T 1 22 016 0121-000 T 1 22 016 0125-000 T 1 22 016 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H16B-TGH-PG21 H16B-TGH-PG29 H16B-TGH-M25 H16B-TGH-M32 H16B-TGH-M40	T 1 24 016 0121-000 T 1 24 016 0129-000 T 1 24 016 0125-000 T 1 24 016 0132-000 T 1 24 016 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="531 1346 738 1435"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	74.5	M25 M32	PG21	H16B-TBFS-PG21 H16B-TBFS-M25 H16B-TBFS-M32	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000
Construction	H										
Low	62.5										
High	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFHS-PG21 H16B-TBFHS-PG29 H16B-TBFHS-M25 H16B-TBFHS-M32 H16B-TBFHS-M40	T 1 75 016 1121-000 T 1 75 016 1129-000 T 1 75 016 1125-000 T 1 75 016 1132-000 T 1 75 016 1140-000						
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						

# H16B with 2 levers on the hoods/housings


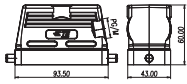

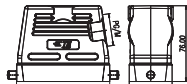

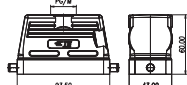

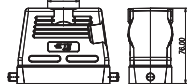

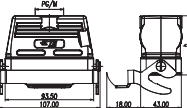

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																									
Bulkhead mounted																														
				H16B-AGS	T 1 41 016 1000-000																									
Surface mounted: Side entry																														
	 <table border="1" data-bbox="327 862 542 952"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H16B-SGRS-PG21 H16B-SGRS-M25 H16B-SGRS-2PG21 H16B-SGRS-2M25 H16B-SGRHS-PG21 H16B-SGRHS-PG29 H16B-SGRHS-M25 H16B-SGRHS-M32 H16B-SGRHS-2PG21 H16B-SGRHS-2PG29 H16B-SGRHS-2M25 H16B-SGRHS-2M32	T 1 44 016 1121-000 T 1 44 016 1125-000 T 1 44 016 1221-000 T 1 44 016 1225-000 T 1 47 016 1121-000 T 1 47 016 1129-000 T 1 47 016 1125-000 T 1 47 016 1132-000 T 1 47 016 1221-000 T 1 47 016 1229-000 T 1 47 016 1225-000 T 1 47 016 1232-000																		
Construction	H																													
Low	56																													
High	81																													
Side entry housing with two levers																														
	 <table border="1" data-bbox="327 1198 534 1288"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TSBS-PG16 H16B-TSBS-PG21 H16B-TSBS-M20 H16B-TSBS-M25 H16B-TSBHS-PG21 H16B-TSBHS-PG29 H16B-TSBHS-M25 H16B-TSBHS-M32	T 1 25 016 3116-000 T 1 25 016 3121-000 T 1 25 016 3120-000 T 1 25 016 3125-000 T 1 27 016 3121-000 T 1 27 016 3129-000 T 1 27 016 3125-000 T 1 27 016 3132-000																		
Construction	H																													
Low	60																													
High	76																													
Top entry housing with two levers																														
	 <table border="1" data-bbox="327 1500 534 1590"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TGBS-PG16 H16B-TGBS-PG21 H16B-TGBS-M20 H16B-TGBS-M25 H16B-TGBHS-PG21 H16B-TGBHS-PG29 H16B-TGBHS-M25 H16B-TGBHS-M32	T 1 26 016 3116-000 T 1 26 016 3121-000 T 1 26 016 3120-000 T 1 26 016 3125-000 T 1 28 016 3121-000 T 1 28 016 3129-000 T 1 28 016 3125-000 T 1 28 016 3132-000																		
Construction	H																													
Low	60																													
High	76																													
Bulkhead mounted with 4 bolts																														
	With protection cover  <table border="1" data-bbox="311 1937 694 2016"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> <td>G</td> <td>H</td> </tr> <tr> <td>Low</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>56</td> </tr> <tr> <td>High</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>81</td> </tr> </table>	Construction	A	B	C	D	F	G	H	Low	105	117	45	57	20	65	56	High	105	117	45	57	20	65	81	Low construction High construction	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H16B-AD-BO H16B-SDR-BO-PG21 H16B-SDR-BO-M25 H16B-SDR-BO-2PG21 H16B-SDR-BO-2M25 H16B-SDRH-BO-PG21 H16B-SDRH-BO-PG29 H16B-SDRH-BO-M25 H16B-SDRH-BO-M32 H16B-SDRH-BO-2PG21 H16B-SDRH-BO-2PG29 H16B-SDRH-BO-2M25 H16B-SDRH-BO-2M32	T 1 43 016 0000-000 T 1 46 016 0121-000 T 1 46 016 0125-000 T 1 46 016 0221-000 T 1 46 016 0225-000 T 1 49 016 0121-000 T 1 49 016 0129-000 T 1 49 016 0125-000 T 1 49 016 0132-000 T 1 49 016 0221-000 T 1 49 016 0229-000 T 1 49 016 0225-000 T 1 49 016 0232-000
Construction	A	B	C	D	F	G	H																							
Low	105	117	45	57	20	65	56																							
High	105	117	45	57	20	65	81																							




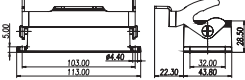

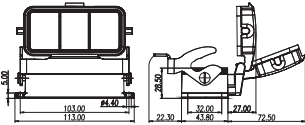

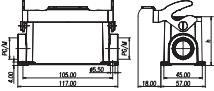

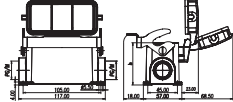
## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
		M25 M32	PG21 PG29 H16B-TS-RO-PG21 H16B-TS-RO-PG29 H16B-TS-RO-M25 H16B-TS-RO-M32	T 1 31 016 0121-000 T 1 31 016 0129-000 T 1 31 016 0125-000 T 1 31 016 0132-000						
		M25 M32 M40	PG21 PG29 H16B-TSH-RO-PG21 H16B-TSH-RO-PG29 H16B-TSH-RO-M25 H16B-TSH-RO-M32 H16B-TSH-RO-M40	T 1 33 016 0121-000 T 1 33 016 0129-000 T 1 33 016 0125-000 T 1 33 016 0132-000 T 1 33 016 0140-000						
<b>Hood: Top entry</b>										
		M25 M32	PG21 PG29 H16B-TG-RO-PG21 H16B-TG-RO-PG29 H16B-TG-RO-M25 H16B-TG-RO-M32	T 1 32 016 0121-000 T 1 32 016 0129-000 T 1 32 016 0125-000 T 1 32 016 0132-000						
		M25 M32 M40	PG21 PG29 H16B-TGH-RO-PG21 H16B-TGH-RO-PG29 H16B-TGH-RO-M25 H16B-TGH-RO-M32 H16B-TGH-RO-M40	T 1 34 016 0121-000 T 1 34 016 0129-000 T 1 34 016 0125-000 T 1 34 016 0132-000 T 1 34 016 0140-000						
<b>Cable-to-cable hood</b>										
	 <table border="1" data-bbox="534 1339 751 1429"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M25 M32  M25 M32 M40	PG21 PG29  PG21 PG29 H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32 H16B-TBFH-LB-PG21 H16B-TBFH-LB-PG29 H16B-TBFH-LB-M25 H16B-TBFH-LB-M32 H16B-TBFH-LB-M40	T 1 73 016 3121-000 T 1 73 016 3129-000 T 1 73 016 3125-000 T 1 73 016 3132-000 T 1 77 016 3121-000 T 1 77 016 3129-000 T 1 77 016 3125-000 T 1 77 016 3132-000 T 1 77 016 3140-000
Construction	H									
Low	62.5									
Hight	74.5									
<b>Protection covers for hoods</b>										
			H16B-KDTP-LB	T 1 01 016 1500-000						

# H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
 			H16B-AG-LB	T 1 50 016 3000-000						
 <p>With protection cover</p> 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry										
  <table border="1" data-bbox="325 1149 544 1240"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SGR-LB-PG16 H16B-SGR-LB-PG21 H16B-SGR-LB-M20 H16B-SGR-LB-M25 H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25 H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M25 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32	T 1 61 016 3116-000 T 1 61 016 3121-000 T 1 61 016 3120-000 T 1 61 016 3125-000 T 1 61 016 3216-000 T 1 61 016 3221-000 T 1 61 016 3220-000 T 1 61 016 3225-000 T 1 65 016 3121-000 T 1 65 016 3129-000 T 1 65 016 3125-000 T 1 65 016 3132-000 T 1 65 016 3221-000 T 1 65 016 3229-000 T 1 65 016 3225-000 T 1 65 016 3232-000
Construction	H									
Low	56									
High	81									
 <p>With protection cover</p>  <table border="1" data-bbox="325 1563 544 1655"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SDR-LB-PG16 H16B-SDR-LB-PG21 H16B-SDR-LB-M20 H16B-SDR-LB-M25 H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25 H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M25 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32	T 1 62 016 3116-000 T 1 62 016 3121-000 T 1 62 016 3120-000 T 1 62 016 3125-000 T 1 62 016 3216-000 T 1 62 016 3221-000 T 1 62 016 3220-000 T 1 62 016 3225-000 T 1 66 016 3121-000 T 1 66 016 3129-000 T 1 66 016 3125-000 T 1 66 016 3132-000 T 1 66 016 3221-000 T 1 66 016 3229-000 T 1 66 016 3225-000 T 1 66 016 3232-000
Construction	H									
Low	56									
High	81									

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings


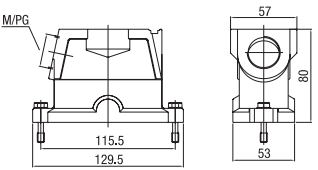

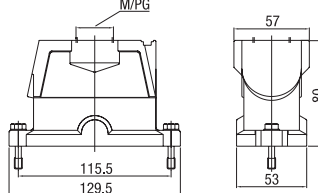

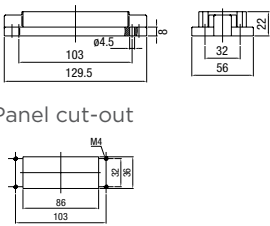

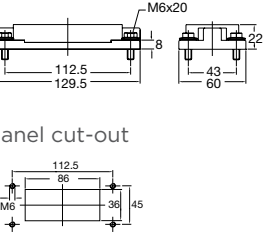
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32	21 29	<b>HIP</b> HIP.16/40.STS.1.21.G HIP.16/40.STS.1.29.G HIP.16/40.STS.1.M32.G  1-1102649-5 1-1102651-5 0-1106454-2
		M32	29	<b>HIP-K</b> HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G  2-1102651-5 0-1106444-2
		M32	29 21	<b>EMV-K</b> EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G  4-1102723-5 0-1106446-4 4-1102722-5
<b>Hood: Top entry</b>				
		M32	21 29	<b>HIP</b> HIP.16/40.STO.1.21.G HIP.16/40.STO.1.29.G HIP.16/40.STO.1.M32.G  1-1102653-5 1-1102655-5 0-1106454-1
		M32	21 29	<b>HIP-K</b> HIP-K.16/40.STO.2.21.G HIP-K.16/40.STO.1.29.G HIP-K.16/40.STO.1.M32.G  0-1108534-1 2-1102655-5 0-1106444-1
		M32	29	<b>EMV-K</b> EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G  4-1102725-5 0-1106446-3
<b>Surface mounted housing: Bottom entry</b>				
				<b>HIP</b> HIP.16/40.AG  1-1102656-5
				<b>HIP-K</b> HIP-K.16/40.AG  2-1102656-5
				<b>EMV-K</b> EMV-K.16/40.AG  4-1102728-5
				<b>HIP</b> HIP.16/40.AG.M6  1-1102618-5
				<b>HIP-K</b> HIP-K.16/40.AG.M6  2-1102618-5
				<b>EMV-K</b> EMV-K.16/40.AG.M6  4-1102730-5

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings



**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Side entry</b>				
	2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G	1-1102616-5
			HIP.16/40.SG.2.21.G	1-1102617-5
			HIP.16/40.SG.2.M32.G	0-1106453-1
	2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G	5-1102616-5
			HIP-K.16/40.SG.2.21.G	2-1102617-5
			HIP-K.16/40.SG.2.M32.G	0-1106443-1
	2xM32	21 2x21	<b>EMV-K</b> EMV-K.16/40.SG.1.21.Z	4-1102726-5
			EMV-K.16/40.SG.2.21.Z	4-1102727-5
			EMV-K.16/40.SG.2.M32.G	0-1106445-2
<b>Protective covers for housings</b>				
			<b>HIP</b> HIP/EMV.16/40.SKB	3-1106203-5
			<b>HIP-K</b> HIP-K.16/40.SKB	4-1106203-5

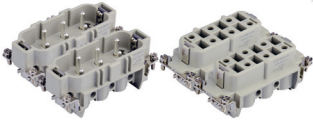
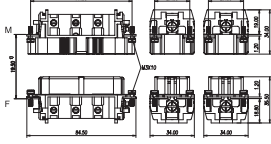
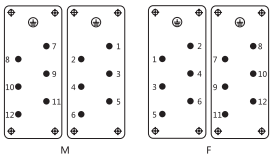
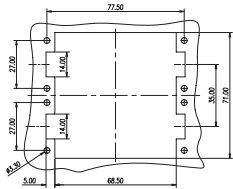


## HSB-012 inserts

INSERTS FOR H32B HOOD/HOUSING




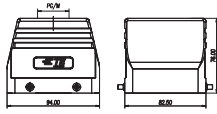

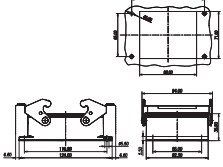

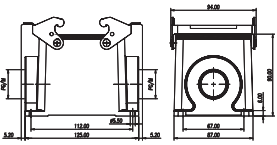

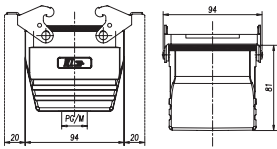

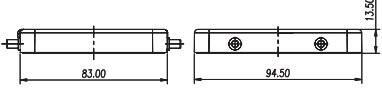
690V 35A

12 (2x6)+ Ⓢ

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
		HSB-006-M(1-6)	T 2 06 006 2101-000
		HSB-006-M(7-12)	T 2 06 012 2101-000
		HSB-006-F(1-6)	T 2 06 006 2201-000
		HSB-006-F(7-12)	T 2 06 012 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			


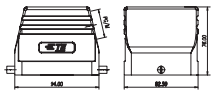

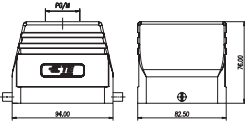

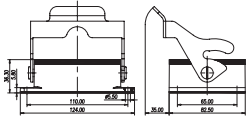

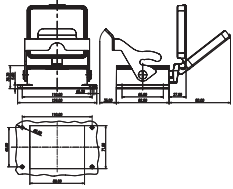

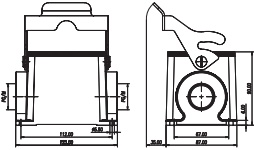

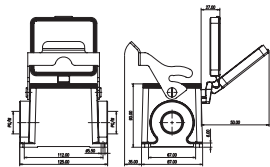
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

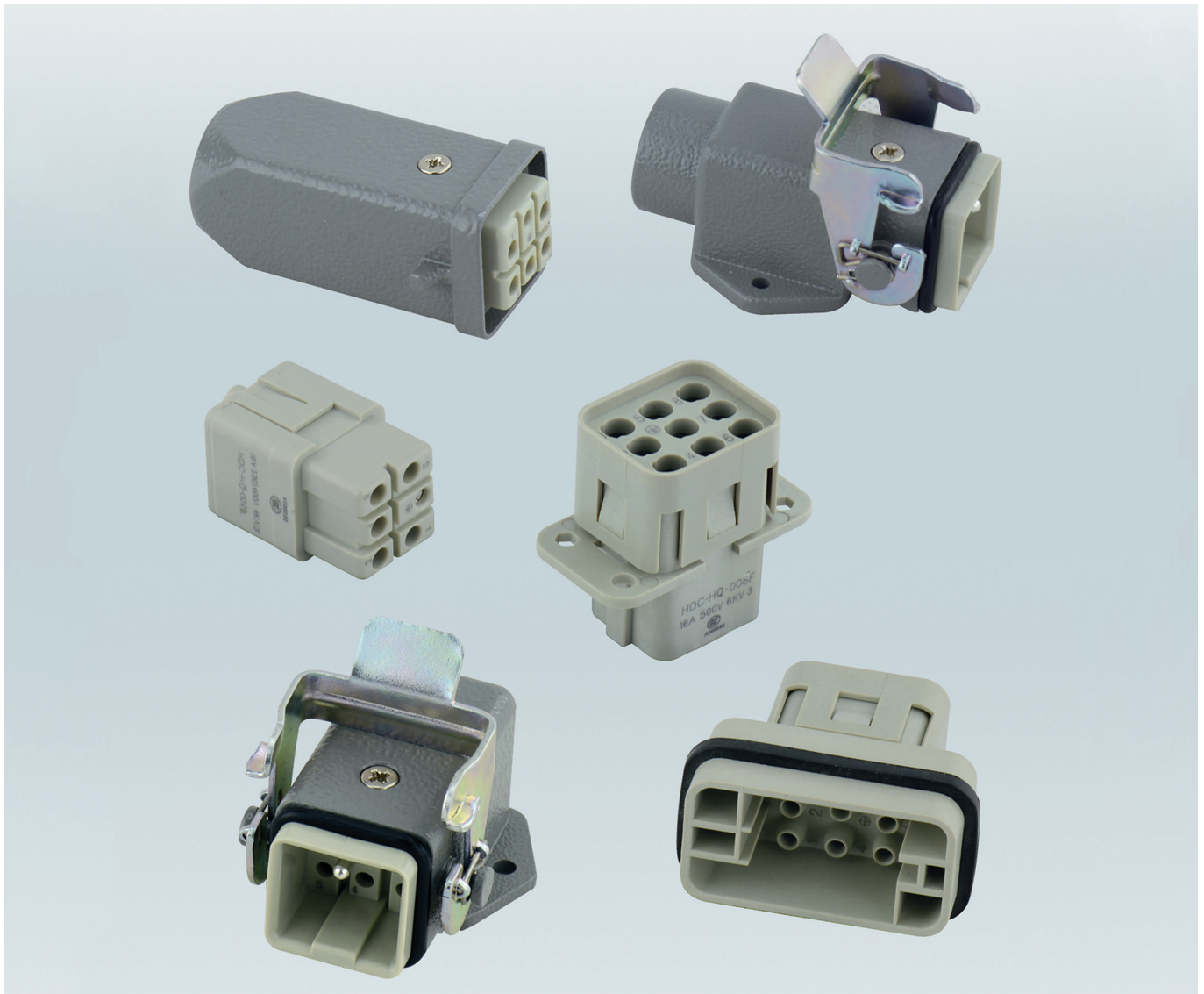
Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
		M32 M40	PG29 PG36 H32B-TS-PG29 H32B-TS-PG36 H32B-TS-M32 H32B-TS-M40	T 1 21 032 0129-000 T 1 21 032 0136-000 T 1 21 032 0132-000 T 1 21 032 0140-000
<b>Hood: Top entry</b>				
		M25 M32 M40 M50	PG21 PG29 PG36 PG42 H32B-TG-PG21 H32B-TG-PG29 H32B-TG-PG36 H32B-TG-PG42 H32B-TG-M25 H32B-TG-M32 H32B-TG-M40 H32B-TG-M50	T 1 22 032 0121-000 T 1 22 032 0129-000 T 1 22 032 0136-000 T 1 22 032 0142-000 T 1 22 032 0125-000 T 1 22 032 0132-000 T 1 22 032 0140-000 T 1 22 032 0150-000
<b>Bulkhead mounted</b>				
			H32B-AG	T 1 41 032 2000-000
<b>Surface mounted: Side entry</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H32B-SGR-PG29 H32B-SGR-PG36 H32B-SGR-PG42 H32B-SGR-M32 H32B-SGR-M40 H32B-SGR-M50 H32B-SGR-M63 PG29 PG36 PG42 H32B-SGR-2PG29 H32B-SGR-2PG36 H32B-SGR-2PG42 H32B-SGR-2M32 H32B-SGR-2M40 H32B-SGR-2M50 H32B-SGR-2M63	T 1 44 032 2129-000 T 1 44 032 2136-000 T 1 44 032 2142-000 T 1 44 032 2132-000 T 1 44 032 2140-000 T 1 44 032 2150-000 T 1 44 032 2163-000 T 1 44 032 2229-000 T 1 44 032 2236-000 T 1 44 032 2242-000 T 1 44 032 2232-000 T 1 44 032 2240-000 T 1 44 032 2250-000 T 1 44 032 2263-000
<b>Cable-to-cable hood</b>				
		M32 M40 M50 M63	PG29 PG36 PG42 H32B-TBF-PG29 H32B-TBF-PG36 H32B-TBF-PG42 H32B-TBF-M32 H32B-TBF-M40 H32B-TBF-M50 H32B-TBF-M63	T 1 71 032 2129-000 T 1 71 032 2136-000 T 1 71 032 2142-000 T 1 71 032 2132-000 T 1 71 032 2140-000 T 1 71 032 2150-000 T 1 71 032 2163-000
<b>Protection covers for hoods</b>				
			H32B-KDB	T 1 00 032 1220-000

## H32B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
		M32 M40	PG29 PG36 H32B-TS-RO-PG29 H32B-TS-RO-PG36 H32B-TS-RO-M32 H32B-TS-RO-M40	T 1 31 032 0129-000 T 1 31 032 0136-000 T 1 31 032 0132-000 T 1 31 032 0140-000
Hood: Top entry				
		M25 M32 M40 M50	PG21 PG29 PG36 PG42 H32B-TG-RO-PG21 H32B-TG-RO-PG29 H32B-TG-RO-PG36 H32B-TG-RO-PG42 H32B-TG-RO-M25 H32B-TG-RO-M32 H32B-TG-RO-M40 H32B-TG-RO-M50	T 1 32 032 0121-000 T 1 32 032 0129-000 T 1 32 032 0136-000 T 1 32 032 0142-000 T 1 32 032 0125-000 T 1 32 032 0132-000 T 1 32 032 0140-000 T 1 32 032 0150-000
Bulkhead mounted				
			H32B-AG-LB	T 1 50 032 2000-000
	With protection cover 		H32B-AD-LB	T 1 51 032 2000-000
Surface mounted: Side entry				
		1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SGR-LB-PG29 H32B-SGR-LB-M32 H32B-SGR-LB-M40 PG29 H32B-SGR-LB-2PG29 H32B-SGR-LB-2M32 H32B-SGR-LB-2M40	T 1 61 032 2129-000 T 1 61 032 2132-000 T 1 61 032 2140-000 T 1 61 032 2229-000 T 1 61 032 2232-000 T 1 61 032 2240-000
	With protection cover 	1 Side entry M32 M40 2 Side entry M32 M40	PG29 H32B-SDR-LB-PG29 H32B-SDR-LB-M32 H32B-SDR-LB-M40 PG29 H32B-SDR-LB-2PG29 H32B-SDR-LB-2M32 H32B-SDR-LB-2M40	T 1 62 032 0129-000 T 1 62 032 0132-000 T 1 62 032 0140-000 T 1 62 032 0229-000 T 1 62 032 0232-000 T 1 62 032 0240-000

## HQ Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 175 301-801

DIN EN 61 984

### 3. Approvals



## HQ technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	5,7,8,12,17,4/2 + PE

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

## INSERTS

Working current	
HQ-005,008.....	16A max
HQ-007,012,017 .....	10A max
HQ4/2.....	Power area 40A max
.....	Signal area 10A max
Working voltage	
HQ-005,007,012.....	400V
HQ-008.....	500V
HQ-017.....	250V
HQ4/2.....	Power area 600V Signal area 250V
Test voltage urms	
HQ-005,017 .....	4KV
HQ-007,008,012,4/2 .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +100°C/125°C
Flammability acc. to UL94 .....	VO
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

## CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0/0.14-2.5/1.5-6mm <sup>2</sup>
- AWG .....	26-12/26-14/16-10
- Tightening/test torque .....	0.25Nm

## HOODS, HOUSINGS


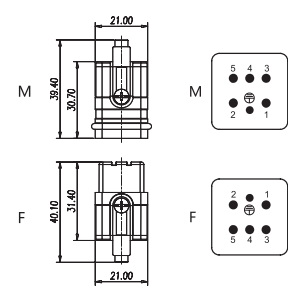
Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## HQ-005 inserts


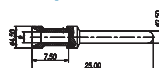

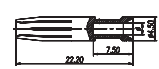
INSERTS FOR H3A HOOD/HOUSING

400V MAX. 16A

5+ 

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
Crimp terminal (Order crimp contacts separately)				
		T 2 08 005 2101-000		HQ-005-M
			T 2 08 005 2201-000	HQ-005-F

## 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000
0.5	20			7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
0.75	18			7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000


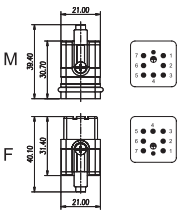

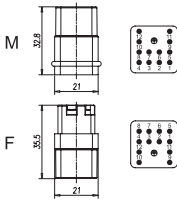
## HQ-007/012 inserts

INSERTS FOR H3A HOOD/HOUSING


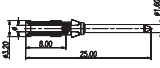

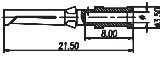
400V MAX. 10A

7+ 

12+ 

Dimensions (mm)	Contact arrangement view from termination side	Part Number		Type
		Male insert	Female insert	
Crimp terminal (Order crimp contacts separately)				
		T 2 08 007 2101-000		HQ-007-M
			T 2 08 007 2201-000	HQ-007-F
		T 2 08 012 2101-000		HQ-012-M
			T 2 08 012 2201-000	HQ-012-F

### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
				0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## H3A metal hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
<b>Top entry</b>				
		M20	PG11 H3A-MTG-PG11 H3A-MTG-M20	T 1 32 903 0111-000 T 1 32 903 0120-000
<b>Side entry</b>				
		M20	PG11 H3A-MTS-PG11 H3A-MTS-M20	T 1 31 903 0111-000 T 1 31 903 0120-000
<b>Bulkhead mounting: Bottom entry</b>				
			H3A-MAG	T 150 903 0000-000
<b>Bulkhead mounting: Side entry</b>				
			H3A-MAGS	T 154 903 0000-000
<b>Surface mounting: Side entry</b>				
		M16 M20	PG11 H3A-MAGSV-PG11 H3A-MAGSV-M16 H3A-MAGSV-M20	T 1 61 903 0111-000 T 1 61 903 0116-000 T 1 61 903 0120-000
<b>Cable-to-cable hood:</b>				
		M20	PG11 H3A-MTGVB-PG11 H3A-MTGVB-M20	T 1 73 903 0111-000 T 1 73 903 0120-000
<b>Protection covers for hoods (thermoplastic)</b>				
	Note: For mounted male insert and hood			H3A-KDTP T 1 01 003 1100-000
<b>Metal protection covers for hoods</b>				
	Note: For mounted female insert and hood			H3A-KDB T 1 01 003 3100-000



## H3A thermoplastic hoods/housings

### THERMOPLASTIC HOODS, HOUSINGS

Dimensions (mm)		Metr.	PG	Type	Part Number
Top entry					
		M20	PG11	H3A-TG-PG11 H3A-TG-M20	T 1 32 903 1111-000 T 1 32 903 1120-000
Side entry					
		M20	PG11	H3A-TS-PG11 H3A-TS-M20	T 1 31 903 1111-000 T 1 31 903 1120-000
Bulkhead mounting: Bottom entry					
				H3A-AG	T 1 50 903 1100-000
Bulkhead mounting: Side entry					
				H3A-AGS	T 1 50 903 1111-000
Surface mounting: Side entry					
		M16 M20	PG11	H3A-AGSV-PG11 H3A-AGSV-M16 H3A-AGSV-M20	T 1 61 903 1111-000 T 1 61 903 1116-000 T 1 61 903 1120-000
Cable-to-cable hood:					
		M20	PG11	H3A-TGVB-PG11 H3A-TGVB-M20	T 1 73 903 1111-000 T 1 73 903 1120-000
Protection covers for hoods (thermoplastic)					
	Note: For mounted male insert and hood			H3A-KDTP	T 1 01 003 1100-000
Protection covers for hoods					
	Note: For mounted female insert and hood			H3A-KDBP (White) H3A-KDBPG (Grey)	T 1 01 003 2100-000 T 1 01 003 2300-000
Covers without sealing type					
				H3A-KDBP (White) H3A-KDBP (Grey)	T 1 01 003 3200-000 T 1 01 003 2200-000

## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


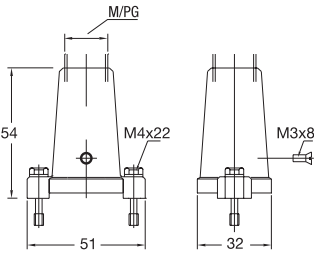

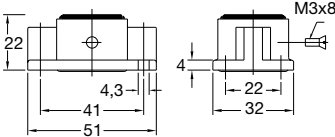

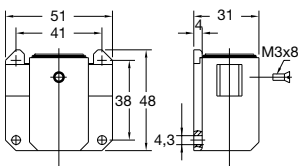
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number		
<b>Hood: Top entry</b>						
		M16	11	<b>HIP</b> HIP.3/4.STO.1.11.G HIP.3/4.STO.1.M16.G 1-1102600-5 0-1106408-1		
				M16 M20	11	<b>HIP-K</b> HIP-K.3/4.STO.1.11.G HIP-K.3/4.STO.1.M16.G HIP-K.3/4.STO.1.M20.G 2-1102600-5 0-1106408-2 0-1106408-3
						11
	<b>Surface mounted housing: Bottom entry</b>					
					<b>HIP</b> HIP.3/4.AG 1-1102603-5	
					<b>HIP-K</b> HIP-K.3/4.AG 2-1102603-5	
					<b>EMV-K</b> EMV-K.3/4.AG 4-1102703-5	
	<b>Surface mounted housing: Bottom entry (by panel cut-out)</b>					
					<b>HIP</b> HIP.3/4.SGF 1-1102602-5	
				<b>HIP-K</b> HIP-K.3/4.SGF 2-1102602-5		
				<b>EMV-K</b> EMV-K.3/4.SGF 4-1102702-5		

## HIP.3/4, HIP-K.3/4, EMV-K.3/4 housings


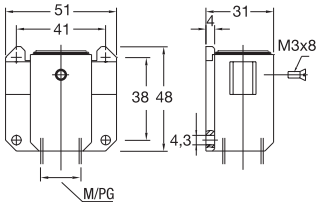

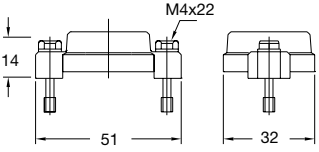
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black




### Screw lock on hood


IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Surface mounted housing: Side entry</b>					
		M16 M20	<b>HIP</b> HIP.3/4.SG.1.11.G HIP.3/4.SG.1.M16.G HIP.3/4.SG.1.M20.G	1-1102601-5 0-1106407-1 0-1106401-4	
			M16	<b>HIP-K</b> HIP-K.3/4.SG.1.11.G HIP-K.3/4.SG.1.M16.G	2-1102601-5 0-1106407-2
				<b>EMV-K</b> EMV-K.3/4.SG.1.11.G EMV-K.3/4.SG.1.M16.G EMV-K.3/4.SG.1.M20.G	4-1102701-5 0-1106401-2 0-1106401-3
	M16 M20		<b>HIP/EMV</b> HIP/EMV.3/4.SKB	3-1106200-5	
			<b>HIP-K/EMV-K</b> HIP-K/EMV-K.3/4.SKB	4-1106200-5	
	<b>Protective covers for housings</b>				
			<b>HIP/EMV</b> HIP/EMV.3/4.SKB	3-1106200-5	
			<b>HIP-K/EMV-K</b> HIP-K/EMV-K.3/4.SKB	4-1106200-5	

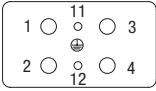
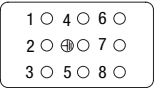
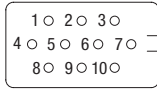
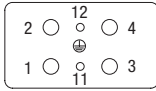
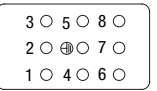
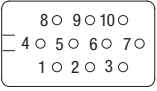
## HQ-017, 4/2, 8, 10 Inserts

### INSERTS FOR H8A HOOD/HOUSING

17+  4/2+  8+  10

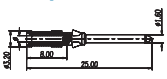


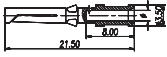
Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
250V max. 10A 	HQ-017-M	T 2 08 017 2101-000	
	HQ-017-F		T 2 08 017 2201-000
400V/250V max. 40A/10A 	HQ-4/2-M	T 2 08 006 2101-100	
	HQ-4/2-F		T 2 08 006 2201-100
	HQ-008-M	T 2 01 909 2101-000	
	HQ-008-F		T 2 01 909 2201-000
	HG-Q.10.Sti.C	O-1108808-1	
	HG-Q.10.Bu.C		O-1103091-1

Suitable crimp contacts and crimping tools: see page 190





HE-Q.4/2	HE-Q.8	HE-Q.10
Contact arrangement Male insert		
		
Contact arrangement Female insert		
		

## Crimp contacts HN.D series

### 10A Contact

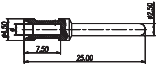



Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## Crimping tools HN.D series





Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CDM/CDF contact series		REMOV-HD	T 3 10 000 0003-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000

## Crimp contacts HE/HA series

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		CEM/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000
0.5	20			7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
0.75	18			7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
1.0	18			7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
1.5	16			7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
2.5	14			7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
4.0	12			7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

## Crimping tools HE/HA series

Description		Type	Part Number
<b>Crimp tool</b> Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts		CRIMPBOX-0.5/4	T 3 10 000 0001-000
<b>Crimp tool</b> Wire range: 0.14-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die		RSZ.HE-HN.D-HVT	1-1105851-8
<b>Removal tools</b> Used for CEM/CEF contact series		REMOV-HEE	T 3 10 000 0002-000
<b>M3 screw driver</b> Used for HA/HE inserts		SCREWD-M3	T 3 10 000 0009-000

## Crimp contacts HGQ10 series


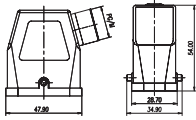

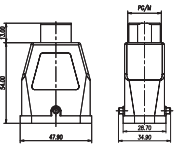
Tech data	Type	Part Number	(mm <sup>2</sup> )	Tool
<b>Material:</b> copper alloy <b>Finish:</b> tin plated <b>Contact resistance:</b> ≤3mΩ <b>Crimp Terminal:</b> 0.2-4.0 mm <sup>2</sup> AWG: 24-12  Other finishes and Materials on request  Appl. Spec.: 114-18018	Pin contact tin plated	962966-1	0.2 - 0.4	734285-1
		962967-1	0.5 - 1.0	734285-1
		962968-1	1.0 - 2.5	734285-2
		962969-1	2.5 - 4.0	734285-3
	Reel contact/pin tin plated	929962-1	0.2 - 0.4	734285-1
		929963-1	0.5 - 1.0	734285-1
		929964-1	1.0 - 2.5	734285-2
		929965-1	2.5 - 4.0	734285-3
	Socket contact tin plated	962976-1	0.2 - 0.4	734285-1
		962977-1	0.5 - 1.0	734285-1
		962978-1	1.0 - 2.5	734285-2
		962979-1	2.5 - 4.0	734285-3
	Reel contact/socket tin plated	929969-1	0.2 - 0.4	734285-1
		929970-1	0.5 - 1.0	734285-1
		929971-1	1.0 - 2.5	734285-2
		929972-1	2.5 - 4.0	734285-3

## Crimping tools HGQ10 series

Description	Type	Part Number
Extraction tool	Extraction tool	1-1579007-8
	Handtool 734285-11,5 mm <sup>2</sup> 734285-22,5 mm <sup>2</sup> 734285-34,0 mm <sup>2</sup>	
Crimping tool with locator	Safety Press SSC-2FP	1481004-7
Bench and Automatic tooling on request	Ergo Die Adapter	1579000-7

## H8A with 1 lever on the hoods/housings

### THERMOPLASTIC HOODS, HOUSINGS

Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
 	M20 M25  M25	PG16	H8A-TS-PG16 H8A-TS-M20 H8A-TS-M25  <b>EMV</b> HG-Q-EMV.STO.1.M25.Z	T 1 35 909 0116-000 T 1 31 908 0120-000 T 1 31 908 0125-000  O-1103073-3
Hood: Top entry				
 	M20 M25  M25		H8A-TG-M20 H8A-TG-M25  <b>EMV</b> HG-Q-EMV.STO.1.M25.Z	T 1 32 908 0120-000 T 1 32 908 0125-000  O-1103073-4


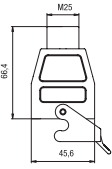
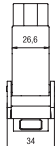

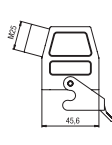
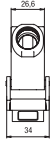

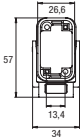
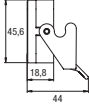


## HG-Q housings

Plastic glass-fibre reinforced

**EMV:** Protection against electro-magnetic interference

IP 65

Description	Metr.	PG	Type	Part Number	
Cable-to-cable hood: Bottom entry					
			M25	HG-Q.KDO-LB.1.M25.Z	O-1108795-1
			M25	EMV HG-Q-EMV.KDO-LB.1.M25.Z	O-1108795-3
Cable-to-cable hood: Side entry					
			M25	HG-Q.KDS-LB.1.M25.Z	O-1108795-2
			M25	EMV HG-Q-EMV.KDS-LB.1.M25.Z	O-1108795-4
Surface mount housing: Bottom entry					
			M25	HG-Q.AG-LB	O-1103072-1
			M25	EMV HG-Q-EMV.AG-LB	O-1103072-2





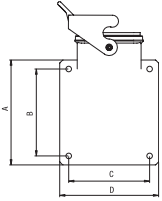

## HG-Q.10 motor housings

Plastic glass-fibre reinforced

400V 20A

**EMV:** Protection against electro-magnetic interference

IP 65

Description	Metr.	PG	Type	Part Number
			HG-Q.10.MC.1	0-1103092-1
			<b>EMV</b> HG-Q.10-EMV.MC.1	0-1103092-8
			HG-Q.10.MC.2	0-1103092-2
			<b>EMV</b> HG-Q.10-EMV.MC.2	0-1103092-9
			HG-Q.10.MC.3	0-1103092-3
			<b>EMV</b> HG-Q.10-EMV.MC.3	1-1103092-0
			HG-Q.10.MC.4	0-1103092-4
			<b>EMV</b> HG-Q.10-EMV.MC.4	1-1103092-1
			HG-Q.10.MC.5	0-1103092-5
			<b>EMV</b> HG-Q.10-EMV.MC.5	1-1103092-2

Dimensions (mm)

PN	A	B	C	D
0-1, 0-8	70	58	54	66
0-2, 0-9	70	60	60	70
0-3, 1-0	74	56	56	74
0-4, 1-1	75	64	64	75
0-5, 1-2	120	105	105	120


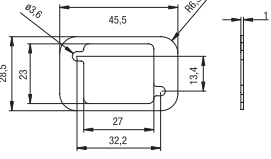



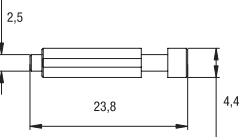
## HG-Q accessories

Plastic glass-fibre reinforced

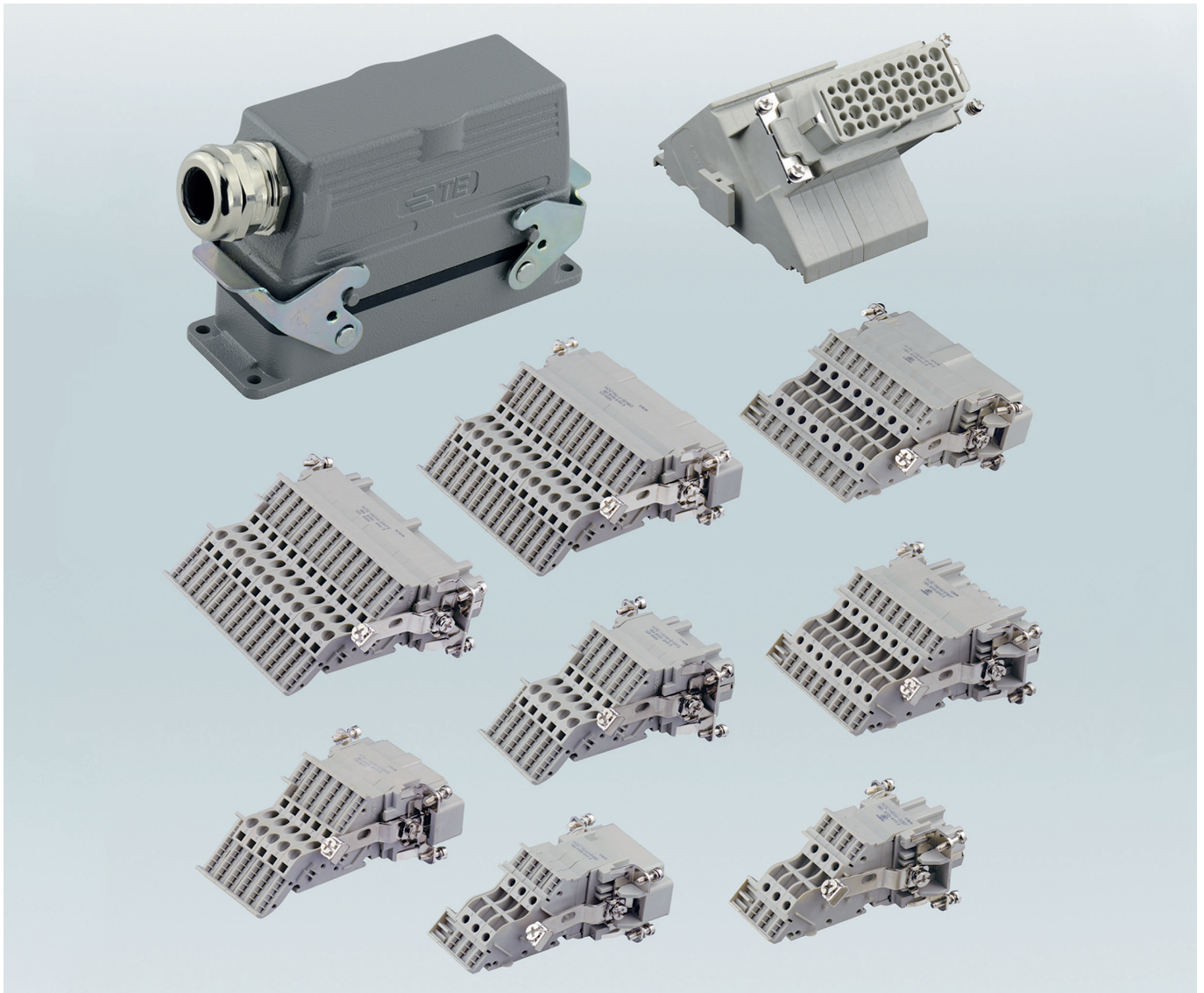
**EMV:** Protection against electro-magnetic interference

SIZE Q

IP 65

Description	Metr.	PG	Type	Part Number
Flange sealing for HG-Q.8 Surface mount housing				
 			<b>Conductive</b> HG-Q.FI-dicht-L	O-1108794-2
Gland fitting, IP68 plastic				
 <p>All glands are supplied with a black M25 nut</p>	M25 (Yellow) M25 (Grey) M25 (Black) M25 (Green) M25 (Red) M25 (White)		HG-Q.M25.6,5/4,0 HG-Q.M25.8,0/5,0 HG-Q.M25.9,5/6,5 HG-Q.M25.10,5/7,0 HG-Q.M25.13,0/9,0 HG-Q.M25.15,5/11,5	O-1103074-1 O-1103074-2 O-1103074-3 O-1103074-4 O-1103074-5 O-1103074-6
Cover for all HG-Q housing				
			Set-HG-Q.8.SKP	O-1108818-1
Coding pin for Q.5 and Q.8, HE, HEE				
 			Sich-Stift.HVE.C	O-1110984-4

