



# HEAVY DUTY CONNECTORS

**HEILIND**  
Performance. Trust. Innovation.



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**Rolling Stock**



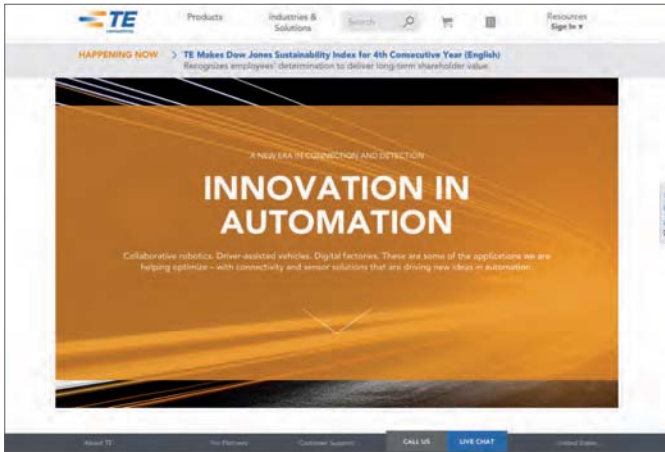
**Machinery**



**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 electricelectronic 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/productcoinpliance](http://te.com/customersupport/productcoinpliance)
- More detailed information regarding the definitions used above

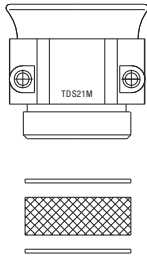
So whatever your questions when it comes to RoHS, we've got the answers at [www.te.com/leadfree](http://www.te.com/leadfree)

RoHS  
Customer  
Support  
Center 

## General overview of heavy duty connectors

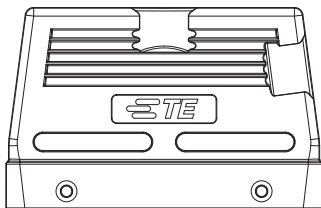
<b>General features</b>	TE's HDC product series is designed for data, signal and power connections in harsh environments. The modular connector design provides a high degree of flexibility so solutions can be customized for different applications such as machinery, robotics, railway, wind energy and conventional energy generation and distribution.
<b>Inserts</b>	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.
<b>Enclosures</b>	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.
<b>Customized design</b>	For customer's special requirement, we can provide customized design. Please contact us.
<b>Specifications, Standards and Approvals</b>	<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> <div>     </div>

## Connector components



### CABLE FITTING

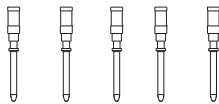
Special cable fittings for protection up to IP69K and for electro-magnetic compatibility available



### HOOD

Standard and corrosion-resistant connector hoods:

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

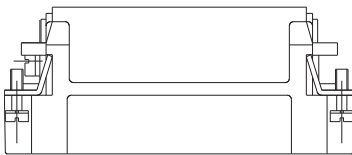


### CONTACTS

Silver or gold plated

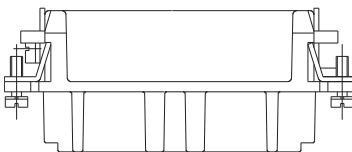
Solid machined contacts with screw, spring or crimp termination

Stamped and formed contacts



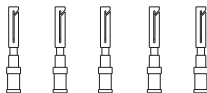
### MALE INSERT

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

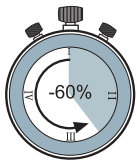
Wire gauge (mm <sup>2</sup> )	1.5	2.5	4.0	6.0	10	16
Screw thread	M3	M3	M3.5	M4	M4	M6
Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2
Min. pull-out for stranded wire (N)	40	50	60	80	90	100

### Spring terminal

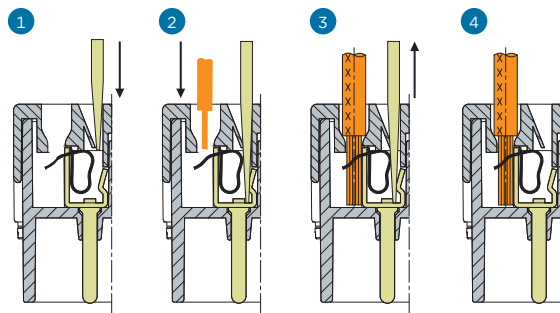
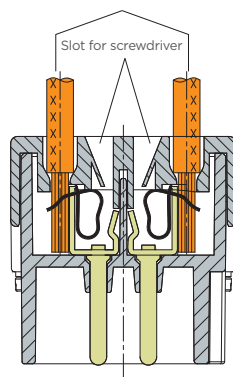
No special tools



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.

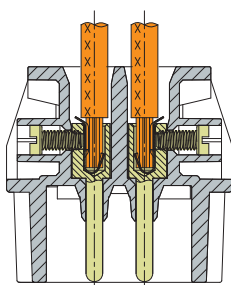
### CRIMP TERMINATION

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

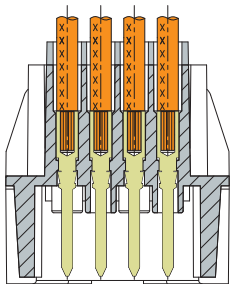
HA series  
HE, HVE series  
HSB series  
HK series  
HWK series  
HEAV series



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

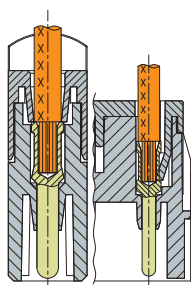
### CRIMP TERMINAL

HD series  
HDD series



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

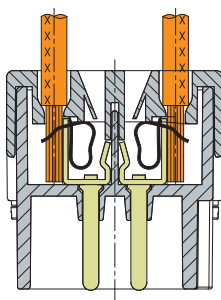
HAC, HEC series  
HEEE, HEE series  
HMN(16A/40A) series  
HQ(16A/40A) series  
HK(16A/40A) series



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

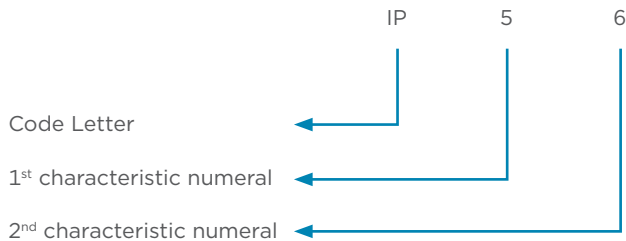
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## Degree of protection provided by enclosures

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)

## 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):

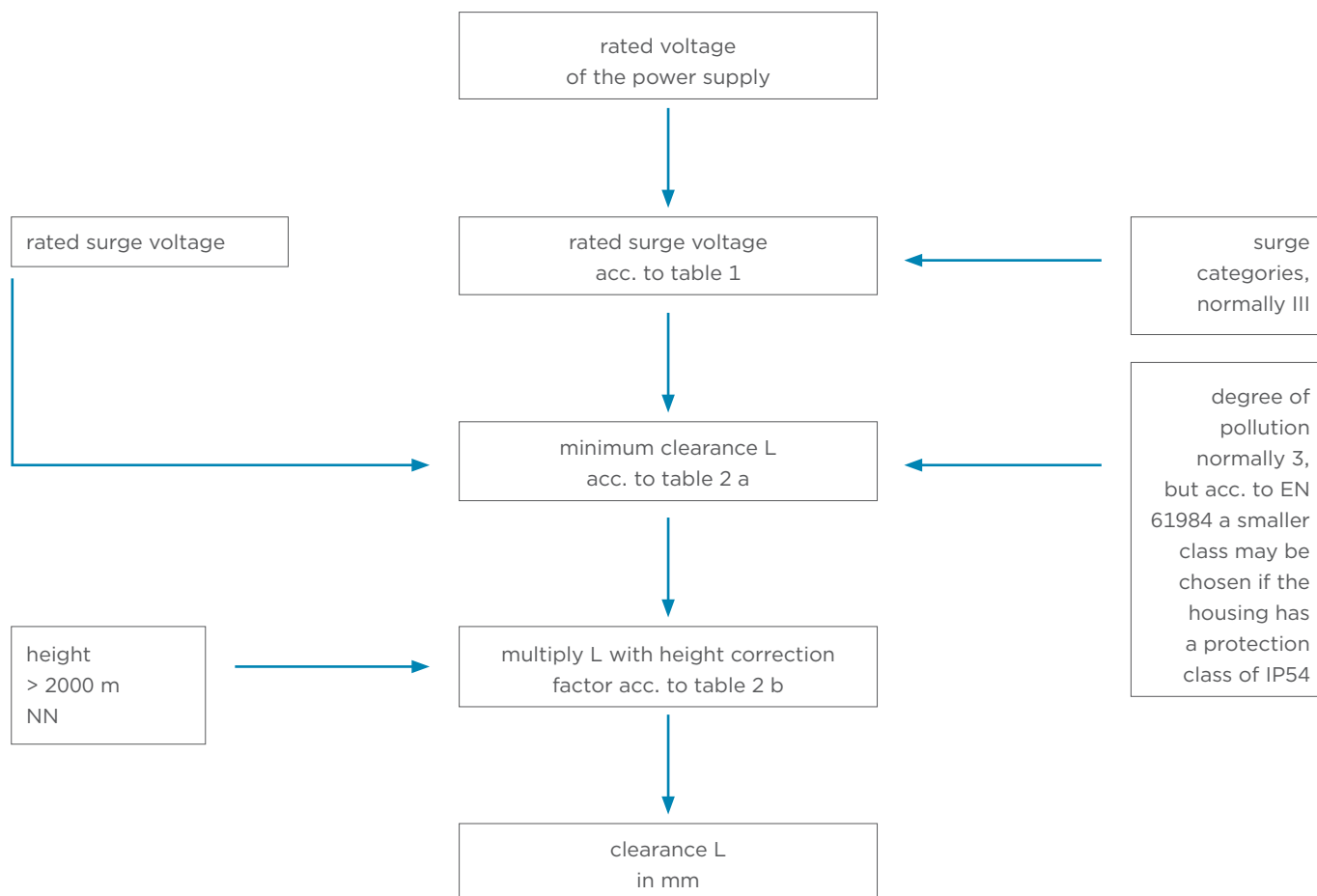
Insulation material I:..... $600 \leq \text{CTI}$

Insulation material II:..... $400 \leq \text{CTI} < 600$

Insulation material III a:..... $175 \leq \text{CTI} < 400$

## 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	1.0	1.6	0.15	0.3	0.5	1.6
1.2	0.25				0.2			
1.5 _)	0.5	0.5	1.5	2	0.3	0.3	1.2	2
2.0	1.0	1.0			0.45	0.5		
2.5 _)	1.5	1.5	1.5	2	0.6	0.6	1.5	3
3.0	2	2	2	2	0.8	0.8	2	3
4.0 _)	3	3	3	3	1.2	1.2	1.2	3
5.0	4	4	4	4	1.5	1.5	1.5	3
6.0 _)	5.5	5.5	5.5	5.5	2	2	2	3
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

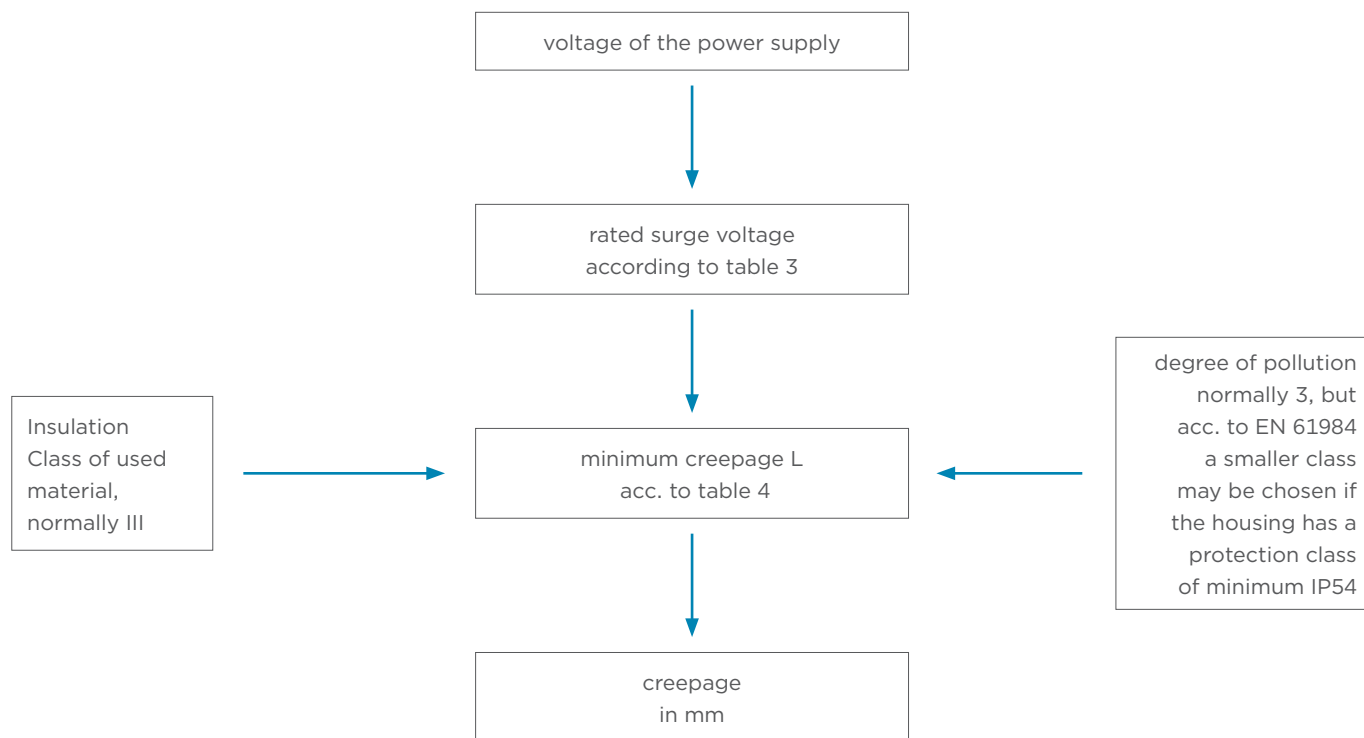
\_ ) Preferred values

## 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

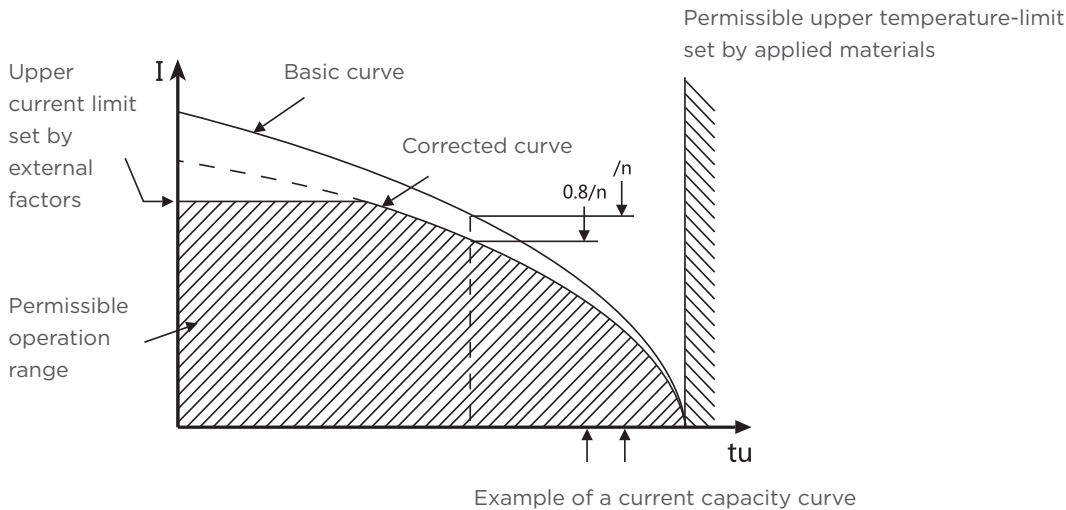
rated voltage [V]	degree of pollution									
	1 All Insulator Classes	2 Insulation Class			3 Insulation Class			4 Insulation Class		
		I	II	III	I	II	III	I	II	III
10	0.08	0.40	0.40	0.40	1.00	1.00	1.00	1.6	1.6	1.6
12.5	0.09	0.42	0.42	0.42	1.05	1.05	1.05	1.6	1.6	1.6
16	0.10	0.45	0.45	0.45	1.10	1.10	1.10	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

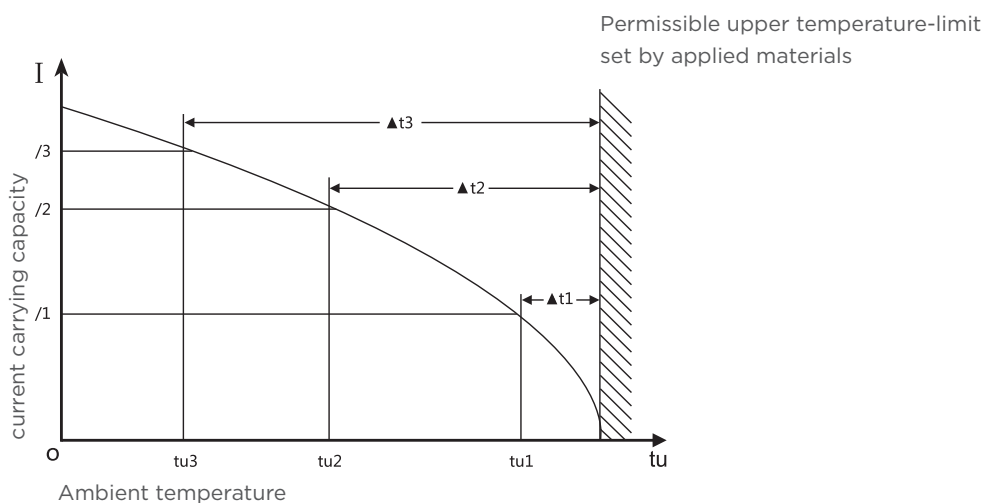
### CURRENT CARRYING CAPACITY

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.

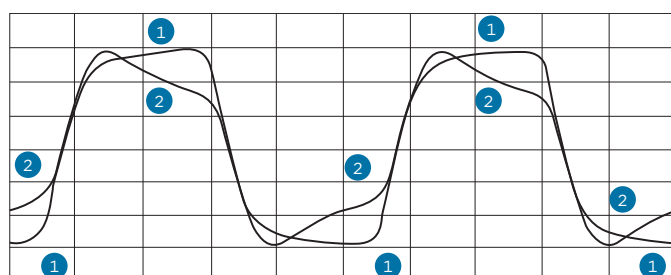
#### Extract from IEC 60 947-1/EN 60 947, Table 4

The torque according to IEC, EN

Head screw with slot			
Thread Type	Recommended tightening torque		
	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

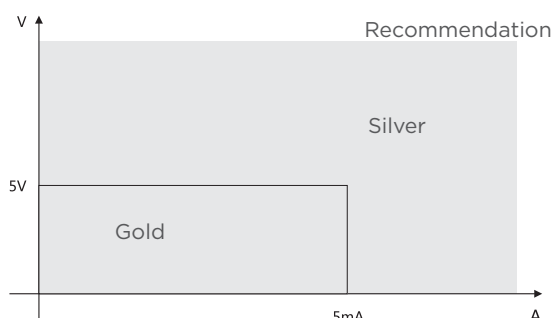
### LOW CURRENTS AND VOLTAGES

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	42+PE	10A	250V			H10B
	HDD-072	72+PE	10A	250V			H16B
	HDD-108	108+PE	10A	250V			H24B
	HDD-144	144+PE	10A	250V			H32B
	HDD-216	216+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

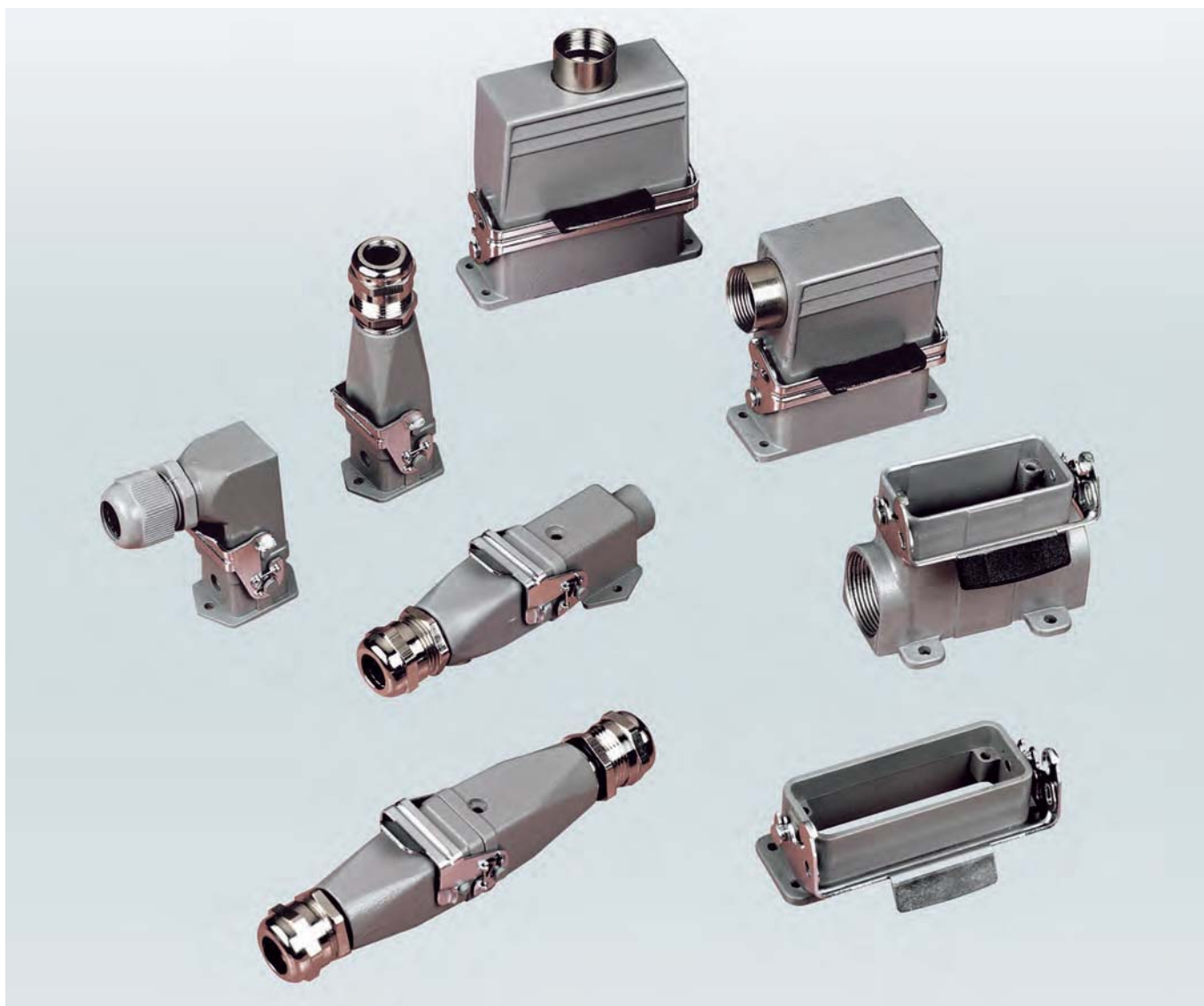
Insert	Type	Poles	Current	Voltage	Terminal	Contacts	Shells
HEEE	HEEE-020	20+PE	16A	400V	crimp	CEM/F(16A) DEM/F(16A)	H6B
	HEEE-032	32+PE	16A	400V			H10B
	HEEE-040	40+PE	16A	500V			H16B
	HEEE-048	48+PE	16A	400V			H16B
	HEEE-064	64+PE	16A	500V			H24B
	HEEE-072	72+PE	16A	400V			H24B
	HEEE-080	80+PE	16A	500V			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



RoHS

## 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

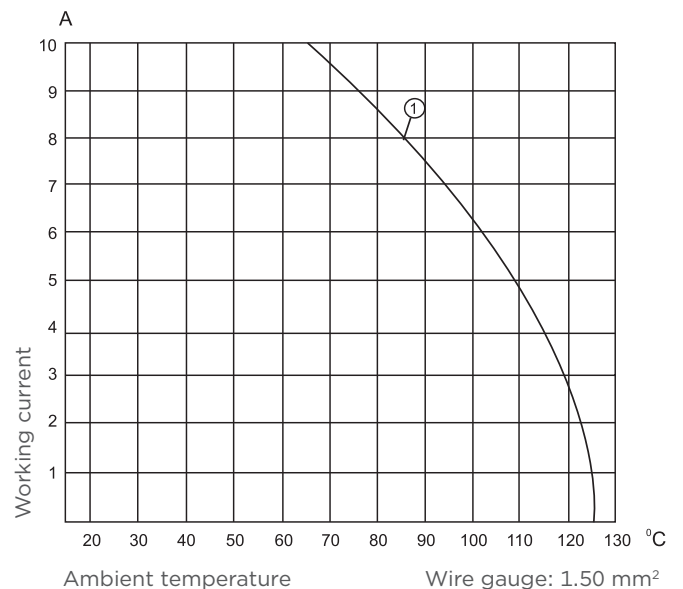
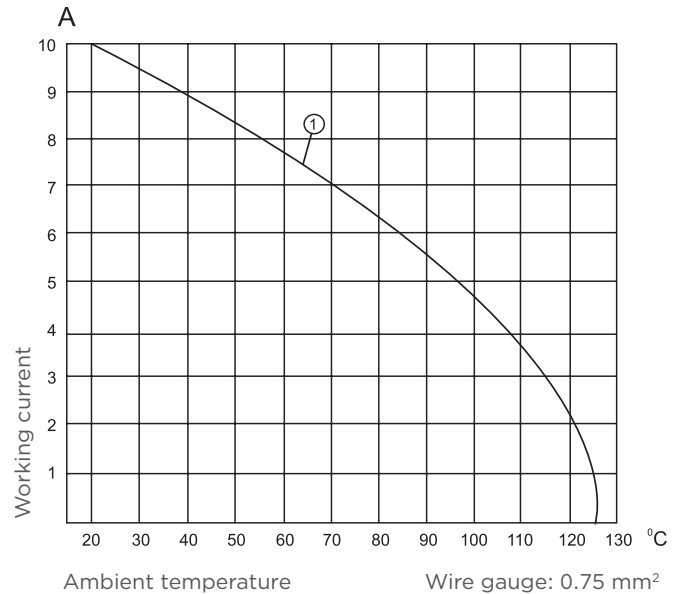
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.15-2.5mm <sup>2</sup>
- AWG .....	26-14