## HEAV Contact Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1

DIN EN 61 984

### 3. Approvals



## HEAV/HESAV technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 6,10,16,24 + PE

### INSERTS

Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage ..... 500V  
 Test voltage urms ..... 6KV  
 Test voltage urms acc. to TUV ..... 4KV  
 Pollution degree ..... 2  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

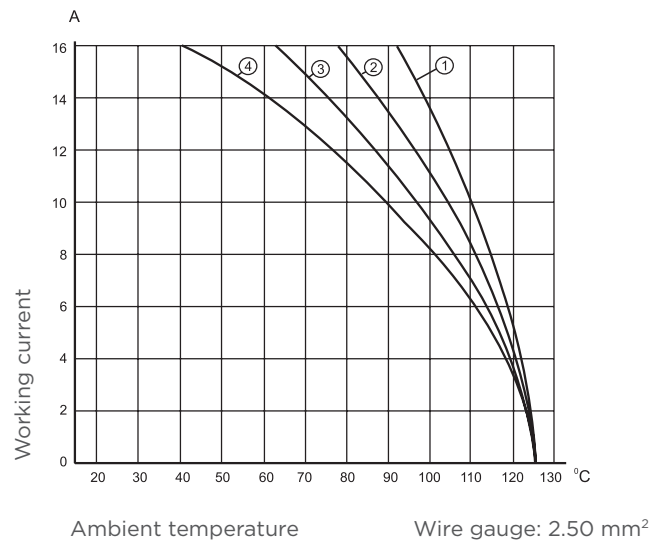
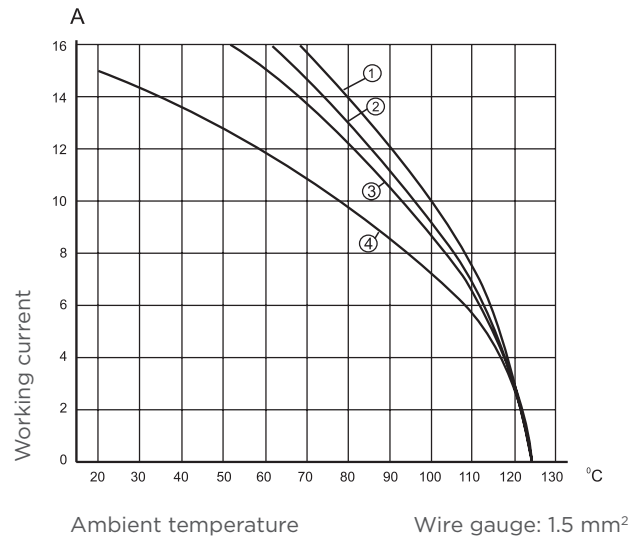
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 Contact resistance .....  $\leq 4m\Omega$   
 HEAV Terminal ..... Screw terminal  
 - mm<sup>2</sup> ..... 0.2-2.5mm<sup>2</sup>  
 - AWG ..... 24-14  
 HESAV Terminal ..... Spring terminal  
 - mm<sup>2</sup> ..... 0.5-2.5mm<sup>2</sup>  
 - AWG ..... 20-14

### HOODS, HOUSINGS

Material ..... Die cast aluminium  
 Surface ..... Powder-coated (RAL 7037)  
 Locking element ..... Stainless steel, steel-zinc plated  
 Temperature range ..... -40°C... +125°C  
 Degree of protection acc. to DIN40 050 ..... IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



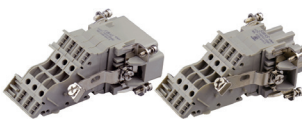

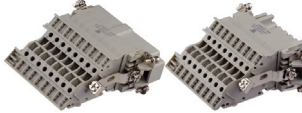

- 1 HEAV-006/HESAV-006
- 2 HEAV-010/HESAV-010
- 3 HEAV-016/HESAV-016
- 4 HEAV-024/HESAV-024

# HEAV inserts

LEFT HAND VERSION  
SCREW TERMINAL

500V MAX. 16A


6+  10+   
16+  24+ 


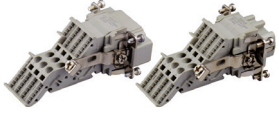

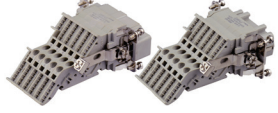
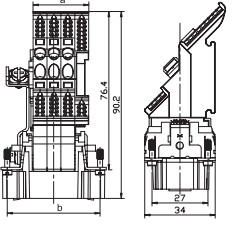

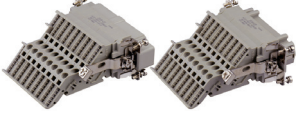

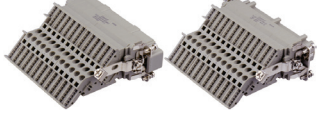
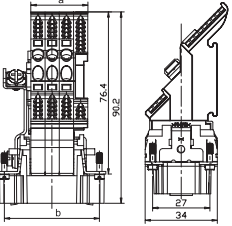
Dimensions (mm)	Type	Type	Part Number																
			Male insert	Female insert															
Screw terminal 6+ 																			
	6-pole	HEAV-006-M	T 2 09 006 2101-000																
		HEAV-006-F		T 2 09 006 2201-000															
Screw terminal 10+ 																			
	10-pole	HEAV-010-M	T 2 09 010 2101-000																
		HEAV-010-F		T 2 09 010 2201-000															
Left hand version																			
 <table border="1" data-bbox="367 1108 654 1276"> <thead> <tr> <th>Male insert/ Female insert</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>HEAV-006</td> <td>20</td> <td>44</td> </tr> <tr> <td>HEAV-010</td> <td>34</td> <td>57</td> </tr> <tr> <td>HEAV-016</td> <td>54</td> <td>77.5</td> </tr> <tr> <td>HEAV-024</td> <td>81</td> <td>104</td> </tr> </tbody> </table>	Male insert/ Female insert	A	B	HEAV-006	20	44	HEAV-010	34	57	HEAV-016	54	77.5	HEAV-024	81	104				
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HEAV-006	20	44																	
HEAV-010	34	57																	
HEAV-016	54	77.5																	
HEAV-024	81	104																	
Screw terminal 16+ 																			
	16-pole	HEAV-016-M	T 2 09 016 2101-000																
		HEAV-016-F		T 2 09 016 2201-000															
Screw terminal 24+ 																			
	24-pole	HEAV-024-M	T 2 09 024 2101-000																
		HEAV-024-F		T 2 09 024 2201-000															
Left hand version																			
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HEAV-006	20	44																	
HEAV-010	34	57																	
HEAV-016	54	77.5																	
HEAV-024	81	104																	

## HESAV inserts

LEFT HAND VERSION  
SPRING TERMINAL

500V MAX. 16A

6+  10+   
16+  24+ 

Dimensions (mm)	Type	Type	Part Number																
			Male insert	Female insert															
Spring terminal 6+ 																			
	6-pole	HEAV-006-MS	T 2 10 006 3101-000																
		HEAV-006-FS		T 2 10 206 3201-000															
Spring terminal 10+ 																			
	10-pole	HEAV-010-MS	T 2 10 210 3101-000																
		HEAV-010-FS		T 2 10 210 3201-000															
Left hand version																			
 <table border="1" data-bbox="367 1108 662 1288"> <thead> <tr> <th>Male insert/ Female insert</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>HEAV-006</td> <td>20</td> <td>44</td> </tr> <tr> <td>HEAV-010</td> <td>34</td> <td>57</td> </tr> <tr> <td>HEAV-016</td> <td>54</td> <td>77.5</td> </tr> <tr> <td>HEAV-024</td> <td>81</td> <td>104</td> </tr> </tbody> </table>	Male insert/ Female insert	A	B	HEAV-006	20	44	HEAV-010	34	57	HEAV-016	54	77.5	HEAV-024	81	104				
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HEAV-006	20	44																	
HEAV-010	34	57																	
HEAV-016	54	77.5																	
HEAV-024	81	104																	
Spring terminal 16+ 																			
	16-pole	HEAV-016-MS	T 2 10 216 3101-000																
		HEAV-016-FS		T 2 10 216 3201-000															
Spring terminal 24+ 																			
	24-pole	HEAV-024-MS	T 2 10 224 3101-000																
		HEAV-024-FS		T 2 10 224 3201-000															
Left hand version																			
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HEAV-006	20	44																	
HEAV-010	34	57																	
HEAV-016	54	77.5																	
HEAV-024	81	104																	

## HMN Modular Series



- Mutually compatible with other brands
- More convenient to install
- Complete series
- Can be developed according to customer requirements

### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances  
DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 175 301-801  
DIN EN 61 984

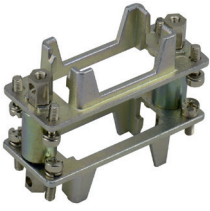
### 3. Approvals



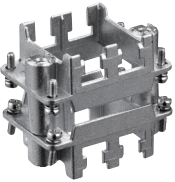


## HMN modular connectors overview

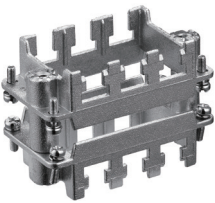
H10A



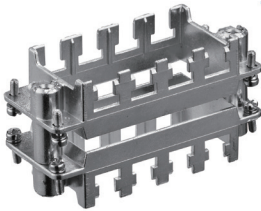
H6B



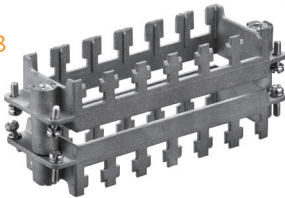
H10B



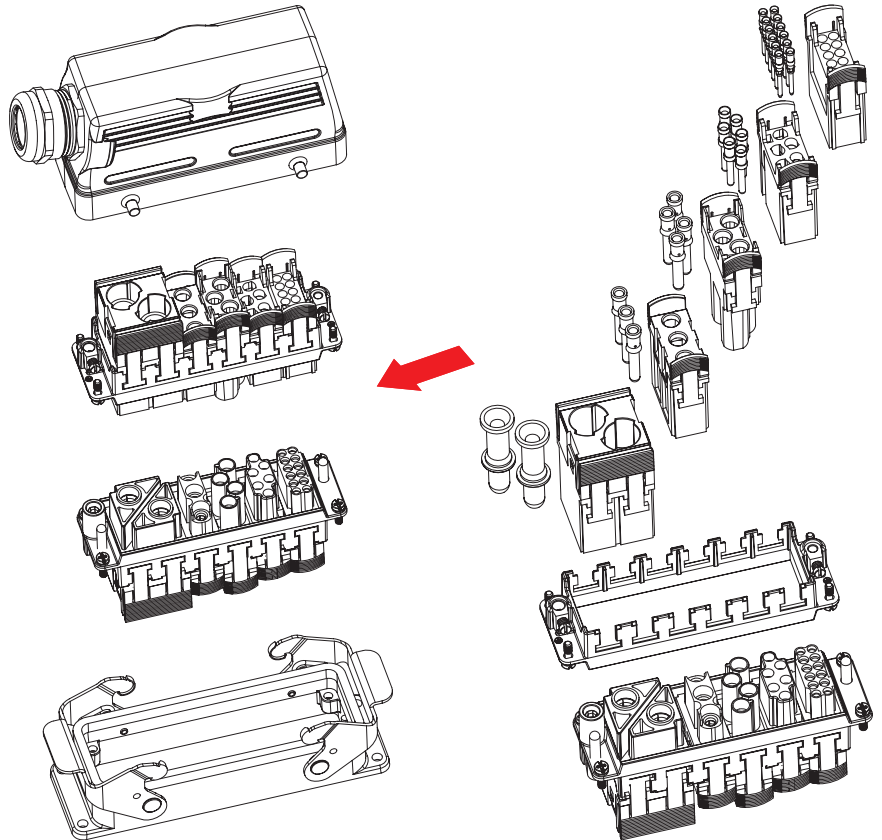
H16B



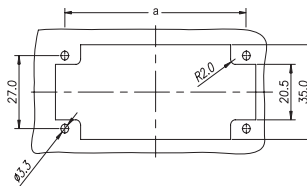
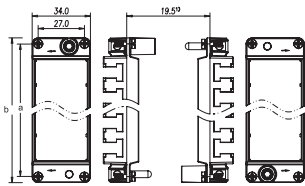
H24B



MODULAR UNITS, INSTALL AND REMOVE WITHOUT SPECIAL TOOLS!



### HMN MODULE FIXING FRAME



Hood/Housing	NO. of modules	a	b
H10A	1	49.5	56.5
H6B	2	44	51
H10B	3	57	64.1
H16B	4	77.5	84.5
H24B	6	104	111

Distance for electrical contacts max. 21mm.  
For pneumatic contacts max. 20.5mm. Each frame is composed of an upper and a lower bracket.

Description	Size	Part Number	Type
H10A frame for 1 modules	H10A	T 2 07 910 4201-000	H10A-T1-M
		T 2 07 910 4101-000	H10A-T1-F
H6B frame for 2 modules	H6B	T 2 07 006 4101-000	H6BN-T2-M
		T 2 07 006 4201-000	H6BN-T2-F
H10B frame for 3 modules	H10B	T 2 07 010 4101-000	H10BN-T3-M
		T 2 07 010 4201-000	H10BN-T3-F
H16B frame for 4 modules	H16B	T 2 07 016 4101-000	H16BN-T4-M
		T 2 07 016 4201-000	H16BN-T4-F
H24B frame for 6 modules	H24B	T 2 07 024 4101-000	H24BN-T6-M
		T 2 07 024 4201-000	H24BN-T6-F



## 200A/1 Pole module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 1 pole

### INSERTS

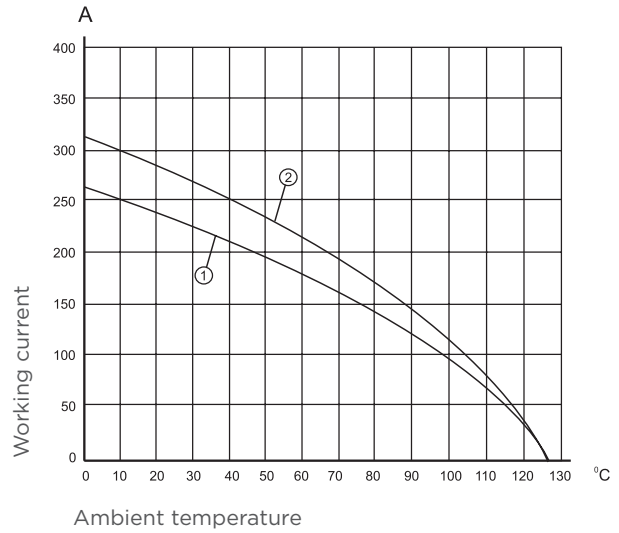
Working current ..... 200A max  
 (See current carrying capacity)  
 Working voltage ..... 1000V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 Contact resistance .....  $\leq 0.3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> ..... 25-70mm<sup>2</sup>  
 - AWG ..... 2-0

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



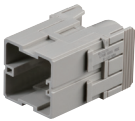
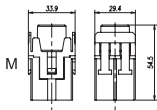

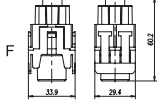
- 1 H24B hood/housing with 3 modules;  
wire gauge: 50mm<sup>2</sup>
- 2 H24B hood/housing with 3 modules;  
wire gauge: 70mm<sup>2</sup>

## HMN-001 module inserts

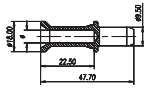


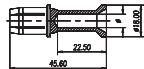
CRIMP TERMINAL

1000V MAX. 200A

1 Pole

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal	Size chart			
		HMN-001-MC	T 2 11 101 3101-000	
		HMN-001-FC		T 2 11 101 3201-000

### 200A Contact

Tech data Material: copper Contact resistance: $\leq 0.3\text{m}\Omega$ Terminal: crimp connection CHM/Male	200A Male crimp contacts 	Wire gauge	$\varnothing$	Stripping length mm	Crimp contacts, silver-plated	
		mm <sup>2</sup>			Type	Part Number
		25	7.0	22.5	CHM-25	T 2 06 000 1025-000
		35	8.2	22.5	CHM-35	T 2 06 000 1035-000
		50	10.0	22.5	CHM-50	T 2 06 000 1050-000
		70	11.5	22.5	CHM-70	T 2 06 000 1070-000
CHF/Female 	200A Female crimp contacts 	25	7.0	22.5	CHF-25	T 2 06 000 2025-000
		35	8.2	22.5	CHF-35	T 2 06 000 2035-000
		50	10.0	22.5	CHF-50	T 2 06 000 2050-000
		70	11.5	22.5	CHF-70	T 2 06 000 2070-000

## 100A/2 Poles module technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	2 poles

### INSERTS

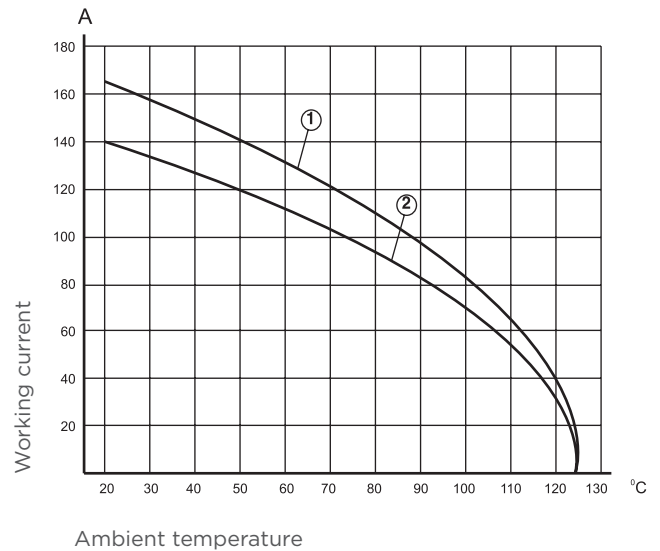
Working current .....	100A max (See current carrying capacity)
Working voltage .....	1000V
Test voltage urms .....	8KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
Contact resistance .....	$\leq 0.3m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	10-35mm <sup>2</sup>
- AWG .....	6-2

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.




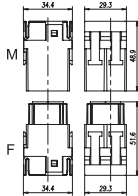

- 1 H24B hood/housing with 3 modules;  
wire gauge: 35mm<sup>2</sup>
- 2 H24B hood/housing with 3 modules;  
wire gauge: 25mm<sup>2</sup>

## HMN-D2 module inserts

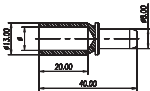


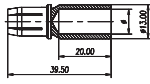
CRIMP TERMINAL

1000V MAX. 100A

2 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal	Size chart			
		HMN-D2-MC	T 2 11 102 8101-000	
		HMN-D2-FC		T 2 11 102 8201-000
Contact arrangement view from termination side				

### 100A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CDM/Male	100A Male crimp contacts 	Wire gauge	$\varnothing$	Stripping length	Crimp contacts, silver-plated	
		mm <sup>2</sup>		mm	Type	Part Number
		10	4.3	19	CNM-10	T 2 05 000 1010-000
		16	5.5	19	CNM-16	T 2 05 000 1016-000
		25	7	19	CNM-25	T 2 05 000 1025-000
		35	8.2	16	CNM-35	T 2 05 000 1035-000
CDF/Female  	100A Female crimp contacts  	10	4.3	19	CNF-10	T 2 05 000 2010-000
		16	5.5	19	CNF-16	T 2 05 000 2016-000
		25	7	19	CNF-25	T 2 05 000 2025-000
		35	8.2	16	CNF-35	T 2 05 000 2035-000

## 70A/2 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 2 poles

### INSERTS

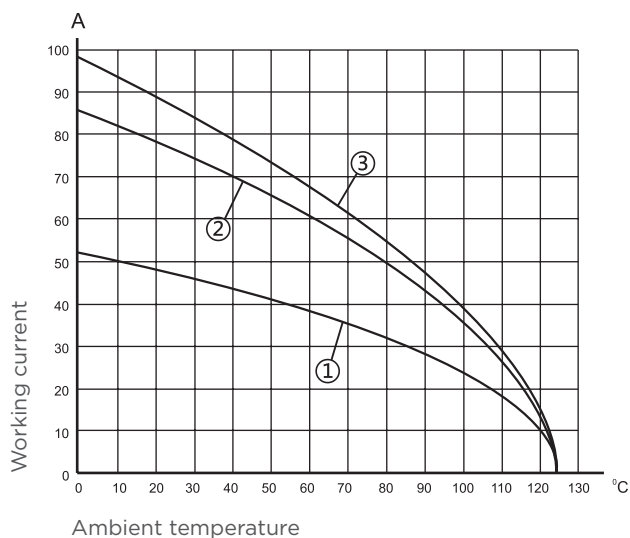
Working current ..... 70A max  
 (See current carrying capacity)  
 Working voltage ..... 1000V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 Contact resistance .....  $\leq 0.5m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> ..... 6-22mm<sup>2</sup>  
 - AWG ..... 8-4

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.




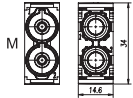
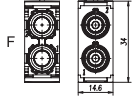
- 1 H24B hood/housing with 6 modules;  
wire gauge: 6mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 16mm<sup>2</sup>
- 3 H24B hood/housing with 6 modules;  
wire gauge: 22mm<sup>2</sup>

## HMN-002 module inserts

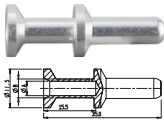
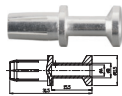
CRIMP TERMINAL

1000V MAX. 70A

2 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HMN-002-MC	T 2 11 102 0101-000	
		HMN-002-FC		T 2 11 102 0201-000

### 70A Contact

Male		Wire gauge		A	B	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG			Type	Part Number
Female		10.0mm <sup>2</sup>	AWG7	4.3	5.6	CSM-10	T 2 40 000 1100-000
		16.0mm <sup>2</sup>	AWG5	5.5	8.5	CSM-16	T 2 40 000 1160-000
		25.0mm <sup>2</sup>	AWG3	7.0	10.0	CSM-25	T 2 40 000 1250-000
		10.0mm <sup>2</sup>	AWG7	4.3	5.6	CSF-10	T 2 40 000 2100-000
		16.0mm <sup>2</sup>	AWG5	5.5	8.5	CSF-16	T 2 40 000 2160-000
		25.0mm <sup>2</sup>	AWG3	7.0	10.0	CSF-25	T 2 40 000 2250-000



## 40A/3 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 3 poles

### CURRENT CARRYING CAPACITY

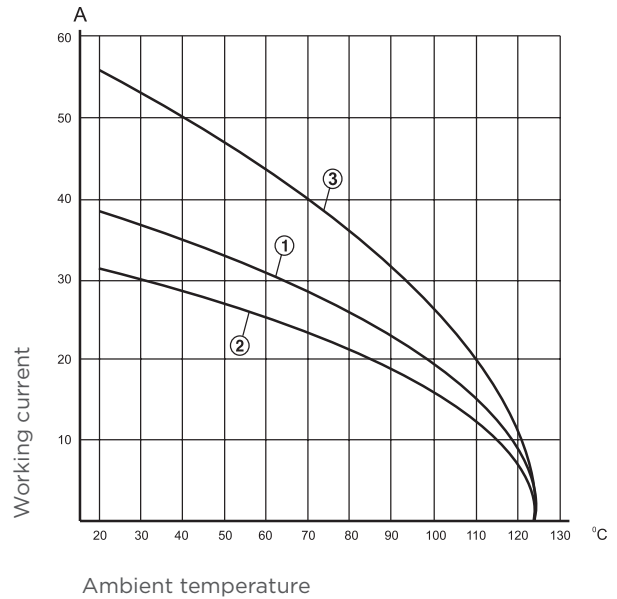
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

### INSERTS

Working current .....40A max  
 (See current carrying capacity)  
 Working voltage  
 Cable  $\varnothing$  up to 5mm..... 690V  
 Cable  $\varnothing$  up to 7.5mm..... 500V  
 Test voltage urms ..... 6KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 Contact resistance .....  $\leq 0.3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> .....1.0-6mm<sup>2</sup>  
 - AWG .....18-10




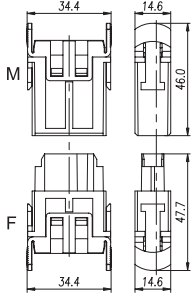
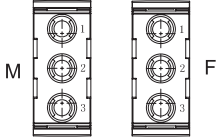
- 1 H24B hood/housing with 6 modules;  
wire gauge: 6.0mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4.0mm<sup>2</sup>
- 3 H24B hood/housing with 6 modules;  
wire gauge: 10.0mm<sup>2</sup>

## HMN-003 module inserts




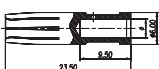
CRIMP TERMINAL

690V MAX. 40A

3 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal	Size chart			
		HMN-003-M	T 2 11 103 2101-000	
		HMN-003-F		T 2 11 103 2201-000
Contact arrangement view from termination side				

### 40A Contact

Tech data	40A Male crimp contacts	Wire gauge		Stripping length	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG		Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤0.3mΩ <b>Terminal:</b> crimp connection <b>CMM/Male</b> 		1.5	16	8.0	CMM-1.5	T 2 04 000 1015-000
		2.5	14	8.0	CMM-2.5	T 2 04 000 1025-000
		4.0	12	8.0	CMM-4.0	T 2 04 000 1040-000
		6.0	10	8.0	CMM-6.0	T 2 04 000 1060-000
<b>CMF/Female</b> 	<b>40A Female crimp contacts</b> 	1.5	16	8.0	CMF-1.5	T 2 04 000 2015-000
		2.5	14	8.0	CMF-2.5	T 2 04 000 2025-000
		4.0	12	8.0	CMF-4.0	T 2 04 000 2040-000
		6.0	10	8.0	CMF-6.0	T 2 04 000 2060-000
		10	7	8.0	CMF-10	T 2 04 000 2100-000

## 40A/4 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....4 poles

### INSERTS

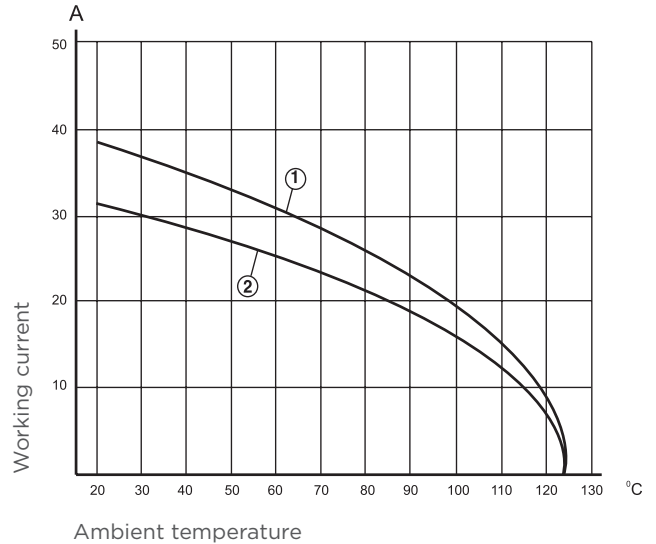
Working current .....40A max  
 (See current carrying capacity)  
 Working voltage  
 Cable  $\varnothing$  up to 5mm.....830V  
 Cable  $\varnothing$  up to 7.5mm..... 500V  
 Test voltage urms .....8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 .....V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 Contact resistance .....  $\leq 0.3m\Omega$   
 Terminal ..... Crimp terminal  
 -  $mm^2$  .....1.0-6 $mm^2$   
 - AWG .....18-10

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



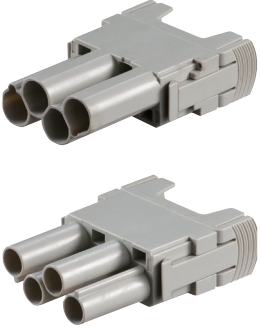
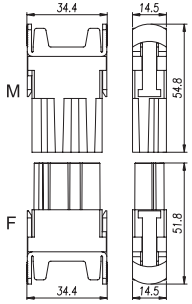
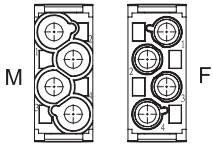
- 1 H24B hood/housing with 6 modules;  
wire gauge: 6.0 $mm^2$
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4.0 $mm^2$

## HMN-004 module inserts




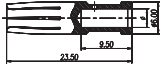
CRIMP TERMINAL

830V MAX. 40A

4 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal	Size chart			
		HMN-004-M	T 2 11 104 2101-000	
		HMN-004-F		T 2 11 104 2201-000
Contact arrangement view from termination side				

### 40A Contact

Tech data	40A Male crimp contacts	Wire gauge		Stripping length	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG		Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤0.3mΩ <b>Terminal:</b> crimp connection <b>CMM/Male</b> 		1.5	16	8.0	CMM-1.5	T 2 04 000 1015-000
		2.5	14	8.0	CMM-2.5	T 2 04 000 1025-000
		4.0	12	8.0	CMM-4.0	T 2 04 000 1040-000
		6.0	10	8.0	CMM-6.0	T 2 04 000 1060-000
<b>CMF/Female</b> 		1.5	16	8.0	CMF-1.5	T 2 04 000 2015-000
		2.5	14	8.0	CMF-2.5	T 2 04 000 2025-000
		4.0	12	8.0	CMF-4.0	T 2 04 000 2040-000
		6.0	10	8.0	CMF-6.0	T 2 04 000 2060-000
		10	7	8.0	CMF-10	T 2 04 000 2100-000

## 16A/5 Poles module technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	5 poles

### INSERTS

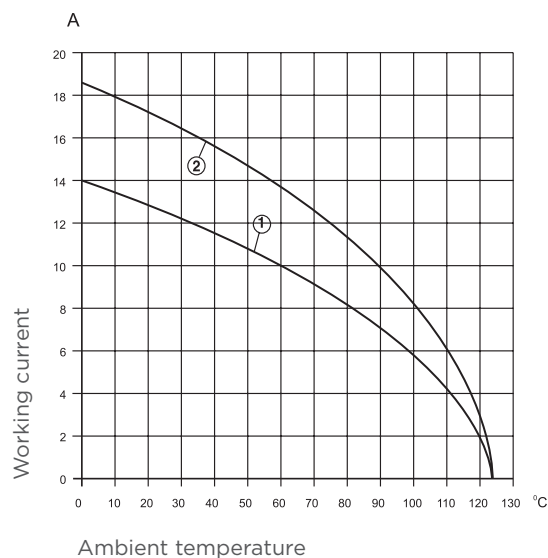
Working current .....	16A max
(See current carrying capacity)	
Working voltage.....	400V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Spring terminal
- mm <sup>2</sup> .....	0.5-2.5mm <sup>2</sup>
- AWG .....	20-14

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.





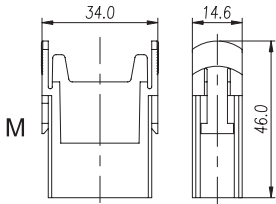
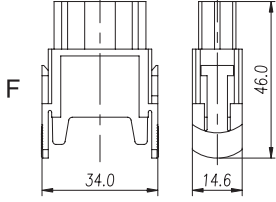
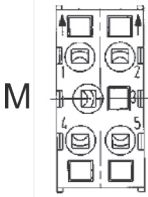
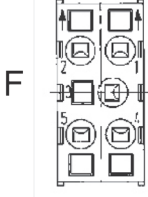
- 1 H24B hood/housing with 6 modules;  
wire gauge: 2.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>

## HMN-005 module inserts

SPRING TERMINAL

400V MAX. 16A

5 Poles

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Spring terminal	Size chart		
 	 	HMN-005-MS	T 2 11 005 2101-000
		HMN-005-FS	T 2 11 005 2201-000
Contact arrangement view from termination side			
 			

## 16A/6 Poles module technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	6 poles

### INSERTS

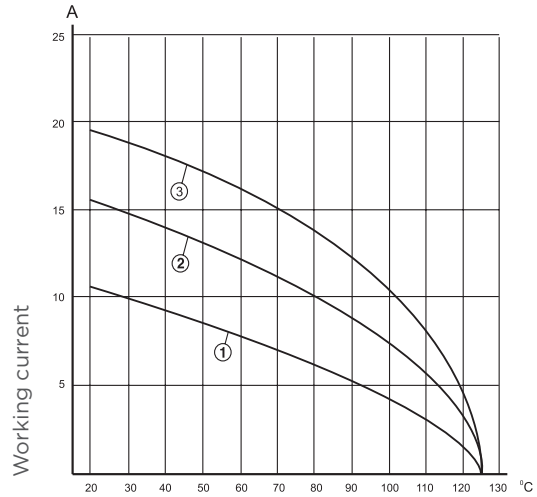
Working current .....	16A max (See current carrying capacity)
Working voltage.....	500/830V
Test voltage urms	
HMN-006-M/F.....	6KV
HMN-006-PM/F.....	8KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated ..... Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



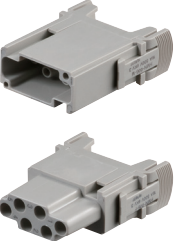
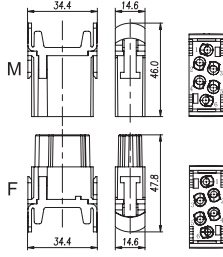
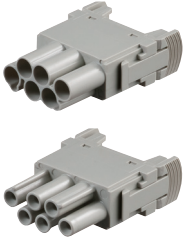
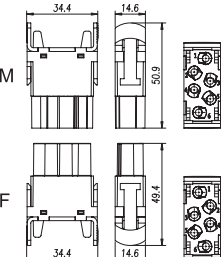
Ambient temperature

- 1 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 2.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4mm<sup>2</sup>


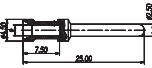

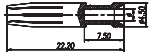
## HMN-006 module inserts

### CRIMP TERMINAL

6 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal	Contact arrangement view from termination side			
500V max. 16A 		HMN-006-M	T 2 11 106 2101-000	
		HMN-006-F		T 2 11 106 2201-000
830V Max. 16A 		HMN-006-PM	T 2 11 106 3101-000	
		HMN-006-PF		T 2 11 106 3201-000

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000



## 16A/8 Poles module technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	8 poles

### INSERTS

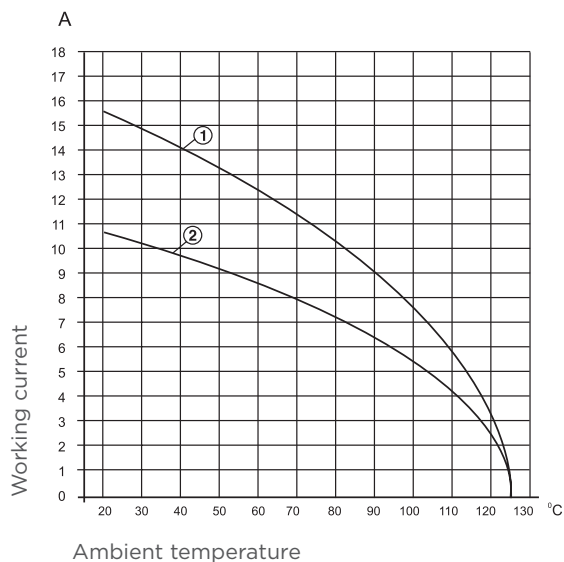
Working current .....	16A max
(See current carrying capacity)	
Working voltage.....	400V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



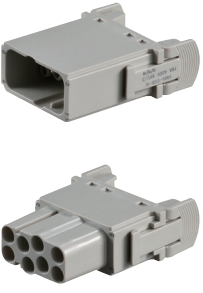
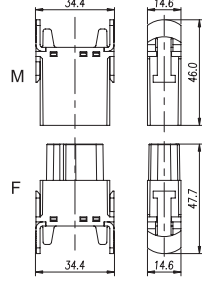
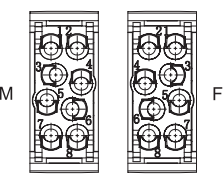
- 1 H24B hood/housing with 6 modules; wire gauge: 2.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules; wire gauge: 1.5mm<sup>2</sup>

# HMN-008 module inserts


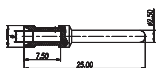

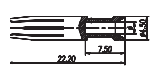
CRIMP TERMINAL

400V MAX. 16A

8 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-008-M	T 2 11 108 2101-000	
		HMN-008-F		T 2 11 108 2201-000
Contact arrangement view from termination side				

## 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 203 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 203 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 203 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 203 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 203 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 203 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 203 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 203 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 203 000 2040-000	DEF-4.0	T 2 03 001 2040-000



## 10A/12 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....12 poles

### INSERTS

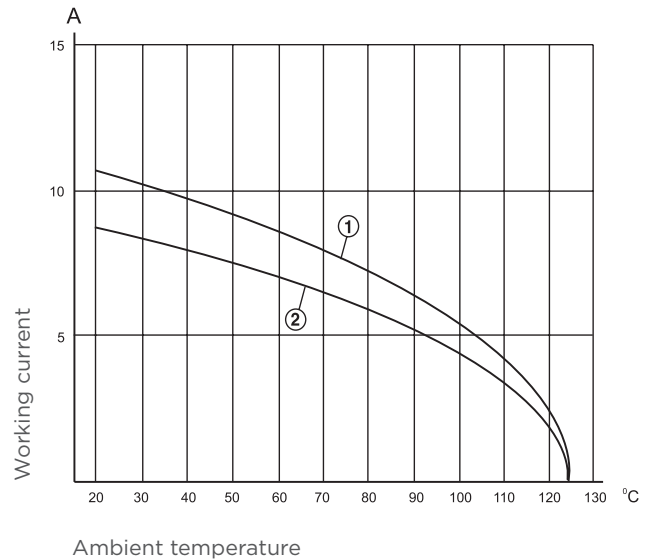
Working current .....10A max  
 (See current carrying capacity)  
 Working voltage .....250V  
 Test voltage urms .....4KV  
 Pollution degree .....3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 .....V0  
 Working voltage acc. to UL/CSA .....600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 .....Hard gold-plated  
 Contact resistance .....  $\leq 3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> .....0.14-2.5mm<sup>2</sup>  
 - AWG .....26-14

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.




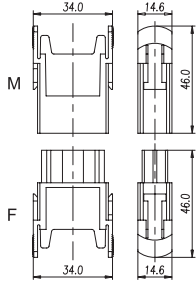

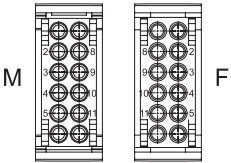
- 1 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.0mm<sup>2</sup>

# HMN-012 module inserts


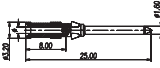


CRIMP TERMINAL

250V MAX. 10A

12 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-012-M	T 2 11 112 2101-000	
		HMN-012-F		T 2 11 112 2201-000
Contact arrangement view from termination side				

## 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## 10A/17 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....17 poles

### INSERTS

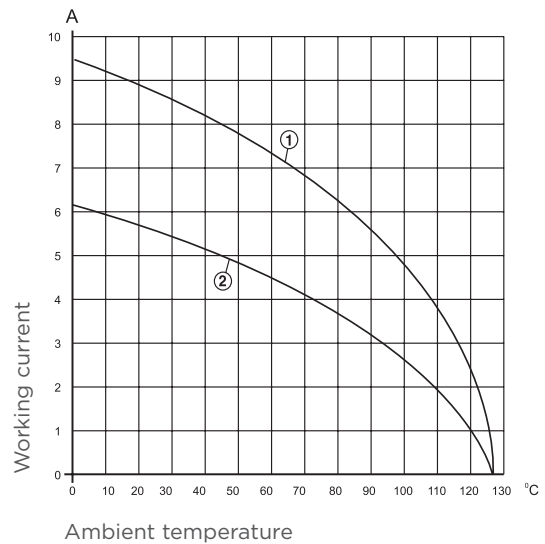
Working current .....10A max  
 (See current carrying capacity)  
 Working voltage.....160V  
 Test voltage urms .....2.5KV  
 Pollution degree ..... 3  
 Pollution degree acc. to TUV..... 2  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 .....Hard gold-plated  
 Contact resistance ..... $\leq 3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> ..... 0.14-2.5mm<sup>2</sup>  
 - AWG .....26-14

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.




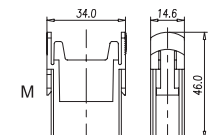
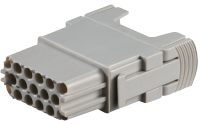
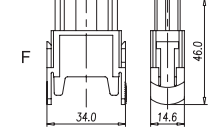

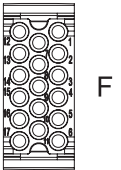
- 1 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.0mm<sup>2</sup>

## HMN-017 module inserts


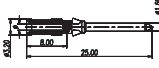

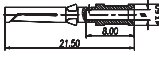
CRIMP TERMINAL

160V MAX. 10A

17 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-017-M	T 2 11 117 2101-000	
		HMN-017-F		T 2 11 117 2201-000
Contact arrangement view from termination side				
				

### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

## 16A/20 Poles module technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	20 poles

### INSERTS

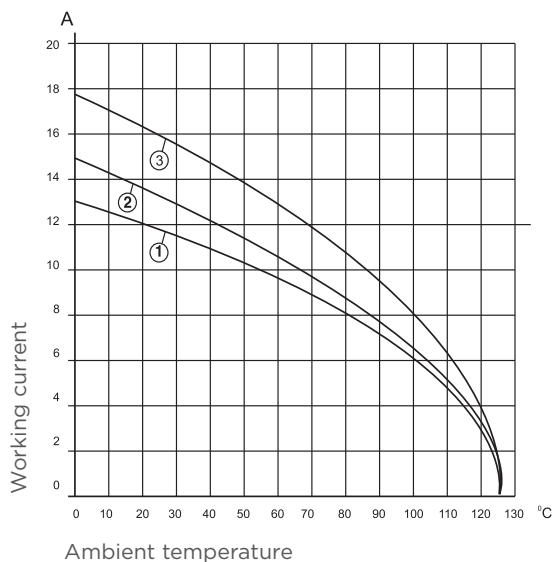
Working current .....	16A max
(See current carrying capacity)	
Working voltage.....	500V
Test voltage urms .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



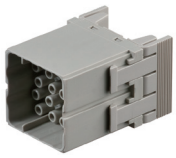
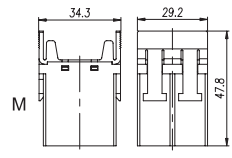
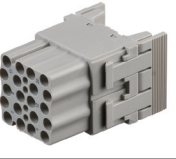
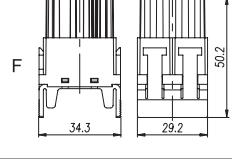
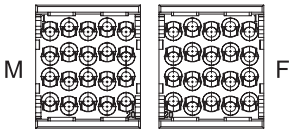
- 1 H24B hood/housing with 3 modules; wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 3 modules; wire gauge: 2.5mm<sup>2</sup>
- 3 H24B hood/housing with 3 modules; wire gauge: 4mm<sup>2</sup>

# HMN-020 module inserts


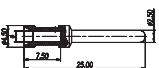

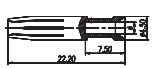
CRIMP TERMINAL

500V MAX. 16A

20 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-020-M	T 2 11 120 2101-000	
		HMN-020-F		T 2 11 120 2201-000
Contact arrangement view from termination side				

## 16A Contact

Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
<b>CEF/Female</b> 		0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000





## 5A/25 Poles module technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....25 poles

### INSERTS

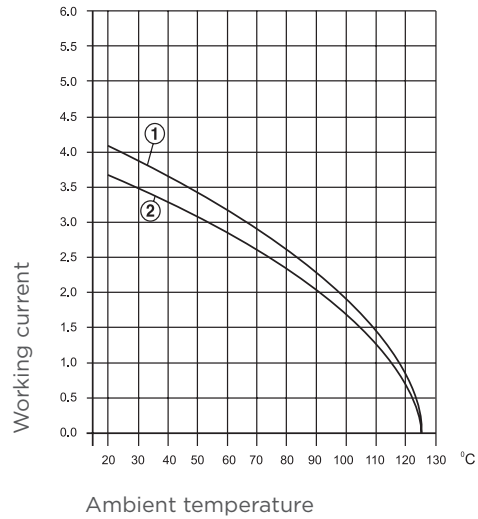
Working current ..... 5A max  
 (See current carrying capacity)  
 Working voltage..... 50V  
 Test voltage urms ..... 0.8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 .....Hard gold-plated  
 Contact resistance ..... $\leq 1m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup> .....0.08-0.52mm<sup>2</sup>  
 - AWG .....28-20

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



#### Turned contacts

1 H24B hood/housing with 6 modules;  
 wire gauge: 0.5mm<sup>2</sup>

#### Stamped contacts

2 H24B hood/housing with 6 modules;  
 wire gauge: 0.5mm<sup>2</sup>



## D-Sub & RJ45 module technical characteristics

### D-SUB MODULE TECHNICAL CHARACTERISTICS

Specifications .....DIN EN 60 664-1  
..... DIN EN 61 984  
Number of contacts .....9 poles

#### INSERTS

Working current .....5A max  
(See current carrying capacity)  
Working voltage..... 50V  
Test voltage urms ..... 0.8KV  
Pollution degree ..... 3  
Insulation resistance .....  $\geq 10^{10}\Omega$   
Material ..... Polycarbonate  
Temperature range ..... -40°C... +125°C  
Flammability acc. to UL94 .....V0  
Mechanical working life-mating cycles .....  $\geq 500$

#### CONTACTS

Material .....Copper alloy  
Surface .....Hard silver-plated  
.....Hard gold-plated  
Contact resistance .....  $\leq 1m\Omega$   
Terminal ..... Crimp terminal

### RJ45 MODULE TECHNICAL CHARACTERISTICS

Specifications .....DIN EN 60 664-1  
..... DIN EN 61 984  
Number of contacts .....8 poles

#### INSERTS

Working current .....1A max  
(See current carrying capacity)  
Working voltage..... 50V  
Test voltage urms ..... 0.8KV  
Pollution degree ..... 3  
Insulation resistance .....  $\geq 10^{10}\Omega$   
Material ..... Polycarbonate  
Temperature range ..... -40°C... +85°C  
Flammability acc. to UL94 .....V0  
Mechanical working life-mating cycles .....  $\geq 500$

#### MODULE WITH RJ45 TERMINAL


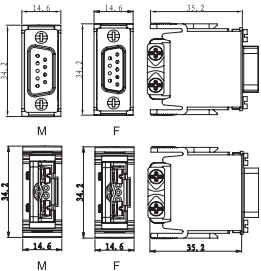


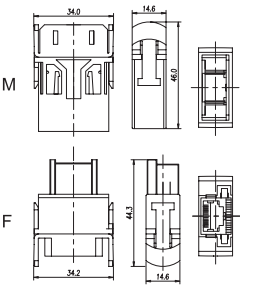


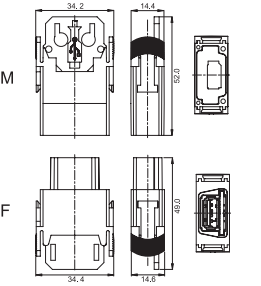

Material ..... Polycarbonate  
Temperature range..... -40°C... +70°C  
Flammability acc. to UL94 .....V0  
Stranded wire diameter..... 0.89-0.99mm  
Wire gauge ..... AWG24-26

Material ..... Polycarbonate  
Temperature range..... -40°C... +70°C  
Flammability acc. to UL94 .....V0  
Stranded wire diameter..... 0.94-1.07mm  
Wire gauge .....AWG22-24

## D-Sub/RJ45/USB module inserts

### CRIMP TERMINAL

9 Poles & 8 Poles & USB

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-009-M	T 2 11 109 2101-000	
		HMN-009-F		T 2 11 109 2201-000
		HMN-RJ45-MC	T 2 11 300 0101-100	
		HMN-RJ45-F		T 2 11 300 0201-000
		HMN-USB-M	T 2 11 400 0101-000	
		HMN-USB-F		T 2 11 400 0201-000

## Quint module technical characteristics

Specifications .....DIN EN 60 664-1  
..... DIN EN 61 984

### INSERTS

Number of contacts ..... 2  
Insulation resistance .....  $\geq 10^{10} \Omega$   
Material ..... Polycarbonate  
Temperature range .....  $-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$   
Flammability acc. to UL 94 ..... V0  
Mechanical working life-mating cycles.....  $\geq 500$

### QUINT CONTACTS

Number of contacts  
- Quint 1 + shielding  
- Quint 4 + shielding  
- High Density Quint 8 + shielding

Working current  
- Quint 1..... 16A max  
- Quint 4 ..... 10A max  
- Quint 8 ..... 5A max  
Working voltage..... 50V  
Test voltage urms..... 0.8KV  
Pollution degree ..... 3  
Quint 8 Pollution degree acc. to TUV ..... 2  
Insulation resistance .....  $\geq 10^{10} \Omega$   
Material ..... Polycarbonate  
Temperature range .....  $-40^{\circ}\text{C} \dots +125^{\circ}\text{C}$   
Flammability acc. to UL 94 ..... V0  
Mechanical working life-mating cycles.....  $\geq 500$

### CONTACTS

Material ..... Copper alloy  
Surface ..... Hard silver-plated  
..... Hard gold-plated  
Contact resistance.....  $\leq 3\text{m}\Omega$   
Terminal ..... Crimp terminal  
-  $\text{mm}^2$   
- Quint 1..... 0.14-4 $\text{mm}^2$   
- Quint 4 ..... 0.14-2.5 $\text{mm}^2$   
- Quint 8 ..... 0.08-0.52 $\text{mm}^2$   
- AWG  
- Quint 1..... 26-12  
- Quint 4 ..... 26-14  
- Quint 8 ..... 28-20


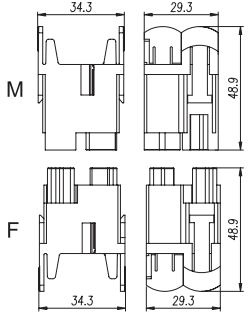
### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

## Quint module inserts


### CRIMP TERMINAL

2 Poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-Q1-M	T 2 11 102 7101-000	
		HMN-Q1-F		T 2 11 102 7201-000
		HMN-Q2-M	T 2 11 102 7101-001	
		HMN-Q2-F		T 2 11 102 7201-001
		HMN-Q3-M	T 2 11 102 7101-002	
		HMN-Q3-F		T 2 11 102 7201-002


#### Quint 1-pos

For 16A crimp contacts

	PIN-Q1-M	T 2 58 001 1154-000	
	PIN-Q1-F		T 2 58 001 2154-000


#### Quint 4-pos

For 10A crimp contacts

	PIN-Q2-M	T 2 58 003 1154-000	
	PIN-Q2-F		T 2 58 003 2154-000

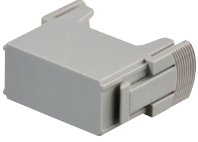
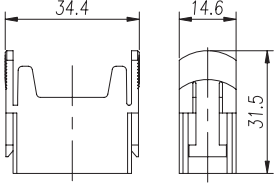
#### Quint 8-pos

For D-Sub crimp contacts

	PIN-Q3-M	T 2 58 008 1154-000	
	PIN-Q3-F		T 2 58 008 2154-000

## Dummy module inserts


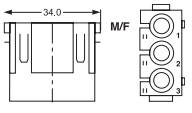
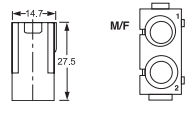
1

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
	Size chart		
		HMN-DM	T 3 11 000 9902-000


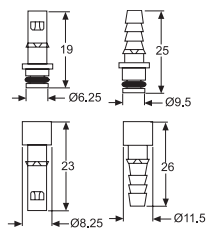
## HMN-P2, P3 module for pneumatic contacts

### PNEUMATIC CONTACTS, MODULAR UNITS, WITH 2 OR 3 SEATS

P2, P3

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Contact arrangement view from termination side				
		HMN-PA3	T 2 11 103 2301-000	
		HMN-PA2	T 2 11 102 2301-000	

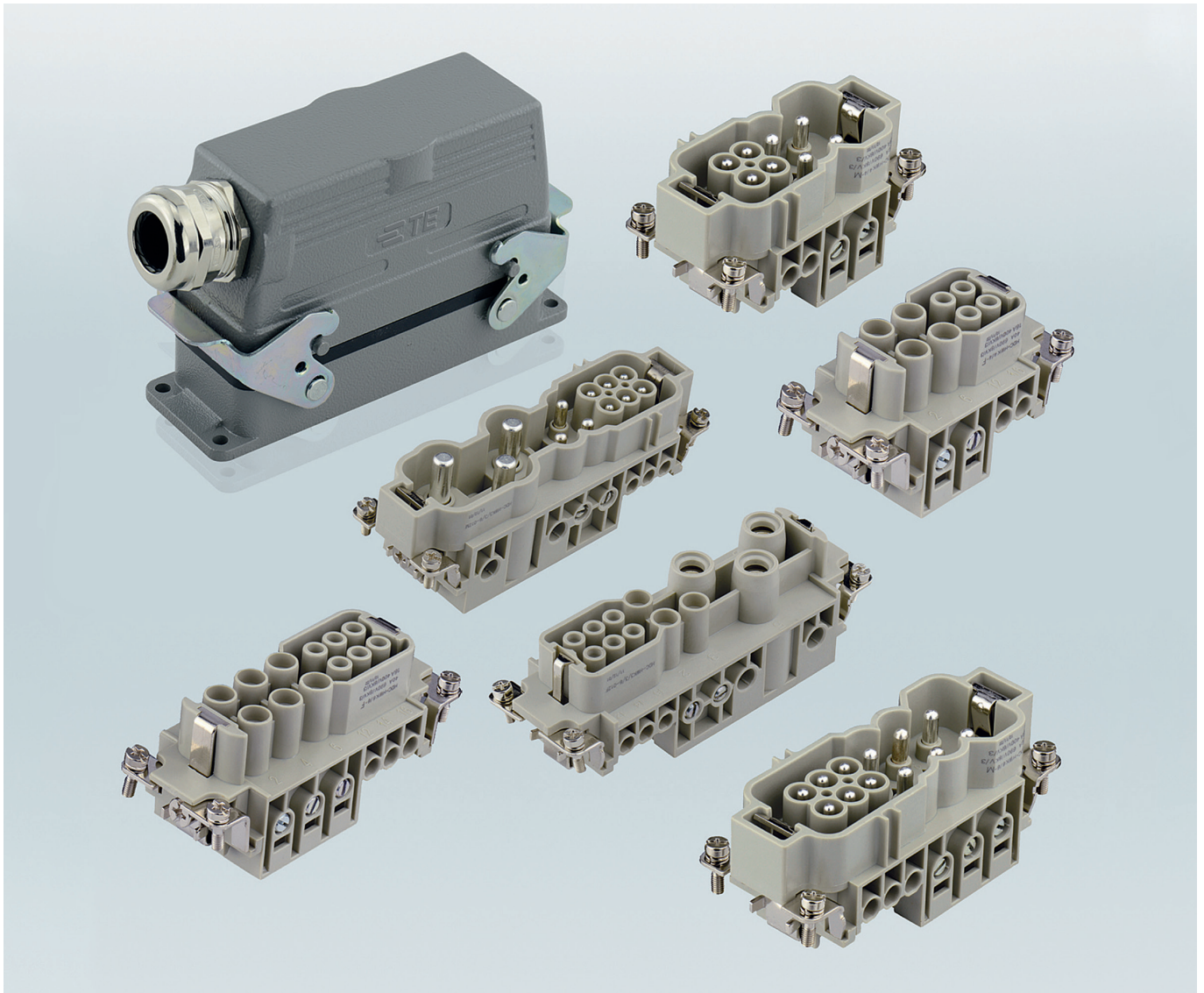
#### Pneumatic contacts with or without closing valve

				
<p><b>Male contacts without closing valve</b></p> <p>For tubes with internal <math>\varnothing</math> 1.6mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 3.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 4.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 6.0mm (For HMN P2 module)</p>	<p>Pneu-c-M1.6</p> <p>Pneu-c-M3.0</p> <p>Pneu-c-M4.0</p> <p>Pneu-c-M6.0</p>	<p>T 2 09 000 2101-001</p> <p>T 2 09 000 2101-002</p> <p>T 2 09 000 2101-003</p> <p>T 2 09 000 2101-004</p>		
<p><b>Female contacts without closing valve</b></p> <p>For tubes with internal <math>\varnothing</math> 1.6mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 3.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 4.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 6.0mm (For HMN P2 module)</p>	<p>Pneu-c-F1.6</p> <p>Pneu-c-F3.0</p> <p>Pneu-c-F4.0</p> <p>Pneu-c-F6.0</p>		<p>T 2 09 000 2201-001</p> <p>T 2 09 000 2201-002</p> <p>T 2 09 000 2201-003</p> <p>T 2 09 000 2201-004</p>	
<p><b>Female contacts without closing valve</b></p> <p>For tubes with internal <math>\varnothing</math> 1.6mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 3.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 4.0mm (For HMN P3 module)</p> <p>For tubes with internal <math>\varnothing</math> 6.0mm (For HMN P3 module)</p>	<p>Pneu-c-Fw1.6</p> <p>Pneu-c-Fw3.0</p> <p>Pneu-c-Fw4.0</p> <p>Pneu-c-Fw6.0</p>		<p>T 2 09 001 2201-001</p> <p>T 2 09 001 2201-002</p> <p>T 2 09 001 2201-003</p> <p>T 2 09 001 2201-004</p>	
<p><b>Male contacts (use contacts without closing valve)</b></p>				





## HK, HWK Series



### 1. Specifications

DIN VDE 0110 Concerning clearance and creepage distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1

DIN EN 61 984

### 3. Approvals



RoHS

## HK8/24 technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	8/24 + PE

## CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

## INSERTS

Rated current	
Power contact .....	16A max
Signal contact.....	10A max
Working voltage	
Power contact	
Conductor - ground .....	230V
Conductor - conductor .....	400V
Signal contact.....	160V
Test voltage urms	
Power contact .....	4KV
Signal contact.....	2.5KV
Pollution degree .....	2
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V/300V
Mechanical working life-mating cycles .....	$\geq 500$

## CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup>	
Power contact .....	0.15-4.0mm <sup>2</sup>
Signal contact.....	0.15-2.5mm <sup>2</sup>
- AWG	
Powder contact .....	26-12
Signal contact.....	26-14

## HOODS, HOUSINGS


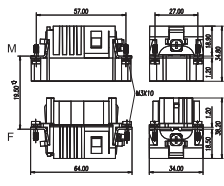
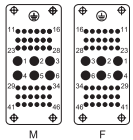
Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## HK8/24 inserts


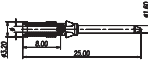

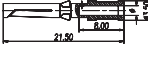
INSERTS FOR H10B HOOD/HOUSING

400V/160V MAX. 16A/10A


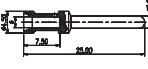

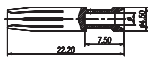
8/24+ Ⓢ

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (Order crimp contacts separately)			
		HK8/24-032-M	T 2 10 032 2101-000
		HK8/24-032-F	T 2 10 032 2201-000
Contact arrangement view from termination side 			

### 10A Contact


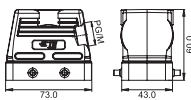

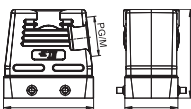

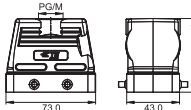

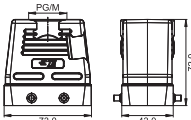

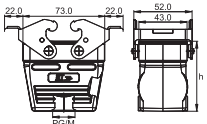

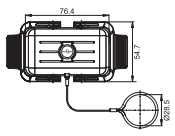

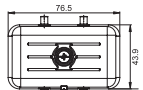
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
CEF/Female 	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000


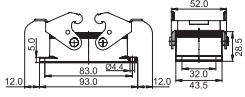

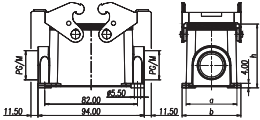

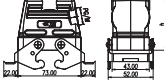

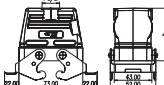

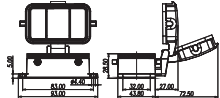

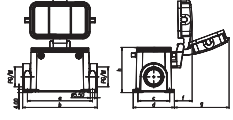
## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Low construction</p>  <p>73.0 43.0 60.0</p> </div> </div>	M20 M25	PG16 PG21	H10B-TS-PG16 H10B-TS-PG21 H10B-TS-M20 H10B-TS-M25	T 1 21 010 0116-000 T 1 21 010 0121-000 T 1 21 010 0120-000 T 1 21 010 0125-000						
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>High construction</p>  <p>73.0 43.0 72.0</p> </div> </div>	M20 M25 M32	PG21 PG29	H10B-TSH-PG21 H10B-TSH-PG29 H10B-TSH-M20 H10B-TSH-M25 H10B-TSH-M32	T 1 23 010 0121-000 T 1 23 010 0129-000 T 1 23 010 0120-000 T 1 23 010 0125-000 T 1 23 010 0132-000						
<b>Hood: Top entry</b>										
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Low construction</p>  <p>73.0 43.0 60.0</p> </div> </div>	M20 M25	PG16 PG21	H10B-TG-PG16 H10B-TG-PG21 H10B-TG-M20 H10B-TG-M25	T 1 22 010 0116-000 T 1 22 010 0121-000 T 1 22 010 0120-000 T 1 22 010 0125-000						
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>High construction</p>  <p>73.0 43.0 72.0</p> </div> </div>	M20 M25 M32	PG21 PG29	H10B-TGH-PG21 H10B-TGH-PG29 H10B-TGH-M20 H10B-TGH-M25 H10B-TGH-M32	T 1 24 010 0121-000 T 1 24 010 0129-000 T 1 24 010 0120-000 T 1 24 010 0125-000 T 1 24 010 0132-000						
<b>Cable-to-cable hood</b>										
 <div style="display: flex; align-items: center;"> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Low construction</p>  <p>22.0 73.0 22.0 52.0 43.0</p> </div> <div style="border: 1px solid black; padding: 5px;"> <table border="1"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table> </div> <div style="text-align: center;"> <p>High construction</p> </div> </div> </div>	Construction	H	Low	62.5	High	74.5	M20 M25  M25 M32	PG16  PG21 PG29	H10B-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25  H10B-TBFHS-PG21 H10B-TBFHS-M25 H10B-TBFHS-M32	T 1 71 010 1116-000 T 1 71 010 1120-000 T 1 71 010 1125-000  T 1 75 010 1121-000 T 1 75 010 1129-000 T 1 75 010 1125-000 T 1 75 010 1132-000
Construction	H									
Low	62.5									
High	74.5									
<b>Protection covers for hoods</b>										
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>76.4 47 20.5</p> </div> </div>			H10B-KDTP	T 1 01 010 1400-000						
<b>Housing protection cover</b>										
 <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>76.5 43.0</p> </div> </div>			H10B-KDBP	T 1 01 010 2100-000						

# H10B with 2 levers on the hoods/housings


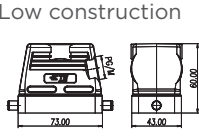

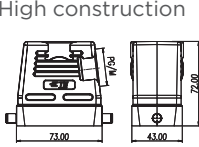

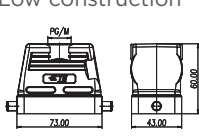

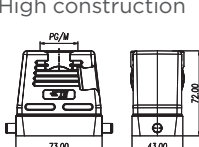

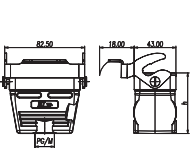

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number																								
<b>Bulkhead mounted</b>																												
 			H10B-AGS	T 1 41 010 1000-000																								
<b>Surface mounted: Side entry</b>																												
  <table border="1" data-bbox="316 860 671 949"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>H</td> </tr> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>56</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </table>	Construction	A	B	H	Low	40	52	56	High	45	57	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29 PG21 PG29	H10B-SGRS-PG16 H10B-SGRS-PG21 H10B-SGRS-M20 H10B-SGRS-M25 H10B-SGRS-2PG16 H10B-SGRS-2PG21 H10B-SGRS-2M20 H10B-SGRS-2M25 H10B-SGRHS-PG21 H10B-SGRHS-PG29 H10B-SGRHS-M25 H10B-SGRHS-M32 H10B-SGRHS-2PG21 H10B-SGRHS-2PG29 H10B-SGRHS-2M25 H10B-SGRHS-2M32	T 1 44 010 1116-000 T 1 44 010 1121-000 T 1 44 010 1120-000 T 1 44 010 1125-000 T 1 44 010 1216-000 T 1 44 010 1221-000 T 1 44 010 1220-000 T 1 44 010 1225-000 T 1 47 010 1121-000 T 1 47 010 1129-000 T 1 47 010 1125-000 T 1 47 010 1132-000 T 1 47 010 1221-000 T 1 47 010 1229-000 T 1 47 010 1225-000 T 1 47 010 1232-000												
Construction	A	B	H																									
Low	40	52	56																									
High	45	57	74																									
<b>Side entry housing with two levers</b>																												
  <table border="1" data-bbox="316 1182 517 1263"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>72</td> </tr> </table>	Construction	H	Low	60	High	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TSBS-PG16 H10B-TSBS-PG21 H10B-TSBS-M20 H10B-TSBS-M25 H10B-TSBHS-PG21 H10B-TSBHS-PG29 H10B-TSBHS-M25 H10B-TSBHS-M32	T 1 25 010 3116-000 T 1 25 010 3121-000 T 1 25 010 3120-000 T 1 25 010 3125-000 T 1 27 010 3121-000 T 1 27 010 3129-000 T 1 27 010 3125-000 T 1 27 010 3132-000																		
Construction	H																											
Low	60																											
High	72																											
<b>Top entry housing with two levers</b>																												
  <table border="1" data-bbox="316 1429 536 1509"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>72</td> </tr> </table>	Construction	H	Low	60	High	72	Low construction M20 M25 High construction M25 M32	PG16 PG21 PG21 PG29	H10B-TGBS-PG16 H10B-TGBS-PG21 H10B-TGBS-M20 H10B-TGBS-M25 H10B-TGBHS-PG21 H10B-TGBHS-PG29 H10B-TGBHS-M25 H10B-TGBHS-M32	T 1 26 010 3116-000 T 1 26 010 3121-000 T 1 26 010 3120-000 T 1 26 010 3125-000 T 1 28 010 3121-000 T 1 28 010 3129-000 T 1 28 010 3125-000 T 1 28 010 3132-000																		
Construction	H																											
Low	60																											
High	72																											
<b>Bulkhead mounted with 4 bolts</b>																												
    <table border="1" data-bbox="316 1944 695 2024"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> <td>G</td> <td>H</td> </tr> <tr> <td>Low</td> <td>82</td> <td>94</td> <td>40</td> <td>52</td> <td>22</td> <td>67</td> <td>54</td> </tr> <tr> <td>High</td> <td>82</td> <td>94</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>74</td> </tr> </table>	Construction	A	B	C	D	F	G	H	Low	82	94	40	52	22	67	54	High	82	94	45	57	20	65	74	Low construction 1 Side entry M20 M25 High construction 1 Side entry M25 M32 2 Side entry M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-AD-BO H10B-SDR-BO-PG16 H10B-SDR-BO-PG21 H10B-SDR-BO-M20 H10B-SDR-BO-M25 H10B-SDR-BO-2PG16 H10B-SDR-BO-2PG21 H10B-SDR-BO-2M20 H10B-SDR-BO-2M25 H10B-SDRH-BO-PG21 H10B-SDRH-BO-PG29 H10B-SDRH-BO-M25 H10B-SDRH-BO-M32 H10B-SDRH-BO-2PG21 H10B-SDRH-BO-2PG29 H10B-SDRH-BO-2M25 H10B-SDRH-BO-2M32	T 1 43 010 0000-000 T 1 46 010 0116-000 T 1 46 010 0121-000 T 1 46 010 0120-000 T 1 46 010 0125-000 T 1 46 010 0216-000 T 1 46 010 0221-000 T 1 46 010 0220-000 T 1 46 010 0225-000 T 1 49 010 0121-000 T 1 49 010 0129-000 T 1 49 010 0125-000 T 1 49 010 0132-000 T 1 49 010 0221-000 T 1 49 010 0229-000 T 1 49 010 0225-000 T 1 49 010 0232-000
Construction	A	B	C	D	F	G	H																					
Low	82	94	40	52	22	67	54																					
High	82	94	45	57	20	65	74																					



## H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
		M20 M25	PG16 PG21	H10B-TS-RO-PG16 H10B-TS-RO-PG21 H10B-TS-RO-M20 H10B-TS-RO-M25 T 1 31 010 0116-000 T 1 31 010 0121-000 T 1 31 010 0120-000 T 1 31 010 0125-000						
		M20 M25 M32	PG21 PG29	H10B-TSH-RO-PG21 H10B-TSH-RO-PG29 H10B-TSH-RO-M20 H10B-TSH-RO-M25 H10B-TSH-RO-M32 T 1 33 010 0121-000 T 1 33 010 0129-000 T 1 33 010 0120-000 T 1 33 010 0125-000 T 1 33 010 0132-000						
<b>Hood: Top entry</b>										
		M20 M25	PG16 PG21	H10B-TG-RO-PG16 H10B-TG-RO-PG21 H10B-TG-RO-M20 H10B-TG-RO-M25 T 1 32 010 0116-000 T 1 32 010 0121-000 T 1 32 010 0120-000 T 1 32 010 0125-000						
		M20 M25 M32	PG21 PG29	H10B-TGH-RO-PG21 H10B-TGH-RO-PG29 H10B-TGH-RO-M20 H10B-TGH-RO-M25 H10B-TGH-RO-M32 T 1 34 010 0121-000 T 1 34 010 0129-000 T 1 34 010 0120-000 T 1 34 010 0125-000 T 1 34 010 0132-000						
<b>Cable-to-cable hood</b>										
	 <table border="1" data-bbox="526 1400 750 1500"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M20 M25 M25 M32	PG16 PG21 PG29	H10B-TBF-LB-PG16 H10B-TBF-LB-M20 H10B-TBF-LB-M25 H10B-TBFH-LB-PG21 H10B-TBFH-LB-PG29 H10B-TBFH-LB-M25 H10B-TBFH-LB-M32 T 1 73 010 3116-000 T 1 73 010 3120-000 T 1 73 010 3125-000 T 1 77 010 3121-000 T 1 77 010 3129-000 T 1 77 010 3125-000 T 1 77 010 3132-000
Construction	H									
Low	62.5									
Hight	74.5									
<b>Protection covers for hoods</b>										
				H10B-KDTP-LB T 1 01 010 1500-000						

# H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number													
Bulkhead mounted																		
				H10B-AG-LB	T 1 50 010 3000-000													
	With protection cover 			H10B-AD-LB H10B-ADM-LB	T 1 51 010 3000-000 T 1 51 010 3001-000													
Surface mounted: Side entry																		
	 <table border="1"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	54	High	45	57	74	1 Side entry Low construction 2 Side entry High construction	M20 M25 M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29 PG21 PG29	H10B-SGR-LB-PG16 H10B-SGR-LB-PG21 H10B-SGR-LB-M20 H10B-SGR-LB-M25 H10B-SGR-LB-2PG16 H10B-SGR-LB-2PG21 H10B-SGR-LB-2M20 H10B-SGR-LB-2M25 H10B-SGRH-LB-PG21 H10B-SGRH-LB-PG29 H10B-SGRH-LB-M25 H10B-SGRH-LB-M32 H10B-SGRH-LB-2PG21 H10B-SGRH-LB-2PG29 H10B-SGRH-LB-2M25 H10B-SGRH-LB-2M32	T 1 61 010 3116-000 T 1 61 010 3121-000 T 1 61 010 3120-000 T 1 61 010 3125-000 T 1 61 010 3216-000 T 1 61 010 3221-000 T 1 61 010 3220-000 T 1 61 010 3225-000 T 1 65 010 3121-000 T 1 65 010 3129-000 T 1 65 010 3125-000 T 1 65 010 3132-000 T 1 65 010 3221-000 T 1 65 010 3229-000 T 1 65 010 3225-000 T 1 65 010 3232-000
Construction	A	B	H															
Low	40	52	54															
High	45	57	74															
	With protection cover  <table border="1"> <thead> <tr> <th>Construction</th> <th>A</th> <th>B</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>High</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table>	Construction	A	B	H	Low	40	52	54	High	45	57	74	1 Side entry Low construction 2 Side entry High construction	M20 M25 M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H10B-SDR-LB-PG16 H10B-SDR-LB-PG21 H10B-SDR-LB-M20 H10B-SDR-LB-M25 H10B-SDR-LB-2PG16 H10B-SDR-LB-2PG21 H10B-SDR-LB-2M20 H10B-SDR-LB-2M25 H10B-SDRH-LB-PG21 H10B-SDRH-LB-PG29 H10B-SDRH-LB-M25 H10B-SDRH-LB-M32 H10B-SDRH-LB-2PG21 H10B-SDRH-LB-2PG29 H10B-SDRH-LB-2M25 H10B-SDRH-LB-2M32	T 1 62 010 3116-000 T 1 62 010 3121-000 T 1 62 010 3120-000 T 1 62 010 3125-000 T 1 62 010 3216-000 T 1 62 010 3221-000 T 1 62 010 3220-000 T 1 62 010 3225-000 T 1 66 010 3121-000 T 1 66 010 3129-000 T 1 66 010 3125-000 T 1 66 010 3132-000 T 1 66 010 3221-000 T 1 66 010 3229-000 T 1 66 010 3225-000 T 1 66 010 3232-000
Construction	A	B	H															
Low	40	52	54															
High	45	57	74															





## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


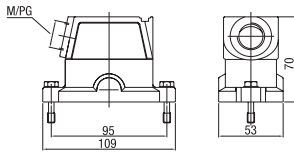

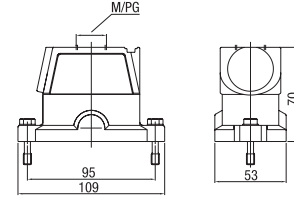

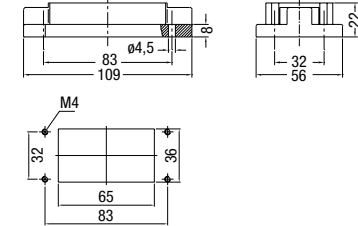
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry, Standard construction</b>					
		M25	16 21	<b>HIP</b> HIP.10/24.STS.1.16.G HIP.10/24.STS.1.21.G HIP.10/24.STS.1.M25.G  <b>HIP-K</b> HIP-K.10/24.STS.1.21.G HIP-K.10/24.STS.1.M25.G HIP-K.10/24.STS.1.M32.G	1-1102640-5 1-1102642-5 0-1106436-2
		M25 M32	21	<b>HIP-K</b> HIP-K.10/24.STS.1.21.G HIP-K.10/24.STS.1.M25.G HIP-K.10/24.STS.1.M32.G	2-1102642-5 0-1106436-4 0-1106436-6
		M25 M32	21	<b>EMV-K</b> EMV-K.10/24.STS.1.21.G EMV-K.10/24.STS.1.M25.G EMV-K.10/24.STS.1.M32.G	4-1102714-5 0-1106427-3 1-1106427-0
<b>Hood: Top entry</b>					
		M25	16 21	<b>HIP</b> HIP.10/24.STO.1.16.G HIP.10/24.STO.1.21.G HIP.10/24.STO.1.M25.G	1-1102644-5 1-1102646-5 0-1106436-1
		M25 M32	16	<b>HIP-K</b> HIP-K.10/24.STO.1.16.G HIP-K.10/24.STO.1.M25.G HIP-K.10/24.STO.1.M32.G	2-1102644-5 0-1106436-3 0-1106436-5
		M25	21	<b>EMV-K</b> EMV-K.10/24.STO.1.21.G EMV-K.10/24.STO.1.M25.G	4-1102715-5 0-1106427-4
<b>Surface mounted housing: Bottom entry</b>					
				<b>HIP</b> HIP.10/24.AG  <b>HIP-K</b> HIP-K.10/24.AG  <b>EMV-K</b> EMV-K.10/24.AG	1-1102647-5  2-1102647-5  4-1102718-5

## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


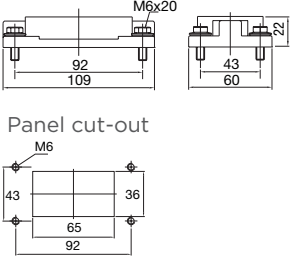

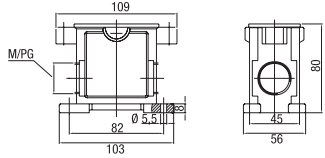

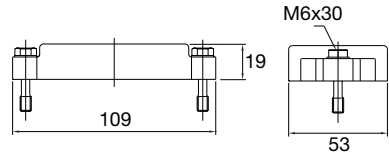
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Bottom entry</b>				
 			<b>HIP</b> HIP.10/24.AG.M6  <b>HIP-K</b> HIP-K.10/24.AG.M6  <b>EMV-K</b> EMV-K.10/24.AG.M6	1-1102612-5  2-1102612-5  4-1102720-5
<b>Surface mounted housing: Side entry</b>				
 	2xM32	21 2x21	<b>HIP</b> HIP.10/24.SG.1.21.G HIP.10/24.SG.2.21.G HIP.10/24.SG.2.M32.G  <b>HIP-K</b> HIP-K.10/24.SG.1.21.G HIP-K.10/24.SG.2.21.G  <b>EMV-K</b> EMV-K.10/24.SG.1.21.G EMV-K.10/24.SG.2.21.G EMV-K.10/24.SG.2.M32.G	1-1102610-5 1-1102611-5 0-1106435-1  5-1102610-5 2-1102611-5  5-1102716-5 4-1102717-5 0-1106426-2
<b>Protective covers for hoods and housing</b>				
 			<b>HIP</b> HIP/EMV.10/24.SKB  <b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB	3-1106202-5  4-1106202-5

## HWK 6/6 technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	6/6+PE

### INSERTS

Rated current	
Power contact .....	40A max
Signal contact .....	16A max
Working voltage	
Power contact .....	690V
Signal contact.....	400V
Test voltage urms	
Power contact .....	6KV
Signal contact.....	4KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA .....	600V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance	
Power contact .....	$\leq 0.3m\Omega$
Signal contact.....	$\leq 1m\Omega$
Terminal .....	Screw terminal
- mm <sup>2</sup>	
Power contact .....	2.5-10mm <sup>2</sup>
Signal contact.....	0.5-2.5mm <sup>2</sup>
- AWG	
Power contact .....	14-8
Signal contact.....	20-14
- Tightening/test torque	
Power contact .....	1.2 Nm
Signal contact.....	0.5 Nm

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

### CURRENT CARRYING CAPACITY


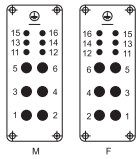
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

## HWK 6/6 inserts

690V MAX. 35A/16A

INSERTS FOR H16B HOOD/HOUSING

6/6 

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Screw terminal	Contact arrangement view from termination side			
		HWK6/6-012-M	T 2 10 606 2101-000	
		HWK6/6-012-F		T 2 10 606 2201-000

## HK4/0, HK4/2 technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	4/0, 4/2 + PE

### INSERTS

Rated current	
Power contact .....	80A max
Signal contact .....	16A max
(See current carrying capacity)	
Working voltage	
Power contact .....	690V
Signal contact .....	400V
Test voltage urms	
Power contact .....	8KV
Signal contact .....	6KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10} \Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V/300V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

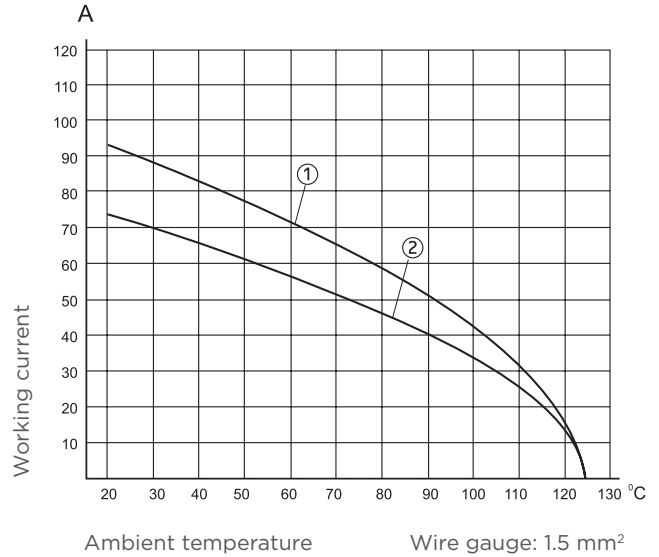
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance	
Power contact .....	$\leq 0.3m\Omega$
Signal contact .....	$\leq 1m\Omega$
Terminal .....	Screw terminal
- mm <sup>2</sup>	
Power contact .....	1.5-16mm <sup>2</sup>
Signal contact .....	0.5-2.5mm <sup>2</sup>
- AWG	
Power contact .....	16-6
Signal contact .....	20-14
- Tightening/test torque	
Power contact .....	1.2 Nm
Signal contact .....	0.5 Nm

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.


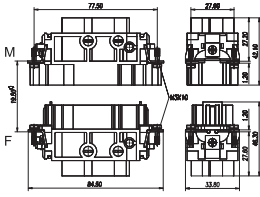
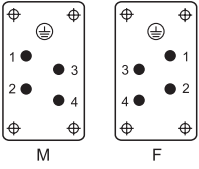



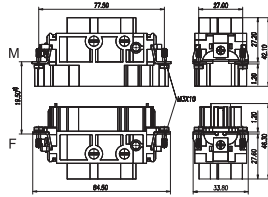
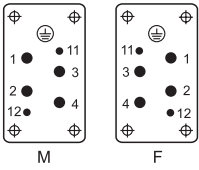
## HK4/0, HK4/2 inserts

INSERTS FOR H16B HOOD/HOUSING

690V/400V MAX. 80A/16A

4/0+ ⊕ 4/2+ ⊕

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Screw terminal	Size chart			
		HK4/0-004-M	T 2 10 004 2101-000	
		HK4/0-004-F		T 2 10 004 2201-000
Contact arrangement view from termination side				
				

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Screw terminal	Size chart			
		HK4/2-006-M	T 2 10 006 2101-000	
		HK4/2-006-F		T 2 10 006 2201-000
Contact arrangement view from termination side				
				

## HK12/2 technical characteristics

Specifications .....	DIN EN 60 664-1
.....	DIN EN 61 984
Number of contacts .....	12/2 + PE

### INSERTS

Rated current	
Power contact .....	40A max
Signal contact .....	10A max
(See current carrying capacity)	
Working voltage	
Power contact .....	690V
Signal contact .....	250V
Test voltage urms	
Power contact .....	8KV
Signal contact .....	4KV
Pollution degree .....	3
Insulation resistance .....	$\geq 10^{10}\Omega$
Material .....	Polycarbonate
Temperature range .....	-40°C... +125°C
Flammability acc. to UL94 .....	V0
Working voltage acc. to UL/CSA.....	600V/300V
Mechanical working life-mating cycles .....	$\geq 500$

### CONTACTS

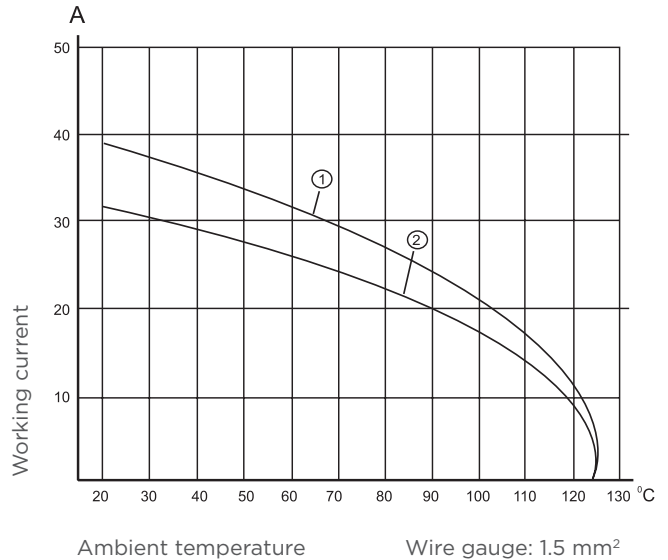
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance	
Power contact .....	$\leq 0.3m\Omega$
Signal contact.....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup>	
Power contact .....	1-6mm <sup>2</sup>
Signal contact.....	0.14-2.5mm <sup>2</sup>
- AWG	
Power contact .....	18-10
Signal contact.....	26-14

### HOODS, HOUSINGS

Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



- 1 Wire gauge: 6.0mm<sup>2</sup>
- 2 Wire gauge: 4.0mm<sup>2</sup>





## HK6/36 technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts ..... 6/36 + PE

### INSERTS

Rated current  
 Power contact ..... 40A max  
 Signal contact ..... 10A max  
 (See current carrying capacity)  
 Working voltage  
 Power contact ..... 690V  
 Signal contact ..... 160V  
 Test voltage urms  
 Power contact ..... 6KV  
 Signal contact ..... 2.5KV  
 Pollution degree ..... 2  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0  
 Working voltage acc. to UL/CSA ..... 600V/300V  
 Mechanical working life-mating cycles .....  $\geq 500$

### CONTACTS

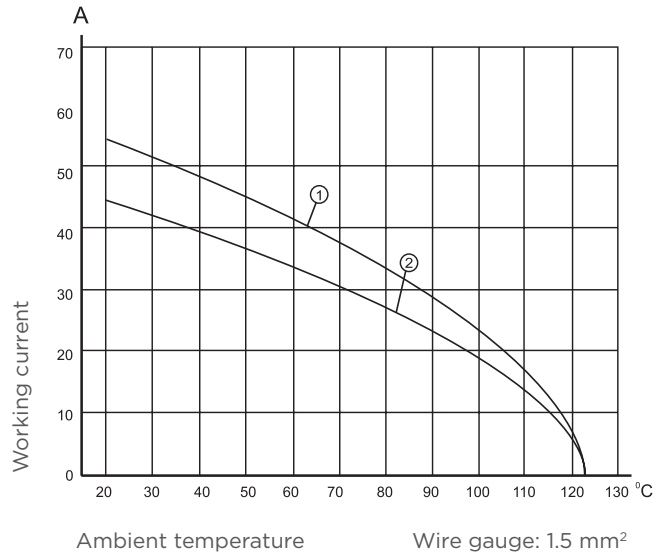
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 ..... Hard gold-plated  
 Contact resistance  
 Power contact .....  $\leq 0.3m\Omega$   
 Signal contact .....  $\leq 3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup>  
 Power contact ..... 1-6mm<sup>2</sup>  
 Signal contact ..... 0.14-2.5mm<sup>2</sup>  
 - AWG  
 Power contact ..... 18-10  
 Signal contact ..... 26-14

### HOODS, HOUSINGS

Material ..... Die cast aluminium  
 Surface ..... Powder-coated (RAL 7037)  
 Locking element ..... Stainless steel, steel-zinc plated  
 Temperature range ..... -40°C... +125°C  
 Degree of protection acc. to DIN40 050 ..... IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.