### 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


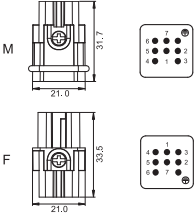

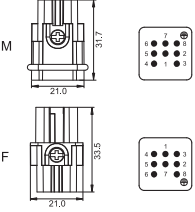
## HD-007/008 inserts

INSERTS FOR H3A HOOD/HOUSING


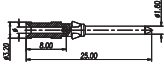

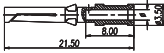
250V/50V 10A

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 Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ 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

## 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

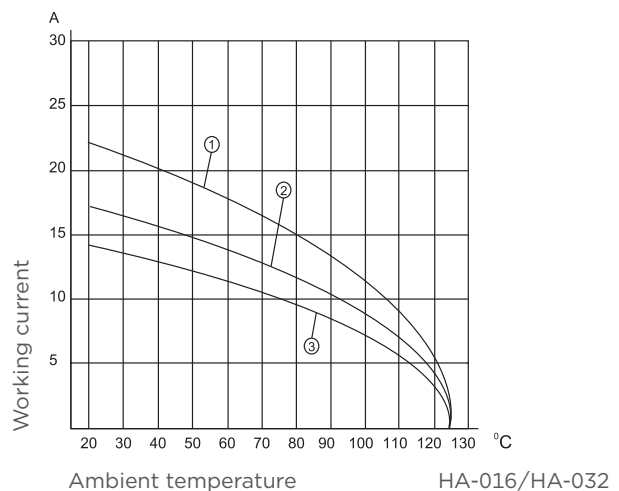
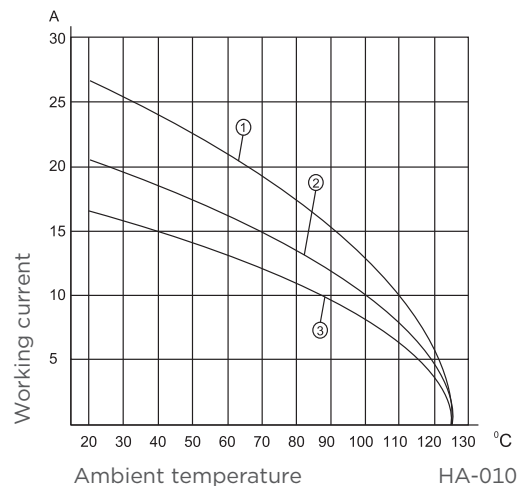
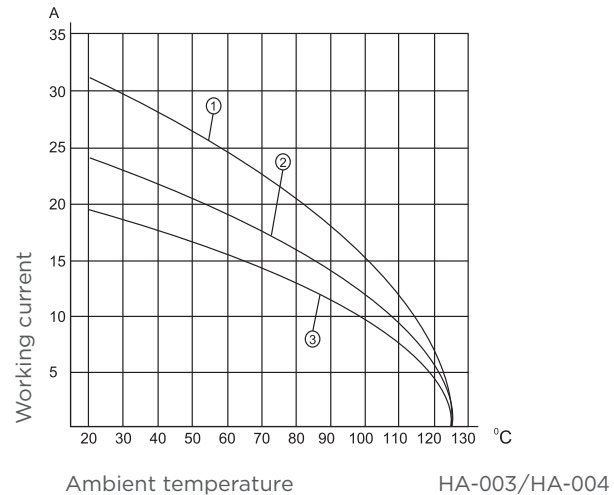
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 ..... Hard gold-xplated  
 Contact resistance .....  $\leq 1 \text{ m}\Omega$   
 Terminal ..... Screw terminal  
 ..... Crimp terminal  
 ..... Spring terminal  
 -  $\text{mm}^2$  ..... 0.5-2.5 $\text{mm}^2$  / 0.14-4.0 $\text{mm}^2$  / 0.5-2.5 $\text{mm}^2$   
 - 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 .....	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 .....	$\leq 1\text{m}\Omega$
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


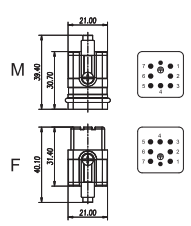

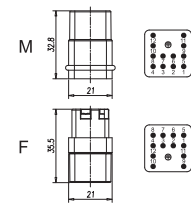
Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element .....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050 .....	IP65

## HQ-007/012 inserts


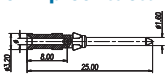

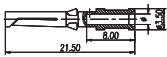
INSERTS FOR H3A HOOD/HOUSING

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


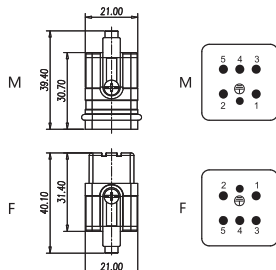
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male 	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
CDF/Female 	10A 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

## HQ-005 inserts


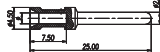

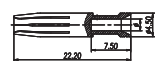
INSERTS FOR H3A HOOD/HOUSING

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 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
		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

## 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 1 50 903 0000-000
Bulkhead mounting: Side entry					
				H3A-MAGS	T 1 54 903 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
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


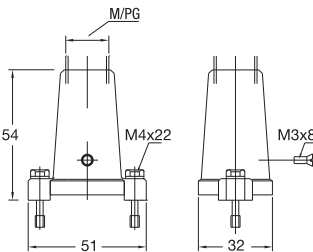

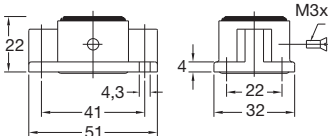

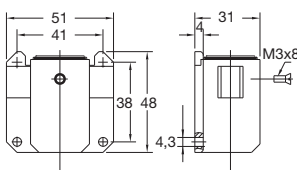
**HIP:** Pressure-tight, silver-grey

**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	
Hood: Top entry					
		M16	11	<b>HIP</b> HIP.3/4.ST0.1.11.G HIP.3/4.ST0.1.M16.G 1-1102600-5 0-1106408-1	
		M16 M20	11	<b>HIP-K</b> HIP-K.3/4.ST0.1.11.G HIP-K.3/4.ST0.1.M16.G HIP-K.3/4.ST0.1.M20.G 2-1102600-5 0-1106408-2 0-1106408-3	
	M16 M20	11	<b>EMV-K</b> EMV-K.3/4.ST0.1.11.G EMV-K.3/4.ST0.1.M16.G EMV-K.3/4.ST0.1.M20.G 4-1102700-5 0-1106402-2 0-1106402-3		
	Surface mounted housing: Bottom entry				
		 Panel cut-out 21 x 21			<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	
Surface mounted housing: Bottom entry (by panel cut-out)					
	 Panel cut-out ø 20			<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


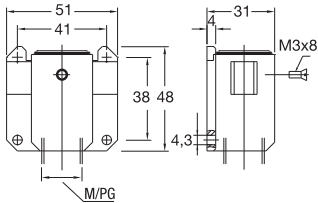

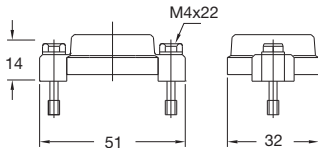
**HIP:** Pressure-tight, silver-grey

**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	<b>HIP</b> HIP.3/4.SG.1.11.G	1-1102601-5
		M20	HIP.3/4.SG.1.M16.G	0-1106407-1
			HIP.3/4.SG.1.M20.G	0-1106401-4
	M16	PG11	<b>HIP-K</b> HIP-K.3/4.SG.1.11.G	2-1102601-5
			HIP-K.3/4.SG.1.M16.G	0-1106407-2
	M16	PG11	<b>EMV-K</b> EMV-K.3/4.SG.1.11.G	4-1102701-5
	M20		EMV-K.3/4.SG.1.M16.G	0-1106401-2
			EMV-K.3/4.SG.1.M20.G	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

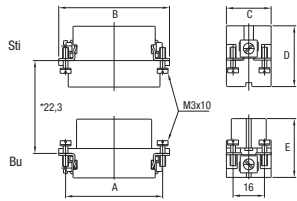
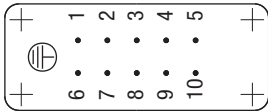
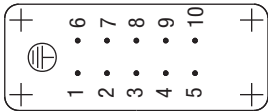
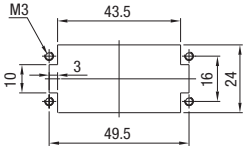
250V 16A

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						
				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						
		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><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	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										

# HA.16 contact inserts

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

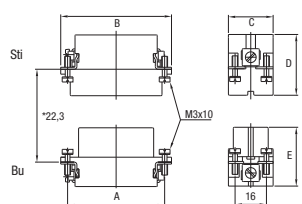
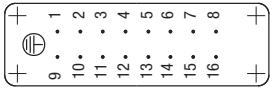
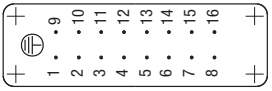
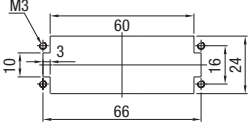
250V 16A

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



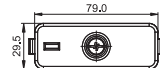

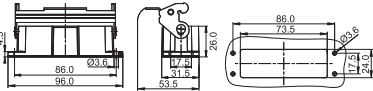
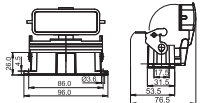

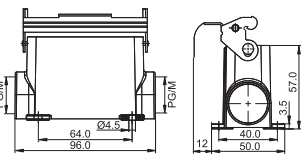
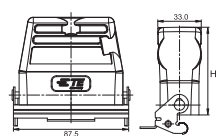
Dimensions	A	B	C	D	E
mm	66	73	23	31	28

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



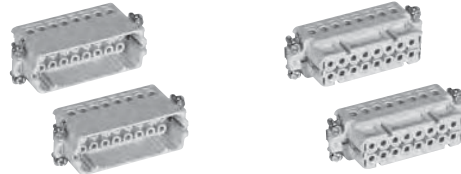
Dimensions (mm)		Metr.	PG	Type	Part Number	
Hood: Side entry						
	Low construction	M20 M25	PG16 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25	T 1 31 916 0116-000 T 1 31 916 0121-000 T 1 31 916 0120-000 T 1 31 916 0125-000	
	High construction		PG21	H16A-TSH-PG21 H16A-TSH-M25	T 1 33 916 0121-000 T 1 33 916 0125-000	
Hood: Top entry						
	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		PG21	H16A-TGH-PG21 H16A-TGH-M25	T 1 34 916 0121-000 T 1 34 916 0125-000	
Protection covers for hoods						
		with plastic rope		H16A-KDT	T 1 01 916 1101-000 T 1 01 916 1201-000	
Bulkhead mounted						
			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	
	Surface mounted: 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
				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
			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
	With protection cover			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
Cable-to-cable hood						
			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
				PG21	H16A-TBFHS-PG21 H16A-TBFHS-M25	T 1 77 916 1121-000 T 1 77 916 1125-000
			M25			

### HA.32 contact inserts

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

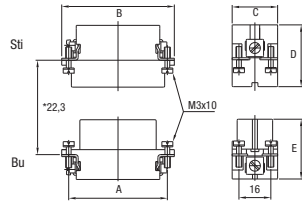
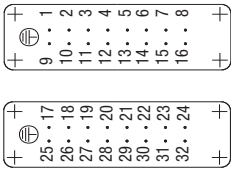
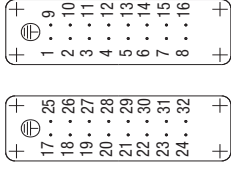
250V 16A

(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


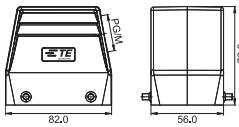

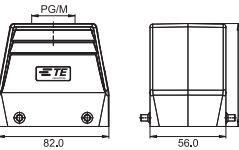

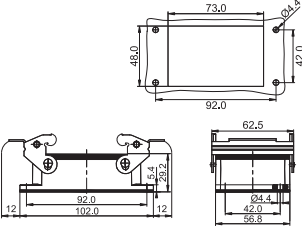

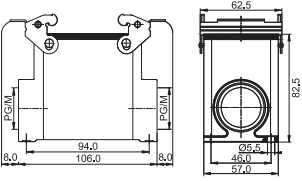
Dimensions	A	B	C	D	E
mm	66	73	23	31	28

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

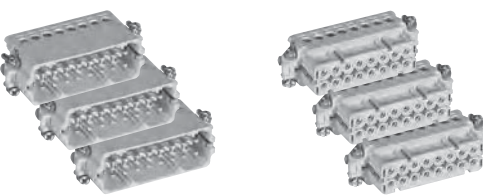
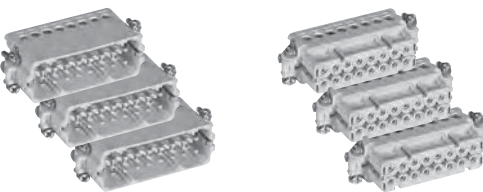
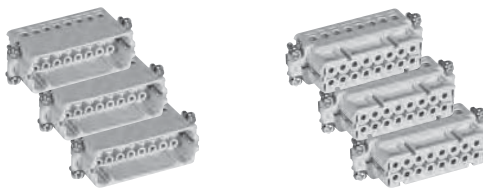
Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
 	M25 M32 M40	PG21 PG29 PG36	H32A-TS-PG21	T 1 31 932 0121-000
			H32A-TS-PG29	T 1 31 932 0129-000
			H32A-TS-PG36	T 1 31 932 0136-000
			H32A-TS-M25	T 1 31 932 0125-000
			H32A-TS-M32	T 1 31 932 0132-000
			H32A-TS-M40	T 1 31 932 0140-000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

HA.48 contact inserts

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

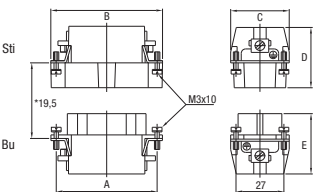
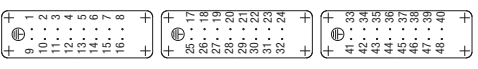
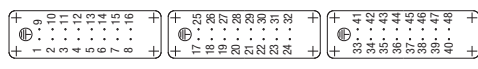
250V 16A

(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


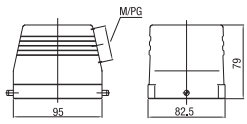

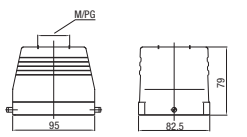

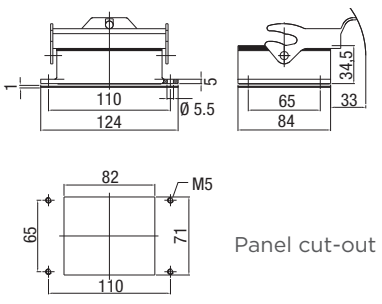

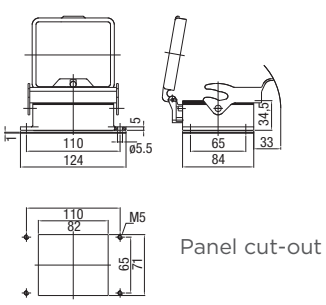
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## 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

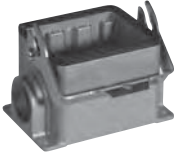
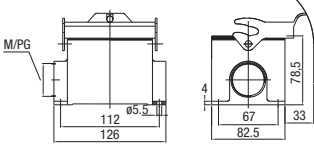

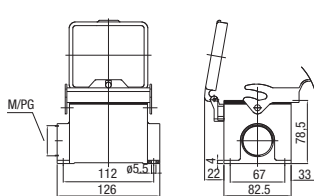


## HA.48 housings

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

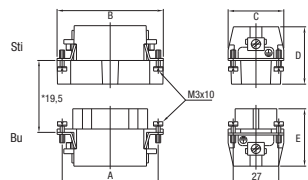
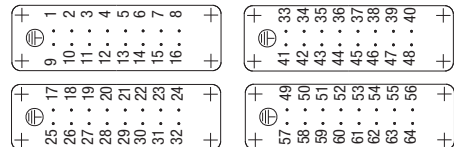
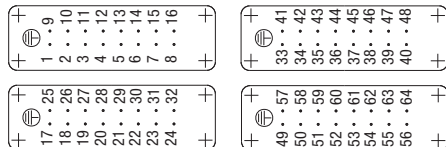
250V 16A

(4x16) 64+ ⚡

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


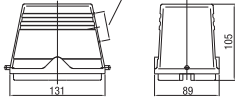
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## HA.64 housings

POWDER-COATED, SILVER-GREY

### Side clip at housing bottom


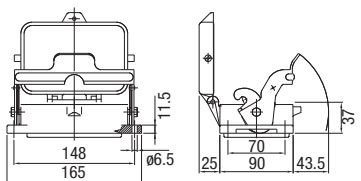
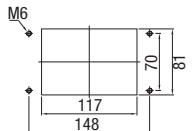
IP 65

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

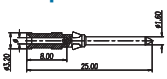

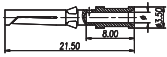

	 <p>Top view dimensions: 148, 165, 11.5, 6.5</p> <p>Side view dimensions: 25, 70, 90, 43.5, 37</p>				
	 <p>M6</p> <p>Panel cut-out dimensions: 117, 148, 70, 81</p>	Panel cut-out		HA.64.AGD-LB	1-1102009-2

### 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

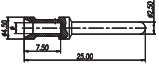


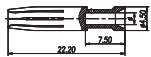
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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 		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
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

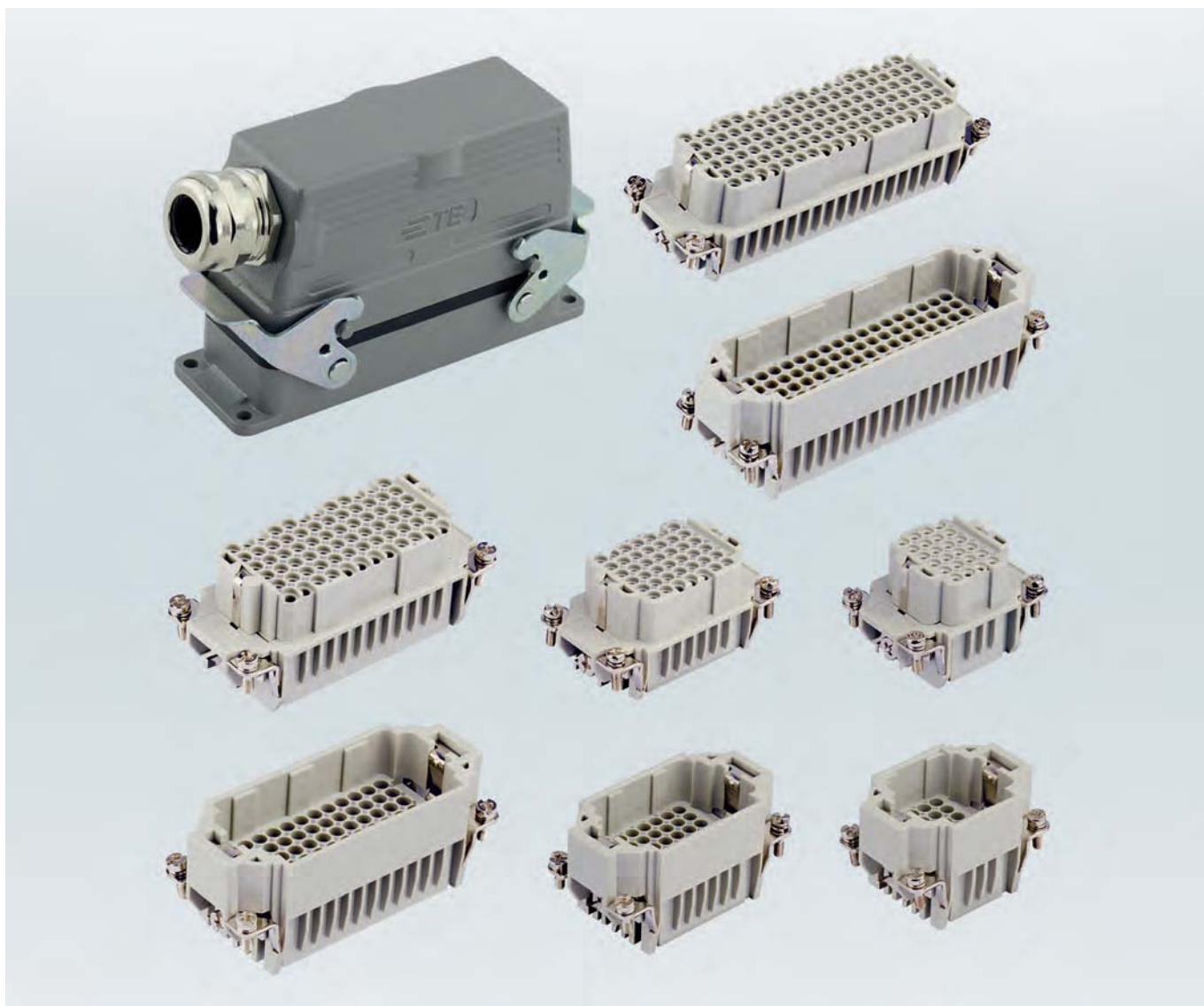
## Crimping tools HE/HA series

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

## Notes

[illegible]

## 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

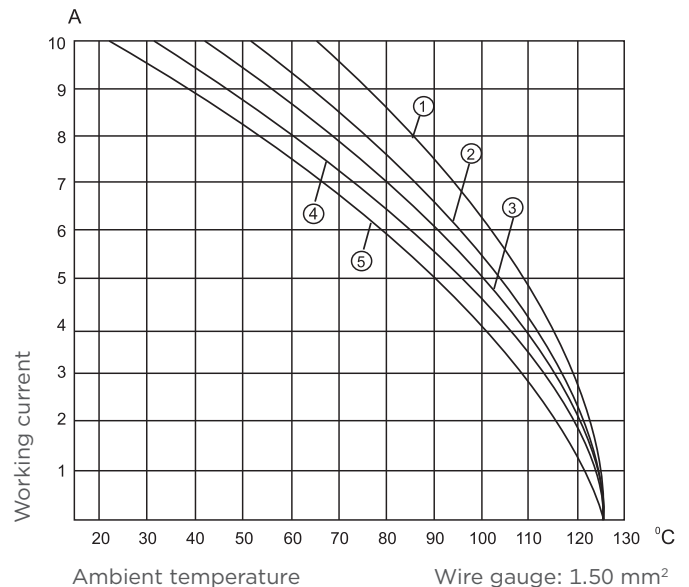
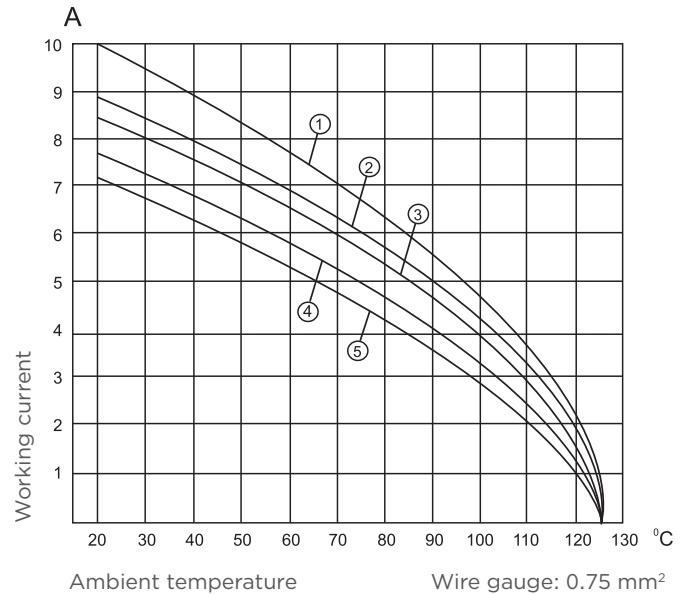
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.15-2.5mm <sup>2</sup>
- AWG .....	26-14

### 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

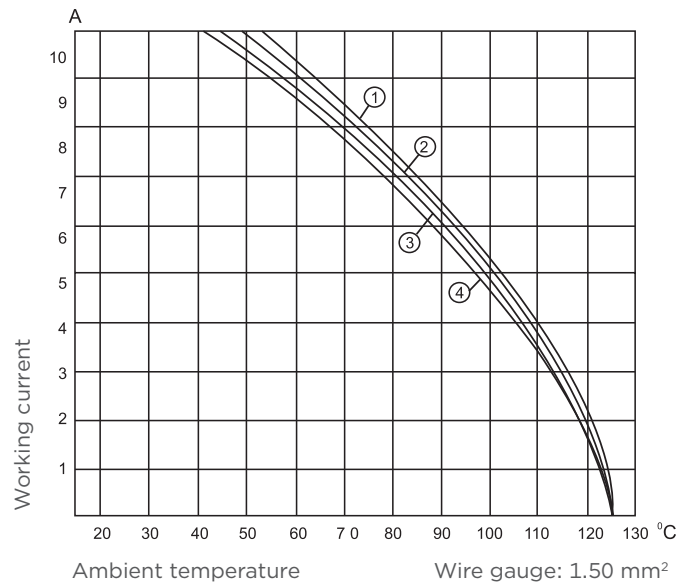
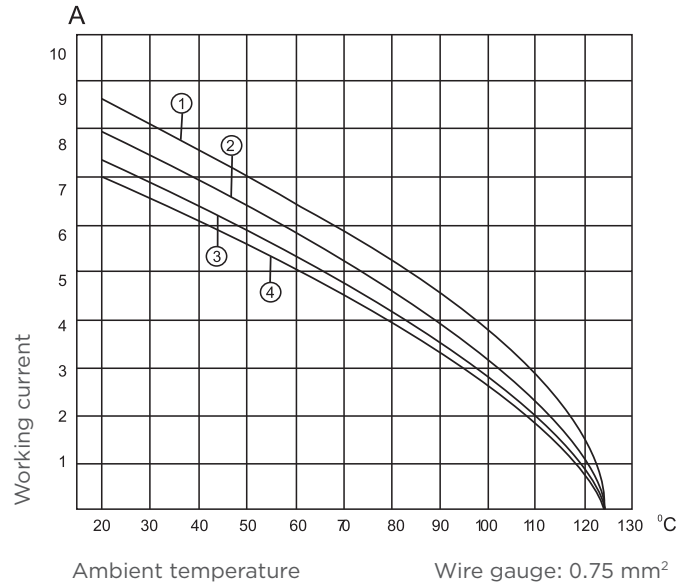
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 3m\Omega$
Terminal .....	Crimp terminal
.....	Rolled terminal
- mm <sup>2</sup> .....	0.14-2.5mm <sup>2</sup>
- AWG .....	26-14

### 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.

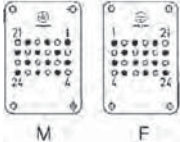
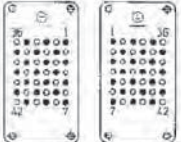
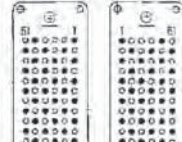
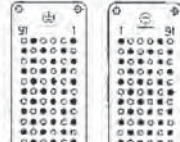
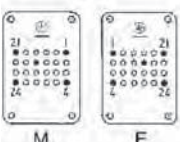
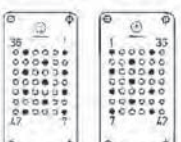
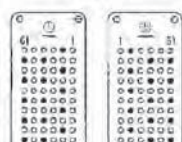
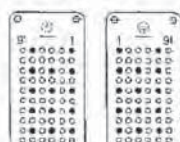
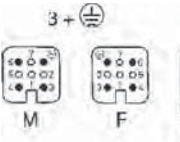
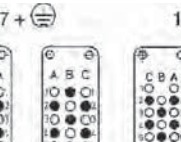
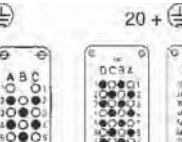
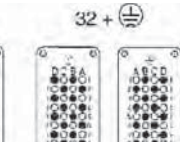
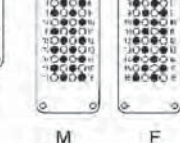


- 1 HDD-024
- 2 HDD-042
- 3 HDD-072
- 4 HDD-108

## 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	<p>12 + <math>\oplus</math></p>  <p>M F</p>	<p>21 + <math>\oplus</math></p>  <p>M F</p>	<p>34 + <math>\oplus</math></p>  <p>M F</p>	<p>52 + <math>\oplus</math></p>  <p>M F</p>
500V-Insulation group C	<p>5 + <math>\oplus</math></p>  <p>M F</p>	<p>11 + <math>\oplus</math></p>  <p>M F</p>	<p>17 + <math>\oplus</math></p>  <p>M F</p>	<p>26 + <math>\oplus</math></p>  <p>M F</p>
Series HD 500V - Pollution degree 3	<p>3 + <math>\oplus</math></p>  <p>M F</p>	<p>7 + <math>\oplus</math></p>  <p>M F</p>	<p>11 + <math>\oplus</math></p>  <p>M F</p>	<p>20 + <math>\oplus</math></p>  <p>M F</p>
				<p>32 + <math>\oplus</math></p>  <p>M F</p>


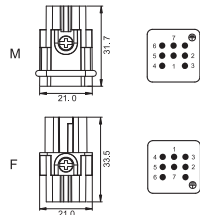

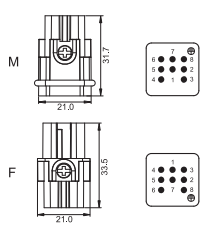
## HD-007/008 inserts

INSERTS FOR H3A HOOD/HOUSING


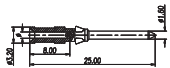

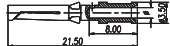
250V/50V 10A

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: $\leq 3\text{m}\Omega$ 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

## 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 1 50 903 0000-000
Bulkhead mounting: Side entry					
				H3A-MAGS	T 1 54 903 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					
 White    Grey	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


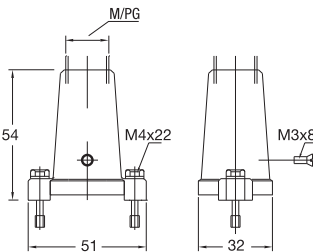

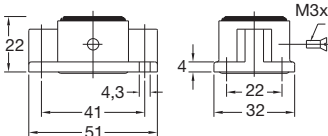

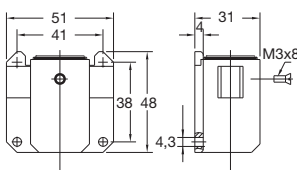
**HIP:** Pressure-tight, silver-grey

**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
Hood: Top entry				
		M16	11	<b>HIP</b> HIP.3/4.ST0.1.11.G HIP.3/4.ST0.1.M16.G  1-1102600-5 0-1106408-1
		M16 M20	11	<b>HIP-K</b> HIP-K.3/4.ST0.1.11.G HIP-K.3/4.ST0.1.M16.G HIP-K.3/4.ST0.1.M20.G  2-1102600-5 0-1106408-2 0-1106408-3
		11	<b>EMV-K</b> EMV-K.3/4.ST0.1.11.G EMV-K.3/4.ST0.1.M16.G EMV-K.3/4.ST0.1.M20.G  4-1102700-5 0-1106402-2 0-1106402-3	
Surface mounted housing: Bottom entry				
	  Panel cut-out 21 x 21			<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
Surface mounted housing: Bottom entry (by panel cut-out)				
	  Panel cut-out ø 20			<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


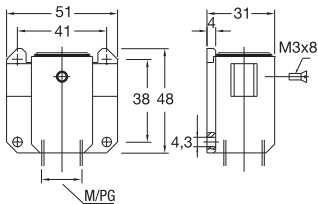

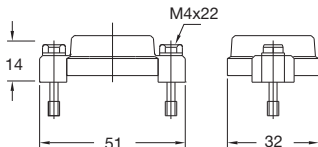
**HIP:** Pressure-tight, silver-grey

**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


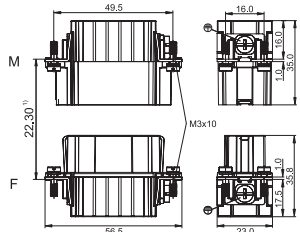
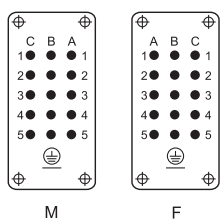
Description	Metr.	PG	Type	Part Number
<b>Surface mounted housing: Side entry</b>				
		M16	<b>HIP</b> HIP.3/4.SG.1.11.G	1-1102601-5
		M20	HIP.3/4.SG.1.M16.G	0-1106407-1
			HIP.3/4.SG.1.M20.G	0-1106401-4
	M16	PG11	<b>HIP-K</b> HIP-K.3/4.SG.1.11.G	2-1102601-5
			HIP-K.3/4.SG.1.M16.G	0-1106407-2
	M16	PG11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

## HD-015 inserts


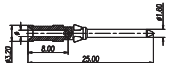

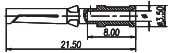
### INSERTS FOR H10A HOOD/HOUSING

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

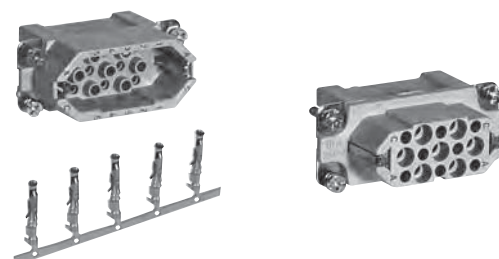


# HD-015 inserts

INSERTS FOR H10A HOOD/HOUSING

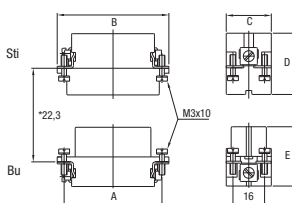
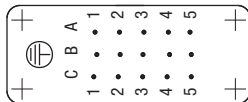
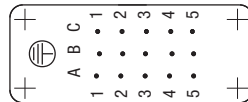
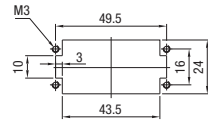
250V 10A

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	
			


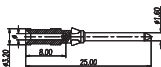

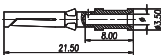
## H10A metal hoods/housings

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											
		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><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	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										

## 250V 10A

25+⚡ (machined contacts)

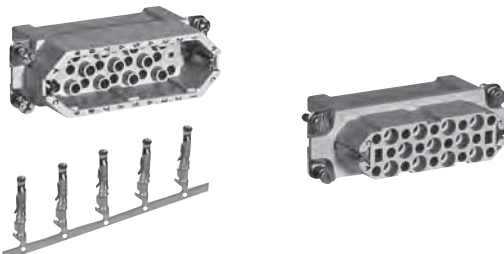
<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 	<b>10A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip- ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
		mm²	AWG	mm	Type	Part 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> 	<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-025 inserts

INSERTS FOR H16A HOOD/HOUSING

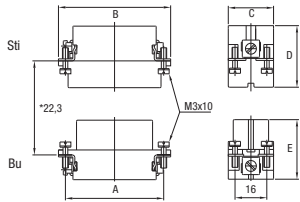
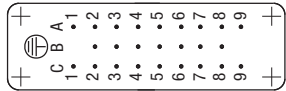
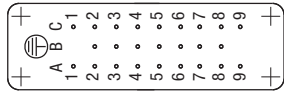
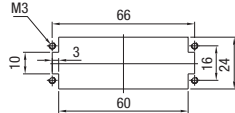
250V 10A

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



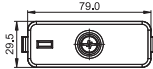



Dimensions	A	B	C	D	E
mm	66	73	23	35	35

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


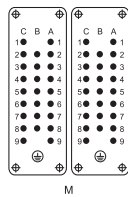
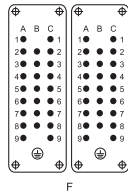
Dimensions (mm)			Metr.	PG	Type	Part Number
Hood: Side entry						
	Low construction		M20 M25	PG16 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25	T 1 31 916 0116-000 T 1 31 916 0121-000 T 1 31 916 0120-000 T 1 31 916 0125-000
	High construction				H16A-TSH-PG21 H16A-TSH-M25	T 1 33 916 0121-000 T 1 33 916 0125-000
			M25	PG21		
Hood: Top entry						
	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				H16A-TGH-PG21 H16A-TGH-M25	T 1 34 916 0121-000 T 1 34 916 0125-000
			M25	PG21		
Protection covers for hoods						
			with plastic rope		H16A-KDT	T 1 01 916 1101-000 T 1 01 916 1201-000
Bulkhead mounted						
	With protection cover		M20 M25	PG16 PG21	H16A-AGS	T 1 50 916 1000-000
					H16A-ADS H16A-ADMS	T 1 51 916 2000-000 T 1 51 916 1000-000
			M25	PG21		
Surface mounted: Side entry						
	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
	2 Side entry				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
			M20 M25	PG21		
	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				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
			M20 M25	PG21		
Cable-to-cable hood						
	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				H16A-TBFHS-PG21 H16A-TBFHS-M25	T 1 77 916 1121-000 T 1 77 916 1125-000
			M25	PG21		

## HD-050 inserts

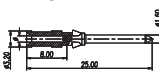
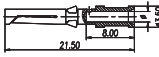
INSERTS FOR H32A HOOD/HOUSING

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)				
	 M	HD-025-M(1-25) HD-025-M(26-50)	T 2 02 025 2101-000 T 2 02 050 2101-000	
	 F	HD-025-F(1-25) HD-025-F(26-50)		T 2 02 025 2201-000 T 2 02 050 2201-000

### 10A Contact

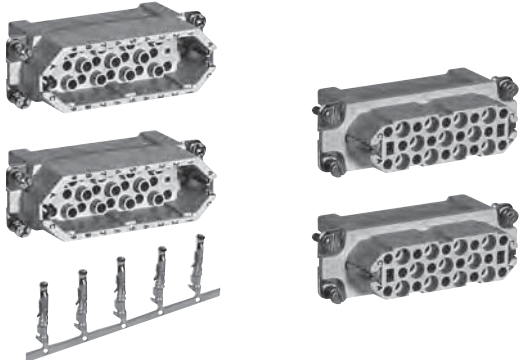
Tech data Material: copper alloy Contact resistance: ≤3mΩ Terminal: crimp connection CDM/Male	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	8.0	CDM-0.14	T 2 02 000 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
CDF/Female 	10A Female crimp contacts	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

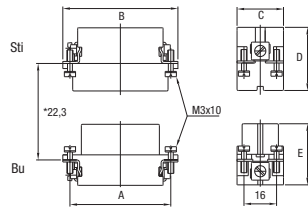
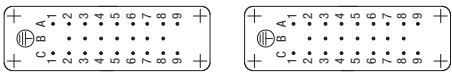
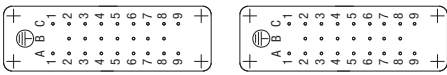
250V 10A

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
		

POWDER-COATED, RAL 7037

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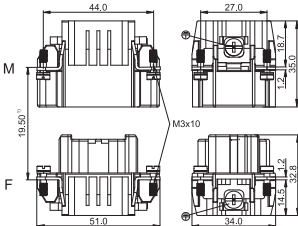
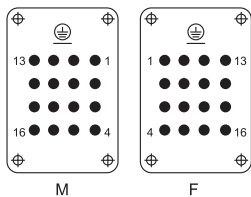
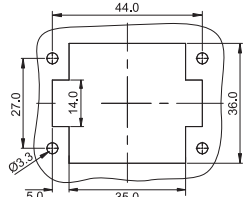


## HDD-016 inserts

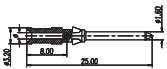

### INSERTS FOR H6B HOOD/HOUSING

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

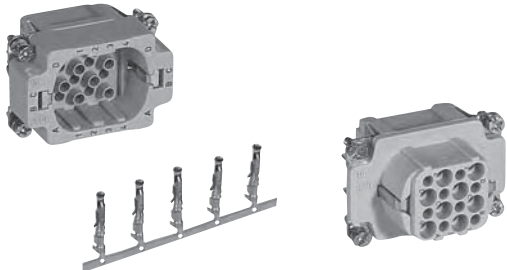
Tech data Material: copper alloy Contact resistance: ≤3mΩ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm²	AWG		Type	Part Number	Type	Part Number
	10A Female crimp contacts	0.14-0.37	26-22	8.0	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

# HDD-016 inserts

INSERTS FOR H6B HOOD/HOUSING

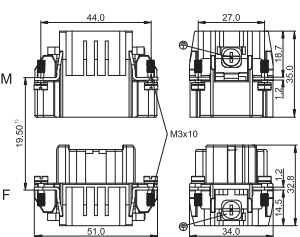
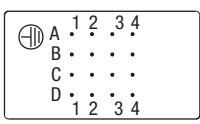
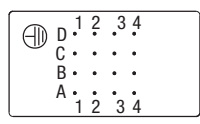
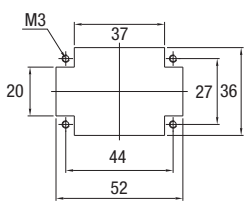
250V 10A

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


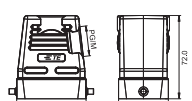
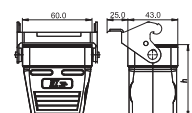

Dimensions	A	B	C	D	E
mm	44	51	33	35	35

Suitable crimp contacts and crimping tools: see page 111

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


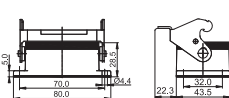

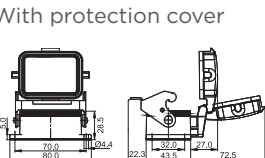

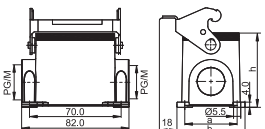

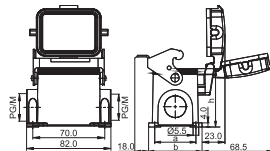
## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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						
Hood: Top entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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						
Cable-to-cable hood											
	<div></div> <div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	High	74.5	<div>Low construction</div> M20 M25 <div>High construction</div> 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										
Protection covers for hoods											
	<div></div>			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><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>Hight</td><td>45</td><td>57</td><td>74</td></tr></table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25 H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25 H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32 H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000 T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000 T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000 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															
	With protection cover  <table><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>Hight</td><td>45</td><td>57</td><td>74</td></tr></table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25 H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25 H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32 H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000 T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000 T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000 T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000
Construction	A	B	H															
Low	40	52	56															
Hight	45	57	74															

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


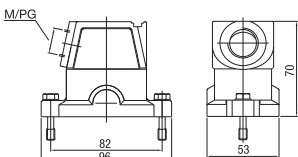

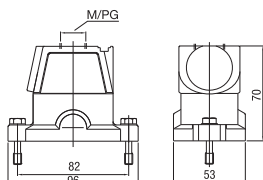

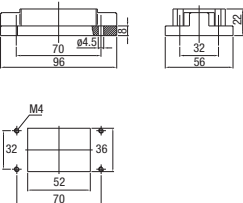

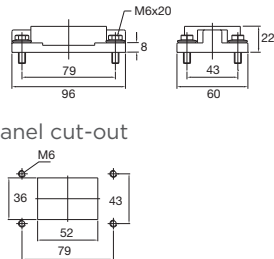
**HIP:** Pressure-tight, silver-grey

**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


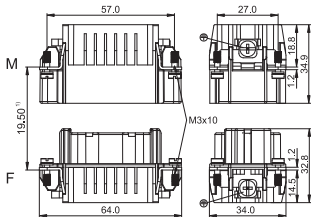
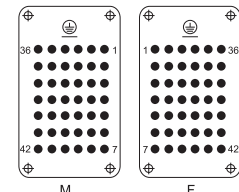
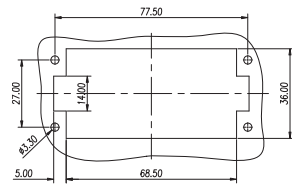
Description	Metr.	PG	Type	Part Number
<b>Hood: Side entry</b>				
 	M25	16	<b>HIP</b> HIP.6/16.STS.1.16.G HIP.6/16.STS.1.M25.G	1-1102631-5 0-1106425-2
	M25	16 21	<b>HIP-K</b> HIP-K.6/16.STS.1.16.G HIP-K.6/16.STS.1.21.G HIP-K.6/16.STS.1.M25.G	2-1102631-5 2-1102633-5 0-1106425-4
	M25	16	<b>EMV-K</b> EMV-K.6/16.STS.1.16.G 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
  <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


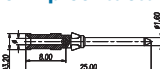

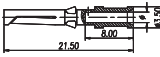
### INSERTS FOR H10B HOOD/HOUSING

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

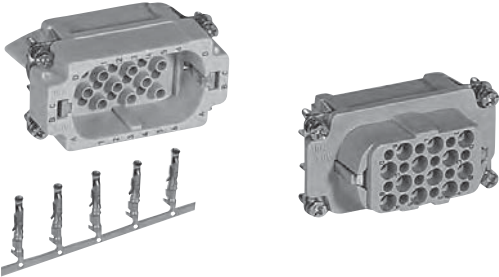
Tech data	10A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 		0.14-0.37	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-024 inserts

INSERTS FOR H10B HOOD/HOUSING

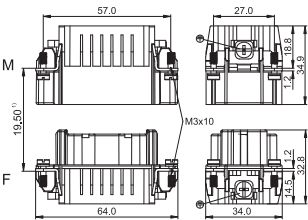
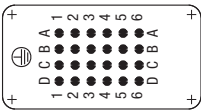
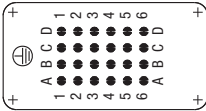
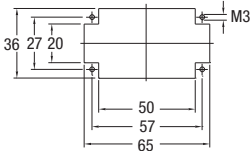
250V 10A

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


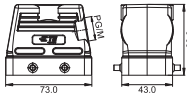

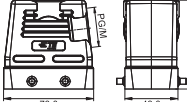
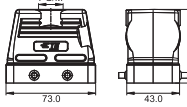

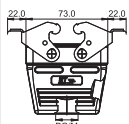

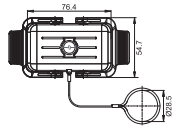

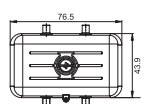
Dimensions	A	B	C	D	E
mm	57	64	33	35	35

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


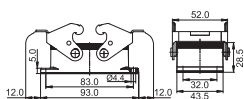

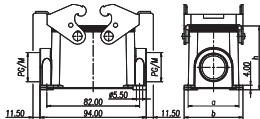

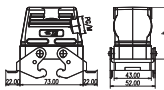

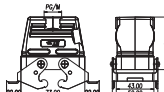


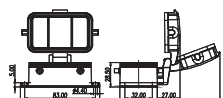
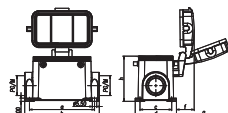
POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <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>High construction</div> <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						
Hood: Top entry											
	<div>Low construction</div> <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>High construction</div> <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						
Cable-to-cable hood											
	<div><div></div><div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div></div> <div>Low construction High construction</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-PG29 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										
Protection covers for hoods											
				H10B-KDTP	T 1 01 010 1400-000						
Housing protection cover											
				H10B-KDBP	T 1 01 010 2100-000						




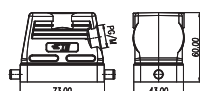

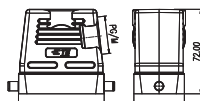

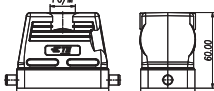

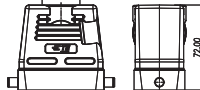

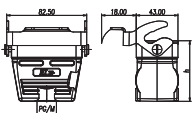

## H10B with 2 levers on the hoods/housings

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																													
	<div><div>1 Side entry</div><div>Low construction</div><div>M20</div><div>M25</div><div>2 Side entry</div><div>M20</div><div>M25</div><div>1 Side entry</div><div>High construction</div><div>M25</div><div>M32</div><div>2 Side entry</div><div>M25</div><div>M32</div></div> <div><table><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table></div>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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																										
Side entry housing with two levers																													
	<div><div>Low construction</div><div>M20</div><div>M25</div><div>High construction</div><div>M25</div><div>M32</div></div> <div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></table></div>	Construction	H	Low	60	Hight	72	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																												
Top entry housing with two levers																													
	<div><div>Low construction</div><div>M20</div><div>M25</div><div>High construction</div><div>M25</div><div>M32</div></div> <div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></table></div>	Construction	H	Low	60	Hight	72	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																												
Bulkhead mounted with 4 bolts																													
 	<div>With protection cover</div> <div> <table><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><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></table></div>	Construction	A	B	C	D	F	G	H	Low	82	94	40	52	22	67	54	Hight	82	94	45	57	20	65	74	<div>1 Side entry</div> <div>Low construction</div> <div>M20</div> <div>M25</div> <div>2 Side entry</div> <div>M20</div> <div>M25</div> <div>1 Side entry</div> <div>High construction</div> <div>M25</div> <div>M32</div> <div>2 Side entry</div> <div>M25</div> <div>M32</div>	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																						


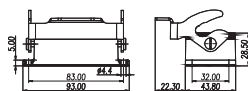

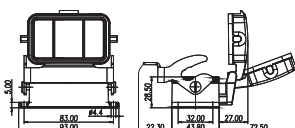

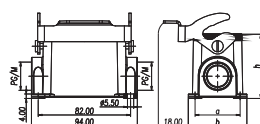

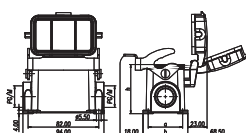
## H10B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	Low construction 	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						
	High construction 	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											
	Low construction 	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						
	High construction 	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	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													
Surface mounted: Side entry																	
	<div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div><div>High construction</div><div>1 Side entry</div><div>2 Side entry</div><div>High construction</div><div>1 Side entry</div><div>2 Side entry</div><div>High construction</div></div>  <table><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	M20 M25  M20 M25  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><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	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														
Hight	45	57	74														

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


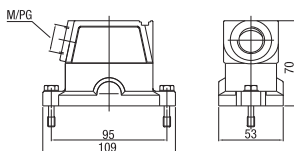

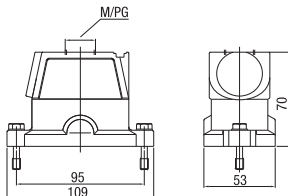

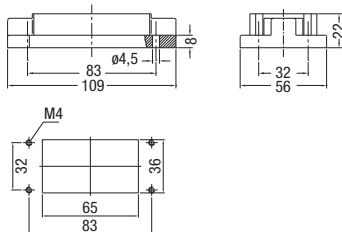
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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
Hood: Top entry					
		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
Surface mounted housing: Bottom entry					
				<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


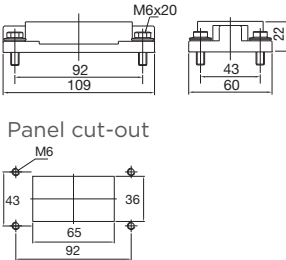

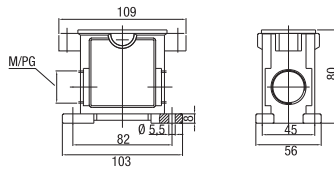

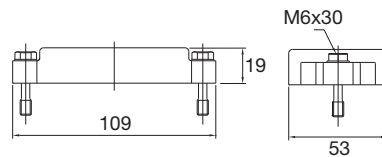
**HIP:** Pressure-tight, silver-grey

**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


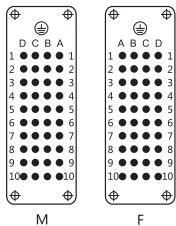
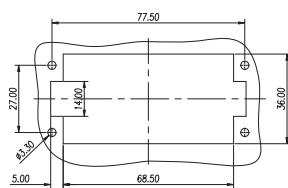
Description	Metr.	PG	Type	Part Number	
Surface mounted housing: Bottom entry					
			<b>HIP</b> HIP.10/24.AG.M6	1-1102612-5	
			<b>HIP-K</b> HIP-K.10/24.AG.M6	2-1102612-5	
			<b>EMV-K</b> EMV-K.10/24.AG.M6	4-1102720-5	
Surface mounted housing: Side entry					
		2xM32	21 2x21	<b>HIP</b> HIP.10/24.SG.1.21.G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

## HD-040 inserts


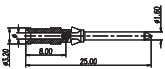

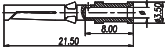
### INSERTS FOR H16B HOOD/HOUSING

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: $\leq 3\text{m}\Omega$ 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-040 inserts