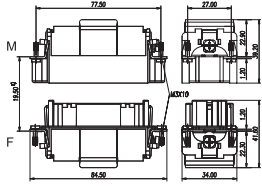
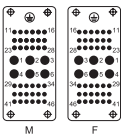
- 1 Wire gauge: 6.0mm<sup>2</sup>
- 2 Wire gauge: 4.0mm<sup>2</sup>

## HK6/36 inserts


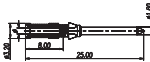

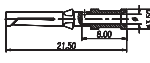
INSERT FOR H16B HOOD/HOUSING

690V/250V MAX. 40A/10A




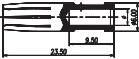
6/36+⊕

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HK6/36-042-M	T 2 12 042 2101-000	
		HK6/36-042-F		T 2 12 042 2201-000
Contact arrangement view from termination side				
				

### 10A Contact


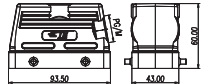

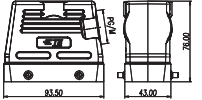

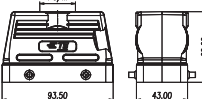

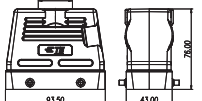

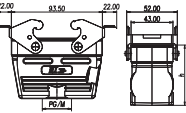

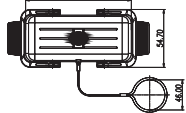

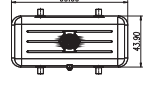
Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female 	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000

### 40A Contact

Tech data Material: copper alloy Contact resistance: $\leq 0.3m\Omega$ Terminal: crimp connection CMM/Male 	40A Male crimp contacts 	Wire gauge		Stripping length	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG		mm	Type
		1.5	16	8.0	CMM-1.5	T 2 04 000 1015-000
		2.5	14	8.0	CMM-2.5	T 2 04 000 1025-000
		4.0	12	8.0	CMM-4.0	T 2 04 000 1040-000
		6.0	10	8.0	CMM-6.0	T 2 04 000 1060-000
CMF/Female 	40A Female crimp contacts 	1.5	16	8.0	CMF-1.5	T 2 04 000 2015-000
		2.5	14	8.0	CMF-2.5	T 2 04 000 2025-000
		4.0	12	8.0	CMF-4.0	T 2 04 000 2040-000
		6.0	10	8.0	CMF-6.0	T 2 04 000 2060-000
		10	7	8.0	CMF-10	T 2 04 000 2100-000


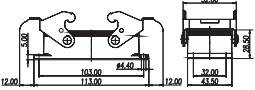

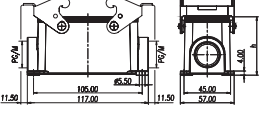

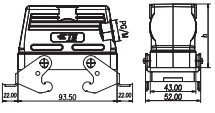

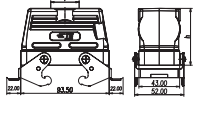

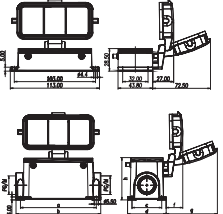
## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	M20 M25 M32	PG16 PG21	H16B-TS-PG16 H16B-TS-PG21 H16B-TS-M20 H16B-TS-M25 H16B-TS-M32	T 1 21 016 0116-000 T 1 21 016 0121-000 T 1 21 016 0120-000 T 1 21 016 0125-000 T 1 21 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TSH-PG21 H16B-TSH-PG29 H16B-TSH-M25 H16B-TSH-M32 H16B-TSH-M40	T 1 23 016 0121-000 T 1 23 016 0129-000 T 1 23 006 0125-000 T 1 23 016 0132-000 T 1 23 016 0140-000						
Hood: Top entry											
	Low construction 	M25 M32	PG16 PG21	H16B-TG-PG16 H16B-TG-PG21 H16B-TG-M25 H16B-TG-M32	T 1 22 016 0116-000 T 1 22 016 0121-000 T 1 22 016 0125-000 T 1 22 016 0132-000						
	High construction 	M25 M32 M40	PG21 PG29	H16B-TGH-PG21 H16B-TGH-PG29 H16B-TGH-M25 H16B-TGH-M32 H16B-TGH-M40	T 1 24 016 0121-000 T 1 24 016 0129-000 T 1 24 016 0125-000 T 1 24 016 0132-000 T 1 24 016 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="533 1352 740 1442"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	74.5	M25 M32	PG21	H16B-TBFS-PG21 H16B-TBFS-M25 H16B-TBFS-M32	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000
Construction	H										
Low	62.5										
High	74.5										
		M25 M32 M40	PG21 PG29	H16B-TBFHS-PG21 H16B-TBFHS-PG29 H16B-TBFHS-M25 H16B-TBFHS-M32 H16B-TBFHS-M40	T 1 75 016 1121-000 T 1 75 016 1129-000 T 1 75 016 1125-000 T 1 75 016 1132-000 T 1 75 016 1140-000						
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						


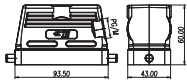

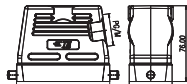

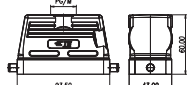

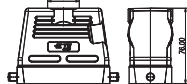

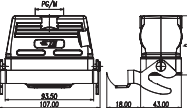

## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																									
Bulkhead mounted																														
				H16B-AGS	T 1 41 016 1000-000																									
Surface mounted: Side entry																														
	 <table border="1" data-bbox="327 862 534 952"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H16B-SGRS-PG21 H16B-SGRS-M25 H16B-SGRS-2PG21 H16B-SGRS-2M25 H16B-SGRHS-PG21 H16B-SGRHS-PG29 H16B-SGRHS-M25 H16B-SGRHS-M32 H16B-SGRHS-2PG21 H16B-SGRHS-2PG29 H16B-SGRHS-2M25 H16B-SGRHS-2M32	T 1 44 016 1121-000 T 1 44 016 1125-000 T 1 44 016 1221-000 T 1 44 016 1225-000 T 1 47 016 1121-000 T 1 47 016 1129-000 T 1 47 016 1125-000 T 1 47 016 1132-000 T 1 47 016 1221-000 T 1 47 016 1229-000 T 1 47 016 1225-000 T 1 47 016 1232-000																		
Construction	H																													
Low	56																													
High	81																													
Side entry housing with two levers																														
		Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TSBS-PG16 H16B-TSBS-PG21 H16B-TSBS-M20 H16B-TSBS-M25 H16B-TSBHS-PG21 H16B-TSBHS-PG29 H16B-TSBHS-M25 H16B-TSBHS-M32	T 1 25 016 3116-000 T 1 25 016 3121-000 T 1 25 016 3120-000 T 1 25 016 3125-000 T 1 27 016 3121-000 T 1 27 016 3129-000 T 1 27 016 3125-000 T 1 27 016 3132-000																								
Top entry housing with two levers																														
	 <table border="1" data-bbox="327 1500 534 1590"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>60</td> </tr> <tr> <td>High</td> <td>76</td> </tr> </table>	Construction	H	Low	60	High	76	Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TGBS-PG16 H16B-TGBS-PG21 H16B-TGBS-M20 H16B-TGBS-M25 H16B-TGBHS-PG21 H16B-TGBHS-PG29 H16B-TGBHS-M25 H16B-TGBHS-M32	T 1 26 016 3116-000 T 1 26 016 3121-000 T 1 26 016 3120-000 T 1 26 016 3125-000 T 1 28 016 3121-000 T 1 28 016 3129-000 T 1 28 016 3125-000 T 1 28 016 3132-000																		
Construction	H																													
Low	60																													
High	76																													
Bulkhead mounted with 4 bolts																														
	With protection cover  <table border="1" data-bbox="311 1948 694 2027"> <tr> <td>Construction</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> <td>G</td> <td>H</td> </tr> <tr> <td>Low</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>56</td> </tr> <tr> <td>High</td> <td>105</td> <td>117</td> <td>45</td> <td>57</td> <td>20</td> <td>65</td> <td>81</td> </tr> </table>	Construction	A	B	C	D	F	G	H	Low	105	117	45	57	20	65	56	High	105	117	45	57	20	65	81	Low construction High construction	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	H16B-AD-BO H16B-SDR-BO-PG21 H16B-SDR-BO-M25 H16B-SDR-BO-2PG21 H16B-SDR-BO-2M25 H16B-SDRH-BO-PG21 H16B-SDRH-BO-PG29 H16B-SDRH-BO-M25 H16B-SDRH-BO-M32 H16B-SDRH-BO-2PG21 H16B-SDRH-BO-2PG29 H16B-SDRH-BO-2M25 H16B-SDRH-BO-2M32	T 1 43 016 0000-000 T 1 46 016 0121-000 T 1 46 016 0125-000 T 1 46 016 0221-000 T 1 46 016 0225-000 T 1 49 016 0121-000 T 1 49 016 0129-000 T 1 49 016 0125-000 T 1 49 016 0132-000 T 1 49 016 0221-000 T 1 49 016 0229-000 T 1 49 016 0225-000 T 1 49 016 0232-000
Construction	A	B	C	D	F	G	H																							
Low	105	117	45	57	20	65	56																							
High	105	117	45	57	20	65	81																							


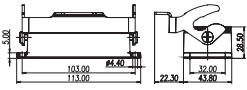

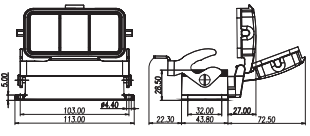

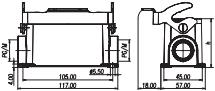

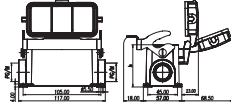
# H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
<b>Hood: Side entry</b>										
		M25 M32	PG21 PG29 H16B-TS-RO-PG21 H16B-TS-RO-PG29 H16B-TS-RO-M25 H16B-TS-RO-M32	T 1 31 016 0121-000 T 1 31 016 0129-000 T 1 31 016 0125-000 T 1 31 016 0132-000						
		M25 M32 M40	PG21 PG29 H16B-TSH-RO-PG21 H16B-TSH-RO-PG29 H16B-TSH-RO-M25 H16B-TSH-RO-M32 H16B-TSH-RO-M40	T 1 33 016 0121-000 T 1 33 016 0129-000 T 1 33 016 0125-000 T 1 33 016 0132-000 T 1 33 016 0140-000						
<b>Hood: Top entry</b>										
		M25 M32	PG21 PG29 H16B-TG-RO-PG21 H16B-TG-RO-PG29 H16B-TG-RO-M25 H16B-TG-RO-M32	T 1 32 016 0121-000 T 1 32 016 0129-000 T 1 32 016 0125-000 T 1 32 016 0132-000						
		M25 M32 M40	PG21 PG29 H16B-TGH-RO-PG21 H16B-TGH-RO-PG29 H16B-TGH-RO-M25 H16B-TGH-RO-M32 H16B-TGH-RO-M40	T 1 34 016 0121-000 T 1 34 016 0129-000 T 1 34 016 0125-000 T 1 34 016 0132-000 T 1 34 016 0140-000						
<b>Cable-to-cable hood</b>										
	 <table border="1" data-bbox="528 1335 751 1429"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>Hight</td> <td>74.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	Hight	74.5	M25 M32  M25 M32 M40	PG21 PG29  PG21 PG29 H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32 H16B-TBFH-LB-PG21 H16B-TBFH-LB-PG29 H16B-TBFH-LB-M25 H16B-TBFH-LB-M32 H16B-TBFH-LB-M40	T 1 73 016 3121-000 T 1 73 016 3129-000 T 1 73 016 3125-000 T 1 73 016 3132-000 T 1 77 016 3121-000 T 1 77 016 3129-000 T 1 77 016 3125-000 T 1 77 016 3132-000 T 1 77 016 3140-000
Construction	H									
Low	62.5									
Hight	74.5									
<b>Protection covers for hoods</b>										
			H16B-KDTP-LB	T 1 01 016 1500-000						

## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
 			H16B-AG-LB	T 1 50 016 3000-000						
 <p>With protection cover</p> 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry										
  <table border="1" data-bbox="327 1153 542 1243"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SGR-LB-PG16 H16B-SGR-LB-PG21 H16B-SGR-LB-M20 H16B-SGR-LB-M25 H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25 H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M25 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32	T 1 61 016 3116-000 T 1 61 016 3121-000 T 1 61 016 3120-000 T 1 61 016 3125-000 T 1 61 016 3216-000 T 1 61 016 3221-000 T 1 61 016 3220-000 T 1 61 016 3225-000 T 1 65 016 3121-000 T 1 65 016 3129-000 T 1 65 016 3125-000 T 1 65 016 3132-000 T 1 65 016 3221-000 T 1 65 016 3229-000 T 1 65 016 3225-000 T 1 65 016 3232-000
Construction	H									
Low	56									
High	81									
 <p>With protection cover</p>  <table border="1" data-bbox="327 1568 542 1657"> <tr> <td>Construction</td> <td>H</td> </tr> <tr> <td>Low</td> <td>56</td> </tr> <tr> <td>High</td> <td>81</td> </tr> </table>	Construction	H	Low	56	High	81	1 Side entry Low construction M20 M25 2 Side entry High construction M20 M25 M25 M32 M25 M32	PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H16B-SDR-LB-PG16 H16B-SDR-LB-PG21 H16B-SDR-LB-M20 H16B-SDR-LB-M25 H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25 H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M25 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32	T 1 62 016 3116-000 T 1 62 016 3121-000 T 1 62 016 3120-000 T 1 62 016 3125-000 T 1 62 016 3216-000 T 1 62 016 3221-000 T 1 62 016 3220-000 T 1 62 016 3225-000 T 1 66 016 3121-000 T 1 66 016 3129-000 T 1 66 016 3125-000 T 1 66 016 3132-000 T 1 66 016 3221-000 T 1 66 016 3229-000 T 1 66 016 3225-000 T 1 66 016 3232-000
Construction	H									
Low	56									
High	81									

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings


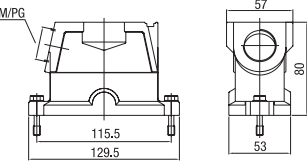

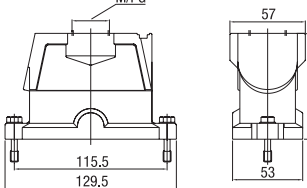

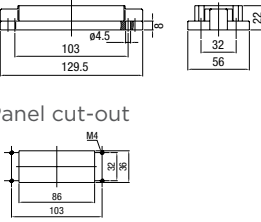

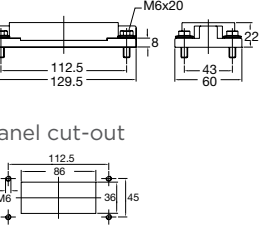
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number	
<b>Hood: Side entry</b>					
		M32	21 29	<b>HIP</b> HIP.16/40.STS.1.21.G HIP.16/40.STS.1.29.G HIP.16/40.STS.1.M32.G	1-1102649-5 1-1102651-5 0-1106454-2
		M32	29	<b>HIP-K</b> HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G	2-1102651-5 0-1106444-2
		M32	29 21	<b>EMV-K</b> EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G	4-1102723-5 0-1106446-4 4-1102722-5
<b>Hood: Top entry</b>					
		M32	21 29	<b>HIP</b> HIP.16/40.STO.1.21.G HIP.16/40.STO.1.29.G HIP.16/40.STO.1.M32.G	1-1102653-5 1-1102655-5 0-1106454-1
		M32	21 29	<b>HIP-K</b> HIP-K.16/40.STO.2.21.G HIP-K.16/40.STO.1.29.G HIP-K.16/40.STO.1.M32.G	0-1108534-1 2-1102655-5 0-1106444-1
		M32	29	<b>EMV-K</b> EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G	4-1102725-5 0-1106446-3
<b>Surface mounted housing: Bottom entry</b>					
	 <p>Panel cut-out</p>			<b>HIP</b> HIP.16/40.AG	1-1102656-5
				<b>HIP-K</b> HIP-K.16/40.AG	2-1102656-5
				<b>EMV-K</b> EMV-K.16/40.AG	4-1102728-5
	 <p>Panel cut-out</p>			<b>HIP</b> HIP.16/40.AG.M6	1-1102618-5
				<b>HIP-K</b> HIP-K.16/40.AG.M6	2-1102618-5
				<b>EMV-K</b> EMV-K.16/40.AG.M6	4-1102730-5

## HIP.16/40, HIP-K.16/40, EMV-K.16/40 housings



**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Side entry</b>				
	2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G	1-1102616-5
			HIP.16/40.SG.2.21.G	1-1102617-5
			HIP.16/40.SG.2.M32.G	0-1106453-1
	2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G	5-1102616-5
			HIP-K.16/40.SG.2.21.G	2-1102617-5
			HIP-K.16/40.SG.2.M32.G	0-1106443-1
	2xM32	21 2x21	<b>EMV-K</b> EMV-K.16/40.SG.1.21.Z	4-1102726-5
			EMV-K.16/40.SG.2.21.Z	4-1102727-5
			EMV-K.16/40.SG.2.M32.G	0-1106445-2
<b>Protective covers for housings</b>				
			<b>HIP</b> HIP/EMV.16/40.SKB	3-1106203-5
			<b>HIP-K</b> HIP-K.16/40.SKB	4-1106203-5



## HK4/8 technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....4/8 + PE

### INSERTS

Rated current  
 Power contact .....80A max  
 Signal contact ..... 16A max  
 (See current carrying capacity)  
 Working voltage  
 Power contact .....400V  
 Signal contact .....400V  
 Test voltage urms  
 Power contact .....6KV  
 Signal contact .....6KV  
 Pollution degree .....3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 .....V0  
 Working voltage acc. to UL/CSA..... 600V/400V  
 Mechanical working life-mating cycles ..... $\geq 500$

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 .....Hard gold-plated  
 Contact resistance  
 Power contact .....  $\leq 0.1m\Omega$   
 Signal contact..... $\leq 5m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup>  
 Power contact .....1.5-16mm<sup>2</sup>  
 Signal contact..... 0.5-2.5mm<sup>2</sup>  
 - AWG  
 Power contact ..... 16-6  
 Signal contact..... 20-14

- Tightening/test torque

- Power contact

mm <sup>2</sup>	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

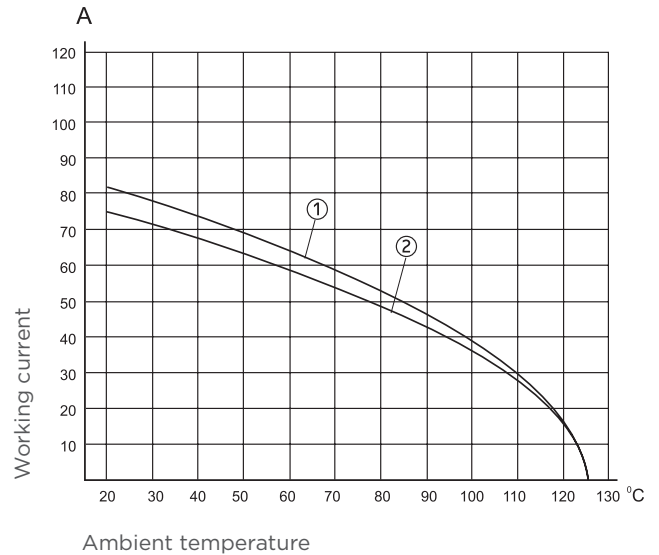
- Signal contact .....0.5 Nm

### HOODS, HOUSINGS

Material ..... Die cast aluminium  
 Surface .....Powder-coated (RAL 7037)  
 Locking element.....Stainless steel, steel-zinc plated  
 Temperature range ..... -40°C... +125°C  
 Degree of protection acc. to DIN40 050 .....IP65

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.



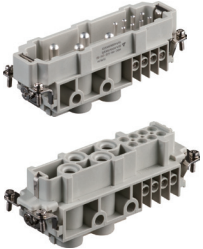
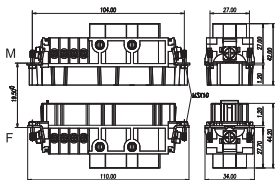
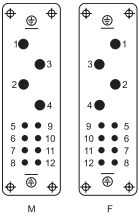
- 1 Wire gauge: 16mm<sup>2</sup>
- 2 Wire gauge: 10mm<sup>2</sup>

## HK4/8 inserts

INSERTS FOR H24B HOOD/HOUSING

690V/400V MAX. 80A/16A

4/8+ 

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Screw terminal	Size chart			
		HK4/8-012-M	T 2 10 012 2101-000	
		HK4/8-012-F		T 2 10 012 2201-000
Contact arrangement view from termination side				
				

## HWK3/3/6 technical characteristics

Specifications .....DIN EN 60 664-1  
 ..... DIN EN 61 984  
 Number of contacts .....3/3/6 + PE

### INSERTS

Rated current  
 Power 1 contact..... 100A max  
 Power 2 contact..... 40A max  
 Signal contact..... 16A max  
 (See current carrying capacity)  
 Working voltage  
 Power 1 contact  
 Conductor - ground ..... 400V  
 Conductor - conductor..... 690V  
 Power 2 contact  
 Conductor - ground ..... 400V  
 Conductor - conductor..... 690V  
 Signal contact  
 Conductor - ground .....250V  
 Conductor - conductor ..... 400V  
 Test voltage urms  
 Power 1 contact..... 6KV  
 Power 2 contact..... 6KV  
 Signal contact ..... 3KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. to UL94 ..... V0

### CONTACTS

Material .....Copper alloy  
 Surface .....Hard silver-plated  
 ..... Hard gold-plated  
 Contact resistance  
 Power contact .....  $\leq 0.1m\Omega$   
 Signal contact.....  $\leq 5m\Omega$   
 Terminal ..... Screw terminal  
 - mm<sup>2</sup>  
 Power 1 contact.....16-35mm<sup>2</sup>  
 Power 2 contact..... 2.5-6mm<sup>2</sup>  
 Signal contact..... 0.5-2.5mm<sup>2</sup>  
 - AWG  
 Power 1 contact..... 16-6  
 Power 2 contact..... 20-14  
 Signal contact..... 20-14  
 - Tightening/test torque  
 - Power contact

mm <sup>2</sup>	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

- Signal contact ..... 0.5 Nm

### CURRENT CARRYING CAPACITY

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals. Control and test procedures according to DIN IEC 60512-3.

### HOODS, HOUSINGS

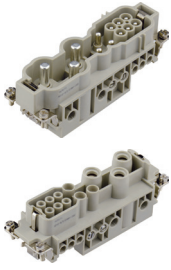
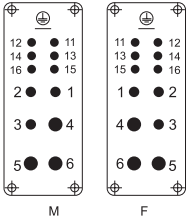
Material ..... Die cast aluminium  
 Surface .....Powder-coated (RAL 7037)  
 Locking element.....Stainless steel, steel-zinc plated  
 Temperature range ..... -40°C... +125°C  
 Degree of protection acc. to DIN40 050 .....IP65

## HWK3/3/6 inserts

INSERTS FOR H24B HOOD/HOUSING

690V MAX. 100A  
690V MAX. 40A  
400V MAX. 16A

3/3/6+Ⓢ

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Screw terminal	Contact arrangement view from termination side			
		HK3/3/6-012-M	T 2 09 336 2101-000	
		HK3/3/6-012-F		T 2 09 336 2201-000

## CONTACTS

Material .....Copper alloy

Surface .....Hard silver-plated

.....Hard gold-plated

Contact resistance

Power contact ..... ≤0.1mΩ

Signal contact..... ≤5mΩ

Terminal ..... Screw terminal

100A contact pin

- mm<sup>2</sup>

Power 1 contact..... 16-35 mm<sup>2</sup>

Power 2 contact.....2.5-6 mm<sup>2</sup>

Signal contact..... 0.5-2.5 mm<sup>2</sup>

- AWG

Power 1 contact.....6-2

Power 2 contact..... 14-10

Signal contact..... 20-14

- Tightening/test torque

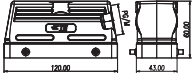
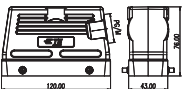




- Power contact

mm <sup>2</sup>	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

- Signal contact..... 0.5Nm


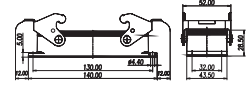

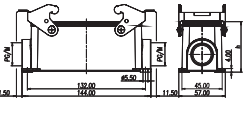

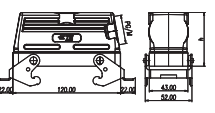

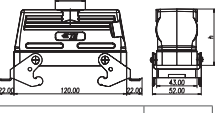


## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H24B-TS-PG16 H24B-TS-PG21 H24B-TS-M25 H24B-TS-M32	T 1 21 024 0116-000 T 1 21 024 0121-000 T 1 21 024 0125-000 T 1 21 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TSH-PG21 H24B-TSH-PG29 H24B-TSH-M25 H24B-TSH-M32 H24B-TSH-M40	T 1 23 024 0121-000 T 1 23 024 0129-000 T 1 23 024 0125-000 T 1 23 024 0132-000 T 1 23 024 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG16 PG21	H24B-TG-PG16 H24B-TG-PG21 H24B-TG-M25 H24B-TG-M32	T 1 22 024 0116-000 T 1 22 024 0121-000 T 1 22 024 0125-000 T 1 22 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TGH-PG21 H24B-TGH-PG29 H24B-TGH-M25 H24B-TGH-M32 H24B-TGH-M40	T 1 24 024 0121-000 T 1 24 024 0129-000 T 1 24 024 0125-000 T 1 24 024 0132-000 T 1 24 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="533 1361 756 1464"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32  M25 M32 M40	PG21  PG21 PG29	H24B-TBFS-PG21 H24B-TBFS-M25 H24B-TBFS-M32  H24B-TBFHS-PG21 H24B-TBFHS-PG29 H24B-TBFHS-M25 H24B-TBFHS-M32 H24B-TBFHS-M40	T 1 71 024 1121-000 T 1 71 024 1125-000 T 1 71 024 1132-000  T 1 75 024 1121-000 T 1 75 024 1129-000 T 1 75 024 1125-000 T 1 75 024 1132-000 T 1 75 024 1140-000
Construction	H										
Low	62.5										
High	78.5										
Protection covers for hoods											
				H24B-KDTP	T 1 01 024 1400-000						
Housing protection cover											
				H24B-KDBP	T 1 01 024 2100-000						


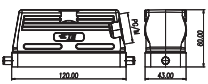

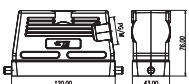

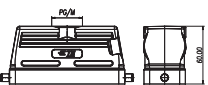

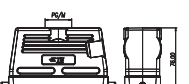

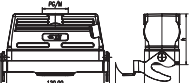

## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number		
Bulkhead mounted							
				H24B-AGS	T 1 41 024 1000-000		
Surface mounted: Side entry							
		1 Side entry Low construction	M25	PG21	H24B-SGRS-PG21	T 1 44 024 1121-000	
		2 Side entry Low construction	M25	PG21	H24B-SGRS-M25	T 1 44 024 1125-000	
		1 Side entry High construction	M25	PG21	H24B-SGRHS-PG21	T 1 47 024 1221-000	
		2 Side entry High construction	M32	PG29	H24B-SGRHS-2M25	T 1 44 024 1225-000	
			M25	PG21	H24B-SGRHS-PG21	T 1 47 024 1121-000	
			M32	PG29	H24B-SGRHS-PG29	T 1 47 024 1129-000	
			M25	PG21	H24B-SGRHS-M25	T 1 47 024 1125-000	
			M32	PG29	H24B-SGRHS-M32	T 1 47 024 1132-000	
			M25	PG21	H24B-SGRHS-2PG21	T 1 47 024 1221-000	
			M32	PG29	H24B-SGRHS-2PG29	T 1 47 024 1229-000	
			M25	PG21	H24B-SGRHS-2M25	T 1 47 024 1225-000	
			M32	PG29	H24B-SGRHS-2M32	T 1 47 024 1232-000	
Side entry housing with two levers							
		Low construction	M20	PG16	H24B-TSBS-PG16	T 1 25 024 3116-000	
		High construction	M25	PG21	H24B-TSBS-PG21	T 1 25 024 3121-000	
			M25	PG21	H24B-TSBS-M20	T 1 25 024 3120-000	
			M32	PG29	H24B-TSBS-M25	T 1 25 024 3125-000	
			M25	PG21	H24B-TSBHS-PG21	T 1 27 024 3121-000	
			M32	PG29	H24B-TSBHS-PG29	T 1 27 024 3129-000	
			M25	PG21	H24B-TSBHS-M25	T 1 27 024 3125-000	
			M32	PG29	H24B-TSBHS-M32	T 1 27 024 3132-000	
Top entry housing with two levers							
		Low construction	M20	PG16	H24B-TGBS-PG16	T 1 26 024 3116-000	
		High construction	M25	PG21	H24B-TGBS-PG21	T 1 26 024 3121-000	
			M25	PG21	H24B-TGBS-M20	T 1 26 024 3120-000	
			M32	PG29	H24B-TGBS-M25	T 1 26 024 3125-000	
			M25	PG21	H24B-TGBHS-PG21	T 1 28 024 3121-000	
			M32	PG29	H24B-TGBHS-PG29	T 1 28 024 3129-000	
			M25	PG21	H24B-TGBHS-M25	T 1 28 024 3125-000	
			M32	PG29	H24B-TGBHS-M32	T 1 28 024 3132-000	
Bulkhead mounted with 4 bolts							
	With protection cover		1 Side entry Low construction	M25	PG21	H24B-AD-BO	T 1 43 024 0000-000
						1 Side entry High construction	M25
						H24B-SDR-BO-2PG21	T 1 46 024 0221-000
						H24B-SDR-BO-2M25	T 1 46 024 0225-000
						H24B-SDRH-BO-PG21	T 1 49 024 0121-000
						H24B-SDRH-BO-PG29	T 1 49 024 0129-000
						H24B-SDRH-BO-M25	T 1 49 024 0125-000
						H24B-SDRH-BO-M32	T 1 49 024 0132-000
						H24B-SDRH-BO-2PG21	T 1 49 024 0221-000
						H24B-SDRH-BO-2PG29	T 1 49 024 0229-000
						H24B-SDRH-BO-2M25	T 1 49 024 0225-000
						H24B-SDRH-BO-2M32	T 1 49 024 0232-000


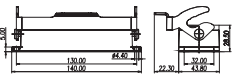

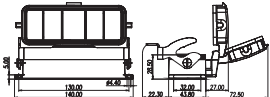

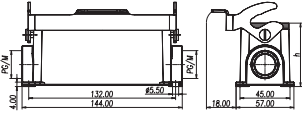

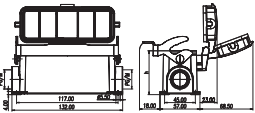
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H24B-TS-RO-PG21 H24B-TS-RO-PG29 H24B-TS-RO-M25 H24B-TS-RO-M32	T 1 31 024 0121-000 T 1 31 024 0129-000 T 1 31 024 0125-000 T 1 31 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TSH-RO-PG21 H24B-TSH-RO-PG29 H24B-TSH-RO-M25 H24B-TSH-RO-M32 H24B-TSH-RO-M40	T 1 33 024 0121-000 T 1 33 024 0129-000 T 1 33 024 0125-000 T 1 33 024 0132-000 T 1 33 024 0140-000						
Hood: Top entry											
	<p>Low construction</p> 	M25 M32	PG21 PG29	H24B-TG-RO-PG21 H24B-TG-RO-PG29 H24B-TG-RO-M25 H24B-TG-RO-M32	T 1 32 024 0121-000 T 1 32 024 0129-000 T 1 32 024 0125-000 T 1 32 024 0132-000						
	<p>High construction</p> 	M25 M32 M40	PG21 PG29	H24B-TGH-RO-PG21 H24B-TGH-RO-PG29 H24B-TGH-RO-M25 H24B-TGH-RO-M32 H24B-TGH-RO-M40	T 1 34 024 0121-000 T 1 34 024 0129-000 T 1 34 024 0125-000 T 1 34 024 0132-000 T 1 34 024 0140-000						
Cable-to-cable hood											
	 <table border="1" data-bbox="531 1335 743 1417"> <thead> <tr> <th>Construction</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>62.5</td> </tr> <tr> <td>High</td> <td>78.5</td> </tr> </tbody> </table>	Construction	H	Low	62.5	High	78.5	M25 M32	PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000
Construction	H										
Low	62.5										
High	78.5										
		M25 M32 M40	PG21 PG29	H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 77 024 3121-000 T 1 77 024 3129-000 T 1 77 024 3125-000 T 1 77 024 3132-000 T 1 77 024 3140-000						
Protection covers for hoods											
				H24B-KDTP-LB	T 1 01 024 1500-000						

## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number						
Bulkhead mounted										
			H24B-AG-LB	T 1 50 024 3000-000						
	With protection cover 		H24B-AD-LB	T 1 51 024 3000-000						
Surface mounted: Side entry										
	 <table border="1" data-bbox="320 1176 539 1272"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>High</td><td>81</td></tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M20 M25 M20 M25 M25 M32 M25 M32 PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H24B-SGR-LB-PG16 H24B-SGR-LB-PG21 H24B-SGR-LB-M20 H24B-SGR-LB-M25 H24B-SGR-LB-2PG16 H24B-SGR-LB-2PG21 H24B-SGR-LB-2M20 H24B-SGR-LB-2M25 H24B-SGRH-LB-PG21 H24B-SGRH-LB-PG29 H24B-SGRH-LB-M25 H24B-SGRH-LB-M32 H24B-SGRH-LB-2PG21 H24B-SGRH-LB-2PG29 H24B-SGRH-LB-2M25 H24B-SGRH-LB-2M32 T 1 61 024 3116-000 T 1 61 024 3121-000 T 1 61 024 3120-000 T 1 61 024 3125-000 T 1 61 024 3216-000 T 1 61 024 3221-000 T 1 61 024 3220-000 T 1 61 024 3225-000 T 1 65 024 3121-000 T 1 65 024 3129-000 T 1 65 024 3125-000 T 1 65 024 3132-000 T 1 65 024 3221-000 T 1 65 024 3229-000 T 1 65 024 3225-000 T 1 65 024 3232-000
Construction	H									
Low	56									
High	81									
	With protection cover  <table border="1" data-bbox="320 1601 539 1697"> <tr><td>Construction</td><td>H</td></tr> <tr><td>Low</td><td>56</td></tr> <tr><td>High</td><td>81</td></tr> </table>	Construction	H	Low	56	High	81	Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	M20 M25 M20 M25 M25 M32 M25 M32 PG16 PG21 PG16 PG21 PG21 PG29 PG21 PG29	H24B-SDR-LB-PG16 H24B-SDR-LB-PG21 H24B-SDR-LB-M20 H24B-SDR-LB-M25 H24B-SDR-LB-2PG16 H24B-SDR-LB-2PG21 H24B-SDR-LB-2M20 H24B-SDR-LB-2M25 H24B-SDRH-LB-PG21 H24B-SDRH-LB-PG29 H24B-SDRH-LB-M25 H24B-SDRH-LB-M32 H24B-SDRH-LB-2PG21 H24B-SDRH-LB-2PG29 H24B-SDRH-LB-2M25 H24B-SDRH-LB-2M32 T 1 62 024 3116-000 T 1 62 024 3121-000 T 1 62 024 3120-000 T 1 62 024 3125-000 T 1 62 024 3216-000 T 1 62 024 3221-000 T 1 62 024 3220-000 T 1 62 024 3225-000 T 1 66 024 3121-000 T 1 66 024 3129-000 T 1 66 024 3125-000 T 1 66 024 3132-000 T 1 66 024 3221-000 T 1 66 024 3229-000 T 1 66 024 3225-000 T 1 66 024 3232-000
Construction	H									
Low	56									
High	81									



## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings


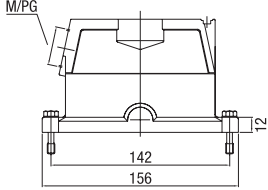

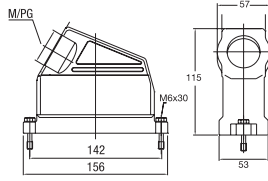

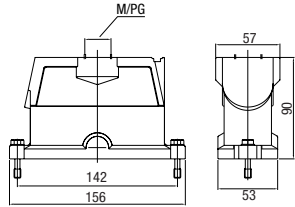
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number		
<b>Hood: Side entry, Standard construction</b>						
		M40	<b>HIP</b> HIP.24/64.STS.1.21.G HIP.24/64.STS.1.29.G HIP.24/64.STS.1.M40.G	1-1102658-5 1-1102660-5 0-1106473-2		
		M40	<b>HIP-K</b> HIP-K.24/64.STS.1.29.G HIP-K.24/64.STS.1.M40.G	2-1102660-5 0-1106473-4		
		M25 M32 M40	<b>EMV-K</b> EMV-K.24/64.STS.1.29.G EMV-K.24/64.STS.1.M25.G EMV-K.24/64.STS.1.M32.G EMV-K.24/64.STS.1.M40.G	4-1102755-5 0-1102983-1 0-1106461-8 0-1106461-3		
		M40	<b>HIP</b> HIP-KF.24/64.STS.1.29.G HIP-KF.24/64.STS.1.36.G HIP-KF.24/64.STS.1.M40.G	1-1102622-5 1-1102623-5 0-1106474-1		
		M40	<b>HIP-K</b> HIP-KF/K.24/64.STS.1.29.G HIP-KF/K.24/64.STS.1.36.G HIP-KF/K.24/64.STS.1.M40.G	2-1102622-5 2-1102623-5 0-1106474-2		
		M40	<b>EMV-K</b> EMV-KF/K.24/64.STS.1.29.G EMV-KF/K.24/64.STS.1.36.G EMV-KF/K.24/64.STS.1.M40.G	4-1102732-5 4-1102733-5 0-1106462-2		
		<b>Hood: Top entry, Standard construction</b>				
				M40	<b>HIP</b> HIP.24/64.STO.1.21.G HIP.24/64.STO.1.29.G HIP.24/64.STO.1.M40.G	1-1102662-5 1-1102664-5 0-1106473-1
				2xM32 M40	<b>HIP-K</b> HIP-K.24/64.STO.1.29.G HIP-K.24/64.STO.2.M32.G HIP-K.24/64.STO.1.M40.G	2-1102664-5 0-1102792-1 0-1106473-3
2xM40	<b>EMV-K</b> EMV-K.24/64.STO.1.29.G EMV-K.24/64.STO.1.M40.G			4-1102759-5 0-1106461-4		
2xM40						

## HIP.10/24, HIP-K.10/24, EMV-K.10/24 housings


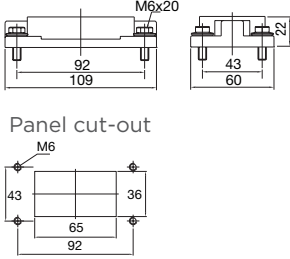

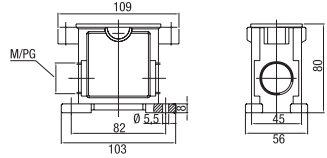

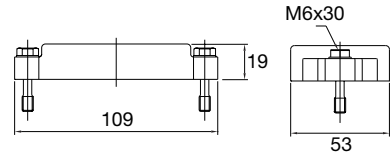
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Bottom entry</b>				
 			<b>HIP</b> HIP.10/24.AG.M6  <b>HIP-K</b> HIP-K.10/24.AG.M6  <b>EMV-K</b> EMV-K.10/24.AG.M6	1-1102612-5  2-1102612-5  4-1102720-5
<b>Surface mounted housing: Side entry</b>				
 	2xM32	21 2x21	<b>HIP</b> HIP.10/24.SG.1.21.G HIP.10/24.SG.2.21.G HIP.10/24.SG.2.M32.G  <b>HIP-K</b> HIP-K.10/24.SG.1.21.G HIP-K.10/24.SG.2.21.G  <b>EMV-K</b> EMV-K.10/24.SG.1.21.G EMV-K.10/24.SG.2.21.G EMV-K.10/24.SG.2.M32.G	1-1102610-5 1-1102611-5 0-1106435-1  5-1102610-5 2-1102611-5  5-1102716-5 4-1102717-5 0-1106426-2
<b>Protective covers for hoods and housing</b>				
 			<b>HIP</b> HIP/EMV.10/24.SKB  <b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB	3-1106202-5  4-1106202-5


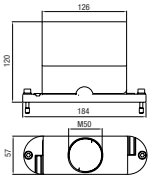

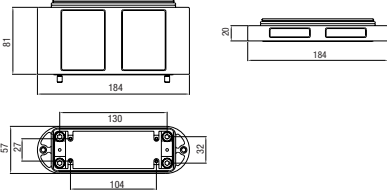

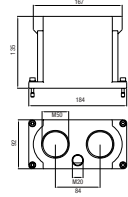

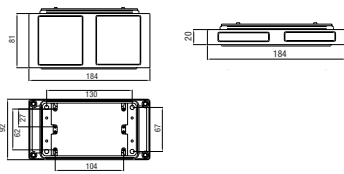
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood

Description	Metr.	PG	Type	Part Number
Hood				
		1xM50 1xM50 2xM40 2xM40	HF-HIP-K.8.Sto.1.M50G HF.8.EMV-K.8.Sto.1.M50G HF.HIP-K.8.Sto.2.M40G HF.EMV-K.8.Sto.2.M40G	0-1102839-4 0-1102839-3 0-1102839-2 0-1102839-1
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.8.AG.N HF-EMV-K.8.AG.N HF-HIP-K.8.AG HF-EMV-K.8.AG	0-1102837-2 0-1102837-1 0-1102836-2 0-1102836-1
Hood				
		2xM40 2xM40 2xM50 2xM50	HF-HIP-K.12.Sto.2.M40G HF-EMV-K.12.Sto.2.M40G HF-HIP-K.12.Sto.2.M50G HF-EMV-K.12.Sto.2.M50G	0-1102840-2 0-1102840-1 0-1102840-4 0-1102840-3
Housing bottom				
		<b>Height</b> 20 mm 20 mm 81 mm 81 mm	HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMV-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1

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## Connectors for Power Supply and Power Circuits

The demand for shortest possible periods of machine shutdowns and assembly times requires the use of connectors at the interfaces of the connector wires, as well as energy feeding and power circuits.

To satisfy the demand of the various applications the series Power Connector was designed.

On the basis of the standard series HSB.6/35 (power supply up to 35 A - 6-poles) the development and the elaboration of this series is being continued rigorously as a result, almost any application up to current of 350 A can be realized by using a series of different power contacts.

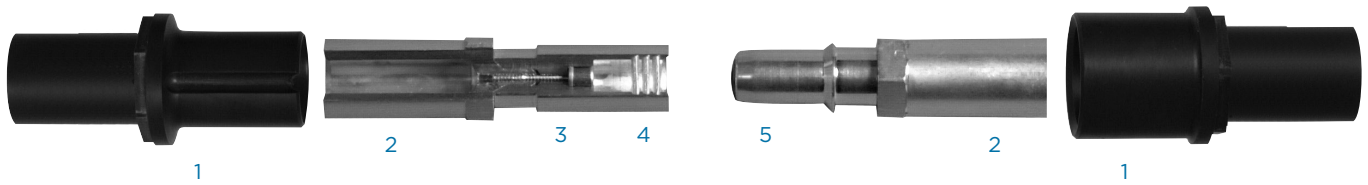
Due to the modular structure the different varieties of customer requirements in this sector can be met.

We also offer solutions for your application specific requirements.

### POWER CONTACT SERIE HPC GRADED BY DIMENSIONAL LEVELS UP TO 350 A FOR VARIOUS INDUSTRIAL APPLICATIONS

65 % higher current consumption than other available contact systems of the same size.  
F. e. Tulip contact 250 A - Coil spring contact 350 A.