INSERTS FOR H16B HOOD/HOUSING

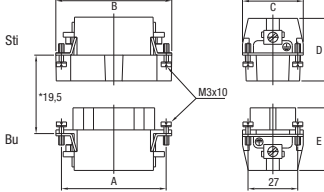
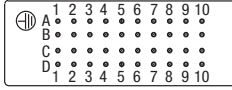
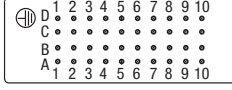
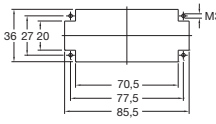
250V 10A

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


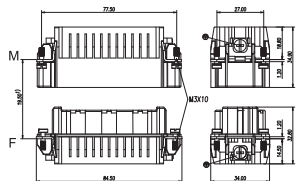
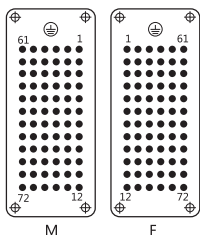
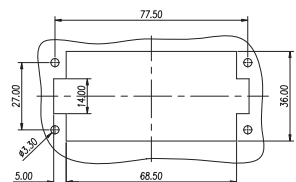
Dimensions (mm)	Contact arrangement		Panel cut-out
	Male insert	Female insert	
			

## HDD-072 inserts

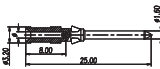

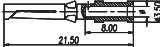
### INSERTS FOR H16B HOOD/HOUSING

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: $\leq 3\text{m}\Omega$ 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
<b>CDF/Female</b> 	<b>10A Female crimp contacts</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
		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




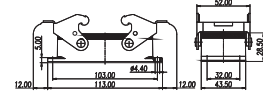

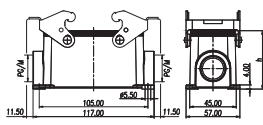

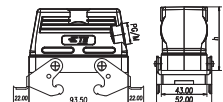

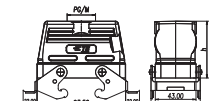

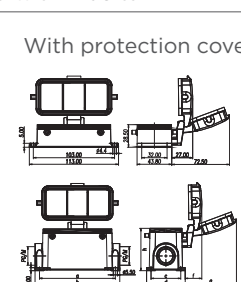
## H16B with 2 levers on the hoods/housings

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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	High	74.5	<div>Low construction</div> M25 M32 <div>High construction</div> M25 M32 M40	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	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000  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
Construction	H										
Low	62.5										
High	74.5										
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						


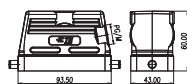

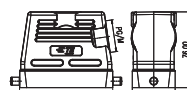

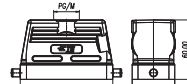

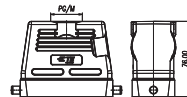

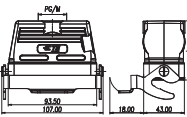

## H16B with 2 levers on the hoods/housings

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><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	1 Side entry 2 Side entry Low construction High construction	M25 M25 M25 M32 M25 M32 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																											
Hight	81																											
Side entry housing with two levers																												
	 <table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>76</td></tr></table>	Construction	H	Low	60	Hight	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																											
Hight	76																											
Top entry housing with two levers																												
	 <table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>76</td></tr></table>	Construction	H	Low	60	Hight	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																											
Hight	76																											
Bulkhead mounted with 4 bolts																												
	<p>With protection cover</p>  <table><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>Hight</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	Hight	105	117	45	57	20	65	81	1 Side entry 2 Side entry 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																					
Hight	105	117	45	57	20	65	81																					


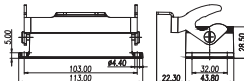

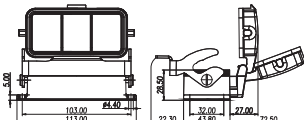

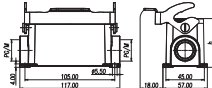

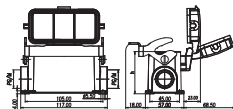
## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div> <div>Low construction High construction</div>	Construction	H	Low	62.5	High	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										
High	74.5										
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						
	With protection cover 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry											
	<div><div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div></div><div><div><div>1 Side entry</div><div>High construction</div><div>2 Side entry</div></div><div><table><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></div></div></div>	Construction	H	Low	56	Hight	81	M20 M25  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										
Hight	81										
	With protection cover 	M20 M25  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						

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


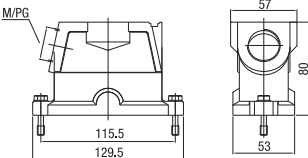

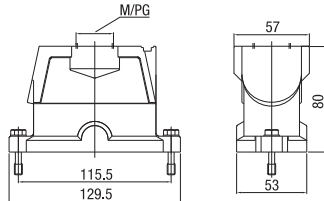

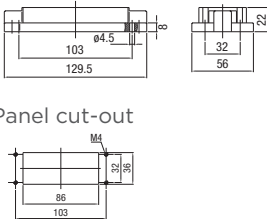

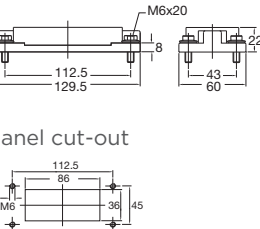
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry					
		M32	21	HIP 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
			29		
		M32	29	HIP-K HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G	2-1102651-5 0-1106444-2
			M32	29	EMV-K EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G
		21			
		Hood: Top entry			
		M32	21	HIP 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
			29		
		M32	21	HIP-K 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
			29		
		M32	29	EMV-K EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G	4-1102725-5 0-1106446-3
			Surface mounted housing: Bottom entry		
	 Panel cut-out			HIP HIP.16/40.AG	1-1102656-5
				HIP-K HIP-K.16/40.AG	2-1102656-5
				EMV-K EMV-K.16/40.AG	4-1102728-5
	 Panel cut-out			HIP HIP.16/40.AG.M6	1-1102618-5
				HIP-K HIP-K.16/40.AG.M6	2-1102618-5
				EMV-K EMV-K.16/40.AG.M6	4-1102730-5

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


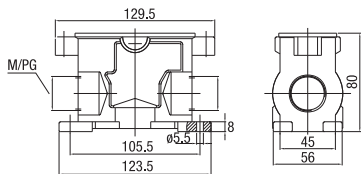

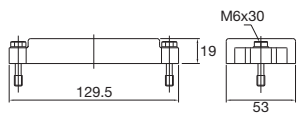
**HIP:** Pressure-tight, silver-grey

**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


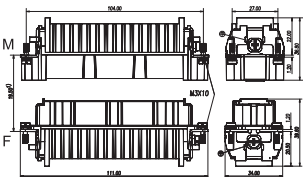
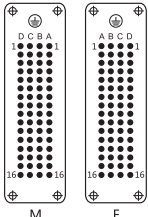
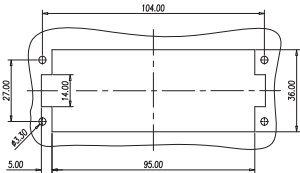
Description	Metr.	PG	Type	Part Number	
Surface mounted housing: Side entry					
		2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G HIP.16/40.SG.2.21.G HIP.16/40.SG.2.M32.G	1-1102616-5 1-1102617-5 0-1106453-1
		2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G HIP-K.16/40.SG.2.21.G HIP-K.16/40.SG.2.M32.G	5-1102616-5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




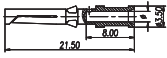
INSERTS FOR H24B HOOD/HOUSING

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	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-064 inserts

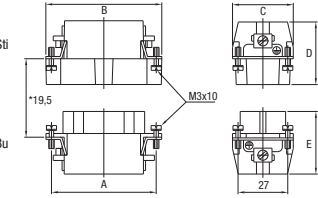
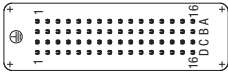
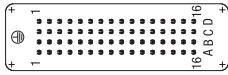
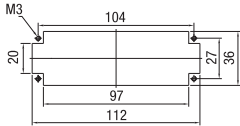
INSERTS FOR H24B HOOD/HOUSING

250V 10A

64+  (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	
			


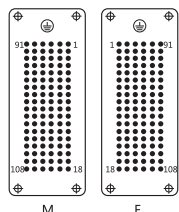
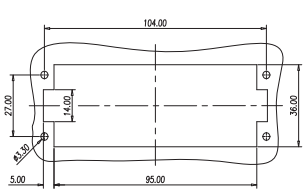


## HDD-108 inserts


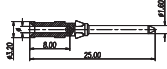

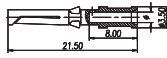
### INSERTS FOR H24B HOOD/HOUSING

250V 10A

108+⊕ (machined contacts)




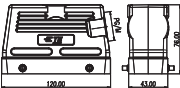

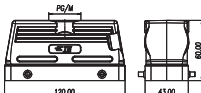

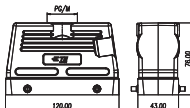

Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
	HDD-108-M	T 2 03 108 2101-000	
	HDD-108-F		T 2 03 108 2201-000
Contact arrangement view from termination side 	Panel cut out for inserts for use without hoods/housings 		

### 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


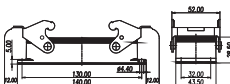

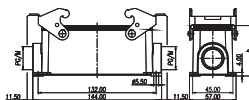

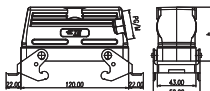

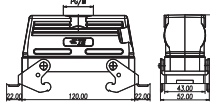


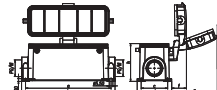
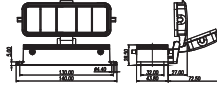
## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number
Hood: Side entry					
	<div>Low construction</div> <div></div>	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
	<div>High construction</div> <div></div>	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					
	<div>Low construction</div> <div></div>	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
	<div>High construction</div> <div></div>	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					
	<div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> 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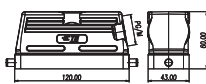

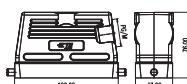

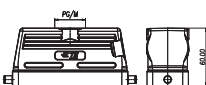

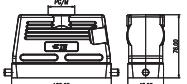



## H24B with 2 levers on the hoods/housings

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




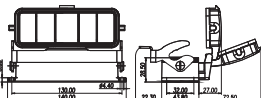

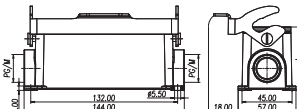

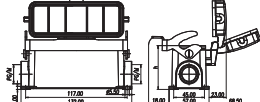
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	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											
	<div><div>Low construction</div><div></div><div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>78.5</td></tr></table></div><div>High construction</div></div>	Construction	H	Low	62.5	High	78.5	M25 M32  M25 M32 M40	PG21 PG29  PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32  H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000  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
Construction	H										
Low	62.5										
High	78.5										
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											
	<div><div>1 Side entry Low construction</div><div></div><div>2 Side entry</div></div> <table><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	<div><div>M20</div><div>M25</div><div>M20</div><div>M25</div><div>M25</div><div>M32</div><div>M25</div><div>M32</div></div>	<div><div>PG16</div><div>PG21</div><div>PG16</div><div>PG21</div><div>PG21</div><div>PG29</div><div>PG21</div><div>PG29</div></div>	<div>H24B-SGR-LB-PG16</div> <div>H24B-SGR-LB-PG21</div> <div>H24B-SGR-LB-M20</div> <div>H24B-SGR-LB-M25</div> <div>H24B-SGR-LB-2PG16</div> <div>H24B-SGR-LB-2PG21</div> <div>H24B-SGR-LB-2M20</div> <div>H24B-SGR-LB-2M25</div> <div>H24B-SGRH-LB-PG21</div> <div>H24B-SGRH-LB-PG29</div> <div>H24B-SGRH-LB-M25</div> <div>H24B-SGRH-LB-M32</div> <div>H24B-SGRH-LB-2PG21</div> <div>H24B-SGRH-LB-2PG29</div> <div>H24B-SGRH-LB-2M25</div> <div>H24B-SGRH-LB-2M32</div>	<div>T 1 61 024 3116-000</div> <div>T 1 61 024 3121-000</div> <div>T 1 61 024 3120-000</div> <div>T 1 61 024 3125-000</div> <div>T 1 61 024 3216-000</div> <div>T 1 61 024 3221-000</div> <div>T 1 61 024 3220-000</div> <div>T 1 61 024 3225-000</div> <div>T 1 65 024 3121-000</div> <div>T 1 65 024 3129-000</div> <div>T 1 65 024 3125-000</div> <div>T 1 65 024 3132-000</div> <div>T 1 65 024 3221-000</div> <div>T 1 65 024 3229-000</div> <div>T 1 65 024 3225-000</div> <div>T 1 65 024 3232-000</div>
Construction	H										
Low	56										
High	81										
	With protection cover 	<div><div>1 Side entry Low construction</div><div>2 Side entry</div><div>1 Side entry High construction</div><div>2 Side entry</div></div> <div><div>M20</div><div>M25</div><div>M20</div><div>M25</div><div>M25</div><div>M32</div><div>M25</div><div>M32</div></div>	<div><div>PG16</div><div>PG21</div><div>PG16</div><div>PG21</div><div>PG21</div><div>PG29</div><div>PG21</div><div>PG29</div></div>	<div>H24B-SDR-LB-PG16</div> <div>H24B-SDR-LB-PG21</div> <div>H24B-SDR-LB-M20</div> <div>H24B-SDR-LB-M25</div> <div>H24B-SDR-LB-2PG16</div> <div>H24B-SDR-LB-2PG21</div> <div>H24B-SDR-LB-2M20</div> <div>H24B-SDR-LB-2M25</div> <div>H24B-SDRH-LB-PG21</div> <div>H24B-SDRH-LB-PG29</div> <div>H24B-SDRH-LB-M25</div> <div>H24B-SDRH-LB-M32</div> <div>H24B-SDRH-LB-2PG21</div> <div>H24B-SDRH-LB-2PG29</div> <div>H24B-SDRH-LB-2M25</div> <div>H24B-SDRH-LB-2M32</div>	<div>T 1 62 024 3116-000</div> <div>T 1 62 024 3121-000</div> <div>T 1 62 024 3120-000</div> <div>T 1 62 024 3125-000</div> <div>T 1 62 024 3216-000</div> <div>T 1 62 024 3221-000</div> <div>T 1 62 024 3220-000</div> <div>T 1 62 024 3225-000</div> <div>T 1 66 024 3121-000</div> <div>T 1 66 024 3129-000</div> <div>T 1 66 024 3125-000</div> <div>T 1 66 024 3132-000</div> <div>T 1 66 024 3221-000</div> <div>T 1 66 024 3229-000</div> <div>T 1 66 024 3225-000</div> <div>T 1 66 024 3232-000</div>						

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


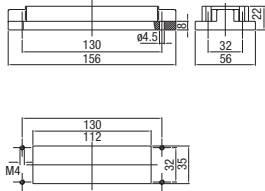

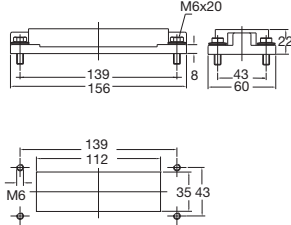

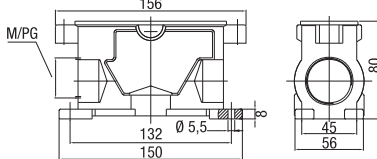

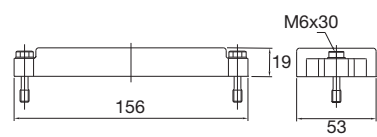
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Bottom entry, Standard construction					
			<b>HIP</b> HIP.24/64.AG  <b>HIP-K</b> HIP-K.24/64.AG  <b>EMV-K</b> EMV-K.24/64.AG	1-1102665-5  2-1102665-5  4-1102760-5	
			<b>HIP</b> HIP.24/64.AG.M6  <b>HIP-K</b> HIP-K.24/64.AG.M6 HIP-K.24/64.AG.M6.D HIP-K-I.24/64.AG.M6.D  <b>EMV-K</b> EMV-K.24/64.AG.M6	1-1102626-5  2-1102626-5 2-1102628-5 0-1108533-1  4-1102736-5	
Surface mounted housing: Side entry, Standard construction					
		2xM40   2xM40   2xM40	29 2x29  29 2x29  29 2x29  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  <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  <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	1-1102624-5 1-1102625-5 0-1106472-1  5-1102624-5 2-1102625-5 0-1106472-2  4-1102734-5 4-1102735-5 0-1106460-2
Protective cover housings					
			<b>HIP</b> HIP/EMV.24/64.SKB  <b>HIP-K/EMV-K</b> HIP-K/EMV-K.24/64.SKB	3-1106204-5  4-1106204-5	

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


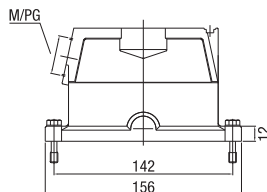

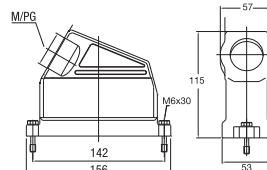

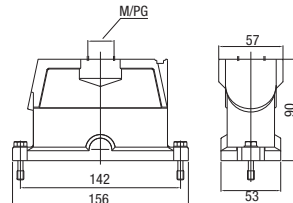
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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.1.36G 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
Hood: Top entry, Standard construction					
		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			


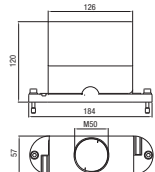

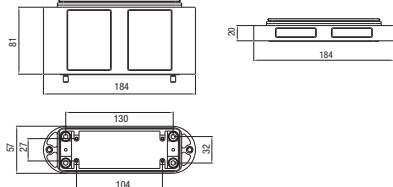

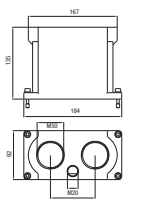

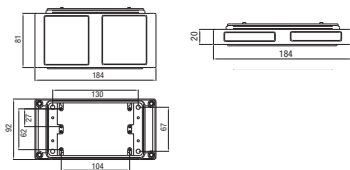
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**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>		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
		81 mm	20 mm		
		81 mm	20 mm		
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>		HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMVK-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1
		81 mm	20 mm		
		81 mm	20 mm		


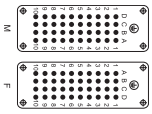

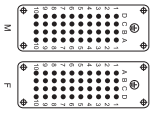


## HD-080 inserts

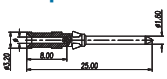

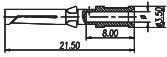
### INSERTS FOR H32B HOOD/HOUSING

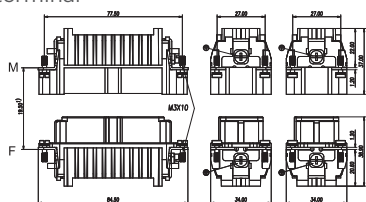
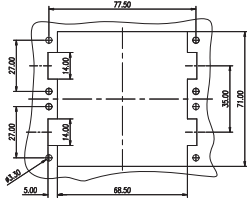
250V 10A

80 (2x40)+⊕ (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: $\leq 3\text{m}\Omega$ 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

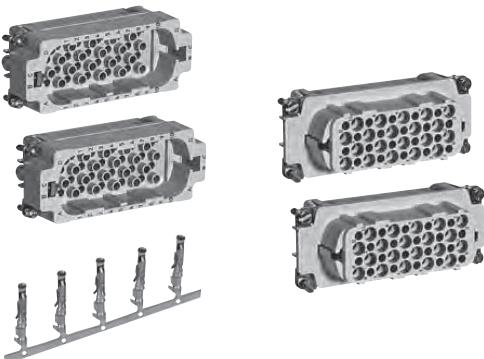
Distance for contact max. 24mm	Panel cut-out for inserts for use without hoods/housings
Crimp terminal 	

# HD-080 inserts

## INSERTS FOR H32B HOOD/HOUSING

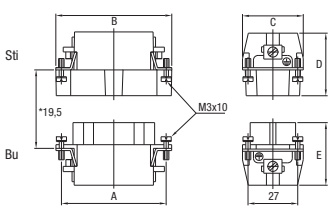
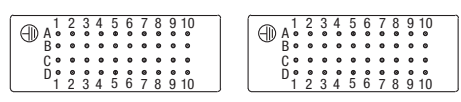
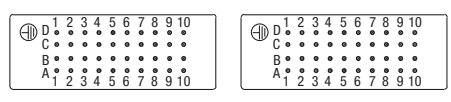
250V 10A

80 (2x40)+  (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


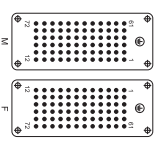

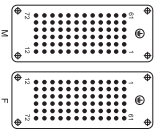
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## HDD-144 inserts

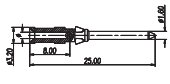

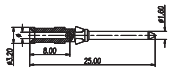

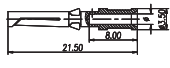
### INSERTS FOR H32B HOOD/HOUSING

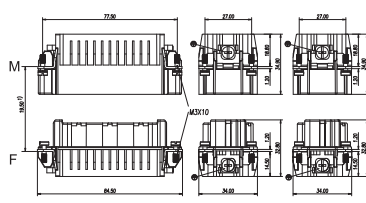
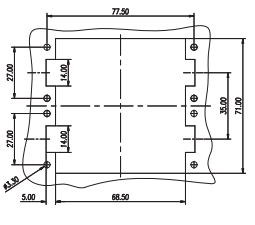
250V 10A

144 (2x72)+⊕ (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


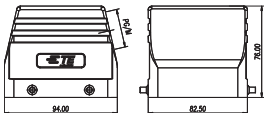

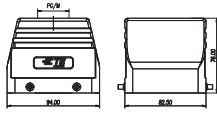

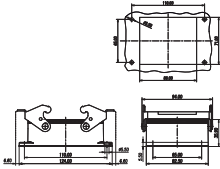

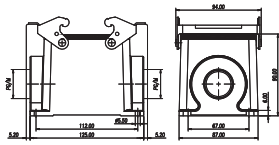

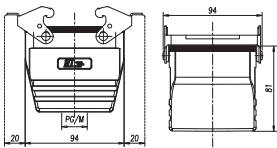

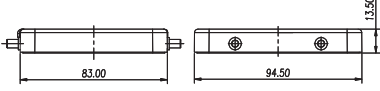
### 10A Contact

Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ 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	Panel cut-out for inserts for use without hoods/housings
Crimp terminal 	


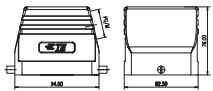

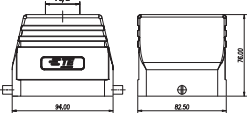

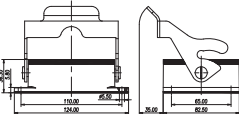

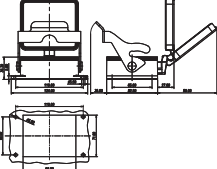

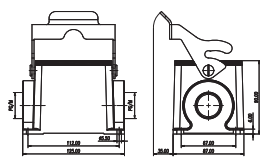

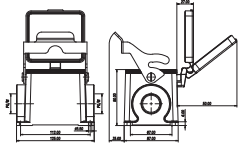
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
		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
Hood: Top entry				
		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
Bulkhead mounted				
			H32B-AG	T 1 41 032 2000-000
Surface mounted: Side entry				
		1 Side entry M32 M40 M50 M63 2 Side entry 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
Cable-to-cable hood				
		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
Protection covers for hoods				
			H32B-KDB	T 1 00 032 1220-000

## H32B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037


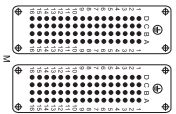

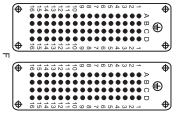
Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
 	M32 M40	PG29 PG36	H32B-TS-RO-PG29 H32B-TS-RO-PG36 H32B-TS-RO-M32 H32B-TS-RO-M40	T 1 31 032 0129-000 T 1 31 032 0136-000 T 1 31 032 0132-000 T 1 31 032 0140-000
Hood: Top entry				
 	M25 M32 M40 M50	PG21 PG29 PG36 PG42	H32B-TG-RO-PG21 H32B-TG-RO-PG29 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
 <p>With protection cover</p> 			H32B-AD-LB	T 1 51 032 2000-000
Surface mounted: Side entry				
 	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	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
 <p>With protection cover</p> 	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	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

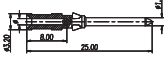

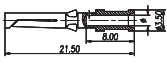
### INSERTS FOR H48B HOOD/HOUSING

250V 10A

128 (2x64)+⊕ (machined contacts)

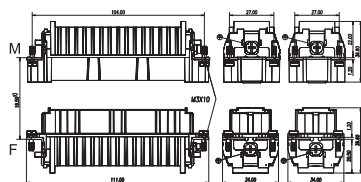
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HD-064-M(1-64) HD-064-M(65-128)	T 2 02 064 2101-000 T 2 02 128 2101-000	
		HD-064-F(1-64) HD-064-F(65-128)		T 2 02 064 2201-000 T 2 02 128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

### 10A Contact

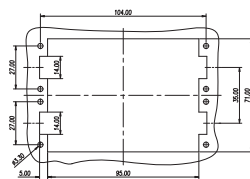
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
	10A Female crimp 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

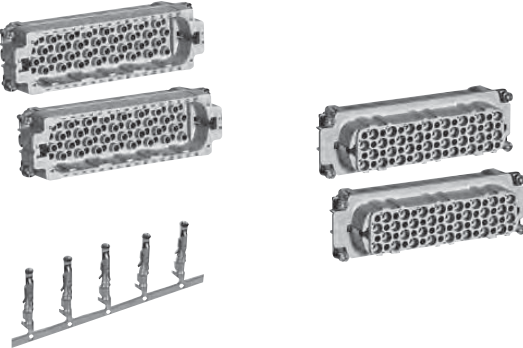


HD.128/HEE 92 contact inserts

INSERTS FOR H48B HOOD/HOUSING

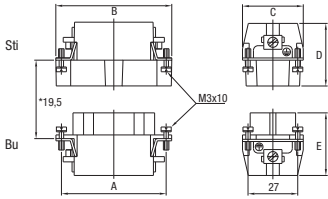
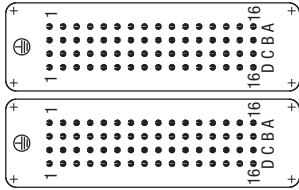
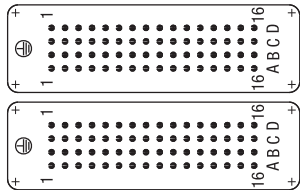
250V 10A