## Coil Spring Power Contact



- 1 Insulating material plastic
- 2 Crimp ferrule
- 3 Female contact
- 4 Coil spring
- 5 Male contact

### CRIMP FERRULE

- Optimum material adaptation according to customer's application
- Adaptation to special customer wire size and crimping tools
- Same crimp ferrule for male, female and grounding contact
- Robust crimp ferrule for tough industrial applications

### MALE/FEMALE CONTACT


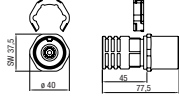

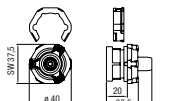

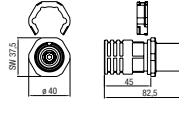

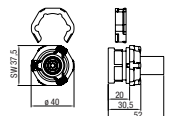
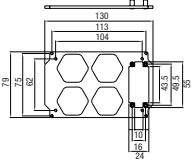
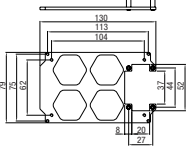
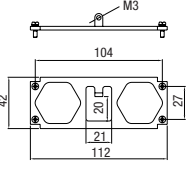
- Wear-resistant basic material
- Worn parts can be individually exchanged
- Surface coating according to customer application
- 30% reduced mating and pulling forces
- 50% increase of making cycles
- Variable wire termination

## Connector overview

<b>Series</b>	<b>HF-13</b>
<b>Power circuit</b>	<b>350A (3KV)</b>
Signal circuit	16A (400V)
Pollution degree	3(C)
Type of terminals	Crimp
<b>Pole Size 4</b>	
Page	
<b>Pole Modul</b>	1
Page	16
<b>Pole</b>	
Special construction	
Page	

## HF-13 module

350A/3KV


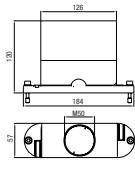

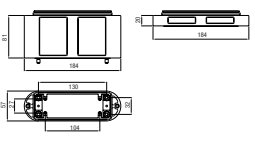
Description	Dimensions (mm)	Type	Part Number	
			Male insert	Female insert
		HF.13.Sti.	O-1110950-2	
		HF.13.Sti.E	O-1110950-4	
		HF.13.Bu.		O-1110951-2
		HF.13.Bu.E		O-1110951-4
			Top	Bottom
3 x for power 1 x for earth 1 x for signal (HA.10) Assembly in HF.12 Housings			O-1110955-3	O-1110955-1
3 x for power 1 x for earth 1 x for signal (HE.6) Assembly in HF.12 Housings			O-1110955-4	O-1110955-2
2 x for power 1 x signal Assembly in HF.8 Housings			O-1110960-2	O-1110960-1

## HF.8 housings

EMV-K: corrosion-resistant, black; HIP-K: black

### Screw lock on hood


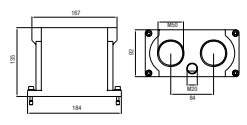

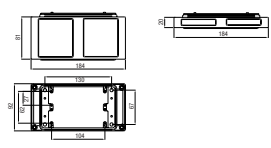
IP 68 / IP 69 K

Description	Metr.	Height	Type	Part Number
Hood				
 	1xM50		HF-HIP-K.8.Sto.1.M50G	0-1102839-4
	1xM50		HF.8.EMV-K.8.Sto.1.M50G	0-1102839-3
	2xM40		HF.HIP-K.8.Sto.2.M40G	0-1102839-2
	2xM40		HF.EMV-K.8.Sto.2.M40G	0-1102839-1
	2xM40+1xM16		HF.HIP.K8.Sto.2.M40G.1M16G	0-1102839-6
	2xM40+1xM16		HF.EMV.K8.Sto.2.M40G.1M16G	0-1102839-5
Housing bottom				
 		20	HF-HIP-K.8.AG.N	0-1102837-2
		20	HF-EMV-K.8.AG.N	0-1102837-1
		81	HF-HIP-K.8.AG	0-1102836-2
		81	HF-EMV-K.8.AG	0-1102836-1

## HF.12 housings

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	Height	Type	Part Number
Hood				
 	2xM40		HF-HIP-K.12.Sto.2.M40.1M20G	0-1102840-2
	2xM40		HF-EMV-K.12.Sto.2.M40.1M20G	0-1102840-1
	2xM50		HF-HIP-K.12.Sto.2.M50.1M20G	0-1102840-4
	2xM50		HF-EMV-K.12.Sto.2.M50.1M20G	0-1102840-3
Housing bottom				
 		20	HF-HIP-K.12.AG.N	0-1102838-2
		20	HF-EMV-K.12.AG.N	0-1102838-1
		81	HF-HIP-K.12.AG	0-1102192-2
		81	HF-EMVK-K.12.AG	0-1102192-1


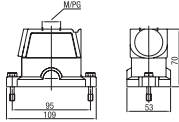

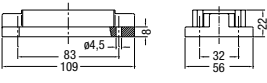
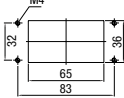

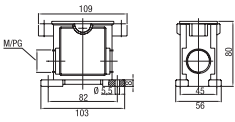


## EMV-K 10/24 housings

**EMV-K:** Protection against electro magnetic interference, pressure-tight, corrosion-resistant

### Screw lock on hood

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
Hood: Top entry				
 	M25	21	EMV-K.10/24.Sto.1.21G EMV-K.10/24.Sto.1.M25G	4-1102715-5 0-1106427-4
Surface mounted housing: Bottom entry				
  <p>Panel cut-out</p> 			EMV-K.10/24.AG	4-1102718-5
Surface mounted housing: side entry				
 	2xM32	21	EMV-K.10/24.SG.1.21G EMV-K.10/24.SG.2.M32G	4-1102716-5 0-1106426-2

## Crimping sleeves

CRIMPING SLEEVES FOR CONTACT SERIES HF-13

MAX. 350A

Description	Dimensions (mm)	Type	Part Number
Crimp barrel for pin-/socket side - shrink tube - crimp barrel - adapter		CH.50mm <sup>2</sup> -13/16mm	0-1110953-5
		CH.70mm <sup>2</sup> -13/16mm	0-1110953-6
		CH.95mm <sup>2</sup> -13/16mm	0-1110953-7
		CH.105mm <sup>2</sup> -13/16mm	0-1110953-8
		CH.120mm <sup>2</sup> -13/16mm	0-1110953-9
		CH.150mm <sup>2</sup> -13/16mm	1-1110953-1

## SUITABLE TOOL

Description		Type	Part Number
Crimping tool without crimping jaws		HSS-CSZ.2.5-70mm <sup>2</sup>	1-1105653-8
Crimping jaws for HSL, HSS		CB-HSS-CSZ.6mm <sup>2</sup> CB-HSS-CSZ.10mm <sup>2</sup> CB-HSS-CSZ.16mm <sup>2</sup> CB-HSS-CSZ.25mm <sup>2</sup> CB-HSS-CSZ.35mm <sup>2</sup> CB-HSS-CSZ.50mm <sup>2</sup> CB-HSS-CSZ.70mm <sup>2</sup>	2-1105653-8 3-1105653-8 4-1105653-8 5-1105653-8 6-1105653-8 7-1105653-8 8-1105653-8
Hydraulic Crimping tool		HF-CHZ	0-1110956-1
Dies		SET-50-150mm <sup>2</sup> 150mm <sup>2</sup> -KZ22 120mm <sup>2</sup> -KZ20 95mm <sup>2</sup> -KZ18 70mm <sup>2</sup> -KZ16 50mm <sup>2</sup> -KZ14	0-1110956-7 0-1110956-6 0-1110956-5 0-1110956-4 0-1110956-3 0-1110956-2



## IP68, IP65 Hoods and Housings overview



### 1. Specifications

DIN VDE 0110 Concerning clearance and clearance distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1

DIN EN 61 984


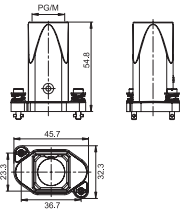

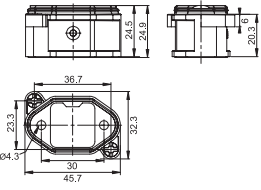

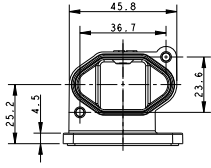
### 3. Approvals



RoHS


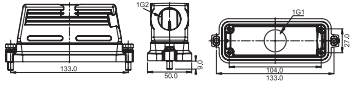

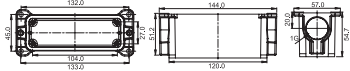
## HPR (IP68) series hoods/housings

### H3APR (IP68) SERIES

Opposite angle locking	Metr.	PG	Type	Part Number
Top entry				
		M20	PG16 H3APR-MTG-PG16 H3APR-MTG-M20	T 1 92 003 0116-000 T 1 92 003 0120-000
Bulkhead mounted: Bottom entry				
			H3APR-MAG	T 1 93 003 0000-000
Bulkhead mounted: Side entry				
			H3APR-MAGS	T 1 94 603 0000-000 (Black) T 1 94 603 2000-000 (Grey) T 1 94 603 1000-000 (Silver)


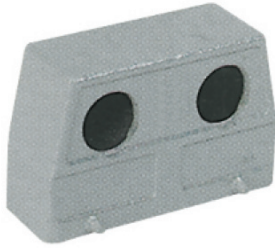
## HB hoods/housings with central locking lever

### HB (IP67) SERIES

Central locking		Size	Metr.	PG	Type	Part Number
		H24B	M25	PG21 PG29	<b>Top entry</b>	T 1 82 224 2121-000
			M32		H24BK-TGHC-PG21 H24BK-TGHC-PG29 H24BK-TGHC-M25 H24BK-TGHC-M32 H24BK-TGHC-M40	T 1 82 224 2129-000 T 1 82 224 2125-000 T 1 82 224 2132-000 T 1 82 224 2140-000
			M40		<b>Side entry</b>	
			M25	PG21	H24BK-TSHC-PG21	T 1 81 224 2121-000
			M32		H24BK-TSHC-M25 H24BK-TSHC-M32	T 1 81 224 2125-000 T 1 81 224 2132-000
Surface mounted side entry						
		H24B	M25	PG21	<b>1 side entry</b>	T 1 85 224 2121-000
			M25	PG21	<b>2 side entry</b>	
					H24BK-SGR-2PG21 H24BK-SGR-2M25	T 1 85 224 2221-000 T 1 85 224 2225-000

## Special hoods

### SPECIAL HOODS (IP65) SERIES

Double cable entry	Size	Metr.	PG	Type	Part Number
Hood: Top entry					
	H10B	2xM20	2xPG16	H10B-TGH-2PG16 H10B-TGH-2M20	T 1 24 010 2116-000 T 1 24 010 2120-000
	H16B	2xM25	2xPG21	H16B-TGH-2PG21 H16B-TGH-2M25	T 1 24 016 2121-000 T 1 24 016 2125-000
	H24B	2xM25	2xPG21	H24B-TGH-2PG21 H24B-TGH-2M25	T 1 24 024 2121-000 T 1 24 024 2125-000
Hood: Side entry					
	H10B	2xM20	2xPG16	H10B-TFH-2PG16 H10B-TFH-2M20	T 1 23 010 2116-000 T 1 23 010 2120-000
	H16B	2xM25	2xPG21	H16B-TFH-2PG21 H16B-TFH-2M25	T 1 23 016 2121-000 T 1 23 016 2125-000
	H24B	2xM25	2xPG21	H24B-TFH-2PG21 H24B-TFH-2M25	T 1 23 024 2121-000 T 1 23 024 2125-000

## HA series hoods/housings

H3A INCLUDE METAL AND PLASTIC SHELLS

H3A6 LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL

H3A metal hoods, housings	Metr.	PG	Type	H3A thermoplastic hoods, housings	Metr.	PG	Type
Top entry				Top entry			
	M20	PG11	H3A-MTG-PG11 H3A-MTG-M20		M20	PG11	H3A-TG-PG11 H3A-TG-M20
Side entry				Side entry			
	M20	PG11	H3A-MTS-PG11 H3A-MTS-M20		M20	PG11	H3A-TS-PG11 H3A-TS-M20
Bulkhead mounting: Bottom entry				Bulkhead mounting: Bottom entry			
			H3A-MAG				H3A-AG
Bulkhead mounting: Side entry				Bulkhead mounting: Side entry			
			H3A-MAGS				H3A-AGS
Surface mounting: Side entry				Surface mounting: Side entry			
	M16 M20	PG11	H3A-MAGSV-PG11 H3A-MAGSV-M16 H3A-MAGSV-M20		M16 M20	PG11	H3A-AGSV-PG11 H3A-AGSV-M16 H3A-AGSV-M20
Cable-to-cable hood				Cable-to-cable hood			
	M20	PG11	H3A-MTGVB-PG11 H3A-MTGVB-M20		M20	PG11	H3A-TGVB-PG11 H3A-TGVB-M20
Protection covers for hoods (thermoplastic)				Protection covers for hoods			
	Note: For mounted male insert and hood		H3A-KDTP		Note: For mounted male insert and hood		H3A-KDTP
Metal protection covers for hoods				Protection covers for hoods			
	Note: For mounted female insert and housings		H3A-KDB		Note: For mounted female insert and housings		H3A-KDBP (White) H3A-KDBPG (Grey)
				White	Grey		







## HA series hoods/housings

H10A INCLUDE METAL AND STAINLESS STEEL LEVER  
H16A INCLUDE METAL AND STAINLESS STEEL LEVER

H10A metal hoods, housings				H16A metal hoods, housings			
	Metr.	PG	Type		Metr.	PG	Type
Hood: Side entry				Hood: Side entry			
	M20 M25	PG16 PG21	H10A-TS-PG16 H10A-TS-PG21 H10A-TS-M20 H10A-TS-M25		M20 M25 M25	PG16 PG21 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25 H16A-TSH-PG21 H16A-TSH-M25
Low construction High construction				Low construction High construction			
Hood: Top entry				Hood: Top entry			
	M20 M25	PG16 PG21	H10A-TG-PG16 H10A-TG-PG21 H10A-TG-M20 H10A-TG-M25		M20 M25 M25	PG16 PG21 PG21	H16A-TG-PG16 H16A-TG-PG21 H16A-TG-M20 H16A-TG-M25 H16A-TGH-PG21 H16A-TGH-M25
Low construction High construction				Low construction High construction			
Protection covers for hood				Protection covers for hood			
			H10A-KDT				H16A-KDT
Bulkhead mounted				Bulkhead mounted			
			H10A-AGS				H16A-AGS
			H10A-ADS				H16A-ADS
Surface mounted: Side entry				Surface mounted: Side entry			
	M20 M25	PG16 PG21	H10A-SGRS-PG16 H10A-SGRS-PG21 H10A-SGRS-M20 H10A-SGRS-M25		M20 M25 M25	PG16 PG21 PG16 PG21	H16A-SGRS-PG16 H16A-SGRS-PG21 H16A-SGRS-M20 H16A-SGRS-M25 H16A-SGRS-2PG16 H16A-SGRS-2PG21 H16A-SGRS-2M20 H16A-SGRS-2M25
1 Side entry 2 Side entry				1 Side entry 2 Side entry			
	M20 M25	PG16 PG21	H10A-SDRMS-PG16 H10A-SDRMS-PG21 H10A-SDRMS-M20 H10A-SDRMS-M25		M20 M25 M25	PG16 PG21 PG16 PG21	H16A-SDRS-PG16 H16A-SDRS-PG21 H16A-SDRS-M20 H16A-SDRS-M25 H16A-SDRS-2PG16 H16A-SDRS-2PG21 H16A-SDRS-2M20 H16A-SDRS-2M25
1 Side entry 2 Side entry				1 Side entry 2 Side entry			
Cable-to-cable hood				Cable-to-cable hood			
	M20 M25	PG16 PG21	H10A-TBFS-PG16 H10A-TBFS-M20 H10A-TBFS-M25		M20 M25 M25	PG16 PG21	H16A-TBFS-PG16 H16A-TBFS-M20 H16A-TBFS-M25 H16A-TBFHS-PG21 H16A-TBFHS-M25
Low construction High construction				Low construction High construction			

## HA series hoods/housings

H32A metal hoods, housings				H8A thermoplastic hoods, housings			
	Metr.	PG	Type		Metr.	PG	Type
Hood: Side entry				Hood: Side entry			
	M25 M32 M40	PG21 PG29 PG36	H32A-TS-PG21 H32A-TS-PG29 H32A-TS-PG36 H32A-TS-M25 H32A-TS-M32 H32A-TS-M40		M20	PG16	H8A-TS-PG16 H8A-TS-M20
Hood: Top entry				Hood: Top entry			
	M25 M32 M40	PG21 PG29 PG36	H32A-TG-PG21 H32A-TG-PG29 H32A-TG-PG36 H32A-TG-M25 H32A-TG-M32 H32A-TG-M40		M20	PG16	H8A-TG-PG16 H8A-TG-M20
Bulkhead mounted				Bulkhead mounted			
			H32A-AG				H8A-AG
Surface mounted: Side entry							
	1 Side entry M25 M32 2 Side entry M25 M32	PG21 PG29 PG21 PG29	H32A-SGR-PG21 H32A-SGR-PG29 H32A-SGR-M25 H32A-SGR-M32 H32A-SGR-2PG21 H32A-SGR-2PG29 H32A-SGR-2M25 H32A-SGR-2M32				

## H6B series hoods/housings

H6B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL  
H6B COVERS INCLUDE PLASTIC AND METAL COVERS

H6B metal hoods	Metr.	PG	Type	H6B metal housings	Metr.	PG	Type
Hood: Side entry				Bulkhead mounted			
	M20 M25	PG16 PG21	H6B-TS-PG16 H6B-TS-PG21 H6B-TS-M20 H6B-TS-M25				H6B-AGS
	M20 M25 M32	PG21 PG29	H6B-TSH-PG21 H6B-TSH-PG29 H6B-TSH-M20 H6B-TSH-M25 H6B-TSH-M32				H6B-ADS
Hood: Top entry				Surface mounted: Side entry			
	M20 M25	PG16 PG21	H6B-TG-PG16 H6B-TG-PG21 H6B-TG-M20 H6B-TG-M25		Low construction 1 Side entry 2 Side entry	PG16 PG21  PG16 PG21	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25 H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25
					High construction 1 Side entry 2 Side entry	PG21 PG29  PG21 PG29	H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32 H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32
	M20 M25 M32	PG21 PG29	H6B-TGH-PG21 H6B-TGH-PG29 H6B-TGH-M20 H6B-TGH-M25 H6B-TGH-M32		Low construction 1 Side entry 2 Side entry	PG16 PG21  PG16 PG21	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25 H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25
					High construction 1 Side entry 2 Side entry	PG21 PG29  PG21 PG29	H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32 H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32
Cable-to-cable hood							
	Low construction M20 M25  High construction M20 M25 M32	PG16  PG21 PG29	H6B-TBFS-PG16 H6B-TBFS-M20 H6B-TBFS-M25  H6B-TBFHS-PG21 H6B-TBFHS-PG29 H6B-TBFHS-M20 H6B-TBFHS-M25 H6B-TBFHS-M32				
Protection covers for hoods							
			H6B-KDTP				

## H10B with 2 levers on the hoods/housings

H10B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL  
H10B COVERS INCLUDE PLASTIC AND METAL COVERS

H10B metal hoods	Metr.	PG	Type	H10B metal housings	Metr.	PG	Type	
Hood: Side entry				Bulkhead mounted				
	M20 M25	PG16 PG21	H10B-TS-PG16 H10B-TS-PG21 H10B-TS-M20 H10B-TS-M25				H10B-AGS	
Hood: Top entry				Surface mounted: Side entry				
	M20 M25 M32	PG21 PG29	H10B-TSH-PG21 H10B-TSH-PG29 H10B-TSH-M20 H10B-TSH-M25 H10B-TSH-M32		Low construction 1 Side entry 2 Side entry	M20 M25	PG16 PG21	H10B-SGRS-PG16 H10B-SGRS-PG21 H10B-SGRS-M20 H10B-SGRS-M25 H10B-SGRS-2PG16 H10B-SGRS-2PG21 H10B-SGRS-2M20 H10B-SGRS-2M25
					High construction 1 Side entry 2 Side entry	M20 M25 M32	PG21 PG29	H10B-SGRHS-PG21 H10B-SGRHS-PG29 H10B-SGRHS-M25 H10B-SGRHS-M32 H10B-SGRHS-2PG21 H10B-SGRHS-2PG29 H10B-SGRHS-2M25 H10B-SGRHS-2M32
	M20 M25	PG16 PG21	H10B-TG-PG16 H10B-TG-PG21 H10B-TG-M20 H10B-TG-M25	Side entry housing with two levers				
	M20 M25 M32	PG21 PG29	H10B-TGH-PG21 H10B-TGH-PG29 H10B-TGH-M20 H10B-TGH-M25 H10B-TGH-M32		Low construction	M20 M25	PG16 PG21	H10B-TSBS-PG16 H10B-TSBS-PG21 H10B-TSBS-M20 H10B-TSBS-M25
					High construction	M25 M32	PG21 PG29	H10B-TSBHS-PG21 H10B-TSBHS-PG29 H10B-TSBHS-M25 H10B-TSBHS-M32
Cable-to-cable hood				Top entry housing with two levers				
	Low construction M20 M25	PG16	H10B-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25		Low construction	M20 M25	PG16 PG21	H10B-TGBS-PG16 H10B-TGBS-PG21 H10B-TGBS-M20 H10B-TGBS-M25
	High construction M25 M32	PG21 PG29	H10B-TBFHS-PG21 H10B-TBFHS-PG29 H10B-TBFHS-M25 H10B-TBFHS-M32		High construction	M25 M32	PG21 PG29	H10B-TGBHS-PG21 H10B-TGBHS-PG29 H10B-TGBHS-M25 H10B-TGBHS-M32
Protection covers for hoods				Bulkhead mounted with 4 bolts				
			H10B-KDTP		Low construction 1 Side entry 2 Side entry	M20 M25	PG16 PG21	H10B-AD-BO H10B-SDR-BO-PG16 H10B-SDR-BO-PG21 H10B-SDR-BO-M20 H10B-SDR-BO-M25 H10B-SDR-BO-2PG16 H10B-SDR-BO-2PG21 H10B-SDR-BO-2M20 H10B-SDR-BO-2M25
Housing protection cover					High construction 1 Side entry 2 Side entry	M20 M25 M32	PG21 PG29	H10B-SDRH-BO-PG21 H10B-SDRH-BO-PG29 H10B-SDRH-BO-M25 H10B-SDRH-BO-M32 H10B-SDRH-BO-2PG21 H10B-SDRH-BO-2PG29 H10B-SDRH-BO-2M25 H10B-SDRH-BO-2M32
			H10B-KDBP					

## H10B with 1 lever on the hoods/housings

H10B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL  
H10B COVERS INCLUDE PLASTIC AND METAL COVERS

H10B metal hoods	Metr.	PG	Type	H10B metal housings	Metr.	PG	Type
Hood: Side entry				Bulkhead mounted			
	M20 M25	PG16 PG21	H10B-TS-RO-PG16 H10B-TS-RO-PG21 H10B-TS-RO-M20 H10B-TS-RO-M25				H10B-AG-LB
	M20 M25 M32	PG21 PG29	H10B-TSH-RO-PG21 H10B-TSH-RO-PG29 H10B-TSH-RO-M20 H10B-TSH-RO-M25 H10B-TSH-RO-M32				H10B-AD-LB
Hood: Top entry				Surface mounted: Side entry			
	M20 M25	PG16 PG21	H10B-TG-RO-PG16 H10B-TG-RO-PG21 H10B-TG-RO-M20 H10B-TG-RO-M25		1 Side entry Low construction 2 Side entry	PG16 PG21 PG16 PG21	H10B-SGR-LB-PG16 H10B-SGR-LB-PG21 H10B-SGR-LB-M20 H10B-SGR-LB-M25 H10B-SGR-LB-2PG16 H10B-SGR-LB-2PG21 H10B-SGR-LB-2M20 H10B-SGR-LB-2M25
					1 Side entry High construction 2 Side entry	PG21 PG29 PG21 PG29	H10B-SGRH-LB-PG21 H10B-SGRH-LB-PG29 H10B-SGRH-LB-M25 H10B-SGRH-LB-M32 H10B-SGRH-LB-2PG21 H10B-SGRH-LB-2PG29 H10B-SGRH-LB-2M25 H10B-SGRH-LB-2M32
	M20 M25 M32	PG21 PG29	H10B-TGH-RO-PG21 H10B-TGH-RO-PG29 H10B-TGH-RO-M20 H10B-TGH-RO-M25 H10B-TGH-RO-M32		1 Side entry Low construction 2 Side entry	PG16 PG21 PG16 PG21	H10B-SDR-LB-PG16 H10B-SDR-LB-PG21 H10B-SDR-LB-M20 H10B-SDR-LB-M25 H10B-SDR-LB-2PG16 H10B-SDR-LB-2PG21 H10B-SDR-LB-2M20 H10B-SDR-LB-2M25
					1 Side entry High construction 2 Side entry	PG21 PG29 PG21 PG29	H10B-SDRH-LB-PG21 H10B-SDRH-LB-PG29 H10B-SDRH-LB-M25 H10B-SDRH-LB-M32 H10B-SDRH-LB-2PG21 H10B-SDRH-LB-2PG29 H10B-SDRH-LB-2M25 H10B-SDRH-LB-2M32
Cable-to-cable hood							
	M20 M25	PG16	H10B-TBF-LB-PG16 H10B-TBF-LB-M20 H10B-TBF-LB-M25				
	M25 M32	PG21 PG29	H10B-TBFH-LB-PG21 H10B-TBFH-LB-PG29 H10B-TBFH-LB-M25 H10B-TBFH-LB-M32				
Protection covers for hoods							
			H10B-KDTP-LB				

## H16B with 2 levers on the hoods/housings

H16B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL  
H16B COVERS INCLUDE PLASTIC AND METAL COVERS

H16B metal hoods	Metr.	PG	Type	H16B metal housings	Metr.	PG	Type		
Hood: Side entry				Bulkhead mounted					
	M25 M32	PG16 PG21	H16B-TS-PG16 H16B-TS-PG21 H16B-TS-M25 H16B-TS-M32				H16B-AGS		
	M25 M32 M40	PG21 PG29	H16B-TSH-PG21 H16B-TSH-PG29 H16B-TSH-M25 H16B-TSH-M32 H16B-TSH-M40	Surface mounted: Side entry					
					Low construction 1 Side entry 2 Side entry	M25 M25	PG21 PG21	H16B-SGRS-PG21 H16B-SGRS-M25 H16B-SGRS-2PG21 H16B-SGRS-2M25	
					High construction 1 Side entry 2 Side entry	M25 M32 M25 M32	PG21 PG29 PG21 PG29	H16B-SGRHS-PG21 H16B-SGRHS-PG29 H16B-SGRHS-M25 H16B-SGRHS-M32 H16B-SGRHS-2PG21 H16B-SGRHS-2PG29 H16B-SGRHS-2M25 H16B-SGRHS-2M32	
Hood: Top entry				Side entry housing with two levers					
	M25 M32	PG16 PG21	H16B-TG-PG16 H16B-TG-PG21 H16B-TG-M25 H16B-TG-M32		Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TSBS-PG16 H16B-TSBS-PG21 H16B-TSBS-M20 H16B-TSBS-M25 H16B-TSBHS-PG21 H16B-TSBHS-PG29 H16B-TSBHS-M25 H16B-TSBHS-M32	
	M25 M32 M40	PG21 PG29	H16B-TGH-PG21 H16B-TGH-PG29 H16B-TGH-M25 H16B-TGH-M32 H16B-TGH-M40	Top entry housing with two levers					
					Low construction High construction	M20 M25 M25 M32	PG16 PG21 PG21 PG29	H16B-TGBS-PG16 H16B-TGBS-PG21 H16B-TGBS-M20 H16B-TGBS-M25 H16B-TGBHS-PG21 H16B-TGBHS-PG29 H16B-TGBHS-M25 H16B-TGBHS-M32	
Cable-to-cable hood				Bulkhead mounted with 4 bolts					
	Low construction High construction M25 M32	PG21 PG21 PG29	H16B-TBFS-PG21 H16B-TBFS-M25 H16B-TBFS-M32 H16B-TBFHS-PG21 H16B-TBFHS-PG29 H16B-TBFHS-M25 H16B-TBFHS-M32 H16B-TBFHS-M40					H16B-AD-BO	
Protection covers for hoods					Low construction High construction	1 Side entry 2 Side entry	M25 M25	PG21 PG21	H16B-SDR-BO-PG21 H16B-SDR-BO-M25 H16B-SDR-BO-2PG21 H16B-SDR-BO-2M25
			H16B-KDTP						
Housing protection cover					Low construction High construction	1 Side entry 2 Side entry	M25 M32 M25 M32	PG21 PG29 PG21 PG29	H16B-SDRH-BO-PG21 H16B-SDRH-BO-PG29 H16B-SDRH-BO-M25 H16B-SDRH-BO-M32 H16B-SDRH-BO-2PG21 H16B-SDRH-BO-2PG29 H16B-SDRH-BO-2M25 H16B-SDRH-BO-2M32
			H16B-KDBP						

## H16B with 1 lever on the hoods/housings

H16B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL  
H16B COVERS INCLUDE PLASTIC AND METAL COVERS

H16B metal hoods	Metr.	PG	Type	H16B metal housings	Metr.	PG	Type	
Hood: Side entry				Bulkhead mounted				
	M25 M32	PG21 PG29	H16B-TS-RO-PG21 H16B-TS-RO-PG29 H16B-TS-RO-M25 H16B-TS-RO-M32				H16B-AG-LB	
	M25 M32 M40	PG21 PG29	H16B-TSH-RO-PG21 H16B-TSH-RO-PG29 H16B-TSH-RO-M25 H16B-TSH-RO-M32 H16B-TSH-RO-M40				H16B-AD-LB	
Hood: Top entry				Surface mounted: Side entry				
	M25 M32	PG21 PG29	H16B-TG-RO-PG21 H16B-TG-RO-PG29 H16B-TG-RO-M25 H16B-TG-RO-M32		Low construction 1 Side entry 2 Side entry	M20 M25	PG16 PG21	H16B-SGR-LB-PG16 H16B-SGR-LB-PG21 H16B-SGR-LB-M20 H16B-SGR-LB-M25 H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25
					High construction 1 Side entry 2 Side entry	M20 M25	PG21 PG29	H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M25 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32
	M25 M32 M40	PG21 PG29	H16B-TGH-RO-PG21 H16B-TGH-RO-PG29 H16B-TGH-RO-M25 H16B-TGH-RO-M32 H16B-TGH-RO-M40		Low construction 1 Side entry 2 Side entry	M20 M25	PG16 PG21	H16B-SDR-LB-PG16 H16B-SDR-LB-PG21 H16B-SDR-LB-M20 H16B-SDR-LB-M25 H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25
					High construction 1 Side entry 2 Side entry	M20 M25	PG21 PG29	H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M25 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32
Cable-to-cable hood								
	Low construction M25 M32	PG21 PG29	H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32					
	High construction M25 M32 M40	PG21 PG29	H16B-TBFH-LB-PG21 H16B-TBFH-LB-PG29 H16B-TBFH-LB-M25 H16B-TBFH-LB-M32 H16B-TBFH-LB-M40					
Protection covers for hoods								
			H16B-KDTP-LB					

## H24B with 2 levers on the hoods/housings

H24B LEVERS INCLUDE METAL, PLASTIC AND STAINLESS STEEL

H24B COVERS INCLUDE PLASTIC AND METAL COVERS

H24B metal hoods	Metr.			H24B metal housings	Metr.	PG	Type
Hood: Side entry				Bulkhead mounted			
	M25 M32	PG16 PG21	H24B-TS-PG16 H24B-TS-PG21 H24B-TS-M25 H24B-TS-M32				H24B-AGS
Hood: Side entry				Surface mounted: Side entry			
	M25 M32 M40	PG21 PG29	H24B-TSH-PG21 H24B-TSH-PG29 H24B-TSH-M25 H24B-TSH-M32 H24B-TSH-M40		Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	PG21 PG21 PG21 PG29 PG21 PG29	H24B-SGRS-PG21 H24B-SGRS-M25 H24B-SGRS-2PG21 H24B-SGRS-2M25 H24B-SGRHS-PG21 H24B-SGRHS-PG29 H24B-SGRHS-M25 H24B-SGRHS-M32 H24B-SGRHS-2PG21 H24B-SGRHS-2PG29 H24B-SGRHS-2M25 H24B-SGRHS-2M32
Hood: Top entry				Side entry housing with two levers			
	M25 M32	PG16 PG21	H24B-TG-PG16 H24B-TG-PG21 H24B-TG-M25 H24B-TG-M32		Low construction High construction	PG16 PG21 PG21 PG29	H24B-TSBS-PG16 H24B-TSBS-PG21 H24B-TSBS-M20 H24B-TSBS-M25 H24B-TSBHS-PG21 H24B-TSBHS-PG29 H24B-TSBHS-M25 H24B-TSBHS-M32
Hood: Top entry				Top entry housing with two levers			
	M25 M32 M40	PG21 PG29	H24B-TGH-PG21 H24B-TGH-PG29 H24B-TGH-M25 H24B-TGH-M32 H24B-TGH-M40		Low construction High construction	PG16 PG21 PG21 PG29	H24B-TGBS-PG16 H24B-TGBS-PG21 H24B-TGBS-M20 H24B-TGBS-M25 H24B-TGBHS-PG21 H24B-TGBHS-PG29 H24B-TGBHS-M25 H24B-TGBHS-M32
Cable-to-cable hood				Bulkhead mounted with 4 bolts			
	Low construction M25 M32 High construction M25 M32 M40	PG21 PG21 PG29	H24B-TBFS-PG21 H24B-TBFS-M25 H24B-TBFS-M32 H24B-TBFHS-PG21 H24B-TBFHS-PG29 H24B-TBFHS-M25 H24B-TBFHS-M32 H24B-TBFHS-M40				H24B-AD-BO
Protection covers for hoods				Housing protection cover			
			H24B-KDTP		Low construction 1 Side entry 2 Side entry High construction 1 Side entry 2 Side entry	PG21 PG21 PG21 PG29 PG21 PG29	H24B-SDR-BO-PG21 H24B-SDR-BO-M25 H24B-SDR-BO-2PG21 H24B-SDR-BO-2M25 H24B-SDRH-BO-PG21 H24B-SDRH-BO-PG29 H24B-SDRH-BO-M25 H24B-SDRH-BO-M32 H24B-SDRH-BO-2PG21 H24B-SDRH-BO-2PG29 H24B-SDRH-BO-2M25 H24B-SDRH-BO-2M32
			H24B-KDBP				



## H24B with 1 lever on the hoods/housings

H24B metal hoods	Metr.	PG	Type	H24B metal housings	Metr.	PG	Type
Hood: Side entry				Bulkhead mounted			
	M25 M32	PG21 PG29	H24B-TS-RO-PG21 H24B-TS-RO-PG29 H24B-TS-RO-M25 H24B-TS-RO-M32				H24B-AG-LB
	M25 M32 M40	PG21 PG29	H24B-TSH-RO-PG21 H24B-TSH-RO-PG29 H24B-TSH-RO-M25 H24B-TSH-RO-M32 H24B-TSH-RO-M40				H24B-AD-LB
Hood: Top entry				Surface mounted: Side entry			
	M25 M32	PG21 PG29	H24B-TG-RO-PG21 H24B-TG-RO-PG29 H24B-TG-RO-M25 H24B-TG-RO-M32		M20 M25	PG16 PG21	H24B-SGR-LB-PG16 H24B-SGR-LB-PG21 H24B-SGR-LB-M20 H24B-SGR-LB-M25 H24B-SGR-LB-2PG16 H24B-SGR-LB-2PG21 H24B-SGR-LB-2M20 H24B-SGR-LB-2M25
	M25 M32 M40	PG21 PG29	H24B-TGH-RO-PG21 H24B-TGH-RO-PG29 H24B-TGH-RO-M25 H24B-TGH-RO-M32 H24B-TGH-RO-M40				
Cable-to-cable hood							
	Low construction M25 M32	PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32		M20 M25	PG16 PG21	H24B-SDR-LB-PG16 H24B-SDR-LB-PG21 H24B-SDR-LB-M20 H24B-SDR-LB-M25 H24B-SDR-LB-2PG16 H24B-SDR-LB-2PG21 H24B-SDR-LB-2M20 H24B-SDR-LB-2M25
	High construction M25 M32 M40	PG21 PG29	H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40				
Protection covers for hoods							
			H24B-KDTP-LB				

## H32B with 2 levers on the hoods/housings

H32B with 2 levers on the hoods, housings				H32B with 1 levers on the hoods, housings			
	Metr.	PG	Type		Metr.	PG	Type
Hood: Side entry				Hood: Side entry			
	M25 M32 M40 M50	PG29 PG36	H32B-TS-PG29 H32B-TS-PG36 H32B-TS-M25 H32B-TS-M32 H32B-TS-M40 H32B-TS-M50		M25 M32 M40 M50	PG29 PG36	H32B-TS-RO-PG29 H32B-TS-RO-PG36 H32B-TS-RO-M25 H32B-TS-RO-M32 H32B-TS-RO-M40 H32B-TS-RO-M50
Hood: Top entry				Hood: Top entry			
	M25 M32 M40 M50	PG29 PG36 PG42	H32B-TG-PG29 H32B-TG-PG36 H32B-TG-PG42 H32B-TG-M25 H32B-TG-M32 H32B-TG-M40 H32B-TG-M50		M25 M32 M40 M50	PG29 PG36 PG42	H32B-TG-RO-PG29 H32B-TG-RO-PG36 H32B-TG-RO-PG42 H32B-TG-RO-M25 H32B-TG-RO-M32 H32B-TG-RO-M40 H32B-TG-RO-M50
Bulkhead mounted				Bulkhead mounted			
			H32B-AG				H32B-AG-LB
Surface mounted: Side entry				Surface mounted: Side entry			
	1 Side entry M32 M40 M50 M63 2 Side entry M32 M40 M50 M63	PG29 PG36 PG42 PG29 PG36 PG42	H32B-SGR-PG29 H32B-SGR-PG36 H32B-SGR-PG42 H32B-SGR-M32 H32B-SGR-M40 H32B-SGR-M50 H32B-SGR-M63 H32B-SGR-2PG29 H32B-SGR-2PG36 H32B-SGR-2PG42 H32B-SGR-2M32 H32B-SGR-2M40 H32B-SGR-2M50 H32B-SGR-2M63				H32B-AD-LB
Cable-to-cable hood				Surface mounted: Side entry			
	M32 M40 M50 M63	PG29 PG36 PG42	H32B-TBF-PG29 H32B-TBF-PG36 H32B-TBF-PG42 H32B-TBF-M32 H32B-TBF-M40 H32B-TBF-M50 H32B-TBF-M63		1 Side entry M32 M40 2 Side entry M32 M40	PG29 PG29	H32B-SGR-LB-PG29 H32B-SGR-LB-M32 H32B-SGR-LB-M40 H32B-SGR-LB-2PG29 H32B-SGR-LB-2M32 H32B-SGR-LB-2M40
Protection covers for hoods				Protection covers for hoods			
			H32B-KDB		1 Side entry M32 M40 2 Side entry M32 M40	PG29 PG29	H32B-SDR-LB-PG29 H32B-SDR-LB-M32 H32B-SDR-LB-M40 H32B-SDR-LB-2PG29 H32B-SDR-LB-2M32 H32B-SDR-LB-2M40

## H48B series hoods/housings

H48B metal hoods	Metr.	PG	Type	EMC metal hoods	Metr.	PG	Type
Hood: Side entry				Hood: Side entry			
	M32 M40 M50 M63	PG29 PG36 PG42	H48B-TS-PG29 H48B-TS-PG36 H48B-TS-PG42 H48B-TS-M32 H48B-TS-M40 H48B-TS-M50 H48B-TS-M63				H6B-TSH-EMCS H10B-TSH-EMCS H16B-TSH-EMCS H24B-TSH-EMCS
Hood: Top entry				Hood: Top entry			
	M32 M40 M50 M63	PG29 PG36 PG42	H48B-TG-PG29 H48B-TG-PG36 H48B-TG-PG42 H48B-TG-M32 H48B-TG-M40 H48B-TG-M50 H48B-TG-M63				H6B-TGH-EMCS H10B-TGH-EMCS H16B-TGH-EMCS H24B-TGH-EMCS
Bulkhead mounted				Bulkhead mounted			
			H48B-AG				H6B-AG-EMCS H10B-AG-EMCS H16B-AG-EMCS H24B-AG-EMCS
			H48B-AD-LB				H3A-MTS-EMC-M20 H3A-MTS-EMC-PG11 H6B-TSBHS-EMC H10B-TSBHS-EMC H16B-TSBHS-EMC H24B-TSBHS-EMC
Surface mounted: Side entry				Hood: Top entry			
	M32 M40 M50	PG29 PG36 PG42	H48B-SGR-PG29 H48B-SGR-PG36 H48B-SGR-PG42 H48B-SGR-M32 H48B-SGR-M40 H48B-SGR-M50				H3A-MTG-EMC-PG11 H3A-MTG-EMC-M20 H6B-TGBHS-EMC H10B-TGBHS-EMC H16B-TGBHS-EMC H24B-TGBHS-EMC
	M32 M40 M50	PG29 PG36 PG42	H48B-SDR-PG29 H48B-SDR-PG36 H48B-SDR-PG42 H48B-SDR-M32 H48B-SDR-M40 H48B-SDR-M50				H3A-MAG-S-EMC H3A-MAG-EMC H3A-MAGS-EMC H6B-AG-BO-EMC H10B-AG-BO-EMC H16B-AG-BO-EMC H24B-AG-BO-EMC
Surface mounted with cover				Bulkhead mounted			
	M32 M40 M50	PG29 PG36 PG42	H48B-SDR-PG29 H48B-SDR-PG36 H48B-SDR-PG42 H48B-SDR-M32 H48B-SDR-M40 H48B-SDR-M50				H3A-MAG-S-EMC H3A-MAG-EMC H3A-MAGS-EMC H6B-AG-BO-EMC H10B-AG-BO-EMC H16B-AG-BO-EMC H24B-AG-BO-EMC

## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings



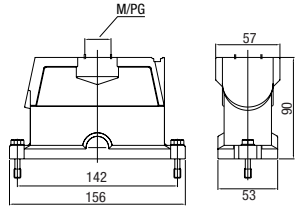
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number			
<b>Hood: Side entry, Standard construction</b>							
		M40	21 29	<b>HIP</b> HIP.24/64.STS.1.21.G HIP.24/64.STS.1.29.G HIP.24/64.STS.1.M40.G	1-1102658-5 1-1102660-5 0-1106473-2		
		M40	29	<b>HIP-K</b> HIP-K.24/64.STS.1.29.G HIP-K.24/64.STS.1.M40.G	2-1102660-5 0-1106473-4		
		M25 M32 M40	29	<b>EMV-K</b> EMV-K.24/64.STS.1.29.G EMV-K.24/64.STS.1.M25.G EMV-K.24/64.STS.1.M32.G EMV-K.24/64.STS.1.M40.G	4-1102755-5 0-1102983-1 0-1106461-8 0-1106461-3		
		M40	29 36	<b>HIP</b> HIP-KF.24/64.STS.1.29.G HIP-KF.24/64.STS.1.36.G HIP-KF.24/64.STS.1.M40.G	1-1102622-5 1-1102623-5 0-1106474-1		
		M40	29 36	<b>HIP-K</b> HIP-KF/K.24/64.STS.1.29.G HIP-KF/K.24/64.STS.1.36.G HIP-KF/K.24/64.STS.1.M40.G	2-1102622-5 2-1102623-5 0-1106474-2		
		M40	29 36	<b>EMV-K</b> EMV-KF/K.24/64.STS.1.29.G EMV-KF/K.24/64.STS.1.36.G EMV-KF/K.24/64.STS.1.M40.G	4-1102732-5 4-1102733-5 0-1106462-2		
		<b>Hood: Top entry, Standard construction</b>					
				M40			
				2xM32 M40	21 29	<b>HIP</b> HIP.24/64.STO.1.21.G HIP.24/64.STO.1.29.G HIP.24/64.STO.1.M40.G	1-1102662-5 1-1102664-5 0-1106473-1
M40 2xM40	29			<b>HIP-K</b> HIP-K.24/64.STO.1.29.G HIP-K.24/64.STO.2.M32.G HIP-K.24/64.STO.1.M40.G	2-1102664-5 0-1102792-1 0-1106473-3		
2xM40	29			<b>EMV-K</b> EMV-K.24/64.STO.1.29.G EMV-K.24/64.STO.1.M40.G	4-1102759-5 0-1106461-4		
		2xM40					

## HIP.24/64, HIP-K.24/64, EMV-K.24/64 housings


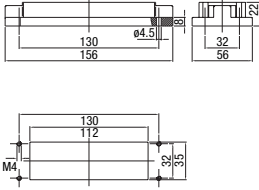

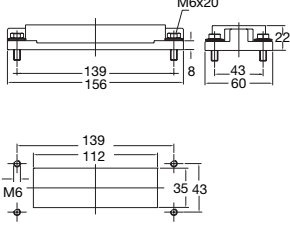

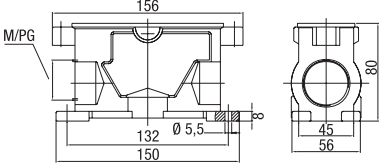

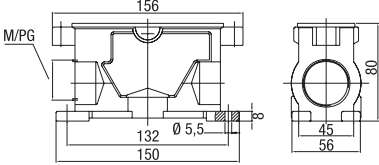

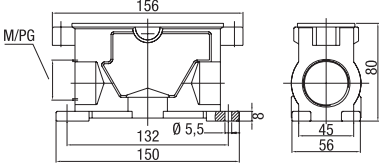

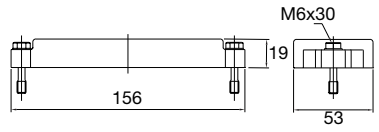
**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

Pressure-tight up to 5 bar

IP 68 / IP 69 K

Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Bottom entry, Standard construction</b>				
			<b>HIP</b> HIP.24/64.AG	1-1102665-5
			<b>HIP-K</b> HIP-K.24/64.AG	2-1102665-5
			<b>EMV-K</b> EMV-K.24/64.AG	4-1102760-5
			<b>HIP</b> HIP.24/64.AG.M6	1-1102626-5
			<b>HIP-K</b> HIP-K.24/64.AG.M6	2-1102626-5
			<b>HIP-K</b> HIP-K.24/64.AG.M6.D	2-1102628-5
			<b>HIP-K</b> HIP-K-1.24/64.AG.M6.D	0-1108533-1
<b>EMV-K</b> EMV-K.24/64.AG.M6	4-1102736-5			
<b>Surface mounted housing: Side entry, Standard construction</b>				
		2xM40	<b>HIP</b> HIP.24/64.SG.1.29.G	1-1102624-5
			<b>HIP</b> HIP.24/64.SG.2.29.G	1-1102625-5
			<b>HIP</b> HIP.24/64.SG.2.M40.G	0-1106472-1
		2xM40	<b>HIP-K</b> HIP-K.24/64.SG.1.29.G	5-1102624-5
			<b>HIP-K</b> HIP-K.24/64.SG.2.29.G	2-1102625-5
			<b>HIP-K</b> HIP-K.24/64.SG.2.M40.G	0-1106472-2
		2xM40	<b>EMV-K</b> EMV-K.24/64.SG.1.29.G	4-1102734-5
			<b>EMV-K</b> EMV-K.24/64.SG.2.29.G	4-1102735-5
			<b>EMV-K</b> EMV-K.24/64.SG.2.M40.G	0-1106460-2
<b>Protective cover housings</b>				
			<b>HIP</b> HIP/EMV.24/64.SKB	3-1106204-5
			<b>HIP-K/EMV-K</b> HIP-K/EMV-K.24/64.SKB	4-1106204-5


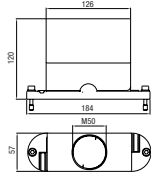

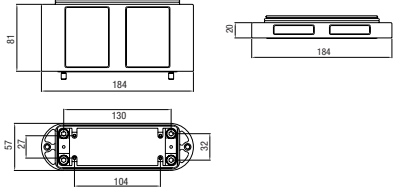

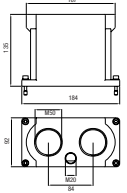

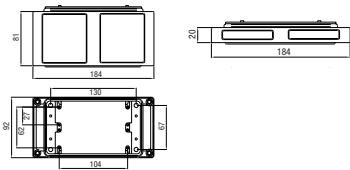
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**HIP:** Pressure-tight, silver-grey

**HIP-K:** Housings corrosion-resistant, black, according to DIN IEC 68 T2-52 and ASTM B117-09 > 1000h

**EMV-K:** Protection against electro-magnetic interference, pressure-tight, housings corrosion-resistant, black

### Screw lock on hood


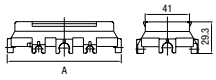

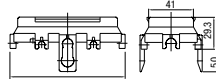

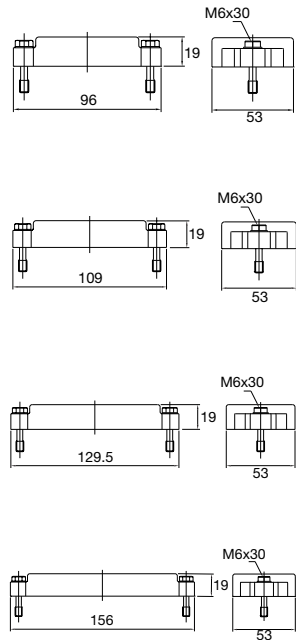
Description	Metr.	PG	Type	Part Number
Hood				
 	1xM50 1xM50 2xM40 2xM40		HF-HIP-K.8.Sto.1.M50G HF.8.EMV-K.8.Sto.1.M50G HF.HIP-K.8.Sto.2.M40G HF.EMV-K.8.Sto.2.M40G	0-1102839-4 0-1102839-3 0-1102839-2 0-1102839-1
Housing bottom				
 	81 mm 81 mm	<b>Height</b> 20 mm 20 mm	HF-HIP-K.8.AG.N HF-EMV-K.8.AG.N HF-HIP-K.8.AG HF-EMV-K.8.AG	0-1102837-2 0-1102837-1 0-1102836-2 0-1102836-1
Hood				
 	2xM40 2xM40 2xM50 2xM50		HF-HIP-K.12.Sto.2.M40G HF-EMV-K.12.Sto.2.M40G HF-HIP-K.12.Sto.2.M50G HF-EMV-K.12.Sto.2.M50G	0-1102840-2 0-1102840-1 0-1102840-4 0-1102840-3
Housing bottom				
 	81 mm 81 mm	<b>Height</b> 20 mm 20 mm	HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMV-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1

## Protective covers for hoods/housings

Reinforced plastic shell (UV-resistant), Versions with/without attachment string

Metal-Version

Size 3, 4, 6 + 8

Description	Type	Part Number							
Protective cover for hoods and housings with bolts									
 <p>Size 6/8</p>	 <table border="1" data-bbox="446 616 630 705"> <thead> <tr> <th>Size</th> <th>A=mm</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>105</td> </tr> <tr> <td>8</td> <td>132</td> </tr> </tbody> </table>	Size	A=mm	6	105	8	132	<p>SKP.6 SKP.8</p> <p>with attachment string SKP.6.F SKP.8.F</p>	<p>0-1110684-3 0-1110661-3</p> <p>0-1106258-3 0-1106258-4</p>
Size	A=mm								
6	105								
8	132								
Protective cover for hoods with central locking clip									
 <p>Size 6/8</p>	 <table border="1" data-bbox="446 873 630 963"> <thead> <tr> <th>Size</th> <th>A=mm</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>105</td> </tr> <tr> <td>8</td> <td>132</td> </tr> </tbody> </table>	Size	A=mm	6	105	8	132	<p>SKP.6/R SKP.8/R</p> <p>with attachment string SKP.6/R.F SKP.8/R.F</p>	<p>0-1110684-4 0-1110661-4</p> <p>0-1106259-3 0-1106259-4</p>
Size	A=mm								
6	105								
8	132								
Protective covers for housings series HIP, EMV, EMV-K									
		<p><b>HIP</b> HIP/EMV.6/16.SKB</p> <p><b>HIP-K</b> HIP-K/EMV-K.6/16.SKB</p> <p><b>HIP</b> HIP/EMV.10/24.SKB</p> <p><b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB</p> <p><b>HIP</b> HIP/EMV.16/40.SKB</p> <p><b>HIP-K</b> HIP-K.16/40.SKB</p> <p><b>HIP</b> HIP/EMV.24/64.SKB</p> <p><b>HIP-K/EMV-K</b> HIP-K/EMV-K.24/64.SKB</p>	<p>3-1106201-5</p> <p>4-1106201-5</p> <p>3-1106202-5</p> <p>4-1106202-5</p> <p>3-1106203-5</p> <p>4-1106203-5</p> <p>3-1106204-5</p> <p>4-1106204-5</p>						

## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

Opposite angle locking		Size	Metr.	PG	Type	Part Number
Hood: Side entry						
		H6BPR	M20 M25 M32	PG16 PG21 PG29	H6BPR-TSH-PG16	T 1 91 006 0116-000
					H6BPR-TSH-PG21	T 1 91 006 0121-000
					H6BPR-TSH-PG29	T 1 91 006 0129-000
					H6BPR-TSH-M20	T 1 91 006 0120-000
		H6BPR-TSH-M25	T 1 91 006 0125-000			
		H6BPR-TSH-M32	T 1 91 006 0132-000			
		H10BPR	M20 M25 M32	PG16 PG21 PG29	H10BPR-TSH-PG16	T 1 91 010 0116-000
					H10BPR-TSH-PG21	T 1 91 010 0121-000
					H10BPR-TSH-PG29	T 1 91 010 0129-000
					H10BPR-TSH-M20	T 1 91 010 0120-000
		H10BPR-TSH-M25	T 1 91 010 0125-000			
		H10BPR-TSH-M32	T 1 91 010 0132-000			
		H16BPR	M25 M32 M40	PG16 PG21 PG29	H16BPR-TSH-PG16	T 1 91 016 0116-000
					H16BPR-TSH-PG21	T 1 91 016 0121-000
					H16BPR-TSH-PG29	T 1 91 016 0129-000
					H16BPR-TSH-M25	T 1 91 016 0125-000
H16BPR-TSH-M32	T 1 91 016 0132-000					
H16BPR-TSH-M40	T 1 91 016 0140-000					
H24BPR	M25 M32 M40	PG16 PG21 PG29	H24BPR-TSH-PG16	T 1 91 024 0116-000		
			H24BPR-TSH-PG21	T 1 91 024 0121-000		
			H24BPR-TSH-PG29	T 1 91 024 0129-000		
			H24BPR-TSH-M25	T 1 91 024 0125-000		
H24BPR-TSH-M32	T 1 91 024 0132-000					
H24BPR-TSH-M40	T 1 91 024 0140-000					
Hood: Top entry						
		H6BPR	M20 M25 M32	PG16 PG21 PG29	H6BPR-TGH-PG16	T 1 92 006 0116-000
					H6BPR-TGH-PG21	T 1 92 006 0121-000
					H6BPR-TGH-PG29	T 1 92 006 0129-000
					H6BPR-TGH-M20	T 1 92 006 0120-000
		H6BPR-TGH-M25	T 1 92 006 0125-000			
		H6BPR-TGH-M32	T 1 92 006 0132-000			
		H10BPR	M20 M25 M32	PG16 PG21 PG29	H10BPR-TGH-PG16	T 1 92 010 0116-000
					H10BPR-TGH-PG21	T 1 92 010 0121-000
					H10BPR-TGH-PG29	T 1 92 010 0129-000
					H10BPR-TGH-M20	T 1 92 010 0120-000
		H10BPR-TGH-M25	T 1 92 010 0125-000			
		H10BPR-TGH-M32	T 1 92 010 0132-000			
		H16BPR	M25 M32 M40	PG16 PG21 PG29	H16BPR-TGH-PG16	T 1 92 016 0116-000
					H16BPR-TGH-PG21	T 1 92 016 0121-000
					H16BPR-TGH-PG29	T 1 92 016 0129-000
					H16BPR-TGH-M25	T 1 92 016 0125-000
H16BPR-TGH-M32	T 1 92 016 0132-000					
H16BPR-TGH-M40	T 1 92 016 0140-000					
H24BPR	M25 M32 M40	PG16 PG21 PG29	H24BPR-TGH-PG16	T 1 92 024 0116-000		
			H24BPR-TGH-PG21	T 1 92 024 0121-000		
			H24BPR-TGH-PG29	T 1 92 024 0129-000		
			H24BPR-TGH-M25	T 1 92 024 0125-000		
H24BPR-TGH-M32	T 1 92 024 0132-000					
H24BPR-TGH-M40	T 1 92 024 0140-000					




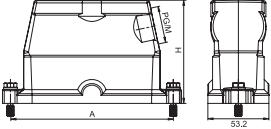

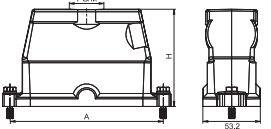

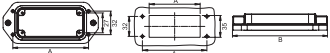

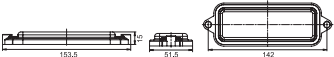
## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

Opposite angle locking	Size	Metr.	PG	Type	Part Number																													
Bulkhead mounted																																		
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C	A	A																																
30.0	30.0	30.0																																
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H16BPR	103	166	82																															
H24BPR	130	193	108																															
Straight surface mounted																																		
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A	B	80.0																																
110.0	110.0	80.0																																
110.0	B	80.0																																
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H10BPR	140	169																																
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Frame																																		
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B	A																																	
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H24BPR	130	156																																

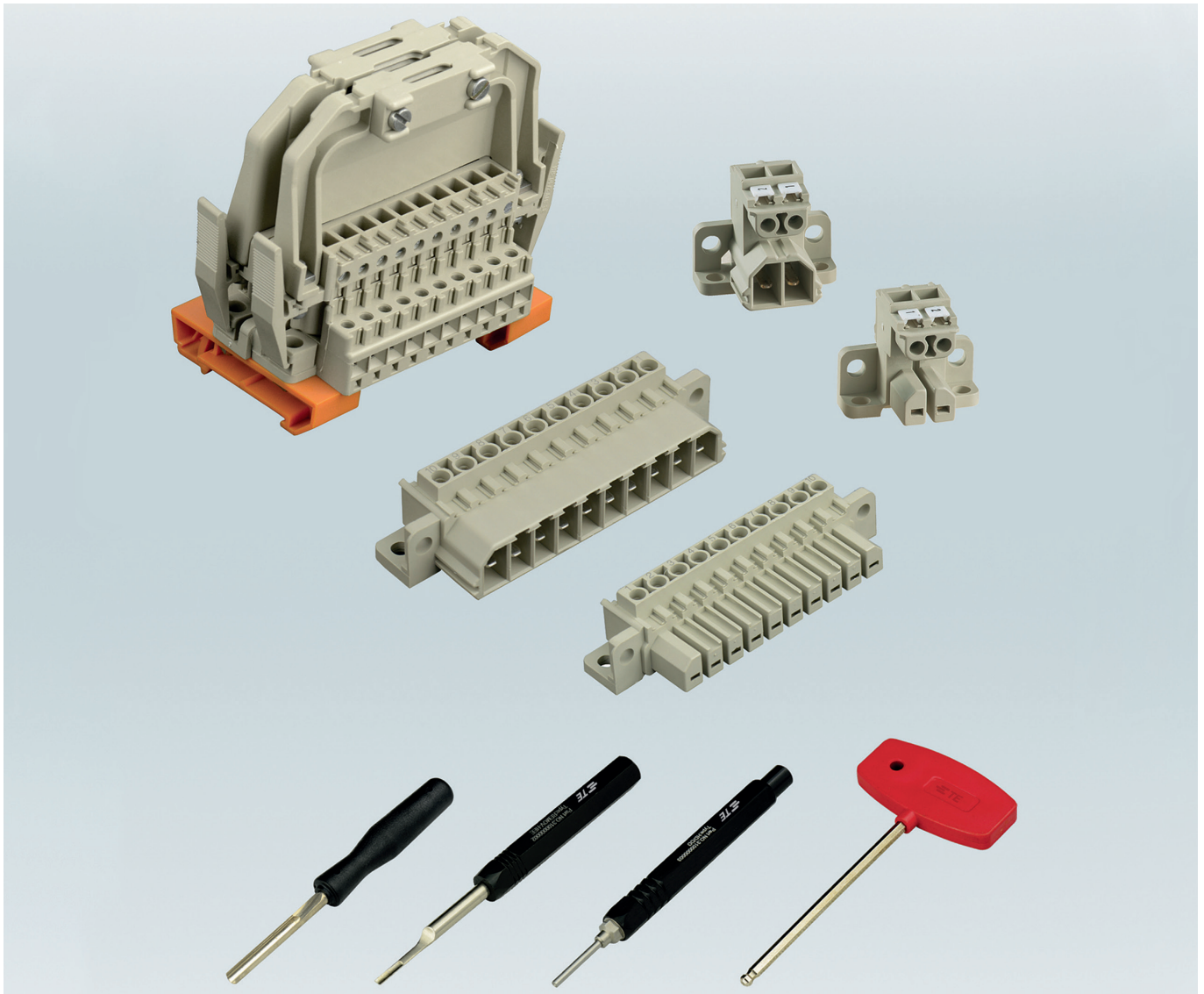
## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

Central locking	Size	Metr.	PG	Type	Part Number																					
Hood: Side entry																										
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	SIZE	A	H																							
	H6BPR	96	70																							
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	H10BPR	M25 M32 M40	PG21 PG29 PG36	H10BPR-TSHC-PG21 H10BPR-TSHC-PG29 H10BPR-TSHC-PG36 H10BPR-TSHC-M25 H10BPR-TSHC-M32 H10BPR-TSHC-M40	T 1 91 210 1121-000 T 1 91 210 1129-000 T 1 91 210 1136-000 T 1 91 210 1125-000 T 1 91 210 1132-000 T 1 91 210 1140-000																					
	H16BPR	M25 M32 M40	PG21 PG29 PG36	H16BPR-TSHC-PG21 H16BPR-TSHC-PG29 H16BPR-TSHC-PG36 H16BPR-TSHC-M25 H16BPR-TSHC-M32 H16BPR-TSHC-M40	T 1 91 216 1121-000 T 1 91 216 1129-000 T 1 91 216 1136-000 T 1 91 216 1125-000 T 1 91 216 1132-000 T 1 91 216 1140-000																					
	H24BPR	M25 M32 M40	PG21 PG29 PG36	H24BPR-TSHC-PG21 H24BPR-TSHC-PG29 H24BPR-TSHC-PG36 H24BPR-TSHC-M25 H24BPR-TSHC-M32 H24BPR-TSHC-M40	T 1 91 224 1121-000 T 1 91 224 1129-000 T 1 91 224 1136-000 T 1 91 224 1125-000 T 1 91 224 1132-000 T 1 91 224 1140-000																					
	Hood: Top entry																									
	 <div style="display: flex; justify-content: space-around; align-items: center;">  <table border="1" data-bbox="341 1263 595 1417"> <thead> <tr> <th>SIZE</th> <th>A</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>H6BPR</td> <td>96</td> <td>70</td> </tr> <tr> <td>H10BPR</td> <td>110</td> <td>70</td> </tr> <tr> <td>H16BPR</td> <td>130</td> <td>80</td> </tr> <tr> <td>H24BPR</td> <td>156</td> <td>80</td> </tr> </tbody> </table> </div>	SIZE	A	H	H6BPR	96	70	H10BPR	110	70	H16BPR	130	80	H24BPR	156	80	H6BPR	M25 M32 M40	PG21 PG29 PG36	H6BPR-TGHC-PG21 H6BPR-TGHC-PG29 H6BPR-TGHC-PG36 H6BPR-TGHC-M25 H6BPR-TGHC-M32 H6BPR-TGHC-M40	T 1 92 206 1121-000 T 1 92 206 1129-000 T 1 92 206 1136-000 T 1 92 206 1125-000 T 1 92 206 1132-000 T 1 92 206 1140-000					
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H16BPR		M25 M32 M40	PG21 PG29 PG36	H16BPR-TGHC-PG21 H16BPR-TGHC-PG29 H16BPR-TGHC-PG36 H16BPR-TGHC-M25 H16BPR-TGHC-M32 H16BPR-TGHC-M40	T 1 92 216 1121-000 T 1 92 216 1129-000 T 1 92 216 1136-000 T 1 92 216 1125-000 T 1 92 216 1132-000 T 1 92 216 1140-000																					
H24BPR		M25 M32 M40	PG21 PG29 PG36	H24BPR-TGHC-PG21 H24BPR-TGHC-PG29 H24BPR-TGHC-PG36 H24BPR-TGHC-M25 H24BPR-TGHC-M32 H24BPR-TGHC-M40	T 1 92 224 1121-000 T 1 92 224 1129-000 T 1 92 224 1136-000 T 1 92 224 1125-000 T 1 92 224 1132-000 T 1 92 224 1140-000																					
Bulkhead mounted																										
 <div style="display: flex; justify-content: space-around; align-items: center;">  <table border="1" data-bbox="336 1805 651 1910"> <thead> <tr> <th>SIZE</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>H6BPR</td> <td>70</td> <td>96</td> <td>48</td> </tr> <tr> <td>H10BPR</td> <td>83</td> <td>110</td> <td>60</td> </tr> <tr> <td>H16BPR</td> <td>103</td> <td>130</td> <td>82</td> </tr> <tr> <td>H24BPR</td> <td>130</td> <td>156</td> <td>108</td> </tr> </tbody> </table> </div>		SIZE	A	B	C	H6BPR	70	96	48	H10BPR	83	110	60	H16BPR	103	130	82	H24BPR	130	156	108	H6BPR H10BPR H16BPR H24BPR			H6BPR-AGC H10BPR-AGC H16BPR-AGC H24BPR-AGC	T 1 93 206 1000-000 T 1 93 210 1000-000 T 1 93 216 1000-000 T 1 93 224 1000-000
		SIZE	A	B	C																					
		H6BPR	70	96	48																					
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H24BPR		130	156	108																						
Cover																										
 <div style="display: flex; justify-content: space-around; align-items: center;">  </div>	H24BPR			H24BPR-KDBP	T 1 99 024 0000-000																					



## Tools and inserts and rail mounting elements



### 1. Specifications

DIN VDE 0110 Concerning clearance and clearance distances

DIN VDE 0627 Connectors and plug devices

### 2. Standards

DIN EN 60 664-1

DIN EN 61 984












### 3. Approvals



RoHS



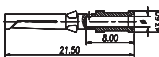
## Tools and accessories

### Crimping tools and remove tools

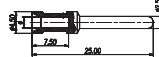


<p><b>Crimp tool</b></p> <p>Wire range: 0.5-4.0mm<sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts</p>			<p><b>Crimp tool</b></p> <p>Wire range: 4.0-10.0mm<sup>2</sup> Used for CMM/CMF contacts</p>		
<b>Type</b>	CRIMPBOX-0.5/4		<b>Type</b>	CRIMPBOX-4.0/10.0	
<b>Part Number</b>	T 3 10 000 0001-000		<b>Part Number</b>	T 3 10 000 1001-000	
<p><b>Crimp tool</b></p> <p>Wire range: 0.14-4.0mm<sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts with locator and die</p>			<p><b>Remove tool</b></p> <p>Used for CDM/CDF contact series</p>		
<b>Type</b>	RSZ.HE-HN.D-HVT		<b>Type</b>	REMOV-HD	
<b>Part Number</b>	1-1105851-8		<b>Part Number</b>	T 3 10 000 0003-000	
<p><b>Remove tool</b></p> <p>Used for CEM/CMF contact series</p>			<p><b>Remove tool</b></p> <p>Used for 5A contacts (Ø1mm)</p>		
<b>Type</b>	REMOV-HEE	REMOV-HEEE	<b>Material</b>	Metal	Plastic
<b>Part Number</b>	T 310 000 0002-000	T 3 10 000 0016-000	<b>Part Number</b>	T 3 10 000 0017-000	T 3 10 000 0018-000
<p><b>Remove tool</b></p> <p>Used for CMM/CMF contact series</p>					
<b>Type</b>	REMOV-MM				
<b>Part Number</b>	T 3 10 000 0013-000				
<b>Axial screw tool and crimping tool</b>					
<p><b>M3 screw driver</b></p> <p>Used for HA/HE inserts</p>			<p><b>Tool</b></p> <p>Used for 100A inserts</p>		
<b>Type</b>	SCREWD-M3		<b>Type</b>	HEXA-D1	
<b>Part Number</b>	T 3 10 000 0009-000		<b>Part Number</b>	T 3 10 000 0010-000	
<p><b>Tool</b></p> <p>Used for 40A inserts</p>			<p><b>Crimping tool</b></p> <p>Wire range: 10.0-120.0mm<sup>2</sup> Used for 200A contacts</p>		
<b>Type</b>	HEXA-D2		<b>Type</b>	CRIMPBOX-10/120	
<b>Part Number</b>	T 3 10 000 0012-000		<b>Part Number</b>	T 3 10 000 0015-000	

## Crimp contacts

### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3m\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 1002-000	DDM-0.14	T 2 02 001 1002-000
		0.5	20	8.0	CDM-0.5	T 2 02 000 1005-000	DDM-0.5	T 2 02 001 1005-000
		0.75	18	8.0	CDM-0.75	T 2 02 000 1008-000	DDM-0.75	T 2 02 001 1008-000
		1.0	18	8.0	CDM-1.0	T 2 02 000 1010-000	DDM-1.0	T 2 02 001 1010-000
		1.5	16	8.0	CDM-1.5	T 2 02 000 1015-000	DDM-1.5	T 2 02 001 1015-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
		2.5	14	6.0	CDM-2.5	T 2 02 000 1025-000	DDM-2.5	T 2 02 001 1025-000
CDF/Female	10A Female crimp contacts 	0.14-0.37	26-22	8.0	CDF-0.14	T 2 02 000 2002-000	DDF-0.14	T 2 02 001 2002-000
		0.5	20	8.0	CDF-0.5	T 2 02 000 2005-000	DDF-0.5	T 2 02 001 2005-000
		0.75	18	8.0	CDF-0.75	T 2 02 000 2008-000	DDF-0.75	T 2 02 001 2008-000
		1.0	18	8.0	CDF-1.0	T 2 02 000 2010-000	DDF-1.0	T 2 02 001 2010-000
		1.5	16	8.0	CDF-1.5	T 2 02 000 2015-000	DDF-1.5	T 2 02 001 2015-000
		2.5	14	6.0	CDF-2.5	T 2 02 000 2025-000	DDF-2.5	T 2 02 001 2025-000


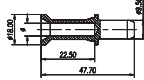

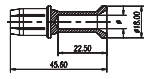
### 16A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1m\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		mm	Type	Part Number	Type
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.5	20	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.75	18	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		1.0	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.5	16	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		2.5	14	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		4.0	12	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
CEF/Female	16A Female crimp contacts 	0.14-0.37	26-22	7.5	CEF-0.3	T 2 03 000 2002-000	DEF-0.3	T 2 03 001 2002-000
		0.5	20	7.5	CEF-0.5	T 2 03 000 2005-000	DEF-0.5	T 2 03 001 2005-000
		0.75	18	7.5	CEF-0.75	T 2 03 000 2008-000	DEF-0.75	T 2 03 001 2008-000
		1.0	18	7.5	CEF-1.0	T 2 03 000 2010-000	DEF-1.0	T 2 03 001 2010-000
		1.5	16	7.5	CEF-1.5	T 2 03 000 2015-000	DEF-1.5	T 2 03 001 2015-000
		2.5	14	7.5	CEF-2.5	T 2 03 000 2025-000	DEF-2.5	T 2 03 001 2025-000
		4.0	12	7.5	CEF-4.0	T 2 03 000 2040-000	DEF-4.0	T 2 03 001 2040-000

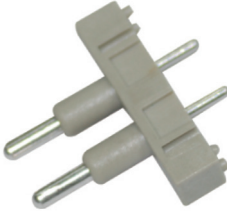



## Crimp contacts

### 200A Contact

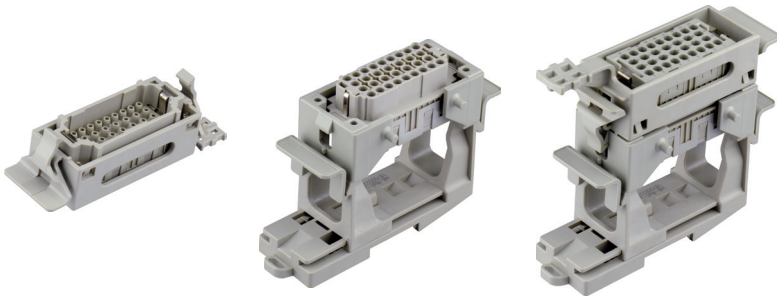
<b>Tech data</b> <b>Material:</b> copper <b>Contact resistance:</b> $\leq 0.3\text{m}\Omega$ <b>Terminal:</b> crimp connection <b>CHM/Male</b> 	<b>200A Male crimp contacts</b> 	<b>Wire gauge</b>	<b>Ø</b>	<b>Stripping length</b>	<b>Crimp contacts, silver-plated</b>	
		<b>mm<sup>2</sup></b>		<b>mm</b>	<b>Type</b>	<b>Part Number</b>
		25	7.0	22.5	CHM-25	T 2 06 000 1025-000
		35	8.2	22.5	CHM-35	T 2 06 000 1035-000
		50	10.0	22.5	CHM-50	T 2 06 000 1050-000
		70	11.5	22.5	CHM-70	T 2 06 000 1070-000
<b>CHF/Female</b> 	<b>200A Female crimp contacts</b> 	25	7.0	22.5	CHF-25	T 2 06 000 2025-000
		35	8.2	22.5	CHF-35	T 2 06 000 2035-000
		50	10.0	22.5	CHF-50	T 2 06 000 2050-000
		70	11.5	22.5	CHF-70	T 2 06 000 2070-000

### PCB Adapter

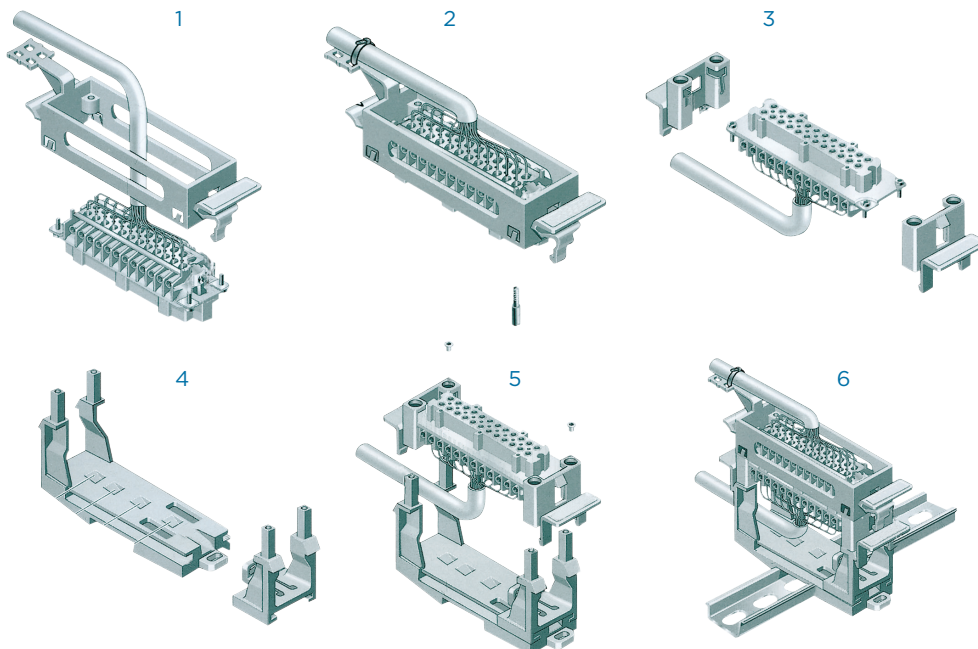
			
<b>Type</b>	PCB-adapter-EE	<b>Type</b>	CEF-adapter
<b>Part Number</b>	T 2 04 000 0000-000	<b>Part Number</b>	T 2 03 000 2000-000



## Insert mounting element


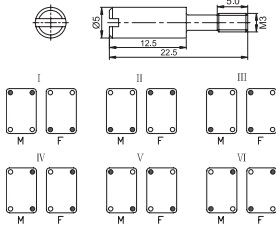
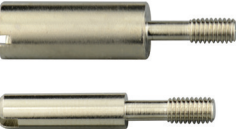
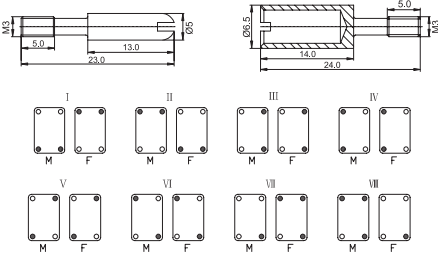
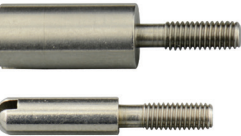
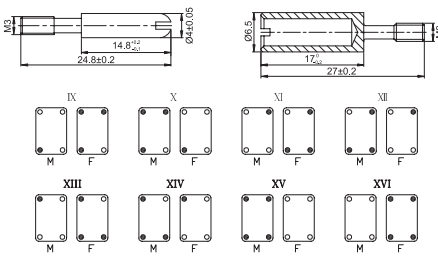


Set	Parts order	Type	Part Number	
Insert mounting with carrier element				
	H6B set	Top	H6B-Rail-top	T 187 006 2101-000
		Base	HB-Rail-base	T 187 000 2201-000
	H10B set	Top	H10B-Rail-top	T 187 010 2101-000
		Base	HB-Rail-base	T 187 000 2201-000
	H16B set	Top	H16B-Rail-top	T 187 016 2101-000
		Base	HB-Rail-base	T 187 000 2201-000
	H24B set	Top	H24B-Rail-top	T 187 024 2101-000
		Base	HB-Rail-base	T 187 000 2201-000



- 1 Attach insert in top carrier element
- 2 Set up strain relief e.g. by cable ties
- 3 Attach fixing clamps to base insert
- 4 Adjust base element to the dimensions of the insert
- 5 Attach base assembly to base element
- 6 Connect top and base inserts

## Installation elements


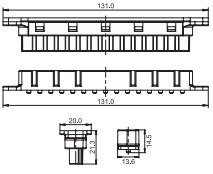
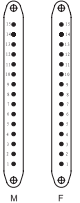

Coding of hoods/housings and inserts		Type	Part Number
<p>Standard code pin (Stainless steel)</p> 		<p>Ordinary type CODING-PIN-M3-TM CODING-PIN-M3-TF</p> <p>Stainless steel CODING-PIN-M3-STM CODING-PIN-M3-STF</p>	<p>Ordinary type T O 93 100 0423-000 T O 93 100 6524-000</p> <p>Stainless steel T O 93 200 0423-000 T O 93 200 6524-000</p>
<p>Guiding pins (Stainless steel)</p> 		<p>Ordinary type King-size CODING-PIN-M3-LTM CODING-PIN-M3-LTF</p> <p>Stainless steel, King-size CODING-PIN-M3-LSTM CODING-PIN-M3-LSTF</p>	<p>Ordinary type King-size T O 93 100 0425-000 T O 93 100 6527-000</p> <p>Stainless steel, King-size T O 93 110 0425-000 T O 93 110 6527-000</p>
<p>Guiding pins (screw thread extended)</p> 		<p>Ordinary type (screw thread extended) CODING-PIN-M3-LTM CODING-PIN-M3-LTF</p> <p>Stainless steel (screw thread extended) CODING-PIN-M3-STM CODING-PIN-M3-STF</p>	<p>Ordinary type (screw thread extended) T O 93 110 0425-000 T O 93 110 6527-000</p> <p>Ordinary type (screw thread extended) T O 93 110 0423-000 T O 93 110 6524-000</p>

## HEE-015 insert

INSERTS MOUNTING WITHOUT HOOD/HOUSING

200V MAX. 16A

15+  $\oplus$

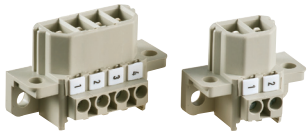
Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (Order crimp contacts separately)			
		HEE-015-M	T 2 08 015 2101-000
		HEE-015-F	T 2 08 015 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

Order crimp contacts separately




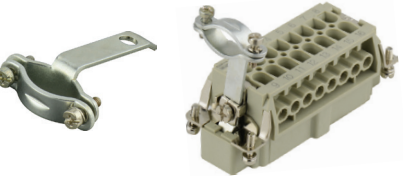
Female contact type: CSF-1.5

Female contact p/n: T0080002015-010

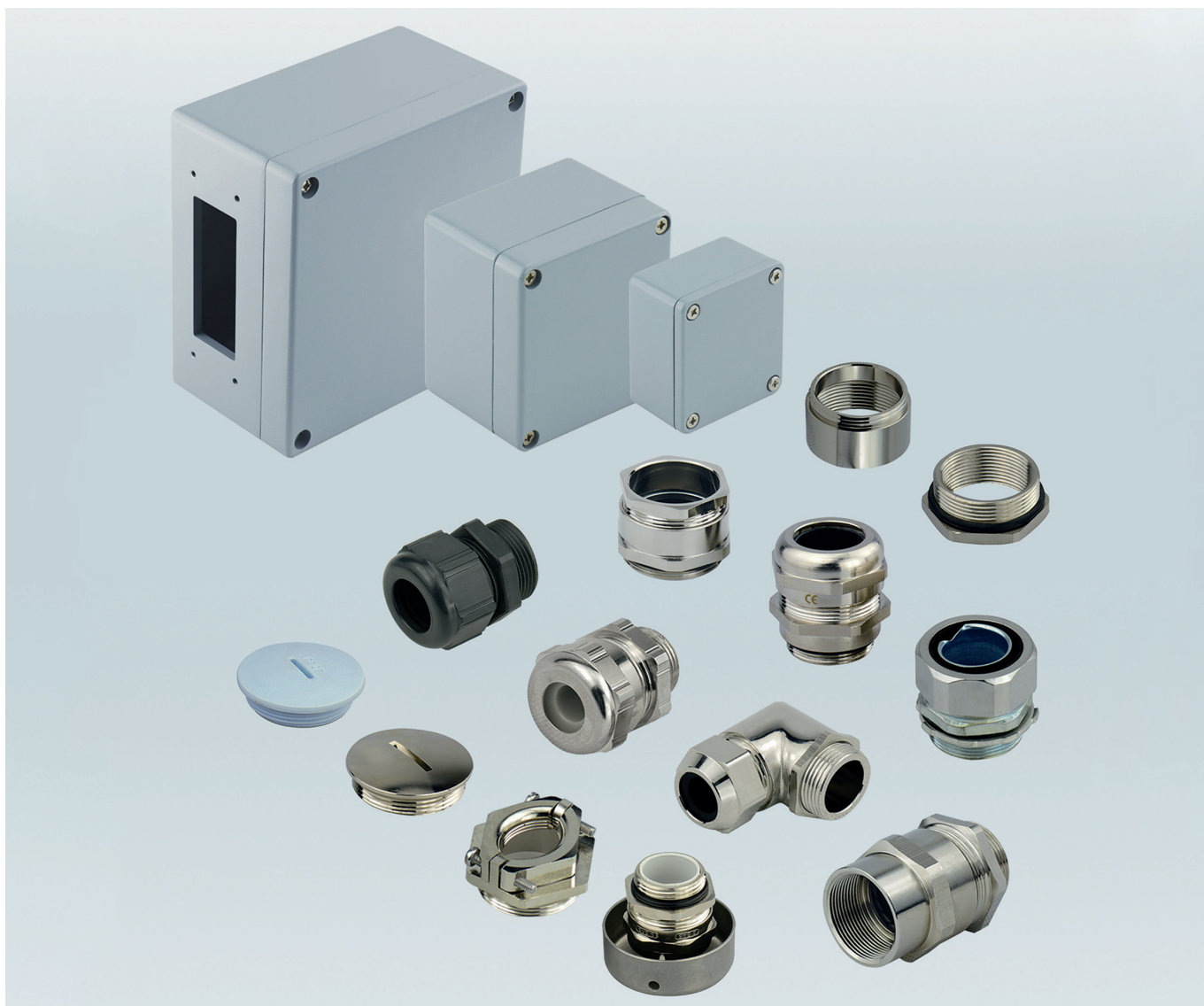
## Other connectors

		Designation	Type	Part Number
<p><b>3-poles connector</b></p> <p><b>Rated:</b> 25A, 500V</p> <p><b>Contact surface:</b> Silver plated</p> <p><b>Flammability acc. to UL94:</b> VO</p> <p><b>Terminal:</b> Screw terminal</p>		<p>3 poles male insert 3 poles female insert</p>	<p>HCC-003-M HCC-003-F</p>	<p>T 2 10 003 2101-000 T 2 10 003 2101-000</p>

## Installation elements

Grip frame, screw adapter and screw	Type	Part Number
<p>H24B grip frame (further variants are available on request)</p> 	HB-SB-024	T 3 40 312 1350-000
<p>Screw adapter and screw</p> 	<p>HB-GDZ-S</p> <p>HB-GDZ-X</p>	<p>T 3 40 312 1000-000</p> <p>T 3 40 312 2000-000</p>
<p>M5 Screw</p> 	FIX-M5	T 0 93 240 6003-000
<p>Extend earth terminal</p> 	EXTEND-PE	T 0 92 600 3000-000

## Cable glands and accessories



Cable glands made from plastic and brass  
EMC cable glands

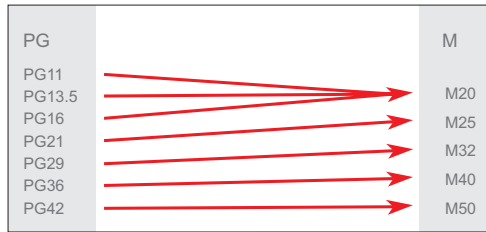
For hazardous areas in accordance with  
DIN EN 50014  
DIN EN 50019