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


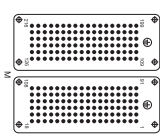

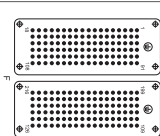
Dimensions (mm)	Contact arrangement	
	Male insert	Female insert
		

## HDD-216 inserts

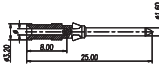

### INSERTS FOR H48B HOOD/HOUSING

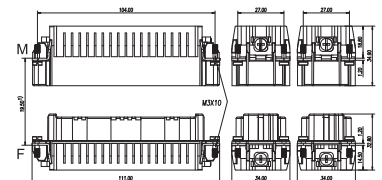
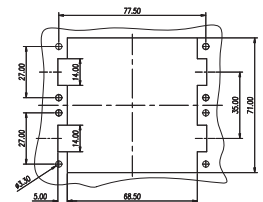
250V 10A

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


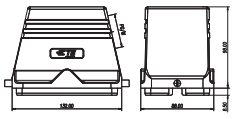

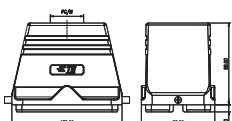

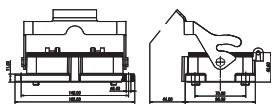

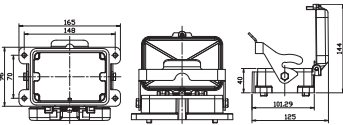

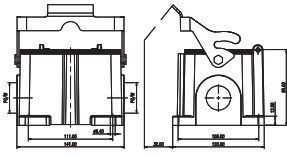

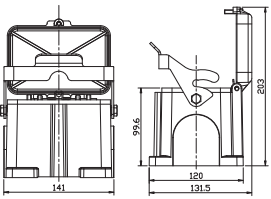
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
	10A Female crimp 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
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 	



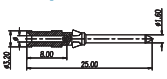

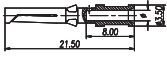

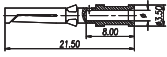
## H48B hoods/housings

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				
		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 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
Surface mounted with cover				
		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 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

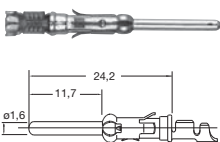
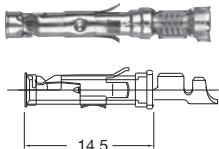
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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 		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 hard gold <b>Contact</b> <b>resistance:</b> ≤3mΩ <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

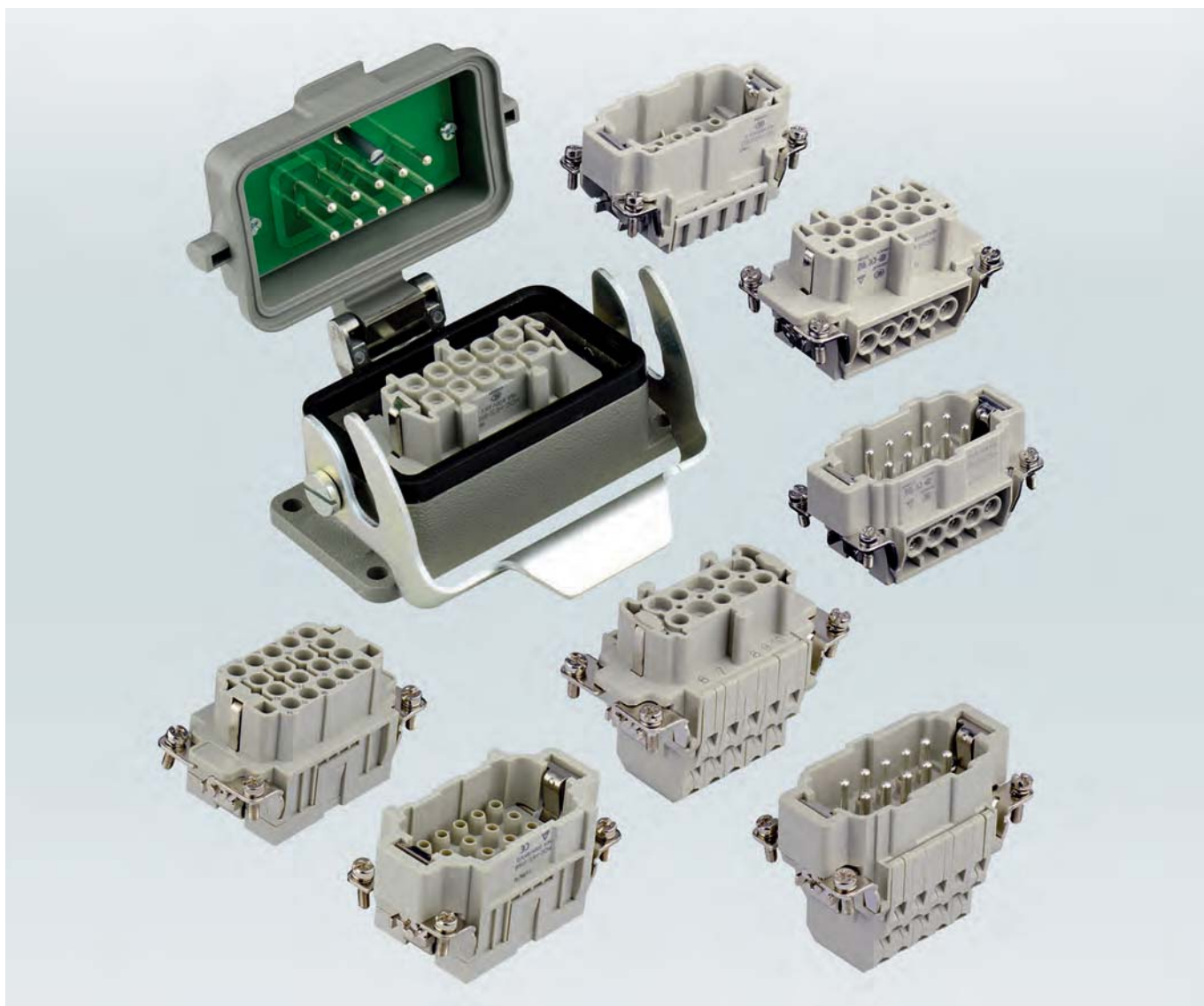
## Crimping tools HD.M series

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>

## Notes

[illegible]

## 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



RoHS

## 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

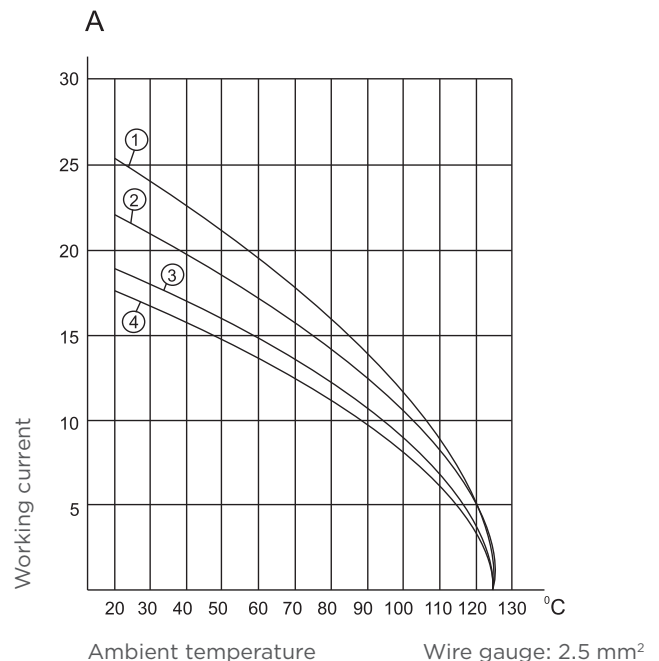
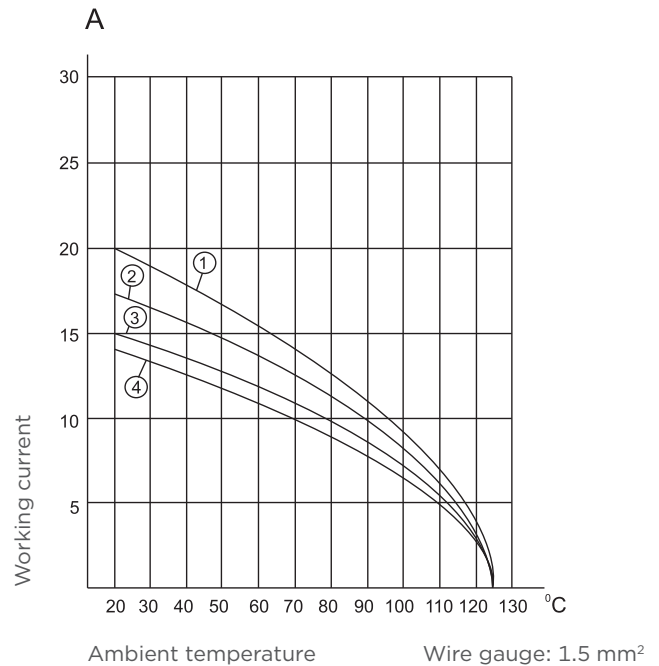
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1m\Omega$
Terminal .....	
.....	Crimp terminal
.....	Screw terminal
.....	Spring terminal
.....	Double Spring terminal
-mm <sup>2</sup>	
Crimp terminal .....	0.14-4.0
Screw terminal .....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

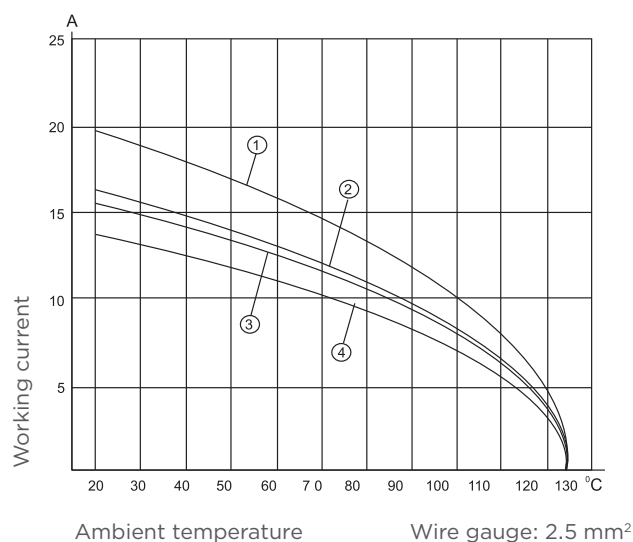
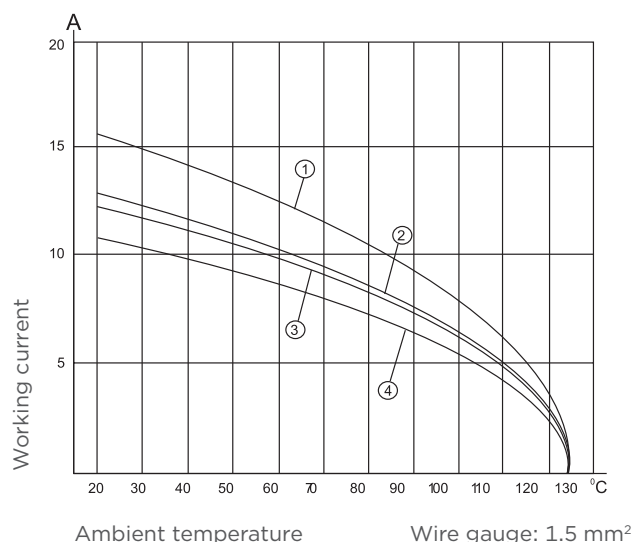
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 1\text{m}\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

## 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

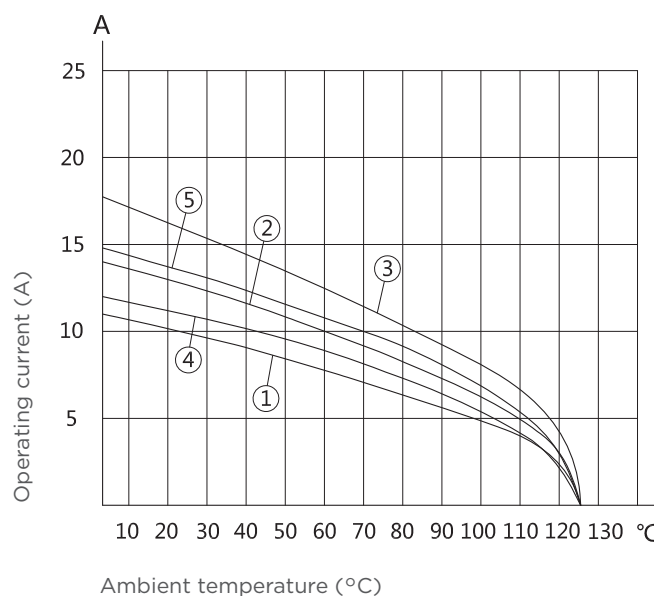
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 5m\Omega$
Terminal .....	Crimp terminal
- mm <sup>2</sup> .....	0.14-4.0mm <sup>2</sup>
- AWG .....	26-12

### 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



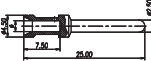
INSERTS FOR H6B HOOD/HOUSING

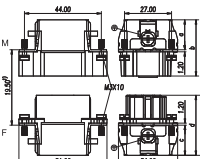
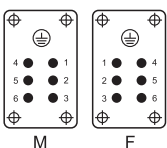
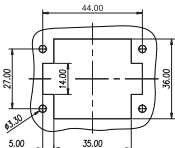
500V MAX. 16A

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  CEF/Female 	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
		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																		


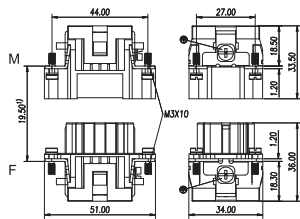
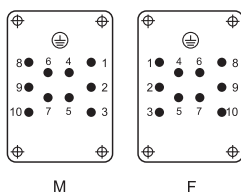
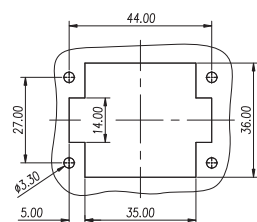
All specifications subject to change. Consult TE Connectivity for latest design specifications.  
Contact TE for assistance with any part number configuration.

## HEE-010 inserts


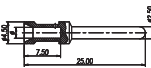

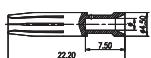
INSERTS FOR H6B HOOD/HOUSING

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
Contact arrangement view from termination side		Panel cut out for inserts for use without hoods/housings		
				

### 16A Contact


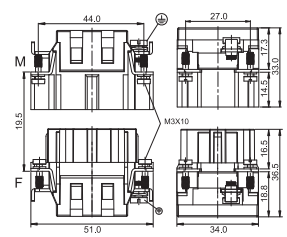
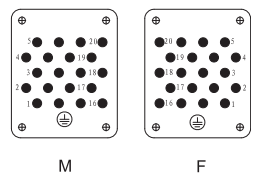
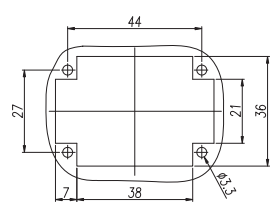
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
CEF/Female 	16A 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

## HEEE-020 inserts


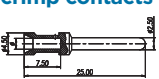

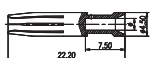
INSERTS FOR H6B HOOD/HOUSING

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			
 <div>M</div> <div>F</div>				

### 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


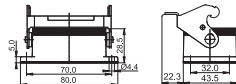

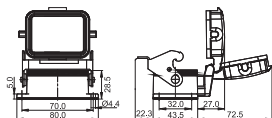

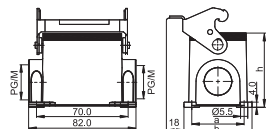

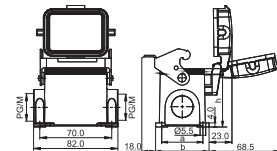
## H6B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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						
Hood: Top entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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						
Cable-to-cable hood											
	<div></div> <div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	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										
Protection covers for hoods											
	<div></div>			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><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25 H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25  H6B-SGRHS-PG21 H6B-SGRHS-PG29 H6B-SGRHS-M25 H6B-SGRHS-M32 H6B-SGRHS-2PG21 H6B-SGRHS-2PG29 H6B-SGRHS-2M25 H6B-SGRHS-2M32	T 1 61 006 2116-000 T 1 61 006 2121-000 T 1 61 006 2120-000 T 1 61 006 2125-000 T 1 61 006 2216-000 T 1 61 006 2221-000 T 1 61 006 2220-000 T 1 61 006 2225-000  T 1 65 006 2121-000 T 1 65 006 2129-000 T 1 65 006 2125-000 T 1 65 006 2132-000 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															
	With protection cover  <table><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25 H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25  H6B-SDRHS-PG21 H6B-SDRHS-PG29 H6B-SDRHS-M25 H6B-SDRHS-M32 H6B-SDRHS-2PG21 H6B-SDRHS-2PG29 H6B-SDRHS-2M25 H6B-SDRHS-2M32	T 1 62 006 2116-000 T 1 62 006 2121-000 T 1 62 006 2120-000 T 1 62 006 2125-000 T 1 62 006 2216-000 T 1 62 006 2221-000 T 1 62 006 2220-000 T 1 62 006 2225-000  T 1 66 006 2121-000 T 1 66 006 2129-000 T 1 66 006 2125-000 T 1 66 006 2132-000 T 1 66 006 2221-000 T 1 66 006 2229-000 T 1 66 006 2225-000 T 1 66 006 2232-000
Construction	A	B	H															
Low	40	52	56															
Hight	45	57	74															

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


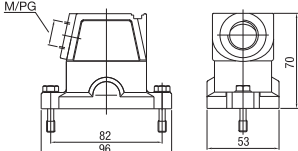

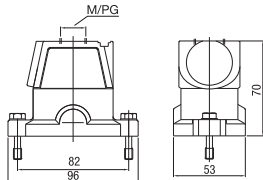

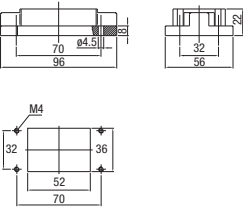

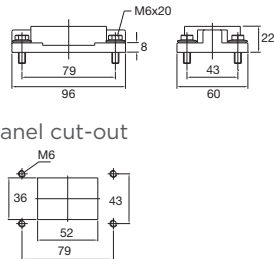
**HIP:** Pressure-tight, silver-grey

**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  <b>HIP-K</b> HIP-K.6/16.AG  <b>EMV-K</b> EMV-K.6/16.AG	1-1102638-5  2-1102638-5  4-1102710-5
  <p>Panel cut-out</p>			<b>HIP</b> HIP.6/16.AG.M6  <b>HIP-K</b> HIP-K.6/16.AG.M6  <b>EMV-K</b> EMV-K.6/16.AG.M6	1-1102606-5  2-1102606-5  4-1102712-5

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


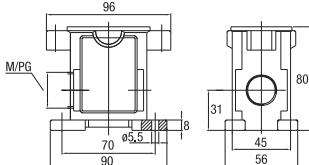

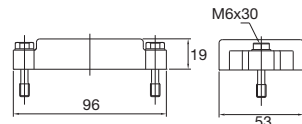
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Side entry					
		2xM32	16 2x16	<b>HIP</b> HIP.6/16.SG.1.16.G HIP.6/16.SG.2.16.G HIP.6/16.SG.2.M32.G  <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  <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	1-1102604-5 1-1102605-5 0-1106424-1  2-1102604-5 2-1102605-5 0-1102942-1 0-1106424-2  5-1102708-5 5-1102709-5 0-1106413-3 0-1106415-2
		2xM25 2xM32	16 2x16		
		2xM25 2xM32	16 2x16		
Protective covers for housings					
				<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


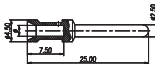

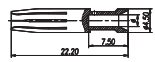
INSERTS FOR H10B HOOD/HOUSING

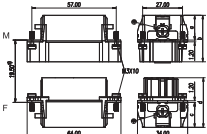
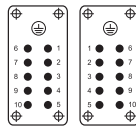
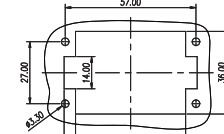
500V MAX. 16A

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: $\leq 1\text{m}\Omega$ 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 	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																				
<div><table><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></div>		a	b	c	d	HE	18	33	18	35	HES/HEC	19	34	19	36	HESS	34	49	32	49	<div></div>	<div></div>
	a	b	c	d																		
HE	18	33	18	35																		
HES/HEC	19	34	19	36																		
HESS	34	49	32	49																		


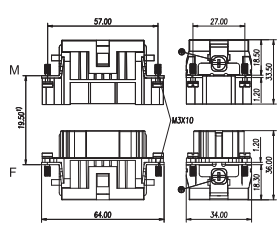
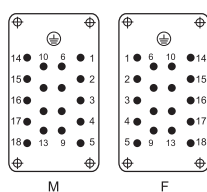
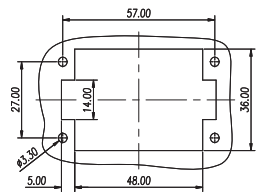


## HEE-018 inserts


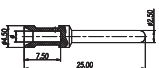

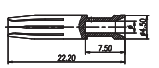
INSERTS FOR H10B HOOD/HOUSING

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


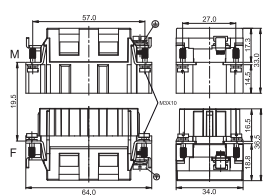
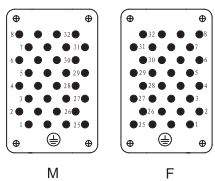
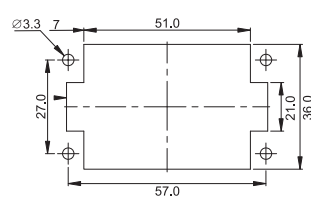
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	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


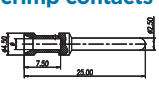
INSERTS FOR H10B HOOD/HOUSING

400V MAX. 16A

32+Ⓢ


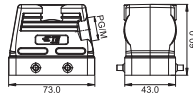



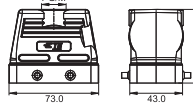

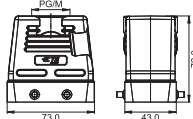

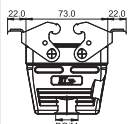
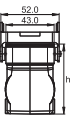

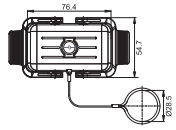

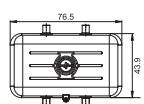
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)				
		HEEE-032-M	T 2 05 032 3101-000	
		HEEE-032-F		T 2 05 032 3201-000
Contact arrangement view from termination side		Panel cut out for inserts for use without hoods/housings		
				

## 16A Contact

Tech data Material: copper alloy Contact resistance: ≤1mΩ 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
CEM/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


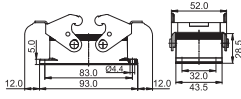

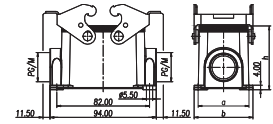

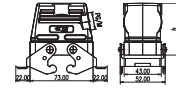

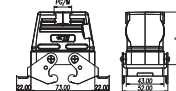



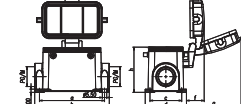
## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</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>High construction</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						
Hood: Top entry											
	<div>Low construction</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>High construction</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						
Cable-to-cable hood											
	<div><div><div>Low construction</div></div><div><div>High construction</div></div></div> <table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>Hight</td><td>74.5</td></tr></table>	Construction	H	Low	62.5	Hight	74.5	M20 M25  M25 M32	PG16  PG21 PG29	H10B-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25  H10B-TBFHS-PG21 H10B-TBFHS-PG29 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										
Hight	74.5										
Protection covers for hoods											
				H10B-KDTP	T 1 01 010 1400-000						
Housing protection cover											
				H10B-KDBP	T 1 01 010 2100-000						


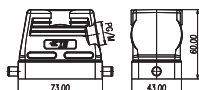

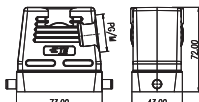

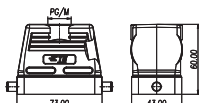

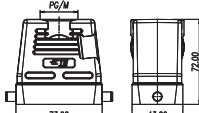

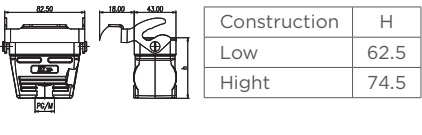

## H10B with 2 levers on the hoods/housings

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><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>Hight</td><td>45</td><td>57</td><td>74</td></tr></table>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	1 Side entry Low construction M20 M25 2 Side entry M20 M25 1 Side entry High construction 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																										
Side entry housing with two levers																													
	 <table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></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																												
Top entry housing with two levers																													
	 <table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></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																												
Bulkhead mounted with 4 bolts																													
 	With protection cover   <table><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>Hight</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	Hight	82	94	45	57	20	65	74	1 Side entry Low construction M20 M25 2 Side entry M20 M25 1 Side entry High construction 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																						


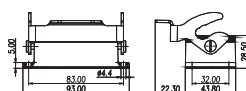

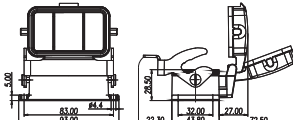

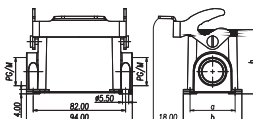

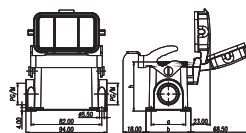
## H10B with 1 lever on the hoods/housings

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				
		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
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="314 1218 670 1314"><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 M20 M25 2 Side entry M20 M25 High construction M25 M32 2 Side entry 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="314 1624 670 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 M20 M25 2 Side entry M20 M25 High construction M25 M32 2 Side entry 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