RoHS


## Cable fittings and accessories

### Cross reference from PG thread to metric thread




	Metr.	PG	Clamp range (mm)	Type	Part Number	
Cable glands, brass nicked plated						
 <p><b>Material:</b> Nickel plated brass  <b>Press seal material:</b> PA  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP68</p>		PG7	2-5 3-6.5	DLX-7-MTS DLX-7-MS	T 3 609 0701 11-000 T 3 609 0701 01-000	
		PG9	2-6 4-8	DLX-9-MTS DLX-9-MS	T 3 609 0901 11-000 T 3 609 0901 01-000	
		PG11	3-7 5-10	DLX-11-MTS DLX-11-MS	T 3 609 1101 11-000 T 3 609 1101 01-000	
		PG13.5	5-9 6-12	DLX-13-MTS DLX-13-MS	T 3 609 1301 11-000 T 3 609 1301 01-000	
		PG16	7-12 10-14	DLX-16-MTS DLX-16-MS	T 3 609 1601 11-000 T 3 609 1601 01-000	
		PG21	9-16 13-18	DLX-21-MTS DLX-21-MS	T 3 609 2101 11-000 T 3 609 2101 01-000	
		PG29	13-20 18-25	DLX-29-MTS DLX-29-MS	T 3 609 2901 11-000 T 3 609 2901 01-000	
		PG36	20-26 22-32	DLX-36-MTS DLX-36-MS	T 3 609 3601 11-000 T 3 609 3601 01-000	
		PG42	25-31 32-38	DLX-42-MTS DLX-42-MS	T 3 609 4201 11-000 T 3 609 4201 01-000	
		PG48	29-35 37-44	DLX-48-MTS DLX-48-MS	T 3 609 4801 11-000 T 3 609 4801 01-000	
		M12 X 1.5		2-5 3-6.5	DLX-12-MT DLX-12-M	T 3 609 1201 12-000 T 3 609 1201 02-000
		M16 X 1.5		2-6 4-8 5-10	DLX-16-MT DLX-16-M DLX-16-MB	T 3 609 1601 12-000 T 3 609 1601 02-000 T 3 609 1601 22-000
		M20 X 1.5		5-9 6-12 10-14	DLX-20-MT DLX-20-M DLX-20-MB	T 3 609 2001 12-000 T 3 609 2001 02-000 T 3 609 2001 22-000
		M25 X 1.5		9-16 13-18	DLX-25-MT DLX-25-M	T 3 609 2501 12-000 T 3 609 2501 02-000
	M32 X 1.5		13-20 18-25	DLX-32-MT DLX-32-M	T 3 609 3201 12-000 T 3 609 3201 02-000	
	M40 X 1.5		20-26 22-32	DLX-40-MT DLX-40-M	T 3 609 4001 12-000 T 3 609 4001 02-000	
	M50 X 1.5		25-31 32-38	DLX-50-MT DLX-50-M	T 3 609 5001 12-000 T 3 609 5001 02-000	
	M63 X 1.5		29-35 37-44	DLX-63-MT DLX-63-M	T 3 609 6301 12-000 T 3 609 6301 02-000	


## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number	
Cable glands, polyamide						
 <p> <b>Material:</b> Polyamide  <b>Press seal material:</b> PA  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP68         </p>		PG7	2-5 3-6.5	DLX-7-PT DLX-7-P	T 3 209 0701 61-000 T 3 209 0701 60-000	
		PG9	2-6 4-8	DLX-9-PT DLX-9-P	T 3 209 0901 61-000 T 3 209 0901 60-000	
		PG11	3-7 5-10	DLX-11-PT DLX-11-P	T 3 209 1101 61-000 T 3 209 1101 60-000	
		PG13.5	5-9 6-12	DLX-13-PT DLX-13-P	T 3 209 1301 61-000 T 3 209 1301 60-000	
		PG16	7-12 10-14	DLX-16-PT DLX-16-P	T 3 209 1601 61-000 T 3 209 1601 60-000	
		PG21	9-16 13-18	DLX-21-PT DLX-21-P	T 3 209 2101 61-000 T 3 209 2101 60-000	
		PG29	13-20 18-25	DLX-29-PT DLX-29-P	T 3 209 2901 61-000 T 3 209 2901 60-000	
		PG36	20-26 22-32	DLX-36-PT DLX-36-P	T 3 209 3601 61-000 T 3 209 3601 60-000	
		PG42	25-31 32-38	DLX-42-PT DLX-42-P	T 3 209 4201 61-000 T 3 209 4201 60-000	
		PG48	29-35 37-44	DLX-48-PT DLX-48-P	T 3 209 4801 61-000 T 3 209 4801 60-000	
	M12 X 1.5			2-5 3-6.5	DLX-12-PMT DLX-12-PM	T 3 209 1201 12-000 T 3 209 1201 02-000
	M16 X 1.5			2-6 4-8	DLX-16-PMT DLX-16-PM	T 3 209 1601 12-000 T 3 209 1601 02-000
	M20 X 1.5			5-9 6-12	DLX-20-PMT DLX-20-PM	T 3 209 2001 12-000 T 3 209 2001 02-000
	M25 X 1.5			9-16 13-18	DLX-25-PMT DLX-25-PM	T 3 209 2501 12-000 T 3 209 2501 02-000
	M32 X 1.5			13-20 18-25	DLX-32-PMT DLX-32-PM	T 3 209 3201 12-000 T 3 209 3201 02-000
	M40 X 1.5			20-26 22-32	DLX-40-PMT DLX-40-PM	T 3 209 4001 12-000 T 3 209 4001 02-000
	M50 X 1.5			25-31 32-38	DLX-50-PMT DLX-50-PM	T 3 209 5001 12-000 T 3 209 5001 02-000
	M63 X 1.5			29-35 37-44	DLX-63-PMT DLX-63-PM	T 3 209 6301 12-000 T 3 209 6301 02-000



## Cable fittings and accessories



	Metr.	PG	Clamp range (mm)	Type	Part Number	
Multiple sealing insert metal cable gland						
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> TPE/EPDM  <b>Temperature range:</b> -40°C ~ + 100°C  <b>Protection:</b> IP65  <b>Seal material colors:</b> White            (other colors need consulting)</p>		PG13.5	2 x 3	DLX-13-KMS	T 3 729 1301 01-000	
		PG16	3 x 4	DLX-16-KMS	T 3 729 1601 01-000	
		PG16	2 x 5	DLX-16-KMS	T 3 729 1602 01-000	
		PG21	4 x 6.5	DLX-21-1KMS	T 3 729 2101 01-000	
		PG21	3 x 7	DLX-21-2KMS	T 3 729 2102 01-000	
		PG21	2 x 6	DLX-21-3KMS	T 3 729 2103 01-000	
		PG21	2 x 8	DLX-21-4KMS	T 3 729 2104 01-000	
		PG29	6 x 6.5	DLX-29-1KMS	T 3 729 2901 01-000	
		PG29	4 x 9	DLX-29-2KMS	T 3 729 2902 01-000	
		PG29	3 x 9	DLX-29-3KMS	T 3 729 2903 01-000	
		PG36	5 x 9	DLX-36-1KMS	T 3 729 3601 01-000	
		PG36	6 x 8	DLX-36-2KMS	T 3 729 3602 01-000	
		PG42	4 x 12	DLX-42-1KMS	T 3 729 4201 01-000	
		PG42	5 x 10	DLX-42-2KMS	T 3 729 4202 01-000	
		PG48	6 x 12	DLX-48-1KMS	T 3 729 4801 01-000	
		PG48	3 x 18	DLX-48-2KMS	T 3 729 4802 01-000	
		M16 X 1.5		2 x 3	DLX-16-KM	T 3 729 1601 02-000
		M20 X 1.5		3 x 4	DLX-20-KM	T 3 729 2001 02-000
		M20 X 1.5		2 x 5	DLX-20-KM	T 3 729 2002 02-000
		M25 X 1.5		4 x 6.5	DLX-25-1KM	T 3 729 2501 02-000
		M25 X 1.5		3 x 7	DLX-25-2KM	T 3 729 2502 02-000
		M25 X 1.5		2 x 6	DLX-25-3KM	T 3 729 2503 02-000
		M25 X 1.5		2 x 8	DLX-25-4KM	T 3 729 2504 02-000
		M32 X 1.5		6 x 6.5	DLX-32-1KM	T 3 729 3201 02-000
		M32 X 1.5		4 x 9	DLX-32-2KM	T 3 729 3202 02-000
		M32 X 1.5		3 x 9	DLX-32-3KM	T 3 729 3203 02-000
		M40 X 1.5		5 x 9	DLX-40-1KM	T 3 729 4001 02-000
	M40 X 1.5		6 x 8	DLX-40-2KM	T 3 729 4002 02-000	
	M50 X 1.5		4 x 12	DLX-50-1KM	T 3 729 5001 02-000	
	M50 X 1.5		5 x 10	DLX-50-2KM	T 3 729 5002 02-000	
	M63 X 1.5		6 x 12	DLX-63-1KM	T 3 729 6301 02-000	
	M63 X 1.5		3 x 18	DLX-63-2KM	T 3 729 6302 02-000	

Multiple sealing insert nylon cable gland						
 <p><b>Material:</b> PA  <b>Seal material:</b> EPDM  <b>Temperature range:</b> -40°C ~ + 100°C  <b>Protection:</b> IP65  <b>Seal material colors:</b> White            (other colors need consulting)</p>		PG13.5	2 x 3	DLX-13-KPMS	T 3 229 1301 01-000	
		PG16	3 x 4	DLX-16-KPMS	T 3 229 1601 01-000	
		PG16	2 x 5	DLX-16-KPMS	T 3 229 1602 01-000	
		PG21	4 x 6.5	DLX-21-1KPMS	T 3 229 2101 01-000	
		PG21	3 x 7	DLX-21-2KPMS	T 3 229 2102 01-000	
		PG21	2 x 6	DLX-21-3KPMS	T 3 229 2103 01-000	
		PG21	2 x 8	DLX-21-4KPMS	T 3 229 2104 01-000	
		PG29	6 x 6.5	DLX-29-1KPMS	T 3 229 2901 01-000	
		PG29	4 x 9	DLX-29-2KPMS	T 3 229 2902 01-000	
		PG29	3 x 9	DLX-29-3KPMS	T 3 229 2903 01-000	
		PG36	5 x 9	DLX-36-1KPMS	T 3 229 3601 01-000	
		PG36	6 x 8	DLX-36-2KPMS	T 3 229 3602 01-000	
		PG42	4 x 12	DLX-42-1KPMS	T 3 229 4201 01-000	
		PG42	5 x 10	DLX-42-2KPMS	T 3 229 4202 01-000	
		PG48	6 x 12	DLX-48-1KPMS	T 3 229 4801 01-000	
		PG48	3 x 18	DLX-48-2KPMS	T 3 229 4802 01-000	
		M16 X 1.5		2 x 3	DLX-16-KPM	T 3 229 1601 02-000
		M20 X 1.5		3 x 4	DLX-20-KPM	T 3 229 2001 02-000
		M20 X 1.5		2 x 5	DLX-20-KPM	T 3 229 2002 02-000
		M25 X 1.5		4 x 6.5	DLX-25-1KPM	T 3 229 2501 02-000
		M25 X 1.5		3 x 7	DLX-25-2KPM	T 3 229 2502 02-000
		M25 X 1.5		2 x 6	DLX-25-3KPM	T 3 229 2503 02-000
		M25 X 1.5		2 x 8	DLX-25-4KPM	T 3 229 2504 02-000
		M32 X 1.5		6 x 6.5	DLX-32-1KPM	T 3 229 3201 02-000
		M32 X 1.5		4 x 9	DLX-32-2KPM	T 3 229 3202 02-000
		M32 X 1.5		3 x 9	DLX-32-3KPM	T 3 229 3203 02-000
		M40 X 1.5		5 x 9	DLX-40-1KPM	T 3 229 4001 02-000
	M40 X 1.5		6 x 8	DLX-40-2KPM	T 3 229 4002 02-000	
	M50 X 1.5		4 x 12	DLX-50-1KPM	T 3 229 5001 02-000	
	M50 X 1.5		5 x 10	DLX-50-2KPM	T 3 229 5002 02-000	
	M63 X 1.5		6 x 12	DLX-63-1KPM	T 3 229 6301 02-000	
	M63 X 1.5		3 x 18	DLX-63-2KPM	T 3 229 6302 02-000	



## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number
Special sealing insert gland					
 <p>Sealing with different colors</p>  <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> TPE/EPDM  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65  <b>Seal material colors:</b> Black            (other colors need consulting)</p>	M16 X 1.5 M20 X 1.5 M25 X 1.5 M32 X 1.5 M40 X 1.5	PG9	2-3.5 3.5-6 6-9	DLX-9-MSET DLX-9-MSEZ DLX-9-MSE	T 3 709 0901 11-000 T 3 709 0901 21-000 T 3 709 0901 01-000
		PG11	6-8.5 8.5-11 11 -13.5	DLX-11-MSET DLX-11-MSEZ DLX-11-MSE	T 3 709 1101 11-000 T 3 709 1101 21-000 T 3 709 1101 01-000
		PG13.5	8.5-11 11-13.5 13.5-15	DLX-13-MSET DLX-13-MSEZ DLX-13-MSE	T 3 709 1301 11-000 T 3 709 1301 21-000 T 3 709 1301 01-000
		PG16	9-12 12-14 14-16	DLX-16-MSET DLX-16-MSEZ DLX-16-MSE	T 3 709 1601 11-000 T 3 709 1601 21-000 T 3 709 1601 01-000
		PG21	13.5-16 16-17.5 17.5-19	DLX-21-MSET DLX-21-MSEZ DLX-21-MSE	T 3 709 2101 11-000 T 3 709 2101 21-000 T 3 709 2101 01-000
		PG29	17.5-21 21-22.5 22.5-25	DLX-29-MSET DLX-29-MSEZ DLX-29-MSE	T 3 709 2901 11-000 T 3 709 2901 21-000 T 3 709 2901 01-000
		PG36	20-24 24-28 28-32	DLX-36-MSET DLX-36-MSEZ DLX-36-MSE	T 3 709 3601 11-000 T 3 709 3601 21-000 T 3 709 3601 01-000
			2-3.5 3.5-6 6-9	DLX-16-MET DLX-16-MEZ DLX-16-ME	T 3 709 1601 12-000 T 3 709 1601 22-000 T 3 709 1601 02-000
			8.5-11 11-13.5 13.5-15	DLX-20-MET DLX-20-MEZ DLX-20-ME	T 3 709 2001 12-000 T 3 709 2001 22-000 T 3 709 2001 02-000
			13.5-16 16-17.5 17.5-19 18-22	DLX-25-MET DLX-25-MEZ DLX-25-ME DLX-25-MEA	T 3 709 2501 12-000 T 3 709 2501 22-000 T 3 709 2501 02-000 T 3 709 2501 32-000
			17.5-21 21-22.5 22.5-25	DLX-32-MET DLX-32-MEZ DLX-32-ME	T 3 709 3201 12-000 T 3 709 3201 22-000 T 3 709 3201 02-000
			20-24 24-28 28-32	DLX-40-MET DLX-40-MEZ DLX-40-ME	T 3 709 4001 12-000 T 3 709 4001 22-000 T 3 709 4001 02-000
EMC cable glands					
 <p><b>Material:</b> Nickel plated brass  <b>Press seal material:</b> PA  <b>Seal material:</b> EPDM  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP68</p>	M16 X 1.5 M20 X 1.5 M25 X 1.5 M32 X 1.5 M40 X 1.5 M50 X 1.5 M63 X 1.5	PG9	4-8	DLX-9-MSC	T 3 707 0901 01-000
		PG11	5-10	DLX-11-MSC	T 3 707 1101 01-000
		PG13.5	6-12	DLX-13-MSC	T 3 707 1301 01-000
		PG16	10-14	DLX-16-MSC	T 3 707 1601 01-000
		PG21	13-18	DLX-21-MSC	T 3 707 2101 01-000
		PG29	18-25	DLX-29-MSC	T 3 707 2901 01-000
		PG36	22-32	DLX-36-MSC	T 3 707 3601 01-000
		PG42	32-38	DLX-42-MSC	T 3 707 4201 01-000
		PG48	37-44	DLX-48-MSC	T 3 707 4801 01-000
			2-6 4-8	DLX-16-MTC DLX-16-MC	T 3 707 1601 13-000 T 3 707 1601 03-000
			5-9 6-12	DLX-20-MTC DLX-20-MC	T 3 707 2001 13-000 T 3 707 2001 03-000
			9-16 13-18	DLX-25-MTC DLX-25-MC	T 3 707 2501 13-000 T 3 707 2501 03-000
	13-20 18-25	DLX-32-MTC DLX-32-MC	T 3 707 3201 13-000 T 3 707 3201 03-000		
	20-26 22-32	DLX-40-MTC DLX-40-MC	T 3 707 4001 13-000 T 3 707 4001 03-000		
	25-31 32-38	DLX-50-MTC DLX-50-MC	T 3 707 5001 13-000 T 3 707 5001 03-000		
	29-35 37-44	DLX-63-MTC DLX-63-MC	T 3 707 6301 13-000 T 3 707 6301 03-000		



## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number
Metal glands with multiple seal					
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65</p>		PG9	5-10	DSM-9	T 3 201 0901 01-000
		PG11	7-12	DSM-11	T 3 201 1101 01-000
		PG13.5	7-12	DSM-13	T 3 201 1301 01-000
		PG16	7-15	DSM-16	T 3 201 1601 01-000
		PG21	10-19	DSM-21	T 3 201 2101 01-000
		PG29	18-27	DSM-29	T 3 201 2901 01-000
		PG36	24-32	DSM-36	T 3 201 3601 01-000
		PG42	30-39	DSM-42	T 3 201 4201 01-000
		PG48	36-45	DSM-48	T 3 201 4801 01-000
	M12		5-10	DSM-12-M	T 3 201 1201 02-000
	M16		6.5-10	DSM-16-M	T 3 201 1601 02-000
	M20		8.5-13.5	DSM-20-M	T 3 201 2001 02-000
	M25		13-20	DSM-25-M	T 3 201 2501 02-000
	M32		19-28	DSM-32-M	T 3 201 3201 02-000
	M40		24-34	DSM-40-M	T 3 201 4001 02-000
	M50		34-40	DSM-50-M	T 3 201 5001 02-000
	M63		39-46	DSM-63-M	T 3 201 6301 02-000
Metal glands with multiple seal					
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP54</p>		PG9	8-10	DSM-9-S	T 3 211 0901 01-000
		PG11	10-12	DSM-11-S	T 3 211 1101 01-000
		PG13.5	12-14	DSM-13-S	T 3 211 1301 01-000
		PG16	14-16	DSM-16-S	T 3 211 1601 01-000
		PG21	17-19	DSM-21-S	T 3 211 2101 01-000
		PG29	23-25	DSM-29-S	T 3 211 2901 01-000
		PG36	33-35	DSM-36-S	T 3 211 3601 01-000
		PG42	39-41	DSM-42-S	T 3 211 4201 01-000
		PG48	45-47	DSM-48-S	T 3 211 4801 01-000
	M12		5-7	DSM-12-SM	T 3 211 1201 02-000
	M16		8-10	DSM-16-SM	T 3 211 1601 02-000
	M20		10-12	DSM-20-SM	T 3 211 2001 02-000
	M25		15-17	DSM-25-SM	T 3 211 2501 02-000
	M32		24-26	DSM-32-SM	T 3 211 3201 02-000
	M40		28-30	DSM-40-SM	T 3 211 4001 02-000
	M50		39-41	DSM-50-SM	T 3 211 5001 02-000
	M63		45-47	DSM-63-SM	T 3 211 6301 02-000

## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number	
Metal glands with multiple seal						
 <p> <b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65                 </p>		PG9	5-10	DCSM-9	T 3 101 0901 01-000	
		PG11	7-12	DCSM-11	T 3 101 1101 01-000	
		PG13.5	7-12	DCSM-13	T 3 101 1301 01-000	
		PG16	7-15	DCSM-16	T 3 101 1601 01-000	
		PG21	10-19	DCSM-21	T 3 101 2101 01-000	
		PG29	18-27	DCSM-29	T 3 101 2901 01-000	
		PG36	24-32	DCSM-36	T 3 101 3601 01-000	
		PG42	30-39	DCSM-42	T 3 101 4201 01-000	
		PG48	36-45	DCSM-48	T 3 101 4801 01-000	
	M12		5-10	DCSM-12-M	T 3 101 1201 02-000	
	M16		6.5-10	DCSM-16-M	T 3 101 1601 02-000	
	M20		8.5-13.5	DCSM-20-M	T 3 101 2001 02-000	
	M25		13-20	DCSM-25-M	T 3 101 2501 02-000	
	M32		19-28	DCSM-32-M	T 3 101 3201 02-000	
	M40		24-34	DCSM-40-M	T 3 101 4001 02-000	
	M50		34-40	DCSM-50-M	T 3 101 5001 02-000	
	M63		39-46	DCSM-63-M	T 3 101 6301 02-000	
	Metal glands with multiple seal					
	 <p> <b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP54                 </p>		PG9	8-10	DCSM-9-S	T 3 111 0901 01-000
			PG11	10-12	DCSM-11-S	T 3 111 1101 01-000
		PG13.5	12-14	DCSM-13-S	T 3 111 1301 01-000	
		PG16	14-16	DCSM-16-S	T 3 111 1601 01-000	
		PG21	17-19	DCSM-21-S	T 3 111 2101 01-000	
		PG29	23-25	DCSM-29-S	T 3 111 2901 01-000	
		PG36	33-35	DCSM-36-S	T 3 111 3601 01-000	
		PG42	39-41	DCSM-42-S	T 3 111 4201 01-000	
		PG48	45-47	DCSM-48-S	T 3 111 4801 01-000	
M12			5-7	DCSM-12-SM	T 3 111 1201 02-000	
M16			8-10	DCSM-16-SM	T 3 111 1601 02-000	
M20			10-12	DCSM-20-SM	T 3 111 2001 02-000	
M25			15-17	DCSM-25-SM	T 3 111 2501 02-000	
M32			24-26	DCSM-32-SM	T 3 111 3201 02-000	
M40			28-30	DCSM-40-SM	T 3 111 4001 02-000	
M50			39-41	DCSM-50-SM	T 3 111 5001 02-000	
M63			45-47	DCSM-63-SM	T 3 111 6301 02-000	

## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number	
Multiple seal						
 <p><b>Seal material:</b> NBR <b>Temperature range:</b> -40°C ~ +100°C <b>Protection:</b> IP65</p>		PG9	5-10	MSL-9	T 3 100 0900 01-000	
		PG11	7-12	MSL-11	T 3 100 1101 01-000	
		PG13.5	7-12	MSL-13	T 3 100 1300 01-000	
		PG16	7-15	MSL-16	T 3 100 1600 01-000	
		PG21	10-19	MSL-21	T 3 100 2100 01-000	
		PG29	18-27	MSL-29	T 3 100 2900 01-000	
		PG36	24-32	MSL-36	T 3 100 3600 01-000	
		PG42	30-39	MSL-42	T 3 100 4200 01-000	
		PG48	36-45	MSL-48	T 3 100 4800 01-000	
	M12			5-10	MSL-12-M	T 3 100 1200 02-000
	M16			6.5-10	MSL-16-M	T 3 100 1600 02-000
	M20			8.5-13.5	MSL-20-M	T 3 100 2000 02-000
	M25			13-20	MSL-25-M	T 3 100 2500 02-000
	M32			19-28	MSL-32-M	T 3 100 3200 02-000
	M40			24-34	MSL-40-M	T 3 100 4000 02-000
	M50			34-40	MSL-50-M	T 3 100 5000 02-000
	M63			39-46	MSL-63-M	T 3 100 6300 02-000
Normal seal						
 <p><b>Seal material:</b> NBR <b>Temperature range:</b> -40°C ~ +100°C <b>Protection:</b> IP54</p>		PG9	8-10	SGL-9	T 0 910 0041 09-000	
		PG11	10-12	SGL-11	T 0 910 0041 11-000	
		PG13.5	12-14	SGL-13	T 0 910 0041 13-000	
		PG16	14-16	SGL-16	T 0 910 0041 16-000	
		PG21	17-19	SGL-21	T 0 910 0041 21-000	
		PG29	23-25	SGL-29	T 0 910 0041 29-000	
		PG36	33-35	SGL-36	T 0 910 0041 36-000	
		PG42	39-41	SGL-42	T 0 910 0041 42-000	
		PG48	45-47	SGL-48	T 0 910 0041 48-000	
	M12			5-7	SGL-12-M	T 3 300 1200 02-000
	M16			8-10	SGL-16-M	T 3 300 1600 02-000
	M20			10-12	SGL-20-M	T 3 300 2000 02-000
	M25			15-17	SGL-25-M	T 3 300 2500 02-000
	M32			24-26	SGL-32-M	T 3 300 3201 02-000
	M40			28-30	SGL-40-M	T 3 300 4000 02-000
	M50			39-41	SGL-50-M	T 3 300 5000 02-000
	M63			45-47	SGL-63-M	T 3 300 6300 02-000

## Cable fittings and accessories

	Metr.	PG	Clamp range (mm)	Type	Part Number	
Metal clamp glands with multiple seal						
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65</p>		PG9	6.5-10	ZSM-9	T 3 135 0901 01-000	
			PG11	7.5-12	ZSM-11	T 3 135 1101 01-000
			PG13.5	8.5-13.5	ZSM-13	T 3 135 1301 01-000
			PG16	10.5-16	ZSM-16	T 3 135 1601 01-000
			PG21	13-20	ZSM-21	T 3 135 2101 01-000
			PG29	19-28	ZSM-29	T 3 135 2901 01-000
			PG36	24-34	ZSM-36	T 3 135 3601 01-000
			PG42	34-40	ZSM-42	T 3 135 4201 01-000
			PG48	39-46	ZSM-48	T 3 135 4801 01-000
	M16			6.5-10	ZSM-16-M	T 3 135 1601 21-000
	M20			7.5-12	ZSM-20-M	T 3 135 2001 21-000
	M25			13-20	ZSM-25-M	T 3 135 2501 21-000
	M32			19-28	ZSM-32-M	T 3 135 3201 21-000
	M40			24-34	ZSM-40-M	T 3 135 4001 21-000
	M50			34-40	ZSM-50-M	T 3 135 5001 21-000
	M63			39-46	ZSM-63-M	T 3 135 6301 21-000
Metal clamp glands with normal seal						
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP54</p>		PG7	6-8	ZSM-7-S	T 3 115 0701 01-000	
			PG9	8-10	ZSM-9-S	T 3 115 0901 01-000
			PG11	10-12	ZSM-11-S	T 3 115 1101 01-000
			PG13.5	12-14	ZSM-13-S	T 3 115 1301 01-000
			PG16	14-16	ZSM-16-S	T 3 115 1601 01-000
			PG21	17-19	ZSM-21-S	T 3 115 2101 01-000
			PG29	26-28	ZSM-29-S	T 3 115 2901 01-000
			PG36	33-35	ZSM-36-S	T 3 115 3601 01-000
			PG42	39-41	ZSM-42-S	T 3 115 4201 01-000
			PG48	43-45	ZSM-48-S	T 3 115 4801 01-000
	M12			6-8	ZSM-12-SM	T 3 115 1201 21-000
	M16			8-12	ZSM-16-SM	T 3 115 1601 21-000
	M20			10-12	ZSM-20-SM	T 3 115 2001 21-000
	M25			12-14	ZSM-25-SM	T 3 115 2501 21-000
	M32			17-19	ZSM-32-SM	T 3 115 3201 21-000
	M40			25-27	ZSM-40-SM	T 3 115 4001 21-000
M50			39-41	ZSM-50-SM	T 3 115 5001 21-000	
M63			43-45	ZSM-63-SM	T 3 115 6301 21-000	

## Cable fittings and accessories



	Metr.	PG	Clamp range (mm)	Type	Part Number	
<b>Metal clamp glands</b>						
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -40°C ~ +100°C</p>		PG7	5.5-8	KSM-7-MS	T 3 105 0701 01-000	
		PG9	6.5-10	KSM-9-MS	T 3 105 0901 01-000	
		PG11	7.5-12	KSM-11-MS	T 3 105 1101 01-000	
		PG13.5	8.5-14	KSM-13-MS	T 3 105 1301 01-000	
		PG16	9.5-16	KSM-16-MS	T 3 105 1601 01-000	
		PG21	12-21	KSM-21-MS	T 3 105 2101 01-000	
		PG29	19-30	KSM-29-MS	T 3 105 2901 01-000	
		PG36	25-37	KSM-36-MS	T 3 105 3601 01-000	
		PG42	31-43	KSM-42-MS	T 3 105 4201 01-000	
		PG48	35-48	KSM-48-MS	T 3 105 4801 01-000	
	M12			5-7.5	KSM-12-M	T 3 105 1201 21-000
	M16			7-10	KSM-16-M	T 3 105 1601 21-000
	M20			10-14	KSM-20-M	T 3 105 2001 21-000
	M25			12-21.5	KSM-25-M	T 3 105 2501 21-000
	M32			16-27	KSM-32-M	T 3 105 3201 21-000
	M40			23-33	KSM-40-M	T 3 105 4001 21-000
	M50			25-38.5	KSM-50-M	T 3 105 5001 21-000
	M63			39-46	KSM-63-M	T 3 105 6301 21-000
	<b>Metal flexible tube fittings</b>					
	 <p><b>Material:</b> Zinc alloy <b>Seal material:</b> PA <b>Temperature range:</b> -40°C ~ +100°C <b>Protection:</b> IP40-IP65</p>		PG11	Ø6	NTC-11-MS	T 3 510 1101 14-000
		PG13.5	Ø8	NTC-13-MTS	T 3 510 1301 24-000	
		PG13.5	Ø10	NTC-13-MS	T 3 510 1301 14-000	
		PG13.5	Ø12	NTC-13-MES	T 3 510 1301 34-000	
		PG16	Ø10	NTC-16-MTS	T 3 510 1601 24-000	
		PG16	Ø12	NTC-16-MS	T 3 510 1601 14-000	
		PG16	Ø16	NTC-16-MES	T 3 510 1601 34-000	
		PG21	Ø16	NTC-21-MTS	T 3 510 2101 24-000	
		PG21	Ø20	NTC-21-MS	T 3 510 2101 14-000	
		PG29	Ø20	NTC-29-MTS	T 3 510 2901 24-000	
		PG29	Ø25	NTC-29-MS	T 3 510 2901 14-000	
		PG36	Ø32	NTC-36-MS	T 3 510 3601 14-000	
		PG42	Ø38	NTC-42-MS	T 3 510 4201 14-000	
		PG48	Ø51	NTC-48-MS	T 3 510 4801 14-000	
M12 X 1.5				Ø6	NTC-12-M	T 3 510 1201 24-000
M16 X 1.5				Ø8	NTC-16-MT	T 3 510 1601 12-000
M16 X 1.5				Ø10	NTC-16-M	T 3 510 1601 02-000
M16 X 1.5				Ø12	NTC-16-ME	T 3 510 1601 22-000
M20 X 1.5				Ø10	NTC-20-MT	T 3 510 2001 12-000
M20 X 1.5				Ø12	NTC-20-M	T 3 510 2001 02-000
M20 X 1.5				Ø16	NTC-20-MT	T 3 510 2001 22-000
M25 X 1.5				Ø16	NTC-25-MT	T 3 510 2501 12-000
M25 X 1.5				Ø20	NTC-25-M	T 3 510 2501 02-000
M32 X 1.5				Ø20	NTG-32-MT	T 3 510 3201 12-000
M32 X 1.5				Ø25	NTC-32-M	T 3 510 3201 02-000
M40 X 1.5				Ø32	NTC-40-M	T 3 510 4001 02-000
M50 X 1.5				Ø38	NTC-50-M	T 3 510 5001 02-000
M63 X 1.5			Ø51	NTC-63-M	T 3 510 6301 02-000	

## Cable fittings and accessories


	Metr.	PG	Clamp range (mm)	Type	Part Number	
Nylon flexible tube fittings						
 <p><b>Material:</b> PA <b>Temperature range:</b> -40°C ~ +100°C <b>Protection:</b> IP65</p>		PG7	AD 10.0	NTC-7-PMS	T 3 511 0707 01-000	
			PG9	AD 13.0	NTC-9-PMS	T 3 511 0910 01-000
			PG11	AD 15.8	NTC-11-PMS	T 3 511 1112 01-000
			PG13.5	AD 18.5	NTC-13-PMES	T 3 511 1314 01-000
			PG13.5	AD 21.2	NTC-13-PMZS	T 3 511 1314 01-001
			PG16	AD 21.2	NTC-16-PMS	T 3 511 1617 01-000
			PG21	AD 28.5	NTC-21-PMS	T 3 511 2123 01-000
			PG29	AD 34.5	NTC-29-PMS	T 3 511 2929 01-000
			PG36	AD 42.5	NTC-36-PMS	T 3 511 3636 01-000
			PG42	AD 54.5	NTC-42-PMS	T 3 511 4243 01-000
			PG48	AD 54.5	NTC-48-PMS	T 3 511 4848 01-000
		M10 X 1.5		AD 10.0	NTC-10-PM	T 3 511 1006 02-000
		M12 X 1.5		AD 10.0	NTC-12-PMT	T 3 511 1207 02-000
		M12 X 1.5		AD 13.0	NTC-12-PM	T 3 511 1207 02-001
		M16 X 1.5		AD 13.0	NTC-16-PMT	T 3 511 1610 02-000
		M16 X 1.5		AD 15.8	NTC-16-PM	T 3 511 1612 02-000
		M20 X 1.5		AD 18.5	NTC-20-PMT	T 3 511 2014 02-000
		M20 X 1.5		AD 21.2	NTC-20-PM	T 3 511 2017 02-000
		M25 X 1.5		AD 21.2	NTC-25-PMT	T 3 511 2517 02-000
		M25 X 1.5		AD 25.8	NTC-25-PM	T 3 511 2520 02-000
		M25 X 1.5		AD 28.5	NTC-25-PME	T 3 511 2523 02-000
		M32 X 1.5		AD 28.5	NTC-32-PMT	T 3 511 3223 02-000
		M32 X 1.5		AD 31.5	NTC-32-PM	T 3 511 3226 02-000
		M32 X 1.5		AD 34.5	NTC-32-PME	T 3 511 3229 02-000
		M40 X 1.5		AD 34.5	NTC-40-PMT	T 3 511 4028 02-000
		M40 X 1.5		AD 42.5	NTC-40-PM	T 3 511 4036 02-000
		M50 X 1.5		AD 42.5	NTC-50-PMT	T 3 511 5035 02-000
	M50 X 1.5		AD 54.5	NTC-50-PM	T 3 511 5048 02-000	
	M63 X 1.5		AD 54.5	NTC-63-PM	T 3 511 6348 02-000	
Nylon blind plugs						
 <p><b>Material:</b> PA <b>Temperature range:</b> -20°C ~ +70°C <b>Protection:</b> IP65</p>		PG9		DN-9-P	T 3 169 0901 01-000	
			PG11		DN-11-P	T 3 169 1101 01-000
			PG13.5		DN-13-P	T 3 169 1301 01-000
			PG16		DN-16-P	T 3 169 1601 01-000
			PG21		DN-21-P	T 3 169 2101 01-000
			PG29		DN-29-P	T 3 169 2901 01-000
			PG36		DN-36-P	T 3 169 3601 01-000
			PG42		DN-42-P	T 3 169 4201 01-000
			PG48		DN-48-P	T 3 169 4801 01-000
		M12		5-7.5	DN-12-PM	T 3 169 1201 21-000
		M16		7-10	DN-16-PM	T 3 169 1601 11-000
		M20		10-14	DN-20-PM	T 3 169 2001 11-000
		M25		12-21.5	DN-25-PM	T 3 169 2501 11-000
		M32		16-27	DN-32-PM	T 3 169 3201 11-000
		M40		23-33	DN-40-PM	T 3 169 4001 11-000
		M50		25-38.5	DN-50-PM	T 3 169 5001 11-000
		M63		39-46	DN-63-PM	T 3 169 6301 11-000





## Cable fittings and accessories

	Metr.	PG	Type	Part Number	
<b>Metal blind plugs</b>					
 <p><b>Material:</b> Nickel plated brass  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65</p>		PG7	BLIND-7-MS	T 3 165 0701 01-000	
			PG9	BLIND-9-MS	T 3 165 0901 01-000
			PG11	BLIND-11-MS	T 3 165 1101 01-000
			PG13.5	BLIND-13-MS	T 3 165 1301 01-000
			PG16	BLIND-16-MS	T 3 165 1601 01-000
			PG21	BLIND-21-MS	T 3 165 2101 01-000
			PG29	BLIND-29-MS	T 3 165 2901 01-000
			PG36	BLIND-36-MS	T 3 165 3601 01-000
			PG42	BLIND-42-MS	T 3 165 4201 01-000
			PG48	BLIND-48-MS	T 3 165 4801 01-000
	M12 X 1.5			BLIND-12-M	T 3 165 1201 11-000
	M16 X 1.5			BLIND-16-M	T 3 165 1601 11-000
	M20 X 1.5			BLIND-20-M	T 3 165 2001 11-000
	M25 X 1.5			BLIND-25-M	T 3 165 2501 11-000
	M32 X 1.5			BLIND-32-M	T 3 165 3201 11-000
	M40 X 1.5			BLIND-40-M	T 3 165 4001 11-000
	M50 X 1.5			BLIND-50-M	T 3 165 5001 11-000
M63 X 1.5			BLIND-63-M	T 3 165 6301 11-000	
<b>Nylon blind plugs</b>					
 <p><b>Material:</b> PA  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65</p>		PG7	BLIND-7-P	T 3 166 0701 01-000	
			PG9	BLIND-9-P	T 3 166 0901 01-000
			PG11	BLIND-11-P	T 3 166 1101 01-000
			PG13.5	BLIND-13-P	T 3 166 1301 01-000
			PG16	BLIND-16-P	T 3 166 1601 01-000
			PG21	BLIND-21-P	T 3 166 2101 01-000
			PG29	BLIND-29-P	T 3 166 2901 01-000
			PG36	BLIND-36-P	T 3 166 3601 01-000
			PG42	BLIND-42-P	T 3 166 4201 01-000
			PG48	BLIND-48-P	T 3 166 4801 01-000
	M12 X 1.5			BLIND-12-PM	T 3 166 1201 11-000
	M16 X 1.5			BLIND-16-PM	T 3 166 1601 11-000
	M20 X 1.5			BLIND-20-PM	T 3 166 2001 11-000
	M25 X 1.5			BLIND-25-PM	T 3 166 2501 11-000
	M32 X 1.5			BLIND-32-PM	T 3 166 3201 11-000
	M40 X 1.5			BLIND-40-PM	T 3 166 4001 11-000
	M50 X 1.5			BLIND-50-PM	T 3 166 5001 11-000
M63 X 1.5			BLIND-63-PM	T 3 166 6301 11-000	



## Cable fittings and accessories

	Metr.	PG	Type	Part Number	
Metal blind plugs					
 <p><b>Material:</b> Nickel plated brass  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP65</p>		PG7	BLIND-7-HMS	T 3 165 0702 01-000	
			PG9	BLIND-9-HMS	T 3 165 0902 01-000
			PG11	BLIND-11-HMS	T 3 165 1102 01-000
			PG13.5	BLIND-13-HMS	T 3 165 1302 01-000
			PG16	BLIND-16-HMS	T 3 165 1602 01-000
			PG21	BLIND-21-HMS	T 3 165 2102 01-000
			PG29	BLIND-29-HMS	T 3 165 2902 01-000
			PG36	BLIND-36-HMS	T 3 165 3602 01-000
			PG42	BLIND-42-HMS	T 3 165 4202 01-000
			PG48	BLIND-48-HMS	T 3 165 4802 01-000
	M12 X 1.5			BLIND-12-HM	T 3 165 1202 11-000
	M16 X 1.5			BLIND-16-HM	T 3 165 1602 11-000
	M20 X 1.5			BLIND-20-HM	T 3 165 2002 11-000
	M25 X 1.5			BLIND-25-HM	T 3 165 2502 11-000
	M32 X 1.5			BLIND-32-HM	T 3 165 3202 11-000
	M40 X 1.5			BLIND-40-HM	T 3 165 4002 11-000
	M50 X 1.5			BLIND-50-HM	T 3 165 5002 11-000
M63 X 1.5			BLIND-63-HM	T 3 165 6302 11-000	

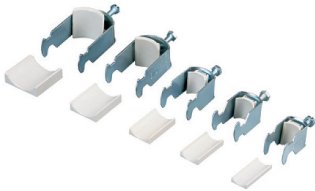
## Cable fittings and accessories

	Metr.	PG	Type	Part Number	
Metal lock units					
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -40°C ~ +100°C</p>		PG7	LN-7-MS	T 3 161 0700 01-000	
			PG9	LN-9-MS	T 3 161 0900 01-000
			PG11	LN-11-MS	T 3 161 1100 01-000
			PG13.5	LN-13-MS	T 3 161 1300 01-000
			PG16	LN-16-MS	T 3 161 1600 01-000
			PG21	LN-21-MS	T 3 161 2100 01-000
			PG29	LN-29-MS	T 3 161 2900 01-000
			PG36	LN-36-MS	T 3 161 3600 01-000
			PG42	LN-42-MS	T 3 161 4200 01-000
			PG48	LN-48-MS	T 3 161 4800 01-000
	M12 X 1.5			LN-12-M	T 3 161 1200 50-000
	M16 X 1.5			LN-16-M	T 3 161 1600 50-000
	M20 X 1.5			LN-20-M	T 3 161 2000 50-000
	M25 X 1.5			LN-25-M	T 3 161 2500 50-000
	M32 X 1.5			LN-32-M	T 3 161 3200 50-000
	M40 X 1.5			LN-40-M	T 3 161 4000 50-000
	M50 X 1.5			LN-50-M	T 3 161 5000 50-000
M63 X 1.5			LN-63-M	T 3 161 6300 50-000	
Nylon lock units					
 <p><b>Material:</b> PA <b>Temperature range:</b> -40°C ~ +100°C</p>		PG7	LN-7-P	T 3 262 0700 01-000	
			PG9	LN-9-P	T 3 262 0900 01-000
			PG11	LN-11-P	T 3 262 1100 01-000
			PG13.5	LN-13-P	T 3 262 1300 01-000
			PG16	LN-16-P	T 3 262 1600 01-000
			PG21	LN-21-P	T 3 262 2100 01-000
			PG29	LN-29-P	T 3 262 2900 01-000
			PG36	LN-36-P	T 3 262 3600 01-000
			PG42	LN-42-P	T 3 262 4200 01-000
			PG48	LN-48-P	T 3 262 4800 01-000
	M12 X 1.5			LN-12-PM	T 3 262 1200 50-000
	M16 X 1.5			LN-16-PM	T 3 262 1600 50-000
	M20 X 1.5			LN-20-PM	T 3 262 2000 50-000
	M25 X 1.5			LN-25-PM	T 3 262 2500 50-000
	M32 X 1.5			LN-32-PM	T 3 262 3200 50-000
	M40 X 1.5			LN-40-PM	T 3 262 4000 50-000
	M50 X 1.5			LN-50-PM	T 3 262 5000 50-000
M63 X 1.5			LN-63-PM	T 3 262 6300 50-000	


## Cable fittings and accessories

	Metr.	PG	Type	Part Number
<b>Metal increasers</b>				
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -40°C ~ +100°C</p>	M16-M20 M20-M25 M25-M32 M32-M40 M40-M50 M50-M63	PG7-PG9 PG9-PG11 PG11-PG13.5 PG11-PG16 PG13.5-PG16 PG13.5-PG21 PG16-PG21 PG21-PG29 PG29-PG36 PG36-PG42	INCR-7/9-PG INCR-9/11-PG INCR-11/13-PG INCR-11/16-PG INCR-13/16-PG INCR-13/21-PG INCR-16/21-PG INCR-21/29-PG INCR-29/36-PG INCR-36/42-PG INCR-16/20-M INCR-20/25-M INCR-25/32-M INCR-32/40-M INCR-40/50-M INCR-50/63-M	T 3 033 0709 01-000 T 3 033 0911 01-000 T 3 033 1113 01-000 T 3 033 1116 01-000 T 3 033 1316 01-000 T 3 033 1321 01-000 T 3 033 1621 01-000 T 3 033 2129 01-000 T 3 033 2936 01-000 T 3 033 3642 01-000 T 3 033 1620 50-000 T 3 033 2025 50-000 T 3 033 2532 50-000 T 3 033 3240 50-000 T 3 033 4050 50-000 T 3 033 5063 50-000
		<b>Metal reducers</b>		
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -40°C ~ +100°C</p>	M16-M12 M20-M12 M20-M16 M25-M20 M32-M20 M32-M25 M40-M25 M40-M32 M50-M32 M50-M40 M63-M40 M63-M50	PG9-PG7 PG11-PG7 PG13.5-PG9 PG13.5-PG11 PG16-PG9 PG16-PG11 PG16-PG13.5 PG21-PG11 PG21-PG13.5 PG21-PG16 PG29-PG16 PG29-PG21 PG36-PG21 PG36-PG29 PG42-PG29 PG42-PG36 PG48-PG36 PG48-PG42	REDU-9/7-PG REDU-11/7-PG REDU-13/9-PG REDU-13/11-PG REDU-16/9-PG REDU-16/11-PG REDU-16/13-PG REDU-21/11-PG REDU-21/13-PG REDU-21/16-PG REDU-29/16-PG REDU-29/21-PG REDU-36/21-PG REDU-36/29-PG REDU-42/29-PG REDU-42/36-PG REDU-48/36-PG REDU-48/42-PG REDU-16/12-M REDU-20/12-M REDU-20/16-M REDU-25/20-M REDU-32/20-M REDU-32/25-M REDU-40/25-M REDU-40/32-M REDU-50/32-M REDU-50/40-M REDU-63/40-M REDU-63/50-M	T 3 071 0907 01-000 T 3 071 1107 01-000 T 3 071 1309 01-000 T 3 071 1311 01-000 T 3 071 1609 01-000 T 3 071 1611 01-000 T 3 071 1613 01-000 T 3 071 2111 01-000 T 3 071 2113 01-000 T 3 071 2116 01-000 T 3 071 2916 01-000 T 3 071 2921 01-000 T 3 071 3621 01-000 T 3 071 3629 01-000 T 3 071 4229 01-000 T 3 071 4236 01-000 T 3 071 4836 01-000 T 3 071 4842 01-000 T 3 071 1612 50-000 T 3 071 2012 50-000 T 3 071 2016 50-000 T 3 071 2520 50-000 T 3 071 3220 50-000 T 3 071 3225 50-000 T 3 071 4025 50-000 T 3 071 4032 50-000 T 3 071 5032 50-000 T 3 071 5040 50-000 T 3 071 6340 50-000 T 3 071 6350 50-000


## Cable fittings and accessories

		Type	Dimension	Part Number
Cable clamper				
 <p><b>Material:</b> Metal <b>Protection:</b> IP65</p>		BK 14	12-14	T 1 918 1214 00-000
		BK 18	14-18	T 1 918 1218 00-000
		BK 22	18-22	T 1 922 1822 00-000
		BK 26	22-26	T 1 926 2226 00-000
		BK 32	26-32	T 1 932 2632 00-000
		BK 34	30-34	T 1 934 3034 00-000
		BK 38	34-38	T 1 912 0638 00-000
		BK 42	38-42	T 1 942 3842 00-000
		BK 48	42-48	T 1 912 0648 00-000
		BK 52	48-52	T 1 912 0652 00-000
		BK 56	52-56	T 1 912 0656 00-000
		BK 60	56-60	T 1 912 0660 00-000
		BK 64	60-64	T 1 964 5664 00-000
		BK 70	64-70	T 1 970 6670 00-000
C-Type rail	T 19 0000 0000-000	rail adaptor system		


Cable clamper				
Direct installation yokes		SKT3-8SC	3-8	T 3 9200 308 01-000
		SKT4-13SC	4-13.5	T 3 9200 413 01-000
		SKT10-20SC	10-20	T 3 9201 020 01-000
		SKT15-32SC	15-32	T 3 9201 532 01-000
Direct rail mounting		SKTP3-8SC	3-8	T 3 9300 308 01-000
		SKTP4-13SC	4-13.5	T 3 9300 413 01-000
		SKTP10-20SC	10-20	T 3 9301 020 01-000
Mounting rails		SKTP15-32SC	15-32	T 3 9301 532 01-000
		SKT2-6	2-6	T 3 9100 206 01-000
		SKT3-8	3-8	T 3 9100 308 01-000
Quick installation yokes		SKT4-13.5	4-13.5	T 3 9100 413 01-000
		SKT10-20	10-20	T 3 9101 020 01-000
		SKT15-32	15-32	T 3 9101 532 01-000
		QSKT 1-6	1.5-6.5	T 3 9300 106 00-000
		QSKT 5-11	5-11	T 3 9300 511 00-000
QSKT 10-17	10-17	T 3 9301 017 00-000		

		Type	Dimension	Type	Part Number
Clips					
 <p><b>Material:</b> Stainless steel <b>Temperature range:</b> -40°C ~ +105°C</p>		AD10	10	Clip-06	T 3 310 0100 00-000
		AD13	13	Clip-09	T 3 310 0130 00-000
		AD15.8	15	Clip-11	T 3 310 0150 00-000
		AD21.2	22	Clip-16	T 3 310 0220 00-000
		AD28.5	28	Clip-21	T 3 310 0280 00-000
		AD34.5	34	Clip-29	T 3 310 0340 00-000
		AD42.5	40	Clip-36	T 3 310 0400 00-000
		AD54.5	54	Clip-48	T 3 310 0540 00-000
		AD80	79	Clip-70	T 3 310 0790 00-000
		AD106	105	Clip-95	T 3 310 1050 00-000



## Cable fittings and accessories

	Metr.	PG	Clamp range	Type	Part Number	
Metal cable gland						
 <p><b>Material:</b> Nickel plated brass  <b>Press seal material:</b> PA  <b>Seal material:</b> NBR  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP68</p>		PG7	2-5 3-6.5	DLX-7-NMTS DLX-7-NMS	T 3 629 0701 11-000 T 3 629 0701 01-000	
			PG9	2-6 4-8	DLX-9-NMTS DLX-9-NMS	T 3 629 0901 11-000 T 3 629 0901 01-000
			PG11	3-7 5-10	DLX-11-NMTS DLX-11-NMS	T 3 629 1101 11-000 T 3 629 1101 01-000
			PG13.5	5-9 6-12	DLX-13-NMTS DLX-13-NMS	T 3 629 1301 11-000 T 3 629 1301 01-000
			PG16	7-12 10-14	DLX-16-NMTS DLX-16-NMS	T 3 629 1601 11-000 T 3 629 1601 01-000
			PG21	9-16 13-18	DLX-21-NMTS DLX-21-NMS	T 3 629 2101 11-000 T 3 629 2101 01-000
			PG29	13-20 18-25	DLX-29-NMTS DLX-29-NMS	T 3 629 2901 11-000 T 3 629 2901 01-000
			PG36	20-26 22-32	DLX-36-NMTS DLX-36-NMS	T 3 629 3601 11-000 T 3 629 3601 01-000
			PG42	25-31 32-38	DLX-42-NMTS DLX-42-NMS	T 3 629 4201 11-000 T 3 629 4201 01-000
			PG48	29-35 37-44	DLX-48-NMTS DLX-48-NMS	T 3 629 4801 11-000 T 3 629 4801 01-000
		M12 X 1.5		2-5 3-6.5	DLX-12-NMT DLX-12-NM	T 3 629 1201 12-000 T 3 629 1201 02-000
		M16 X 1.5		2-6 4-8	DLX-16-NMT DLX-16-NM	T 3 629 1601 12-000 T 3 629 1601 02-000
		M20 X 1.5		5-9 6-12	DLX-20-NMT DLX-20-NM	T 3 629 2001 12-000 T 3 629 2001 02-000
		M25 X 1.5		9-16 13-18	DLX-25-NMT DLX-25-NM	T 3 629 2501 12-000 T 3 629 2501 02-000
		M32 X 1.5		13-20 18-25	DLX-32-NMT DLX-32-NM	T 3 629 3201 12-000 T 3 629 3201 02-000
		M40 X 1.5		20-26 22-32	DLX-40-NMT DLX-40-NM	T 3 629 4001 12-000 T 3 629 4001 02-000
	M50 X 1.5		25-31 32-38	DLX-50-NMT DLX-50-NM	T 3 629 5001 12-000 T 3 629 5001 02-000	
	M63 X 1.5		29-35 37-44	DLX-63-NMT DLX-63-NM	T 3 629 6301 12-000 T 3 629 6301 02-000	

### Angled metal cable glands

 <p><b>Material:</b> Nickel plated brass  <b>Temperature range:</b> -40°C ~ +100°C  <b>Protection:</b> IP68</p>		PG11	Ø11	STUD-9-MS	T 3 2650 909 01-000	
			PG13.5	Ø14	STUD-11-MS	T 3 2651 111 01-000
			PG16	Ø16	STUD-13-MS	T 3 2651 313 01-000
			PG21	Ø18	STUD-16-MS	T 3 2651 601 01-000
			PG29	Ø21	STUD-21-MS	T 3 2652 121 01-000
			PG36	Ø31	STUD-29-MS	T 3 2652 929 01-000
		M16 X 1.5		Ø12	STUD-16-M	T 3 2651 616 11-000
		M20 X 1.5		Ø15.5	STUD-20-M	T 3 2652 020 11-000
		M25 X 1.5		Ø20.5	STUD-25-M	T 3 2652 525 11-000
		M32 X 1.5		Ø27.5	STUD-32-M	T 3 2652 525 11-000
		M40 X 1.5		Ø34.5	STUD-40-M	T 3 2654 040 11-000

## Cable fittings and accessories

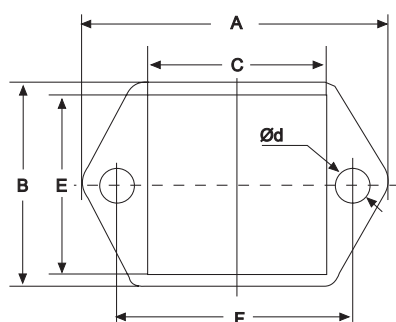
	Metr.	PG	Clamp range	Type	Part Number	
Metal cable gland						
 <p><b>Material:</b> Nickel plated brass  <b>Seal material:</b> NBR  <b>Temperature range:</b> -30°C ~ +100°C  <b>Protection:</b> IP55</p>		PG7	6-8	VSM-7-MS	T 3 105 0701 01-000	
			PG9	5-10	VSM-9-MS	T 3 105 0901 01-000
			PG11	7-12	VSM-11-MS	T 3 105 1101 01-000
			PG13.5	7-12	VSM-13-MS	T 3 1051301 01-000
			PG16	7-15	VSM-16-MS	T 3 105 1601 01-000
			PG21	10-19	VSM-21-MS	T 3 105 2101 01-000
			PG29	18-27	VSM-29-MS	T 3 105 2901 01-000
			PG36	24-32	VSM-36-MS	T 3 105 3601 01-000
			PG42	30-39	VSM-42-MS	T 3 105 4201 01-000
			PG48	36-45	VSM-48-MS	T 3 105 4801 01-000
	M12 X 1.5			4.5-7	VSM-12-M	T 3 105 1200 21-000
	M16 X 1.5			6.5-9	VSM-16-M	T 3 105 1600 21-000
	M20 X 1.5			6.5-9	VSM-20-M	T 3 105 2000 21-000
	M20 X 1.5			6-11.5	VSM-20T-M	T 3 105 2001 21-000
	M25 X 1.5			8-13	VSM-25-M	T 3 105 2500 21-000
	M25 X 1.5			12.5-18	VSM-25T-M	T 3 105 2501 21-000
M32 X 1.5			17-26	VSM-32-M	T 3 105 3200 21-000	
M40 X 1.5			17-26	VSM-40-M	T 3 105 4000 21-000	
M50 X 1.5			27-32	VSM-50-M	T 3 105 5000 21-000	
M50 X 1.5			35-38.5	VSM-50T-M	T 3 105 5001 21-000	
M63 X 1.5			38-44	VSM-63-M	T 3 105 6300 21-000	
Extender						
 <p><b>Material:</b> Nickel plated brass  <b>Temperature range:</b> -40°C ~ +100°C</p>		PG11		STUD-PG11	T 3 333 1111 12-000	
			PG13.5		STUD-PG13.5	T 3 333 1313 12-000
			PG16		STUD-PG16	T 3 333 1616 12-000
			PG21		STUD-PG21	T 3 333 2121 12-000
			PG29		STUD-PG29	T 3 333 2929 12-000
			PG36		STUD-PG36	T 3 333 3636 12-000
	M12 X 1.5				STUD-M12	T 3 333 1212 11-000
	M16 X 1.5				STUD-M16	T 3 333 1616 11-000
	M20 X 1.5				STUD-M20	T 3 333 2020 11-000
	M25 X 1.5				STUD-M25	T 3 333 2525 11-000
	M32 X 1.5				STUD-M32	T 3 333 3232 11-000
	M40 X 1.5				STUD-M40	T 3 333 4040 11-000
	M50 X 1.5				STUD-M50	T 3 333 5050 11-000
	M63 X 1.5				STUD-M63	T 3 333 6363 11-000

## Cable fittings and accessories

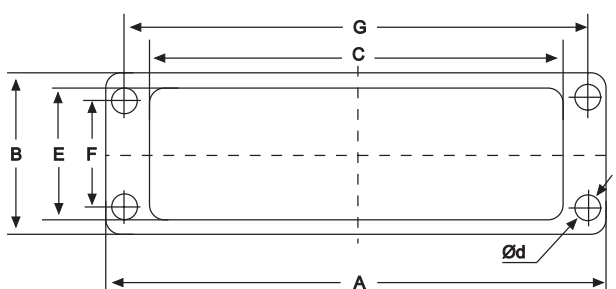
	Metr.	PG	Type	Part Number
Inside and outside thread adapter				
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -40°C ~ +100°C</p>		PG11	STUD-PG11	T 3 333 1111 02-000
		PG13.5	STUD-PG13.5	T 3 333 1313 02-000
		PG16	STUD-PG16	T 3 333 1616 02-000
		PG21	STUD-PG21	T 3 333 2121 02-000
		PG29	STUD-PG29	T 3 333 2929 02-000
		PG36	STUD-PG36	T 3 333 3636 02-000
	M12 X 1.5		STUD-M12	T 3 333 1212 01-000
	M16 X 1.5		STUD-M16	T 3 333 1616 01-000
	M20 X 1.5		STUD-M20	T 3 333 2020 01-000
	M25 X 1.5		STUD-M25	T 3 333 2525 01-000
	M32 X 1.5		STUD-M32	T 3 333 3232 01-000
	M40 X 1.5		STUD-M40	T 3 333 4040 01-000
	M50 X 1.5		STUD-M50	T 3 333 5050 01-000
M63 X 1.5		STUD-M63	T 3 333 6363 01-000	
Cable gland clamps				
 <p><b>Material:</b> Nickel plated brass <b>Temperature range:</b> -30°C ~ +100°C <b>Protection:</b> IP65</p>			WSM-16-MS	T 3 125 1601 11-000
			WSM-21-MS	T 3 125 2101 11-000
			WSM-32-M	T 3 125 3200 01-000



## Housings mounting dimensions



H3A housing



H10A, H16A, H32A/HA series housings  
H6B, H10B, H16B, H24B, H32B,  
H48B/HB series housings

Shell type	Mounted type	Dimensions (mm)						
		A	B	C	E	F	G	Ød
H3A	Bulkhead	40	28	21	21	30	-	3.2
	Surface	40	28	-	-	30	-	3.2
H10A	Bulkhead	81	29.5	57.5	24	17.5	70	3.4
	Surface	80	50	-	-	40	48	4.5
H16A	Bulkhead	96	29.5	73.7	24	17.5	86	3.4
	Surface	96	50	-	-	40	64	4.5
H32A	Bulkhead	102	56	74.2	48.4	42	92	4.4
	Surface	106	57	-	-	46	94	5.5
H6B	Bulkhead	80	43	52.2	35	32	70	4.4
	Surface	82	52	-	-	40	70	5.5
H10B	Bulkhead	93	43	65.2	35	32	83	4.3
	Surface	94	52	-	-	40	82	5.5
H16B	Bulkhead	113	43	85.5	35	32	103	4.3
	Surface	117	57	-	-	45	105	5.5
H24B	Bulkhead	140	43	112.2	35	32	130	4.3
	Surface	144	57	-	-	45	132	5.5
H32B	Bulkhead	124	79	85.5	71	65	110	5.4
	Surface	124.5	81	-	-	67	112	5.4
H48B	Bulkhead	165	90	124	82	70	148	6.4
	Surface	132	120	-	-	106	111	6.5

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0-0164161-4	111	0-1102839-2	295	0-1103092-2	195
0-0164161-9	111	0-1102839-3	100	0-1103092-3	195
0-0166824-2	111	0-1102839-3	153	0-1103092-4	195
0-1102192-1	100	0-1102839-3	268	0-1103092-5	195
0-1102192-1	153	0-1102839-3	273	0-1103092-8	195
0-1102192-1	268	0-1102839-3	295	0-1103092-9	195
0-1102192-1	273	0-1102839-4	100	0-1106258-3	296
0-1102192-1	295	0-1102839-4	153	0-1106258-4	296
0-1102192-2	100	0-1102839-4	268	0-1106259-3	296
0-1102192-2	153	0-1102839-4	295	0-1106259-4	296
0-1102192-2	268	0-1102839-4	273	0-1106401-2	36
0-1102192-2	273	0-1102839-5	273	0-1106401-2	59
0-1102192-2	295	0-1102839-6	273	0-1106401-2	188
0-1102792-1	99	0-1102840-1	100	0-1106401-3	36
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0-1102792-1	266	0-1102840-1	268	0-1106401-3	188
0-1102792-1	293	0-1102840-1	273	0-1106401-4	36
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0-1102836-2	273	0-1102840-3	268	0-1106407-1	36
0-1102836-2	295	0-1102840-3	273	0-1106407-1	59
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0-1106426-2	81	0-1106446-4	176	0-1106474-1	152
0-1106426-2	132	0-1106446-4	256	0-1106474-1	266
0-1106426-2	243	0-1106453-1	90	0-1106474-1	293
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0-1106427-3	80	0-1106453-1	257	0-1106474-2	266
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0-1106427-4	274	0-1106454-2	141	0-1108533-1	151
0-1106435-1	81	0-1106454-2	176	0-1108533-1	294
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T 1 26 016 3125-000	86	T 1 28 010 3121-000	77	T 1 31 010 0121-000	240
T 1 26 016 3125-000	138	T 1 28 010 3121-000	128	T 1 31 010 0125-000	78
T 1 26 016 3125-000	173	T 1 28 010 3121-000	239	T 1 31 010 0125-000	129
T 1 26 016 3125-000	253	T 1 28 010 3125-000	77	T 1 31 010 0125-000	240
T 1 26 024 3116-000	95	T 1 28 010 3125-000	128	T 1 31 016 0121-000	87
T 1 26 024 3116-000	148	T 1 28 010 3125-000	239	T 1 31 016 0121-000	139
T 1 26 024 3116-000	263	T 1 28 010 3129-000	77	T 1 31 016 0121-000	174

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T 1 31 016 0125-000	87	T 1 31 903 1111-000	34	T 1 32 016 0121-000	174
T 1 31 016 0125-000	139	T 1 31 903 1120-000	34	T 1 32 016 0121-000	254
T 1 31 016 0125-000	174	T 1 31 903 1111-000	34	T 1 32 016 0125-000	87
T 1 31 016 0125-000	254	T 1 31 903 1120-000	57	T 1 32 016 0125-000	139
T 1 31 016 0129-000	87	T 1 31 903 1111-000	57	T 1 32 016 0125-000	174
T 1 31 016 0129-000	139	T 1 31 903 1120-000	186	T 1 32 016 0125-000	254
T 1 31 016 0129-000	174	T 1 31 910 0116-000	38	T 1 32 016 0129-000	87
T 1 31 016 0129-000	254	T 1 31 910 0121-000	38	T 1 32 016 0129-000	139
T 1 31 016 0132-000	87	T 1 31 910 0120-000	38	T 1 32 016 0129-000	174
T 1 31 016 0132-000	139	T 1 31 910 0125-000	38	T 1 32 016 0129-000	254
T 1 31 016 0132-000	174	T 1 31 910 0116-000	38	T 1 32 016 0132-000	87
T 1 31 016 0132-000	254	T 1 31 910 0121-000	38	T 1 32 016 0132-000	139
T 1 31 024 0121-000	96	T 1 31 910 0120-000	38	T 1 32 016 0132-000	174
T 1 31 024 0121-000	149	T 1 31 910 0125-000	62	T 1 32 016 0132-000	254
T 1 31 024 0121-000	264	T 1 31 916 0116-000	40	T 1 32 024 0121-000	96
T 1 31 024 0125-000	96	T 1 31 916 0116-000	65	T 1 32 024 0121-000	149
T 1 31 024 0125-000	149	T 1 31 916 0120-000	40	T 1 32 024 0121-000	264
T 1 31 024 0125-000	264	T 1 31 916 0120-000	65	T 1 32 024 0125-000	96
T 1 31 024 0129-000	96	T 1 31 916 0121-000	40	T 1 32 024 0125-000	149
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T 1 31 024 0129-000	264	T 1 31 916 0125-000	40	T 1 32 024 0129-000	96
T 1 31 024 0132-000	96	T 1 31 916 0125-000	65	T 1 32 024 0129-000	149
T 1 31 024 0132-000	149	T 1 31 932 0121-000	42	T 1 32 024 0129-000	264
T 1 31 024 0132-000	264	T 1 31 932 0121-000	68	T 1 32 024 0132-000	96
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T 1 31 032 0129-000	159	T 1 31 932 0125-000	68	T 1 32 024 0132-000	264
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T 1 31 032 0140-000	159	T 1 32 006 0116-000	71	T 1 32 032 0129-000	180
T 1 31 032 0140-000	180	T 1 32 006 0116-000	120	T 1 32 032 0132-000	105
T 1 31 048 0129-000	109	T 1 32 006 0120-000	71	T 1 32 032 0132-000	159
T 1 31 048 0129-000	164	T 1 32 006 0120-000	120	T 1 32 032 0132-000	180
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T 1 31 048 0132-000	164	T 1 32 006 0121-000	120	T 1 32 032 0136-000	159
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T 1 31 048 0163-000	164	T 1 32 010 0121-000	129	T 1 32 032 0150-000	180
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T 1 31 903 0111-000	56	T 1 32 010 0125-000	78	T 1 32 048 0129-000	164
T 1 31 903 0111-000	185	T 1 32 010 0125-000	129	T 1 32 048 0132-000	109
T 1 31 903 0120-000	33	T 1 32 010 0125-000	240	T 1 32 048 0132-000	164
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T 1 32 048 0140-000	109	T 1 33 006 0129-000	71	T 1 33 916 0125-000	40
T 1 32 048 0140-000	164	T 1 33 006 0129-000	120	T 1 33 916 0125-000	65
T 1 32 048 0142-000	109	T 1 33 006 0132-000	71	T 1 34 006 0120-000	71
T 1 32 048 0142-000	164	T 1 33 006 0132-000	120	T 1 34 006 0120-000	120
T 1 32 048 0150-000	109	T 1 33 010 0120-000	78	T 1 34 006 0121-000	71
T 1 32 048 0150-000	164	T 1 33 010 0120-000	129	T 1 34 006 0121-000	120
T 1 32 048 0163-000	109	T 1 33 010 0120-000	240	T 1 34 006 0125-000	71
T 1 32 048 0163-000	164	T 1 33 010 0121-000	78	T 1 34 006 0125-000	120
T 1 32 903 0111-000	33	T 1 33 010 0121-000	129	T 1 34 006 0129-000	71
T 1 32 903 0111-000	56	T 1 33 010 0121-000	240	T 1 34 006 0129-000	120
T 1 32 903 0111-000	185	T 1 33 010 0125-000	78	T 1 34 006 0132-000	71
T 1 32 903 0120-000	33	T 1 33 010 0125-000	129	T 1 34 006 0132-000	120
T 1 32 903 0120-000	56	T 1 33 010 0125-000	240	T 1 34 010 0120-000	78
T 1 32 903 0120-000	185	T 1 33 010 0129-000	78	T 1 34 010 0120-000	129
T 1 32 903 1111-000	34	T 1 33 010 0129-000	129	T 1 34 010 0120-000	240
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T 1 32 910 0116-000	62	T 1 33 016 0125-000	87	T 1 34 010 0129-000	240
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T 1 32 910 0125-000	62	T 1 33 016 0129-000	174	T 1 34 016 0121-000	174
T 1 32 916 0116-000	40	T 1 33 016 0129-000	254	T 1 34 016 0121-000	254
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T 1 32 916 0120-000	40	T 1 33 016 0132-000	139	T 1 34 016 0125-000	139
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T 1 32 916 0121-000	40	T 1 33 016 0132-000	254	T 1 34 016 0125-000	254
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T 1 32 932 0121-000	42	T 1 33 016 0140-000	254	T 1 34 016 0129-000	254
T 1 32 932 0121-000	68	T 1 33 024 0121-000	96	T 1 34 016 0132-000	87
T 1 32 932 0125-000	42	T 1 33 024 0121-000	149	T 1 34 016 0132-000	139
T 1 32 932 0125-000	68	T 1 33 024 0121-000	264	T 1 34 016 0132-000	174
T 1 32 932 0129-000	42	T 1 33 024 0125-000	96	T 1 34 016 0132-000	254
T 1 32 932 0129-000	68	T 1 33 024 0125-000	149	T 1 34 016 0140-000	87
T 1 32 932 0129-000	42	T 1 33 024 0125-000	264	T 1 34 016 0140-000	139
T 1 32 932 0132-000	68	T 1 33 024 0129-000	96	T 1 34 016 0140-000	174
T 1 32 932 0132-000	42	T 1 33 024 0129-000	149	T 1 34 016 0140-000	254
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T 1 32 932 0140-000	42	T 1 33 024 0132-000	96	T 1 34 024 0121-000	149
T 1 32 932 0140-000	68	T 1 33 024 0132-000	149	T 1 34 024 0121-000	264
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T 1 33 006 0121-000	120	T 1 33 024 0140-000	264	T 1 34 024 0129-000	96
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T 1 34 024 0132-000	264	T 1 44 010 1216-000	128	T 1 44 032 2150-000	179
T 1 34 024 0140-000	96	T 1 44 010 1216-000	239	T 1 44 032 2163-000	104
T 1 34 024 0140-000	149	T 1 44 010 1220-000	77	T 1 44 032 2163-000	158
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T 1 34 916 0121-000	40	T 1 44 010 1220-000	239	T 1 44 032 2229-000	104
T 1 34 916 0121-000	65	T 1 44 010 1221-000	77	T 1 44 032 2229-000	158
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T 1 34 916 0125-000	65	T 1 44 010 1221-000	239	T 1 44 032 2232-000	104
T 1 35 909 0116-000	193	T 1 44 010 1225-000	77	T 1 44 032 2232-000	158
T 1 31 908 0120-000	193	T 1 44 010 1225-000	128	T 1 44 032 2232-000	179
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T 1 41 010 1000-000	77	T 1 44 016 1121-000	86	T 1 44 032 2236-000	158
T 1 41 010 1000-000	128	T 1 44 016 1121-000	138	T 1 44 032 2236-000	179
T 1 41 010 1000-000	239	T 1 44 016 1121-000	173	T 1 44 032 2240-000	104
T 1 41 016 1000-000	86	T 1 44 016 1121-000	253	T 1 44 032 2240-000	158
T 1 41 016 1000-000	138	T 1 44 016 1125-000	86	T 1 44 032 2240-000	179
T 1 41 016 1000-000	173	T 1 44 016 1125-000	138	T 1 44 032 2242-000	104
T 1 41 016 1000-000	253	T 1 44 016 1125-000	173	T 1 44 032 2242-000	158
T 1 41 024 1000-000	95	T 1 44 016 1125-000	253	T 1 44 032 2242-000	179
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T 1 41 032 2000-000	104	T 1 44 016 1221-000	173	T 1 44 032 2250-000	179
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T 1 43 010 0000-000	239	T 1 44 024 1125-000	95	T 1 44 932 0129-000	68
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T 1 43 016 0000-000	86	T 1 44 024 1125-000	263	T 1 44 932 0132-000	68
T 1 46 016 0121-000	86	T 1 44 024 1221-000	95	T 1 44 932 0221-000	42
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T 1 46 010 0220-000	239	T 1 47 016 1121-000	138	T 1 49 010 0121-000	128
T 1 46 010 0221-000	77	T 1 47 016 1121-000	173	T 1 49 010 0121-000	239
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T 1 46 024 0121-000	148	T 1 47 016 1225-000	138	T 1 49 010 0232-000	77
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T 1 47 010 1121-000	128	T 1 47 024 1121-000	148	T 1 49 016 0129-000	138
T 1 47 010 1121-000	239	T 1 47 024 1121-000	263	T 1 49 016 0129-000	173
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T 1 47 010 1125-000	128	T 1 47 024 1125-000	148	T 1 49 016 0132-000	86
T 1 47 010 1125-000	239	T 1 47 024 1125-000	263	T 1 49 016 0132-000	138
T 1 47 010 1129-000	77	T 1 47 024 1129-000	95	T 1 49 016 0132-000	173
T 1 47 010 1129-000	128	T 1 47 024 1129-000	148	T 1 49 016 0132-000	253
T 1 47 010 1129-000	239	T 1 47 024 1129-000	263	T 1 49 016 0221-000	86
T 1 47 010 1132-000	77	T 1 47 024 1132-000	95	T 1 49 016 0221-000	138
T 1 47 010 1132-000	128	T 1 47 024 1132-000	148	T 1 49 016 0221-000	173
T 1 47 010 1132-000	239	T 1 47 024 1132-000	263	T 1 49 016 0221-000	253
T 1 47 010 1221-000	77	T 1 47 024 1221-000	95	T 1 49 016 0225-000	86
T 1 47 010 1221-000	128	T 1 47 024 1221-000	148	T 1 49 016 0225-000	138
T 1 47 010 1221-000	239	T 1 47 024 1221-000	263	T 1 49 016 0225-000	173
T 1 47 010 1225-000	77	T 1 47 024 1225-000	95	T 1 49 016 0225-000	253
T 1 47 010 1225-000	128	T 1 47 024 1225-000	148	T 1 49 016 0229-000	86
T 1 47 010 1225-000	239	T 1 47 024 1225-000	263	T 1 49 016 0229-000	138
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T 1 47 010 1229-000	128	T 1 47 024 1229-000	148	T 1 49 016 0229-000	253
T 1 47 010 1229-000	239	T 1 47 024 1229-000	263	T 1 49 016 0232-000	86
T 1 47 010 1232-000	77	T 1 47 024 1232-000	95	T 1 49 016 0232-000	138
T 1 47 010 1232-000	128	T 1 47 024 1232-000	148	T 1 49 016 0232-000	173

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T 1 49 016 0232-000	253	T 1 51 006 2100-000	121	T 1 61 010 3125-000	130
T 1 49 024 0121-000	95	T 1 51 010 3000-000	79	T 1 61 010 3125-000	241
T 1 49 024 0121-000	148	T 1 51 010 3000-000	130	T 1 61 010 3216-000	79
T 1 49 024 0121-000	263	T 1 51 010 3000-000	241	T 1 61 010 3216-000	130
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T 1 49 024 0129-000	95	T 1 51 016 3000-000	88	T 1 61 010 3220-000	241
T 1 49 024 0129-000	148	T 1 51 016 3000-000	140	T 1 61 010 3221-000	79
T 1 49 024 0129-000	263	T 1 51 016 3000-000	175	T 1 61 010 3221-000	130
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T 1 49 024 0225-000	148	T 1 51 048 2000-000	109	T 1 61 016 3116-000	255
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T 1 50 010 3000-000	241	T 1 54 903 0000-000	185	T 1 61 016 3125-000	255
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T 1 50 016 3000-000	255	T 1 61 006 2120-000	121	T 1 61 016 3216-000	255
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T 1 50 032 2000-000	105	T 1 61 006 2125-000	121	T 1 61 016 3220-000	255
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T 1 50 903 0000-000	56	T 1 61 006 2221-000	121	T 1 61 016 3225-000	140
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T 1 51 006 2100-000	72	T 1 61 010 3125-000	79	T 1 61 024 3125-000	97

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T 1 61 024 3125-000	150	T 1 61 903 0111-000	33	T 1 62 006 2125-000	72
T 1 61 024 3125-000	265	T 1 61 903 0111-000	56	T 1 62 006 2125-000	121
T 1 61 024 3216-000	97	T 1 61 903 0111-000	185	T 1 62 006 2216-000	72
T 1 61 024 3216-000	150	T 1 61 903 0116-000	33	T 1 62 006 2216-000	121
T 1 61 024 3216-000	265	T 1 61 903 0116-000	56	T 1 62 006 2220-000	72
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T 1 61 024 3225-000	97	T 1 61 903 1120-000	34	T 1 62 010 3116-000	130
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T 1 62 016 3221-000	88	T 1 62 048 0140-000	109	T 1 65 006 2132-000	72
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T 1 62 024 3125-000	97	T 1 62 048 0250-000	164	T 1 65 010 3129-000	130
T 1 62 024 3125-000	150	T 1 62 910 1116-000	38	T 1 65 010 3129-000	241
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T 1 62 024 3216-000	97	T 1 62 910 1120-000	38	T 1 65 010 3132-000	130
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T 1 65 016 3225-000	255	T 1 66 010 3129-000	130	T 1 66 024 3129-000	150
T 1 65 016 3229-000	88	T 1 66 010 3129-000	241	T 1 66 024 3129-000	265
T 1 65 016 3229-000	140	T 1 66 010 3132-000	79	T 1 66 024 3132-000	97
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T 1 65 016 3229-000	255	T 1 66 010 3132-000	241	T 1 66 024 3132-000	265
T 1 65 016 3232-000	88	T 1 66 010 3221-000	79	T 1 66 024 3221-000	97
T 1 65 016 3232-000	140	T 1 66 010 3221-000	130	T 1 66 024 3221-000	150
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T 1 65 024 3232-000	150	T 1 66 016 3221-000	175	T 1 71 016 1132-000	137
T 1 65 024 3232-000	265	T 1 66 016 3221-000	255	T 1 71 016 1132-000	172
T 1 65 024 3232-000	97	T 1 66 016 3225-000	88	T 1 71 016 1132-000	252
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T 1 65 024 3232-000	265	T 1 66 016 3225-000	175	T 1 71 016 1132-000	147
T 1 66 006 2121-000	72	T 1 66 016 3225-000	255	T 1 71 016 1132-000	262
T 1 66 006 2121-000	121	T 1 66 016 3229-000	88	T 1 71 024 1121-000	94
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T 1 66 006 2125-000	121	T 1 66 016 3229-000	175	T 1 71 024 1121-000	147
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T 1 66 006 2129-000	121	T 1 66 016 3232-000	140	T 1 71 024 1132-000	147
T 1 66 006 2132-000	72	T 1 66 016 3232-000	175	T 1 71 024 1132-000	147
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T 1 66 006 2221-000	121	T 1 66 016 3232-000	140	T 1 71 032 2129-000	179
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T 1 66 006 2229-000	72	T 1 66 024 3121-000	97	T 1 71 032 2132-000	179
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T 1 71 032 2136-000	179	T 1 73 903 0111-000	33	T 1 75 024 1121-000	94
T 1 71 032 2140-000	104	T 1 73 903 0111-000	56	T 1 75 024 1121-000	147
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T 1 71 032 2140-000	179	T 1 73 903 0120-000	33	T 1 75 024 1125-000	94
T 1 71 032 2142-000	104	T 1 73 903 0120-000	56	T 1 75 024 1125-000	147
T 1 71 032 2142-000	158	T 1 73 903 0120-000	185	T 1 75 024 1125-000	262
T 1 71 032 2142-000	179	T 1 73 903 1111-000	34	T 1 75 024 1129-000	94
T 1 71 032 2150-000	104	T 1 73 903 1120-000	34	T 1 75 024 1129-000	147
T 1 71 032 2150-000	158	T 1 73 903 1111-000	57	T 1 75 024 1129-000	262
T 1 71 032 2150-000	179	T 1 73 903 1120-000	57	T 1 75 024 1132-000	94
T 1 71 032 2163-000	104	T 1 73 903 1111-000	186	T 1 75 024 1132-000	147
T 1 71 032 2163-000	158	T 1 73 903 1120-000	186	T 1 75 024 1132-000	262
T 1 71 032 2163-000	179	T 1 73 910 1116-000	38	T 1 75 024 1140-000	94
T 1 73 006 2116-000	71	T 1 73 910 1116-000	62	T 1 75 024 1140-000	147
T 1 73 006 2116-000	120	T 1 73 910 1120-000	38	T 1 75 024 1140-000	262
T 1 73 006 2120-000	71	T 1 73 910 1120-000	62	T 1 77 006 2120-000	71
T 1 73 006 2120-000	120	T 1 73 910 1125-000	38	T 1 77 006 2120-000	120
T 1 73 006 2125-000	71	T 1 73 910 1125-000	62	T 1 77 006 2121-000	71
T 1 73 006 2125-000	120	T 1 73 916 1116-000	40	T 1 77 006 2121-000	120
T 1 73 010 3116-000	78	T 1 73 916 1116-000	65	T 1 77 006 2125-000	71
T 1 73 010 3116-000	129	T 1 73 916 1120-000	40	T 1 77 006 2125-000	120
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T 1 73 010 3120-000	78	T 1 73 916 1125-000	40	T 1 77 006 2129-000	120
T 1 73 010 3120-000	129	T 1 73 916 1125-000	65	T 1 77 006 2132-000	71
T 1 73 010 3120-000	240	T 1 75 010 1121-000	76	T 1 77 006 2132-000	120
T 1 73 010 3125-000	78	T 1 75 010 1121-000	127	T 1 77 010 3121-000	78
T 1 73 010 3125-000	129	T 1 75 010 1121-000	238	T 1 77 010 3121-000	129
T 1 73 010 3125-000	240	T 1 75 010 1125-000	76	T 1 77 010 3121-000	240
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T 1 73 016 3121-000	139	T 1 75 010 1125-000	238	T 1 77 010 3125-000	129
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T 1 73 016 3125-000	174	T 1 75 010 1132-000	127	T 1 77 010 3132-000	78
T 1 73 016 3125-000	254	T 1 75 010 1132-000	238	T 1 77 010 3132-000	129
T 1 73 016 3129-000	87	T 1 75 016 1121-000	85	T 1 77 010 3132-000	240
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T 1 73 016 3129-000	174	T 1 75 016 1121-000	172	T 1 77 016 3121-000	139
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T 1 82 224 2140-000	279	T 1 91 224 1125-000	299	T 1 93 006 0000-000	298
T 1 85 224 2121-000	279	T 1 91 224 1129-000	299	T 1 93 010 0000-000	298
T 1 85 224 2125-000	279	T 1 91 224 1132-000	299	T 1 93 016 0000-000	298
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T 1 87 000 2201-000	306	T 1 92 006 0116-000	297	T 1 93 224 1000-000	299
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T 1 87 006 2101-000	306	T 1 92 006 0121-000	297	T 1 94 603 1000-000	278
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T 1 87 016 2101-000	306	T 1 92 006 0129-000	297	T 1 95 010 0121-000	298
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T 1 922 1822 00-000	326	T 2 02 000 1005-000	60	T 2 02 000 1010-000	101
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T 2 02 000 2005-000	48	T 2 02 000 2010-000	91	T 2 02 000 2025-000	221
T 2 02 000 2008-000	48	T 2 02 000 2015-000	91	T 2 02 000 2002-000	223
T 2 02 000 2010-000	48	T 2 02 000 2025-000	91	T 2 02 000 2005-000	223
T 2 02 000 2015-000	48	T 2 02 000 2002-000	93	T 2 02 000 2008-000	223
T 2 02 000 2025-000	48	T 2 02 000 2005-000	93	T 2 02 000 2010-000	223
T 2 02 000 2002-000	55	T 2 02 000 2008-000	93	T 2 02 000 2015-000	223
T 2 02 000 2005-000	55	T 2 02 000 2010-000	93	T 2 02 000 2025-000	223
T 2 02 000 2008-000	55	T 2 02 000 2015-000	93	T 2 02 000 2002-000	237
T 2 02 000 2010-000	55	T 2 02 000 2025-000	93	T 2 02 000 2005-000	237
T 2 02 000 2015-000	55	T 2 02 000 2002-000	101	T 2 02 000 2008-000	237
T 2 02 000 2025-000	55	T 2 02 000 2005-000	101	T 2 02 000 2010-000	237
T 2 02 000 2002-000	60	T 2 02 000 2008-000	101	T 2 02 000 2015-000	237
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T 2 02 000 2002-000	63	T 2 02 000 2008-000	103	T 2 02 000 2015-000	249
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T 2 02 000 2008-000	251	T 2 02 001 1015-000	69	T 2 02 001 1002-000	110
T 2 02 000 2010-000	251	T 2 02 001 1025-000	69	T 2 02 001 1005-000	110
T 2 02 000 2015-000	251	T 2 02 001 1002-000	74	T 2 02 001 1008-000	110
T 2 02 000 2025-000	251	T 2 02 001 1005-000	74	T 2 02 001 1010-000	110
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T 2 02 000 2015-000	303	T 2 02 001 1002-000	82	T 2 02 001 1008-000	184
T 2 02 000 2025-000	303	T 2 02 001 1005-000	82	T 2 02 001 1010-000	184
T 2 02 001 1002-000	27	T 2 02 001 1008-000	82	T 2 02 001 1015-000	184
T 2 02 001 1005-000	27	T 2 02 001 1010-000	82	T 2 02 001 1025-000	184
T 2 02 001 1008-000	27	T 2 02 001 1015-000	82	T 2 02 001 1002-000	190
T 2 02 001 1010-000	27	T 2 02 001 1025-000	82	T 2 02 001 1005-000	190
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T 2 02 001 1008-000	31	T 2 02 001 1015-000	84	T 2 02 001 1002-000	221
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T 2 02 001 1008-000	48	T 2 02 001 1015-000	91	T 2 02 001 1002-000	223
T 2 02 001 1010-000	48	T 2 02 001 1025-000	91	T 2 02 001 1005-000	223
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T 2 02 001 1002-000	55	T 2 02 001 1008-000	93	T 2 02 001 1015-000	223
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T 2 02 001 1010-000	55	T 2 02 001 1025-000	93	T 2 02 001 1005-000	237
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T 2 02 001 1002-000	63	T 2 02 001 1008-000	103	T 2 02 001 1015-000	249
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T 2 02 001 1025-000	63	T 2 02 001 1005-000	106	T 2 02 001 1010-000	251
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T 2 02 001 2025-000	27	T 2 02 001 2005-000	84	T 2 02 001 2010-000	190
T 2 02 001 2002-000	31	T 2 02 001 2008-000	84	T 2 02 001 2015-000	190
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T 2 02 001 2008-000	55	T 2 02 001 2015-000	93	T 2 02 001 2002-000	237
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T 2 02 001 2015-000	55	T 2 02 001 2002-000	101	T 2 02 001 2008-000	237
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T 2 02 001 2002-000	60	T 2 02 001 2008-000	101	T 2 02 001 2015-000	237
T 2 02 001 2005-000	60	T 2 02 001 2010-000	101	T 2 02 001 2025-000	237
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T 2 02 001 2025-000	63	T 2 02 001 2005-000	106	T 2 02 001 2010-000	251
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T 2 02 001 2008-000	66	T 2 02 001 2015-000	106	T 2 02 001 2002-000	303
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T 2 03 000 1015-000	163	T 2 03 000 1015-000	303	T 2 03 000 2010-000	126
T 2 03 000 1025-000	163	T 2 03 000 1025-000	303	T 2 03 000 2015-000	126
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T 2 03 001 1005-000	237	T 2 03 001 2005-000	125	T 2 03 001 2005-000	145
T 2 03 001 1008-000	237	T 2 03 001 2008-000	125	T 2 03 001 2008-000	145
T 2 03 001 1010-000	237	T 2 03 001 2010-000	125	T 2 03 001 2010-000	145
T 2 03 001 1015-000	237	T 2 03 001 2015-000	125	T 2 03 001 2015-000	145
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T 2 03 001 1040-000	237	T 2 03 001 2040-000	125	T 2 03 001 2040-000	145
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T 2 03 001 1015-000	303	T 2 03 001 2015-000	126	T 2 03 001 2015-000	146
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T 2 03 001 1040-000	303	T 2 03 001 2040-000	126	T 2 03 001 2040-000	146
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