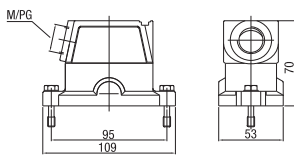

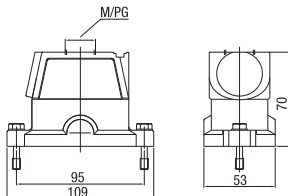

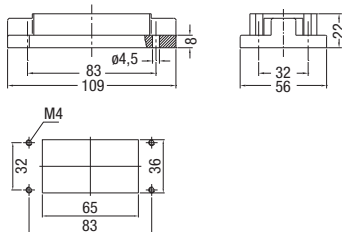
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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
Hood: Top entry					
		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
Surface mounted housing: Bottom entry					
				<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


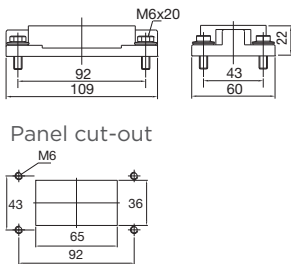

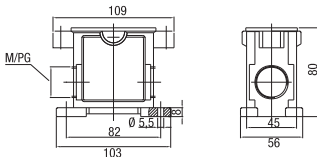

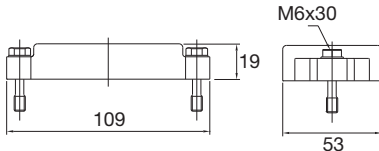
**HIP:** Pressure-tight, silver-grey

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







## HE-016 inserts


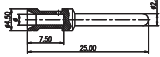

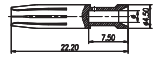
INSERTS FOR H16B HOOD/HOUSING

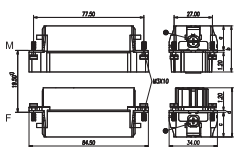
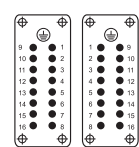
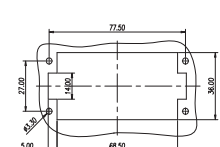
500V MAX. 16A

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: $\leq 1\text{m}\Omega$ 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 	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


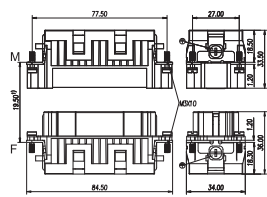
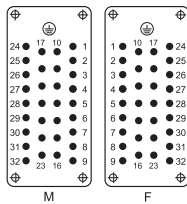
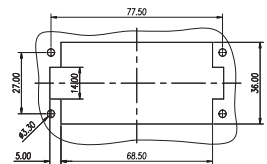
Distance for contact max. 21mm	Contact arrangement view from termination side	Panel cut-out for inserts for use without hoods/housings																				
<div><table><thead><tr><th></th><th>a</th><th>b</th><th>c</th><th>d</th></tr></thead><tbody><tr><td>HE</td><td>18</td><td>33</td><td>18</td><td>35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

## HEE-032 inserts


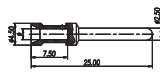

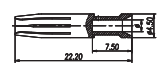
INSERTS FOR H16B HOOD/HOUSING

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


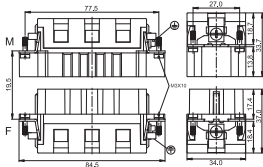
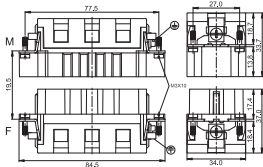
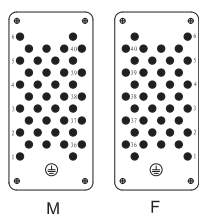
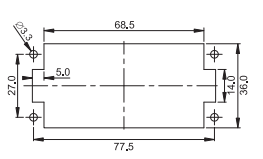
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	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-040 inserts

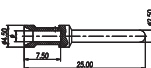


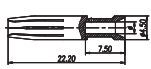
INSERTS FOR H16B HOOD/HOUSING

500V MAX. 16A

40+ 


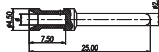


Dimensions (mm)	Type	Part Number		
		Male insert	Female insert	
Crimp terminal (order crimp contacts separately)				
		HEEE-040-M	T 2 05 040 2101-000	
		HEEE-040-F		
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings			
				

## 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 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

400V MAX. 16A

48+

16A Contact								
<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 	<b>16A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip-ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
		mm²	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
<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


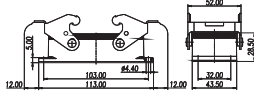

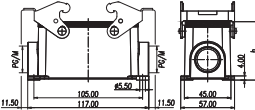

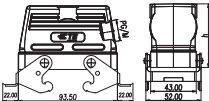

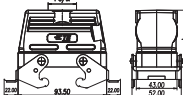


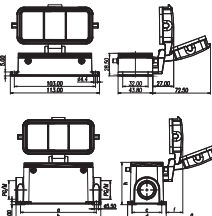
## H16B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div><div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div><div><div>Low construction</div><div>High construction</div></div></div>	Construction	H	Low	62.5	High	74.5	M25 M32  M25 M32 M40	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	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000  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
Construction	H										
Low	62.5										
High	74.5										
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						


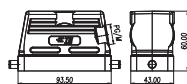

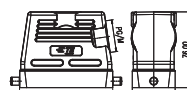

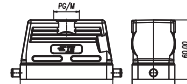

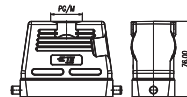

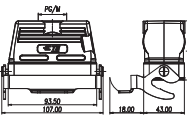

## H16B with 2 levers on the hoods/housings

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"><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 2 Side entry Low construction High construction	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"><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"><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"><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	1 Side entry 2 Side entry 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


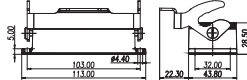

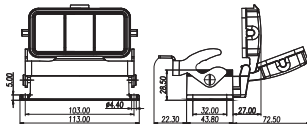

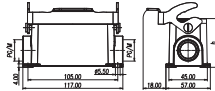

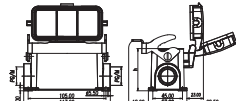
POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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											
	<div><div><div>PG/M</div></div><div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>Hight</td><td>74.5</td></tr></table></div></div> <div><div>Low construction</div><div>High construction</div></div>	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										
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							
	With protection cover 		H16B-AD-LB	T 1 51 016 3000-000							
Surface mounted: Side entry											
	<div><div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div><div>High construction</div></div><div><table><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></div></div>	Construction	H	Low	56	Hight	81	M20 M25  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										
Hight	81										
	With protection cover <div><div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div><div>High construction</div></div><div><table><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></div></div>	Construction	H	Low	56	Hight	81	M20 M25  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										
Hight	81										



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


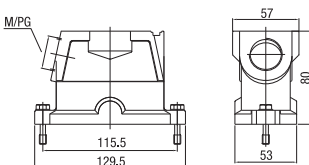

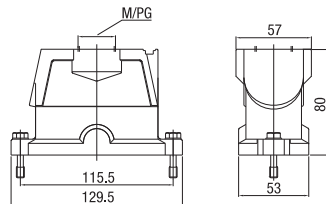

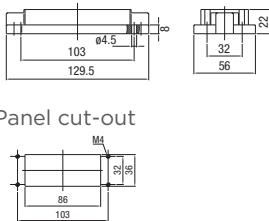

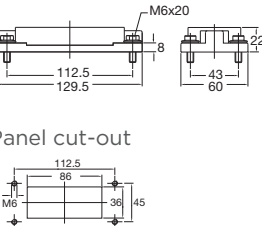
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry					
		M32	21	HIP 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
			29		
		M32	29	HIP-K HIP-K.16/40.STS.1.29.G HIP-K.16/40.STS.1.M32.G	2-1102651-5 0-1106444-2
			M32	29	EMV-K EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G EMV-K.16/40.STS.1.21.G
		21			
		Hood: Top entry			
		M32	21	HIP 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
			29		
		M32	21	HIP-K 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
			29		
		M32	29	EMV-K EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G	4-1102725-5 0-1106446-3
			Surface mounted housing: Bottom entry		
	 Panel cut-out			HIP HIP.16/40.AG	1-1102656-5
				HIP-K HIP-K.16/40.AG	2-1102656-5
				EMV-K EMV-K.16/40.AG	4-1102728-5
	 Panel cut-out			HIP HIP.16/40.AG.M6	1-1102618-5
				HIP-K HIP-K.16/40.AG.M6	2-1102618-5
				EMV-K EMV-K.16/40.AG.M6	4-1102730-5

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


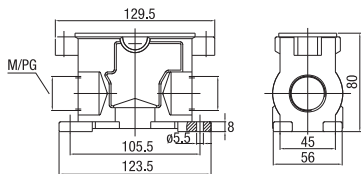

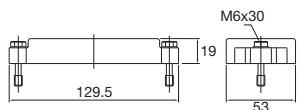
**HIP:** Pressure-tight, silver-grey

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


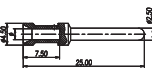

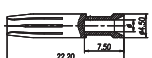
INSERTS FOR H24B HOOD/HOUSING

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


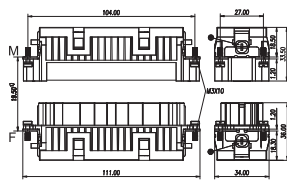
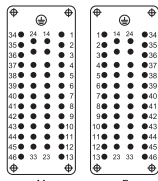
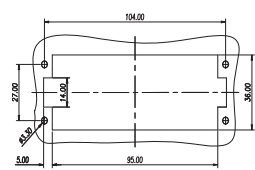
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	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


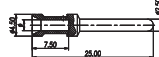

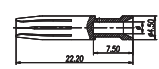
INSERTS FOR H24B HOOD/HOUSING

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


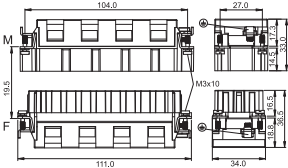
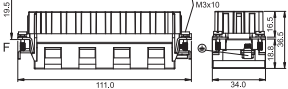
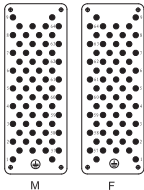
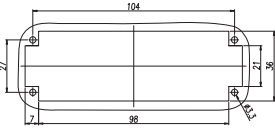
Tech data	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
<b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 		0.14-0.37	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> 	<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-064 inserts


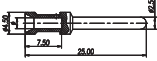

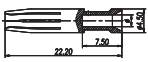
INSERTS FOR H24B HOOD/HOUSING

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


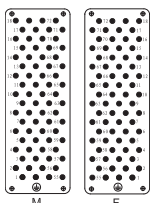
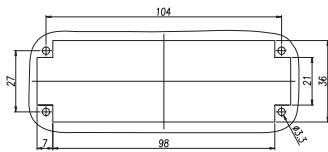
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male 	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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-072 inserts


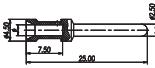

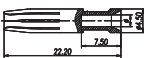
INSERTS FOR H24B HOOD/HOUSING

400V MAX. 16A

72+ 




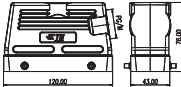

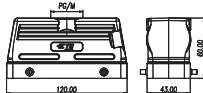

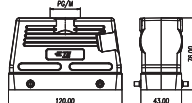

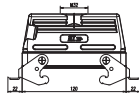


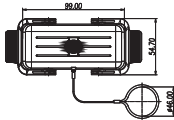

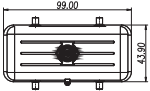
Dimensions (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
	HEEE-072-M	T 2 05 072 2101-000	
	HEEE-072-F		T 2 05 072 2201-000
Contact arrangement view from termination side	Panel cut out for inserts for use without hoods/housings		
			

## 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 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


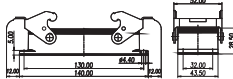

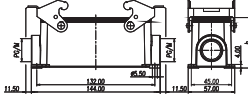

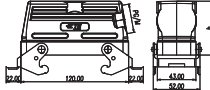

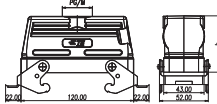



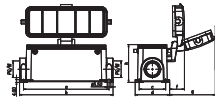
## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div><div><div><div>Low construction</div><div></div></div><div><div>High construction</div><div></div></div></div><table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>78.5</td></tr></table></div>	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


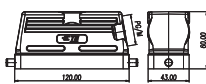

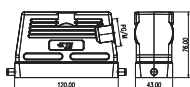

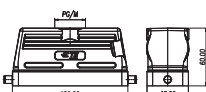

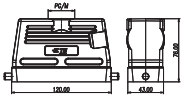

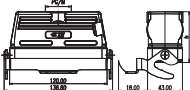

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number																				
Bulkhead mounted																									
				H24B-AGS	T 1 41 024 1000-000																				
Surface mounted: Side entry																									
	<div><table><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></div> <div>1 Side entry Low construction 2 Side entry High construction 1 Side entry High construction 2 Side entry High construction</div> <div>M25 M25 M25 M32 M25 M32</div> <div>PG21 PG21 PG21 PG29 PG21 PG29</div> <div>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</div> <div>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</div>	Construction	H	Low	56	High	81																		
Construction	H																								
Low	56																								
High	81																								
Side entry housing with two levers																									
	<div><table><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></div> <div>Low construction High construction</div> <div>M20 M25 M25 M32</div> <div>PG16 PG21 PG21 PG29</div> <div>H24B-TSBS-PG16 H24B-TSBS-PG21 H24B-TSBS-M20 H24B-TSBS-M25 H24B-TSBHS-PG21 H24B-TSBHS-PG29 H24B-TSBHS-M25 H24B-TSBHS-M32</div> <div>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</div>	Construction	H	Low	60	High	76																		
Construction	H																								
Low	60																								
High	76																								
Top entry housing with two levers																									
	<div><table><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></div> <div>Low construction High construction</div> <div>M20 M25 M25 M32</div> <div>PG16 PG21 PG21 PG29</div> <div>H24B-TGBS-PG16 H24B-TGBS-PG21 H24B-TGBS-M20 H24B-TGBS-M25 H24B-TGBHS-PG21 H24B-TGBHS-PG29 H24B-TGBHS-M25 H24B-TGBHS-M32</div> <div>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</div>	Construction	H	Low	60	High	76																		
Construction	H																								
Low	60																								
High	76																								
Bulkhead mounted with 4 bolts																									
 	<div>With protection cover</div> <div> <table><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></div> <div>1 Side entry 2 Side entry Low construction 1 Side entry 2 Side entry High construction</div> <div>M25 M25 M25 M32 M25 M32</div> <div>PG21 PG21 PG21 PG29 PG21 PG29</div> <div>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</div> <div>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</div>	Construction	A	B	C	D	F	G	H	Low	132	144	45	57	20	65	56	High	132	144	45	57	20	65	81
Construction	A	B	C	D	F	G	H																		
Low	132	144	45	57	20	65	56																		
High	132	144	45	57	20	65	81																		




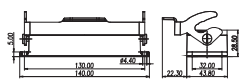

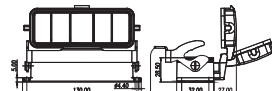

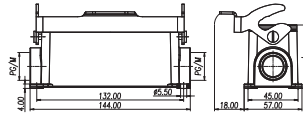

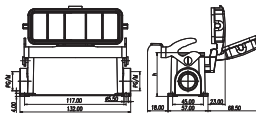
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	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											
	<div><div>Low construction</div><div></div><div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>78.5</td></tr></table></div><div>High construction</div></div>	Construction	H	Low	62.5	High	78.5	M25 M32  M25 M32 M40	PG21 PG29  PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32  H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000  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
Construction	H										
Low	62.5										
High	78.5										
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											
	<div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div><div>High construction</div><div>1 Side entry</div><div>2 Side entry</div><div>High construction</div></div>  <table><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	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><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	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-M2S 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


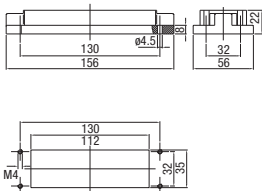

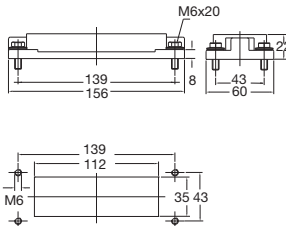

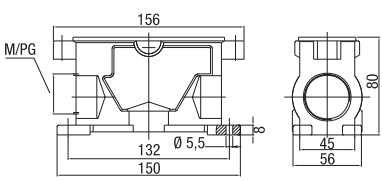

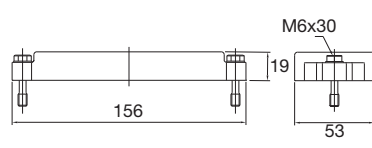
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Bottom entry, Standard construction					
			<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 HIP-K.24/64.AG.M6.D HIP-K-I.24/64.AG.M6.D	2-1102626-5 2-1102628-5 0-1108533-1	
			<b>EMV-K</b> EMV-K.24/64.AG.M6	4-1102736-5	
Surface mounted housing: Side entry, Standard construction					
		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
		2xM40	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
		2xM40	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
Protective cover housings					
			<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


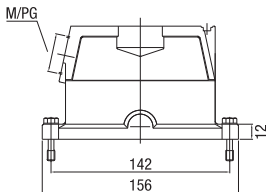

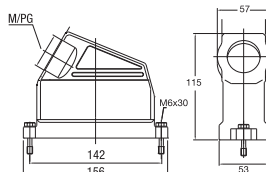

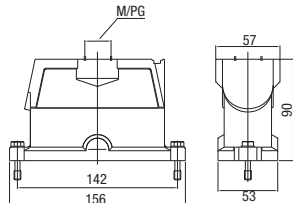
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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.1.36G 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
Hood: Top entry, Standard construction					
		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			


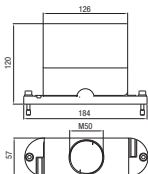

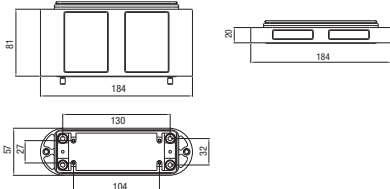

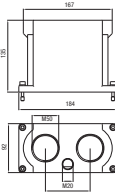

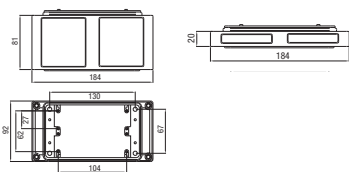
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**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					
		Height 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					
		Height 20 mm 20 mm		HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMVK-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)	T 2 04 016 2101-000	
	HE-016-M(17-32)	T 2 04 032 2101-000	
	HE-016-F(1-16)		T 2 04 016 2201-000
	HE-016-F(17-32)		T 2 04 032 2201-000
Spring terminal			
	HE-016-MS(1-16)	T 2 04 016 3101-000	
	HE-016-MS(17-32)	T 2 04 032 3101-000	
	HE-016-FS(1-16)		T 2 04 016 3201-000
	HE-016-FS(17-32)		T 2 04 032 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-016-MC(1-16)	T 2 04 016 4101-000	
	HE-016-MC(17-32)	T 2 04 032 4101-000	
	HE-016-FC(1-16)		T 2 04 016 4201-000
	HE-016-FC(17-32)		T 2 04 032 4201-000
Spring terminal (Two terminals per contact)			
	HE-016-MSS(1-16)	T 2 04 016 5101-000	
	HE-016-MSS(17-32)	T 2 04 032 5101-000	
	HE-016-FSS(1-16)		T 2 04 016 5201-000
	HE-016-FSS(17-32)		T 2 04 032 5201-000

## 16A Contact


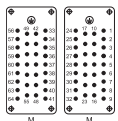
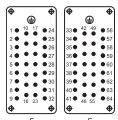
Tech data Material: copper alloy Contact resistance: ≤1mΩ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm²	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	7.5	CEM-0.3	T 2 03 000 1002-000	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


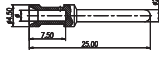

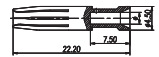
## INSERTS FOR H32B HOOD/HOUSING

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

<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 	<b>16A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip-ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
		mm²	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
<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


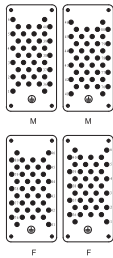
[illegible]

## HEEE-080 inserts


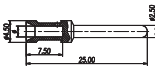

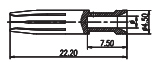
INSERTS FOR H32B HOOD/HOUSING

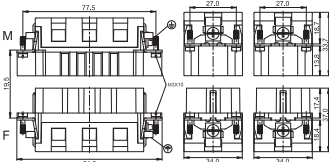
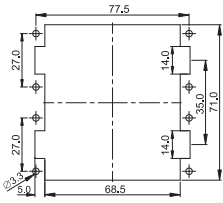
500V MAX. 16A

80+ 

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEEE-040-M(1-40) HEEE-040-M(41-80)	T 2 05 040 2101-000 T 2 05 080 2101-000	
		HEEE-040-F(1-40) HEEE-040-F(41-80)		T 2 05 040 2201-000 T 2 05 080 2201-000

### 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
		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
CEF/Female 	16A Female crimp contacts 	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	Panel cut-out for inserts for use without hoods/housings
Crimp terminal 	


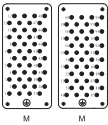
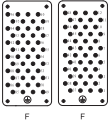


## HEEE-096 inserts


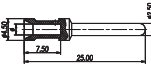

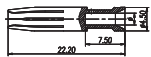
INSERTS FOR H32B HOOD/HOUSING

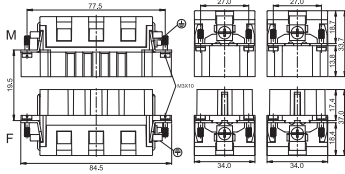
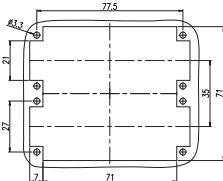
400V MAX. 16A

96+ 

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEEE-048-M(1-48) HEEE-048-M(49-96)	T 2 05 048 2101-000 T 2 05 096 2101-000	
		HEEE-048-F(1-48) HEEE-048-F(49-96)		T 2 05 048 2201-000 T 2 05 096 2201-000


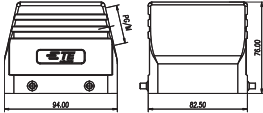

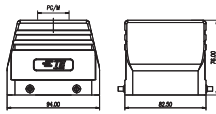

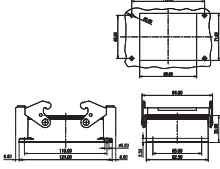

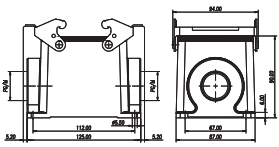

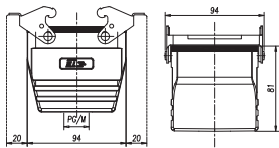

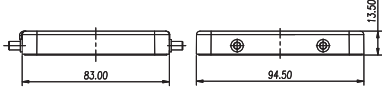
### 16A Contact

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


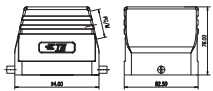

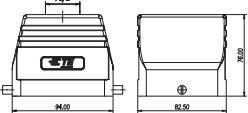

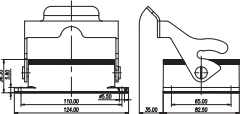

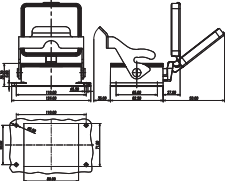

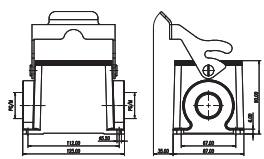

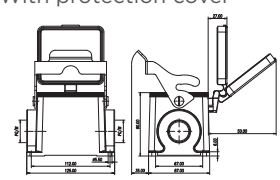
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
		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
Hood: Top entry				
		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
Bulkhead mounted				
			H32B-AG	T 1 41 032 2000-000
Surface mounted: Side entry				
		1 Side entry M32 M40 M50 M63 2 Side entry 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
Cable-to-cable hood				
		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
Protection covers for hoods				
			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

## HE-048 inserts


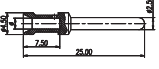

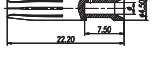
INSERTS FOR H48B HOOD/HOUSING

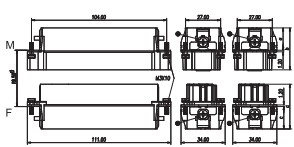
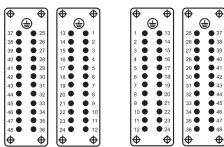
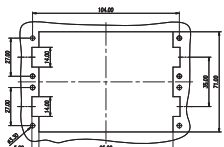
500V MAX. 16A

48 (2x24)+ 

Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Screw terminal			
	HE-024-M(1-24)	T 2 04 024 2101-000	
	HE-024-M(25-48)	T 2 04 048 2101-000	
	HE-024-F(1-24)		T 2 04 024 2201-000
	HE-024-F(25-18)		T 2 04 048 2201-000
Spring terminal			
	HE-024-MS(1-24)	T 2 04 024 3101-000	
	HE-024-MS(25-48)	T 2 04 048 3101-000	
	HE-024-FS(1-24)		T 2 04 024 3201-000
	HE-024-FS(25-48)		T 2 04 048 3201-000
Crimp terminal (Order crimp contacts separately)			
	HE-024-MC(1-24)	T 2 04 024 4101-000	
	HE-024-MC(25-48)	T 2 04 048 4101-000	
	HE-024-FC(1-24)		T 2 04 024 4201-000
	HE-024-FC(25-48)		T 2 04 048 4201-000
Spring terminal (Two terminals per contact)			
	HE-024-MSS(1-24)	T 2 04 024 5101-000	
	HE-024-MSS(25-48)	T 2 04 048 5101-000	
	HE-024-FSS(1-24)		T 2 04 024 5201-000
	HE-024-FSS(25-48)		T 2 04 048 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
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


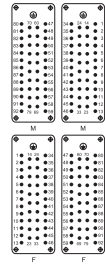
Distance for contact max. 21mm	Contact arrangement view from termination side	Panel cut-out for inserts for use without hoods/housings
		

## HEE-092 inserts

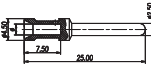

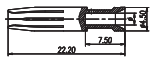

INSERTS FOR H48B HOOD/HOUSING

500V MAX. 16A

92 (2x46)+ $\oplus$

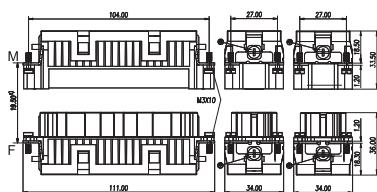
Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (order crimp contacts separately)	Contact arrangement view from termination side			
		HEE-046-M(1-46) HEE-046-M(47-92)	T 2 05 046 2101-000 T 2 05 092 2101-000	
		HEE-046-F(1-46) HEE-046-F(47-92)		T 2 05 046 2201-000 T 2 05 092 2201-000

### 16A Contact

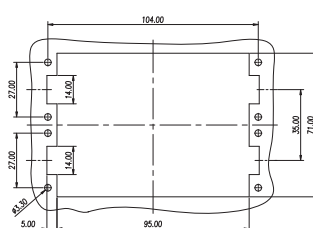
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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
CEM/Female		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


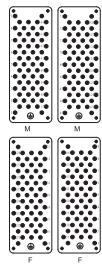


## HEEE-128 inserts

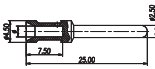

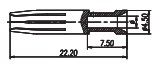
INSERTS FOR H48B HOOD/HOUSING

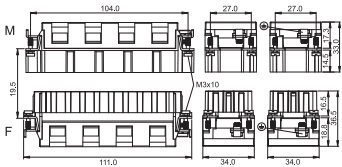
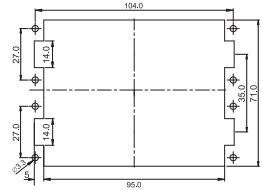
500V MAX. 16A

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: ≤1mΩ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm²	AWG		Type	Part Number	Type	Part Number
 <b>CEF/Female</b>	<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


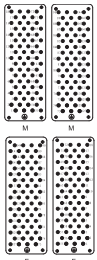
Distance for contact max. 21mm	Panel cut-out for inserts for use without hoods/housings
Crimp terminal 	

## HEEE-144 inserts


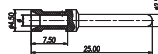

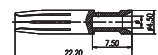
## INSERTS FOR H48B HOOD/HOUSING



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


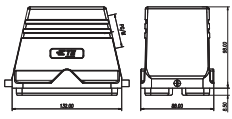

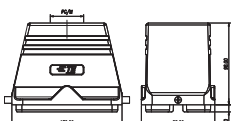

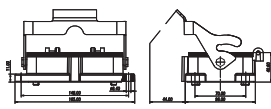

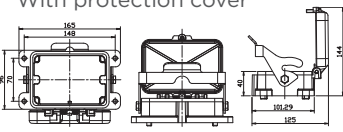

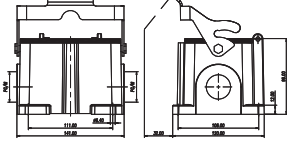

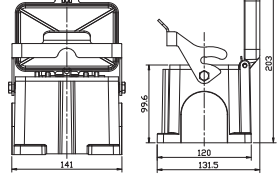
<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 	<b>16A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip-ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
		mm²	AWG	mm	Type	Part 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
<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

	Distance for contact max. 21mm	Panel cut-out for inserts for use without hoods/housings
Crimp terminal		



## H48B hoods/housings

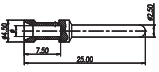


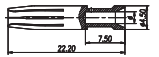
POWDER-COATED, RAL 7037

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				
		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 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
Surface mounted with cover				
		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 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 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	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

## 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

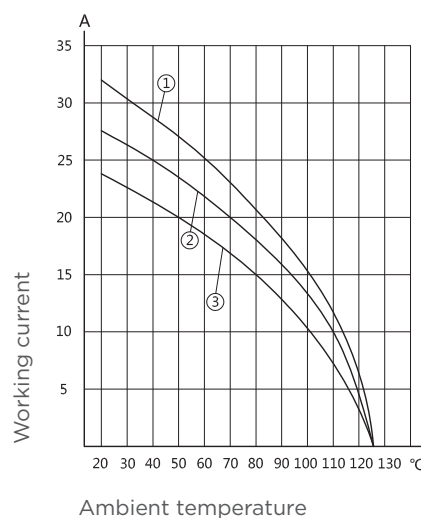
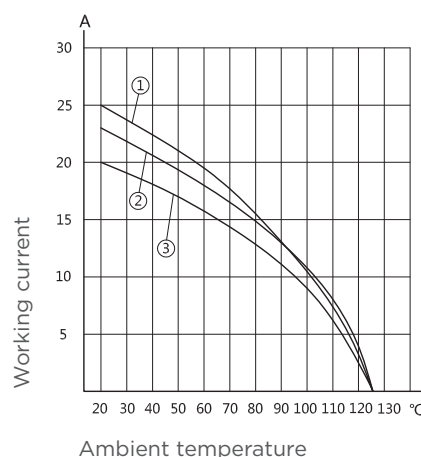
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	$\leq 5m\Omega$
Terminal .....	Screw terminal
.....	Crimp terminal
.....	Spring terminal
- mm <sup>2</sup>	
Screw terminal .....	0.5-2.5mm <sup>2</sup>
Crimp terminal .....	0.14-4mm <sup>2</sup>
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.





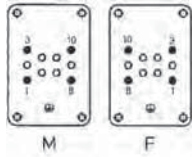
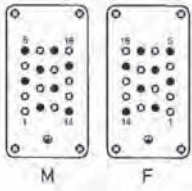
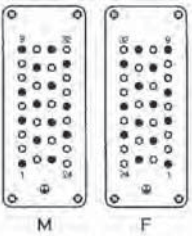
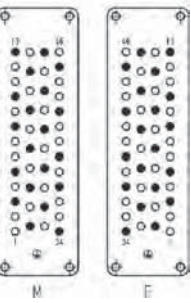




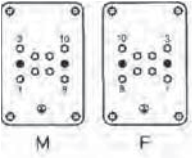
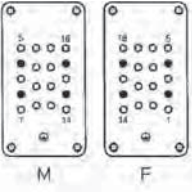
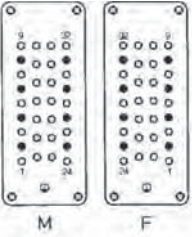
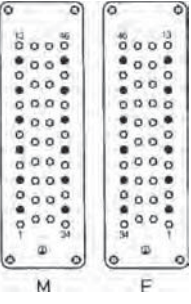


- 1 HVE-003
- 2 HVE-006
- 3 HVE-010

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.

Series HEE 690V~ Insulation group C	Contact arrangement view from termination side			
	4+ 	8+ 	14+ 	20+ 
				
1000V~ Insulation group C	2+ 	4+ 	8+ 	12+ 
				
	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+  +2 Screw terminal			
	HVE-003-M	T 2 30 003 3101-000	
	HVE-003-F		T 2 30 003 3201-000
6+  +2 Screw terminal			
	HVE-006-M	T 2 30 006 3101-000	
	HVE-006-F		T 2 30 006 3201-000
10+  +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

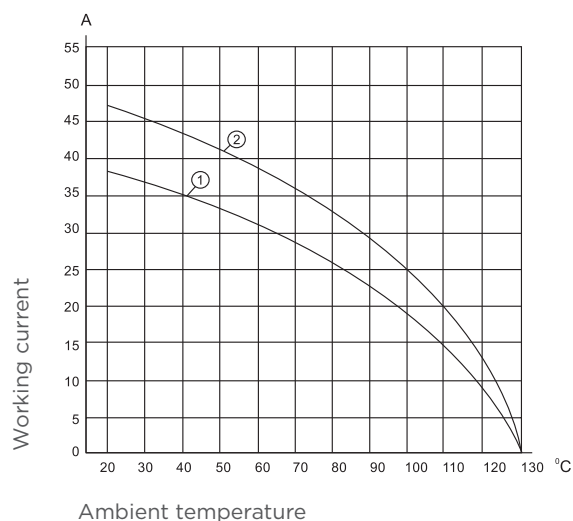
Material ..... Copper alloy  
Surface ..... Hard silver-plated  
Contact resistance .....  $\leq 1\text{m}\Omega$   
Terminal ..... Screw terminal  
- mm<sup>2</sup> ..... 1.5-6mm<sup>2</sup>  
- AWG ..... 16-10  
- Tightening/test torque ..... 1.2 Nm

### 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.




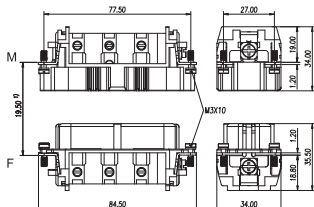
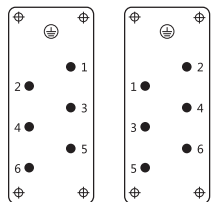
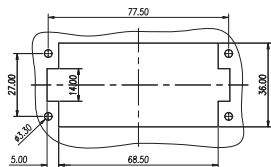
- 1 Wire gauge: 4.0mm<sup>2</sup>  
2 Wire gauge: 6.0mm<sup>2</sup>

## 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		
Contact arrangement view from termination side		Panel cut out for inserts for use without hoods/housings		
 <div>M</div> <div>F</div>				

## H16B with 2 levers on the hoods/housings


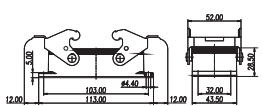

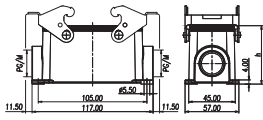

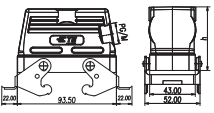

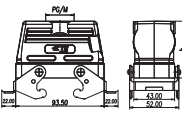

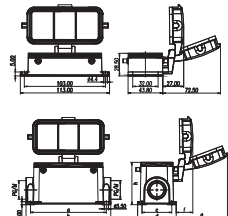
POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div>Low construction</div> 	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						
	<div>High construction</div> 	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	High	74.5	<div>Low construction</div> M25 M32 <div>High construction</div> M25 M32 M40	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	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000  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
Construction	H										
Low	62.5										
High	74.5										
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						




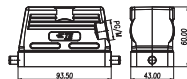

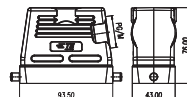

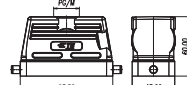

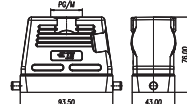

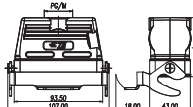

## H16B with 2 levers on the hoods/housings

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


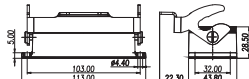

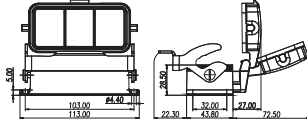

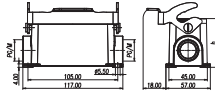

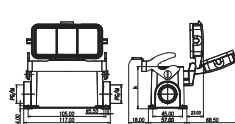
## H16B with 1 lever on the hoods/housings

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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>Hight</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	Hight	74.5	<div>Low construction</div> M25 M32 <div>High construction</div> 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										
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						
	With protection cover 			H16B-AD-LB	T 1 51 016 3000-000						
Surface mounted: Side entry											
	 <table border="1" data-bbox="325 1149 542 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 Low construction M20 M25  1 Side entry High construction M25 M32  2 Side entry High construction 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										
	With protection cover  <table border="1" data-bbox="325 1563 542 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 Low construction M20 M25  1 Side entry High construction M25 M32  2 Side entry High construction 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


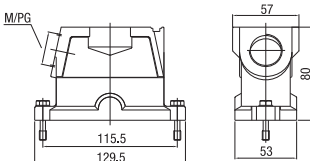

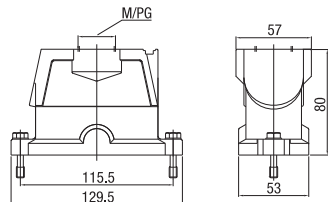

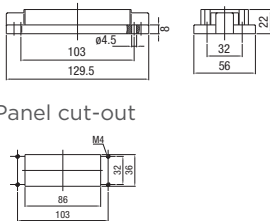

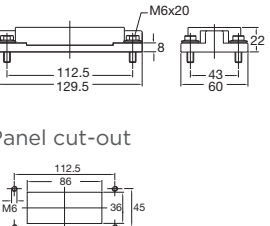
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry					
		M32	21 29	HIP 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	HIP-K 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	EMV-K 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
Hood: Top entry					
		M32	21 29	HIP 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	HIP-K 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	EMV-K EMV-K.16/40.STO.1.29.G EMV-K.16/40.STO.1.M32.G	4-1102725-5 0-1106446-3
Surface mounted housing: Bottom entry					
				HIP HIP.16/40.AG	1-1102656-5
				HIP-K HIP-K.16/40.AG	2-1102656-5
				EMV-K EMV-K.16/40.AG	4-1102728-5
				HIP HIP.16/40.AG.M6	1-1102618-5
				HIP-K HIP-K.16/40.AG.M6	2-1102618-5
				EMV-K EMV-K.16/40.AG.M6	4-1102730-5

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


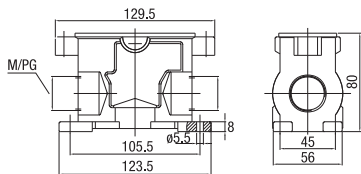

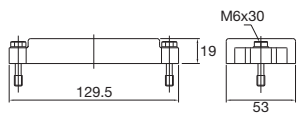
**HIP:** Pressure-tight, silver-grey

**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


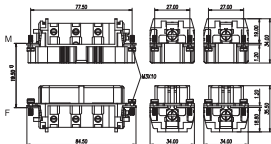
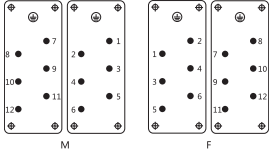
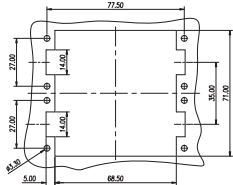
Description	Metr.	PG	Type	Part Number		
Surface mounted housing: Side entry						
		2xM32	21 2x21	HIP HIP.16/40.SG.1.21.G HIP.16/40.SG.2.21.G HIP.16/40.SG.2.M32.G	1-1102616-5 1-1102617-5 0-1106453-1	
		2xM32	21 2x21	HIP-K HIP-K.16/40.SG.1.21.G HIP-K.16/40.SG.2.21.G HIP-K.16/40.SG.2.M32.G	5-1102616-5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

## HSB-012 inserts

## INSERTS FOR H32B HOOD/HOUSING


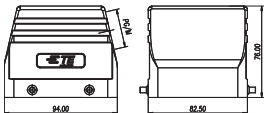

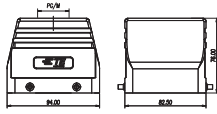

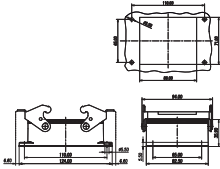

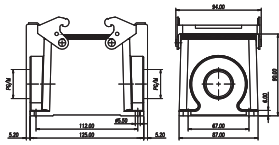

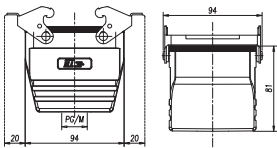

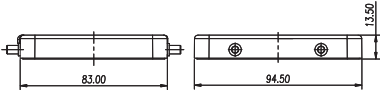
690V 35A

12 (2x6)+

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


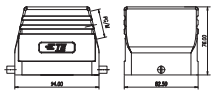

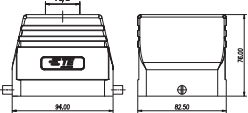

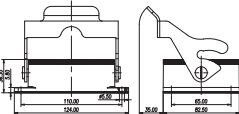

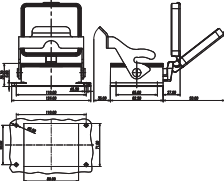

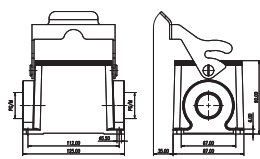

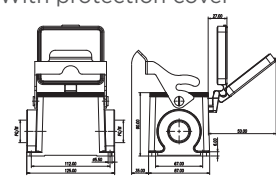
## H32B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)	Metr.	PG	Type	Part Number
Hood: Side entry				
		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
Hood: Top entry				
		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
Bulkhead mounted				
			H32B-AG	T 1 41 032 2000-000
Surface mounted: Side entry				
		1 Side entry M32 M40 M50 M63 2 Side entry 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
Cable-to-cable hood				
		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
Protection covers for hoods				
			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 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	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 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	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



RoHS

## 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 .....	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 .....	$\leq 1\text{m}\Omega$
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


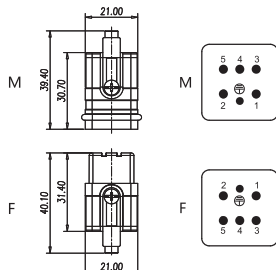
Material .....	Die cast aluminium
Surface .....	Powder-coated (RAL 7037)
Locking element.....	Stainless steel, steel-zinc plated
Temperature range .....	-40°C... +125°C
Degree of protection acc. to DIN40 050.....	IP65

## HQ-005 inserts


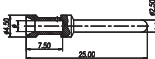


INSERTS FOR H3A HOOD/HOUSING

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


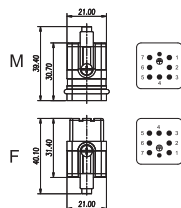

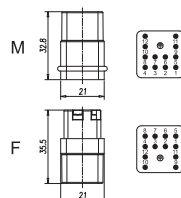
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts	Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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

## HQ-007/012 inserts

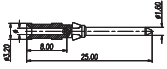

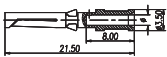
INSERTS FOR H3A HOOD/HOUSING

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
<b>CDF/Female</b> 	<b>10A Female crimp contacts</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
		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 1 50 903 0000-000
Bulkhead mounting: Side entry				
			H3A-MAGS	T 1 54 903 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
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


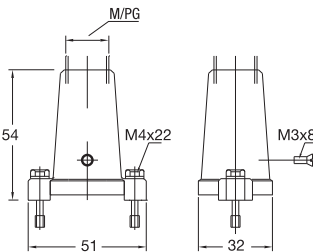

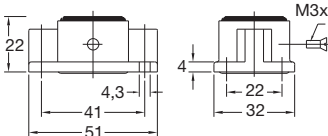

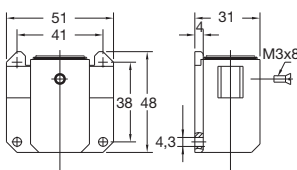
**HIP:** Pressure-tight, silver-grey

**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	
Hood: Top entry					
		M16	11	<b>HIP</b> HIP.3/4.ST0.1.11.G HIP.3/4.ST0.1.M16.G 1-1102600-5 0-1106408-1	
		M16 M20	11	<b>HIP-K</b> HIP-K.3/4.ST0.1.11.G HIP-K.3/4.ST0.1.M16.G HIP-K.3/4.ST0.1.M20.G 2-1102600-5 0-1106408-2 0-1106408-3	
	M16 M20	11	<b>EMV-K</b> EMV-K.3/4.ST0.1.11.G EMV-K.3/4.ST0.1.M16.G EMV-K.3/4.ST0.1.M20.G 4-1102700-5 0-1106402-2 0-1106402-3		
	Surface mounted housing: Bottom entry				
		 Panel cut-out 21 x 21			<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	
Surface mounted housing: Bottom entry (by panel cut-out)					
	 Panel cut-out ø 20			<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


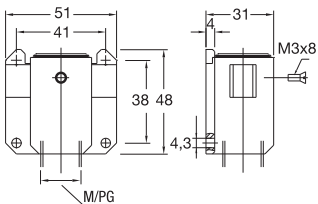

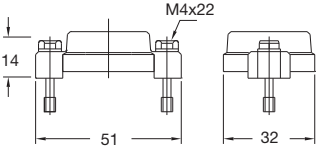
**HIP:** Pressure-tight, silver-grey

**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	<b>HIP</b> HIP.3/4.SG.1.11.G	1-1102601-5
		M20	HIP.3/4.SG.1.M16.G	0-1106407-1
			HIP.3/4.SG.1.M20.G	0-1106401-4
	M16	PG11	<b>HIP-K</b> HIP-K.3/4.SG.1.11.G	2-1102601-5
			HIP-K.3/4.SG.1.M16.G	0-1106407-2
	M16	PG11	<b>EMV-K</b> EMV-K.3/4.SG.1.11.G	4-1102701-5
	M20		EMV-K.3/4.SG.1.M16.G	0-1106401-2
			EMV-K.3/4.SG.1.M20.G	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



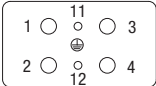
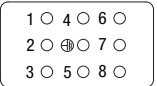
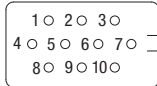
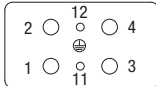
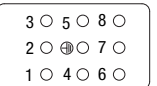
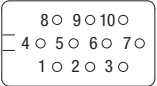
## HQ-017, 4/2, 8, 10 inserts

### INSERTS FOR H8A HOOD/HOUSING

17+ 4/2+ 8+ 10

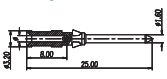

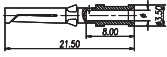

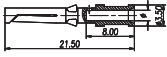
Dimension (mm)	Type	Part Number	
		Male insert	Female insert
Crimp terminal (order crimp contacts separately)			
	HQ-017-M	T 2 08 017 2101-000	
	HQ-017-F		T 2 08 017 2201-000
400V/250V max. 40A/10A 	HQ-4/2-M	T 2 08 006 2101-100	
	HQ-4/2-F		T 2 08 006 2201-100
	HQ-008-M	T 2 01 909 2101-000	
	HQ-008-F		T 2 01 909 2201-000
	HG-Q.10.Sti.C	0-1108808-1	
	HG-Q.10.Bu.C		0-1103091-1

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

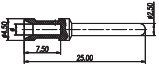


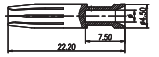
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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 		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
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

## 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


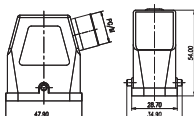

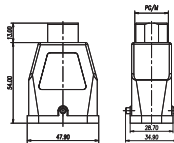
<b>Tech data</b> <b>Material:</b> copper alloy <b>Finish:</b> tin plated <b>Contact resistance:</b> ≤3mΩ <b>Crimp Terminal:</b> 0.2-4.0 mm <sup>2</sup> AWG: 24-12  Other finishes and Materials on request  Appl. Spec.: 114-18018	Type	Part Number	(mm <sup>2</sup> )	Tool
	Pin contact tin plated	962966-1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


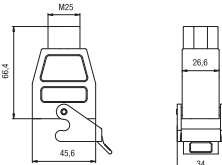

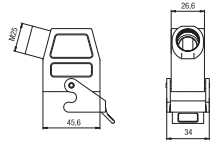

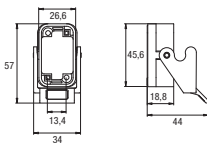
Dimensions (mm)	Metr.	PG	Type	Part Number	
Hood: Side entry					
		M20	PG16 H8A-TS-PG16 H8A-TS-M20 H8A-TS-M25  <b>EMV</b> HG-Q-EMV.STO.1.M25.Z	T 1 35 909 0116-000	
		M25		T 1 31 908 0120-000	
				T 1 31 908 0125-000	
	M25		0-1103073-3		
Hood: Top entry					
		M20		H8A-TG-M20	T 1 32 908 0120-000
		M25		H8A-TG-M25	T 1 32 908 0125-000
				<b>EMV</b> HG-Q-EMV.STO.1.M25.Z	0-1103073-4
	M25				

## 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	0-1108795-1
		M25		<b>EMV</b> HG-Q-EMV.KDO-LB.1.M25.Z	0-1108795-3
Cable-to-cable hood: Side entry					
		M25		HG-Q.KDS-LB.1.M25.Z	0-1108795-2
		M25		<b>EMV</b> HG-Q-EMV.KDS-LB.1.M25.Z	0-1108795-4
Surface mount housing: Bottom entry					
		M25		HG-Q.AG-LB	0-1103072-1
		M25		<b>EMV</b> HG-Q-EMV.AG-LB	0-1103072-2





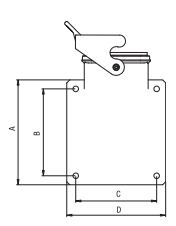

## HG-Q.10 motor housings

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  <b>EMV</b> HG-Q.10-EMV.MC.1	0-1103092-1   0-1103092-8																														
				HG-Q.10.MC.2  <b>EMV</b> HG-Q.10-EMV.MC.2	0-1103092-2   0-1103092-9																														
				HG-Q.10.MC.3  <b>EMV</b> HG-Q.10-EMV.MC.3	0-1103092-3   1-1103092-0																														
	 <table><caption>Dimensions (mm)</caption><thead><tr><th>PN</th><th>A</th><th>B</th><th>C</th><th>D</th></tr></thead><tbody><tr><td>0-1, 0-8</td><td>70</td><td>58</td><td>54</td><td>66</td></tr><tr><td>0-2, 0-9</td><td>70</td><td>60</td><td>60</td><td>70</td></tr><tr><td>0-3, 1-0</td><td>74</td><td>56</td><td>56</td><td>74</td></tr><tr><td>0-4, 1-1</td><td>75</td><td>64</td><td>64</td><td>75</td></tr><tr><td>0-5, 1-2</td><td>120</td><td>105</td><td>105</td><td>120</td></tr></tbody></table>	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.10.MC.4  <b>EMV</b> HG-Q.10-EMV.MC.4	0-1103092-4   1-1103092-1
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.10.MC.5  <b>EMV</b> HG-Q.10-EMV.MC.5	0-1103092-5   1-1103092-2																														


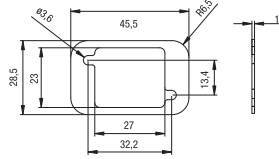



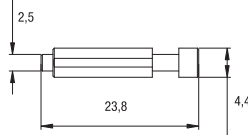
## HG-Q accessories

Plastic glass-fibre reinforced

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

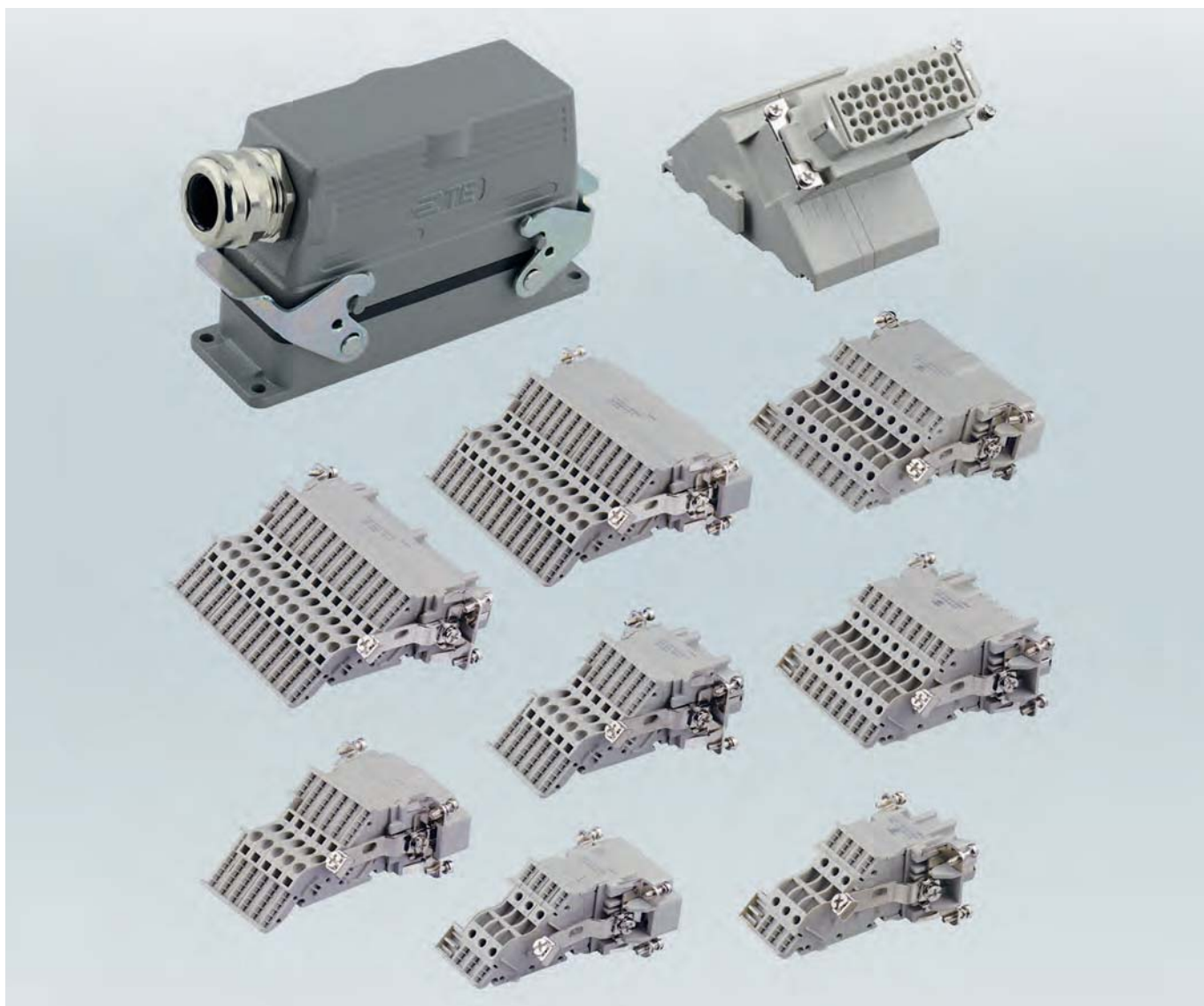
SIZE Q

IP 65

Description	Metr.	PG	Type	Part Number
Flange sealing for HG-Q.8 Surface mount housing				
 			Conductive HG-Q.FI-dicht-L	0-1108794-2
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	0-1103074-1 0-1103074-2 0-1103074-3 0-1103074-4 0-1103074-5 0-1103074-6
Cover for all HG-Q housing				
			Set-HG-Q.8.SKP	0-1108818-1
Coding pin for Q.5 and Q.8, HE, HEE				
 			Sich-Stift.HVE.C	0-1110984-4



## 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

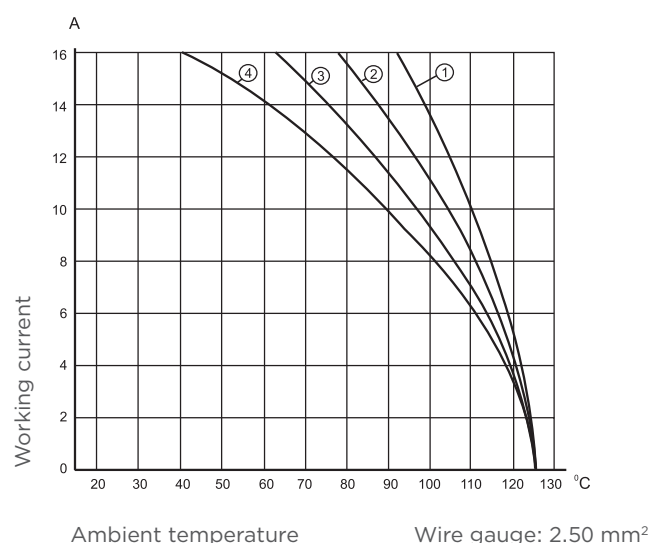
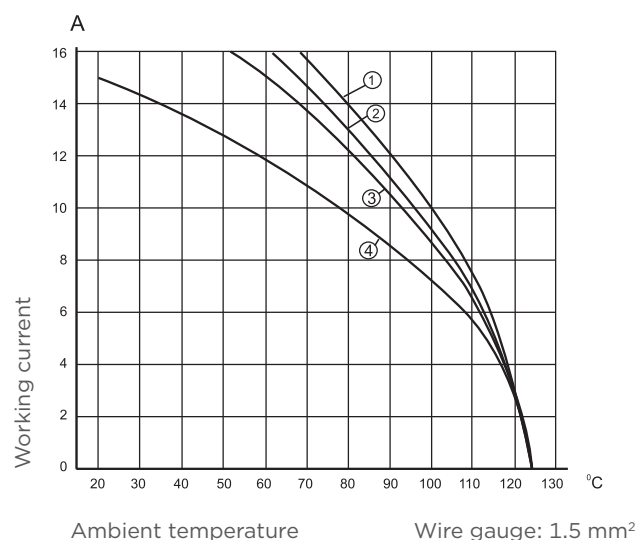
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 Contact resistance .....  $\leq 4m\Omega$   
 HEAV Terminal ..... Screw terminal  
 - mm<sup>2</sup> ..... 0.2-2.5mm<sup>2</sup>  
 - AWG ..... 24-14  
 HESAV Terminal ..... Spring terminal  
 - mm<sup>2</sup> ..... 0.5-2.5mm<sup>2</sup>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





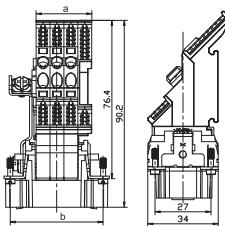




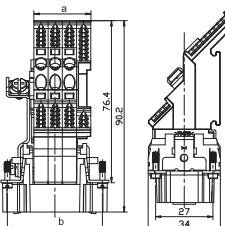
Dimensions (mm)	Type	Type	Part Number																
			Male insert	Female insert															
Screw terminal 6+ 																			
	6-pole	HEAV-006-M	T 2 09 006 2101-000																
		HEAV-006-F		T 2 09 006 2201-000															
Screw terminal 10+ 																			
	10-pole	HEAV-010-M	T 2 09 010 2101-000																
		HEAV-010-F		T 2 09 010 2201-000															
Left hand version																			
 <table><tr><td>Male insert/ Female insert</td><td>A</td><td>B</td></tr><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></table>	Male insert/ Female insert	A	B	HEAV-006	20	44	HEAV-010	34	57	HEAV-016	54	77.5	HEAV-024	81	104				
Male insert/ Female insert	A	B																	
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><tr><td>Male insert/ Female insert</td><td>A</td><td>B</td></tr><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></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																			
 <table><tr><td>Male insert/ Female insert</td><td>A</td><td>B</td></tr><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></table>	Male insert/ Female insert	A	B	HEAV-006	20	44	HEAV-010	34	57	HEAV-016	54	77.5	HEAV-024	81	104				
Male insert/ Female insert	A	B																	
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



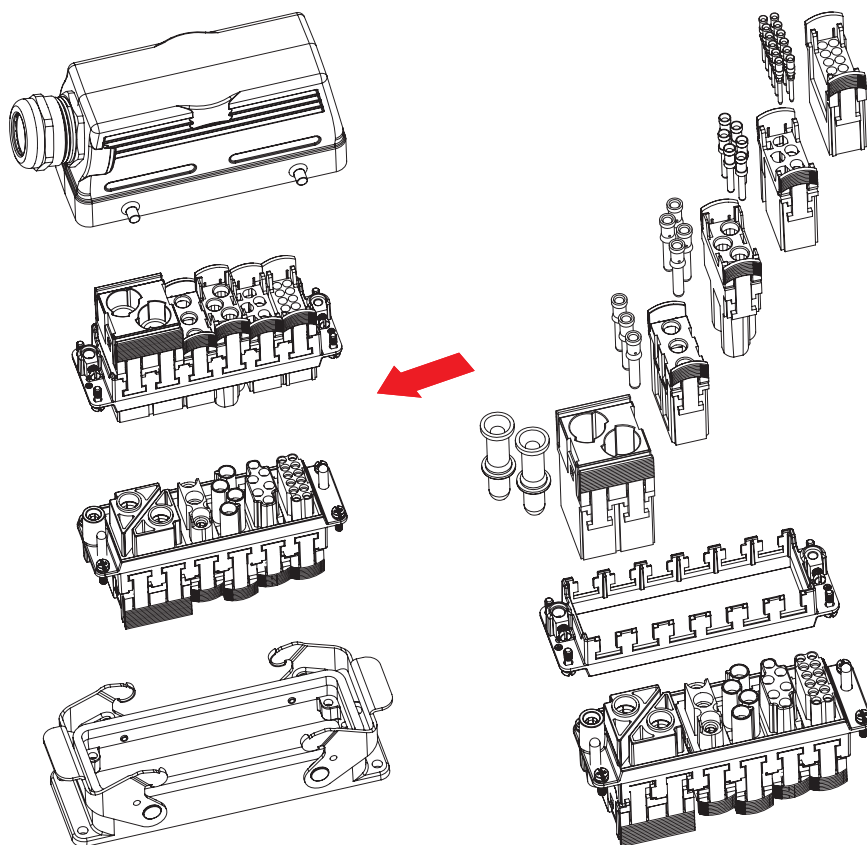
H16B



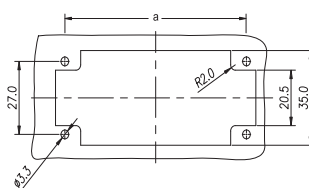
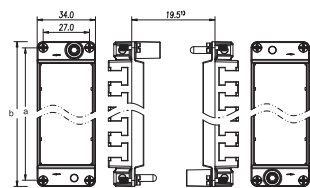
H24B



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

[illegible]

## 200A/1 Pole module technical characteristics

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

### INSERTS

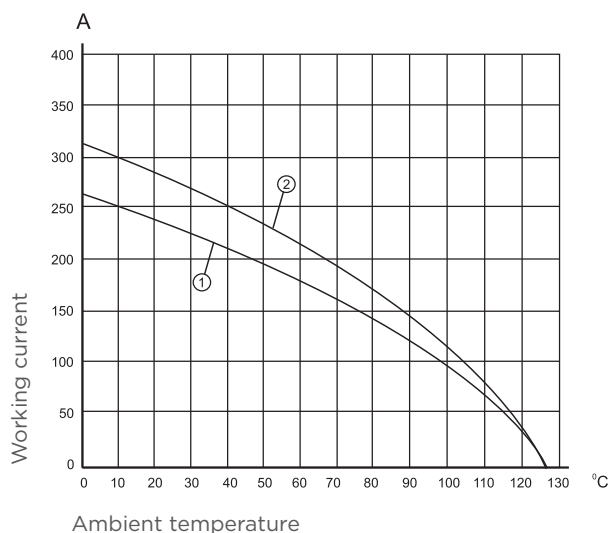
Working current ..... 200A max  
 (See current carrying capacity)  
 Working voltage ..... 1000V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability 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>


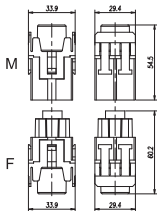


## HMN-001 module inserts

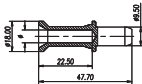


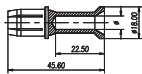
CRIMP TERMINAL

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: $\leq 0.3m\Omega$ Terminal: crimp connection CHM/Male	200A Male crimp contacts 	Wire gauge	Ø	Stripping length	Crimp contacts, silver-plated	
		mm <sup>2</sup>		mm	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
<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

## 100A/2 Poles module technical characteristics

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

### INSERTS

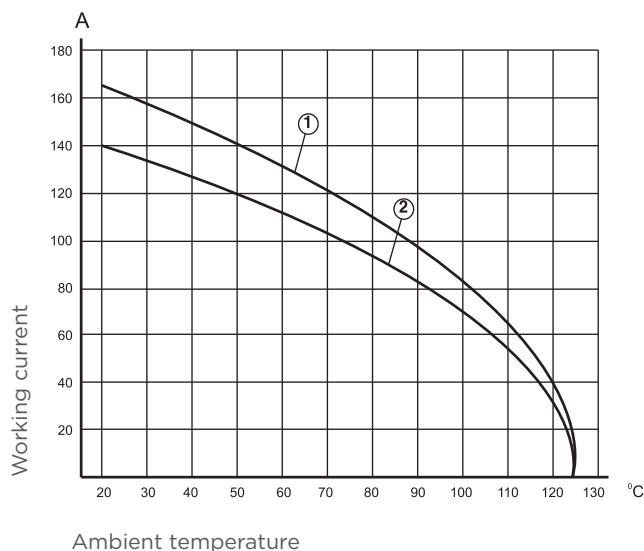
Working current ..... 100A max  
 (See current carrying capacity)  
 Working voltage ..... 1000V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability 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.




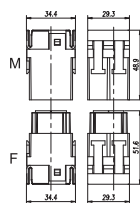
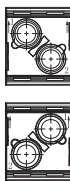
- 1 H24B hood/housing with 3 modules;  
wire gauge: 35mm<sup>2</sup>
- 2 H24B hood/housing with 3 modules;  
wire gauge: 25mm<sup>2</sup>

## HMN-D2 module inserts

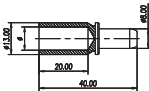

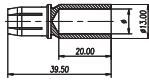
CRIMP TERMINAL

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: $\leq 1\text{m}\Omega$ 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
<b>CDF/Female</b> 	<b>100A Female crimp contacts</b> 	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
		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

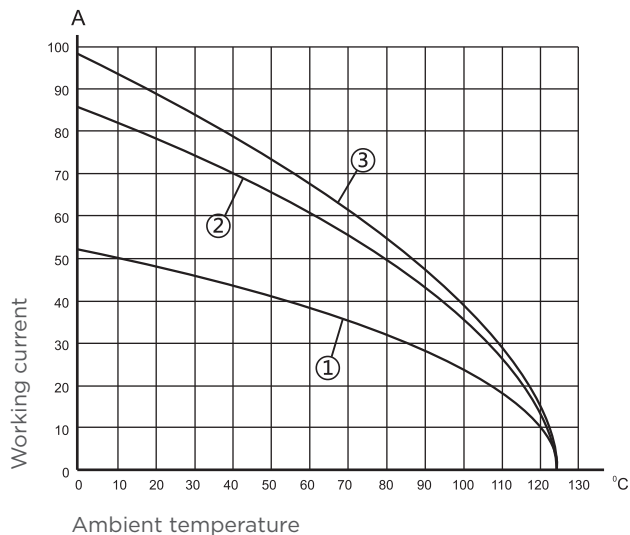
Working current ..... 70A max  
 (See current carrying capacity)  
 Working voltage ..... 1000V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. 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.




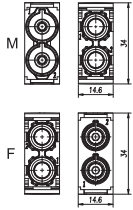
- 1 H24B hood/housing with 6 modules;  
wire gauge: 6mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 16mm<sup>2</sup>
- 3 H24B hood/housing with 6 modules;  
wire gauge: 22mm<sup>2</sup>

## HMN-002 module inserts

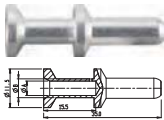
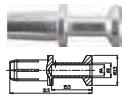
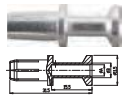
CRIMP TERMINAL

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
Female		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

### INSERTS

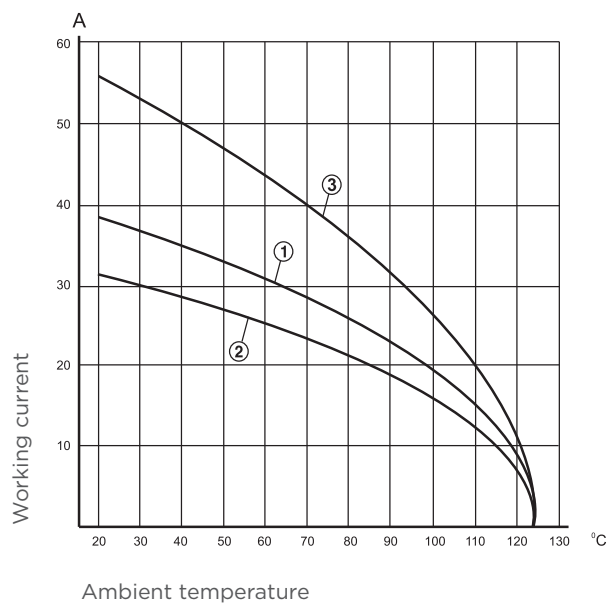
Working current ..... 40A max  
 (See current carrying capacity)  
 Working voltage  
 Cable ø up to 5mm ..... 690V  
 Cable ø up to 7.5mm ..... 500V  
 Test voltage urms ..... 6KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature 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

### 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.





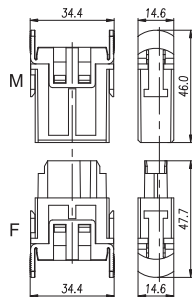
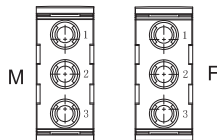
- 1 H24B hood/housing with 6 modules;  
wire gauge: 6.0mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4.0mm<sup>2</sup>
- 3 H24B hood/housing with 6 modules;  
wire gauge: 10.0mm<sup>2</sup>

## HMN-003 module inserts


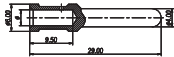

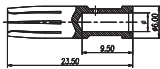
### CRIMP TERMINAL

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
		10	7	8.0	CMM-10	T 2 04 000 1100-000
<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

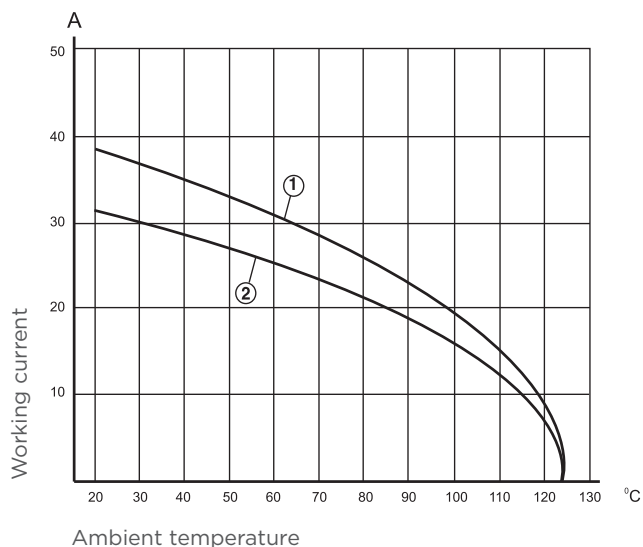
Working current ..... 40A max  
 (See current carrying capacity)  
 Working voltage  
 Cable ø up to 5mm ..... 830V  
 Cable ø up to 7.5mm ..... 500V  
 Test voltage urms ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature 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<sup>2</sup> ..... 1.0-6mm<sup>2</sup>  
 - 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: 6.0mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4.0mm<sup>2</sup>


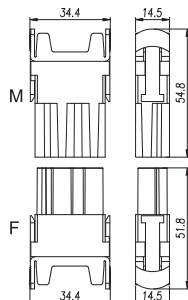
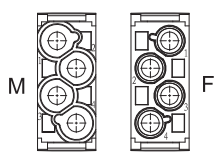


## HMN-004 module inserts


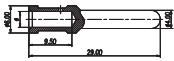

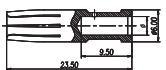
### CRIMP TERMINAL

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
		10	7	8.0	CMM-10	T 2 04 000 1100-000
<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

## 16A/5 Poles module technical characteristics

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

### INSERTS

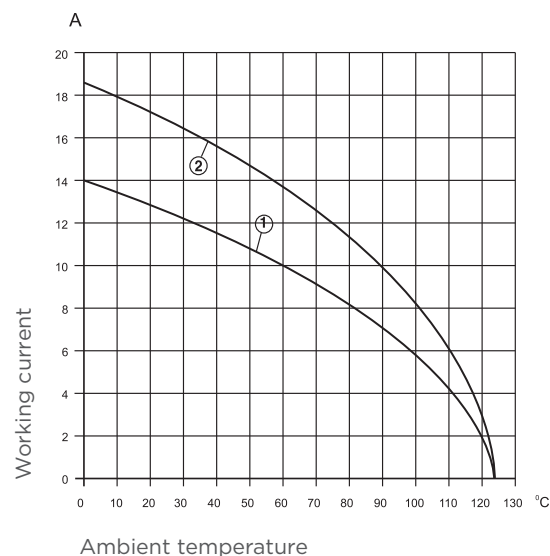
Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage ..... 400V  
 Test voltage urms ..... 6KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. 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.




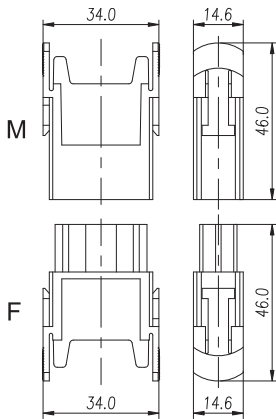
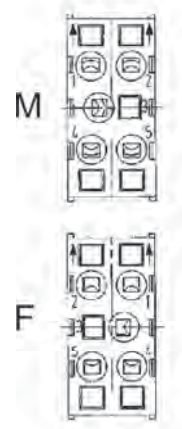
- 1 H24B hood/housing with 6 modules;  
wire gauge: 2.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>

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

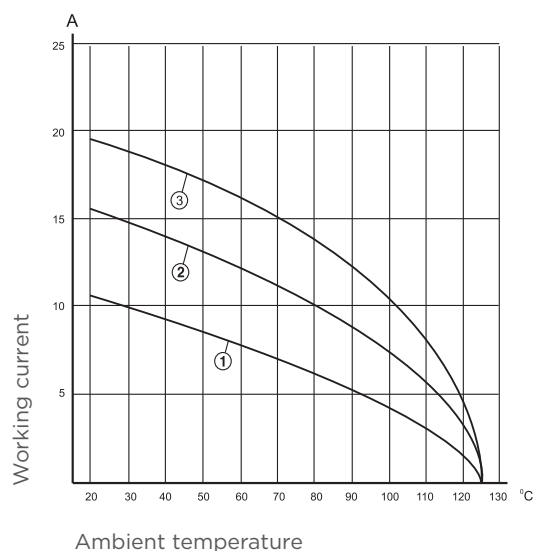
Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage ..... 500/830V  
 Test voltage urms .....  
 HMN-006-M/F ..... 6KV  
 HMN-006-PM/F ..... 8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature 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 .....  $\leq 1\text{m}\Omega$   
 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.


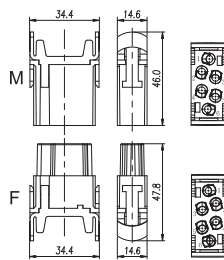

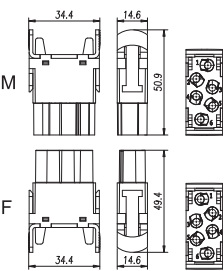


- 1 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 2.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 4mm<sup>2</sup>


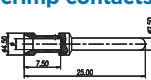

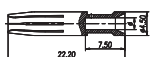
## HMN-006 module inserts

### 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	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

## 16A/8 Poles module technical characteristics

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

### INSERTS

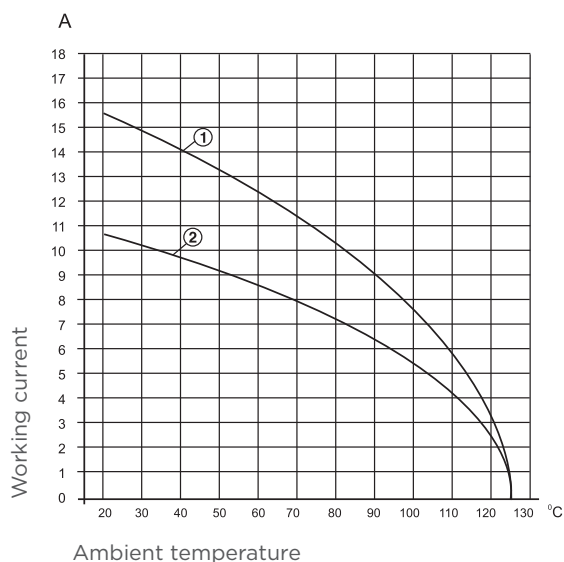
Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage ..... 400V  
 Test voltage urms ..... 6KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. 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 .....  $\leq 1\text{m}\Omega$   
 Terminal ..... Crimp terminal  
 -  $\text{mm}^2$  ..... 0.14-4.0 $\text{mm}^2$   
 - 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.





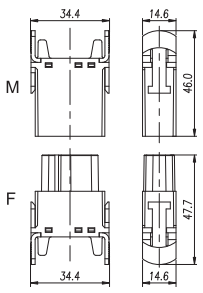
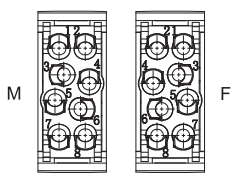
- 1 H24B hood/housing with 6 modules;  
wire gauge: 2.5 $\text{mm}^2$
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.5 $\text{mm}^2$

## HMN-008 module inserts


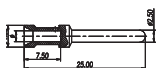

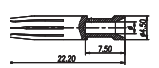
### CRIMP TERMINAL

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 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

## 10A/12 Poles module technical characteristics

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

### INSERTS

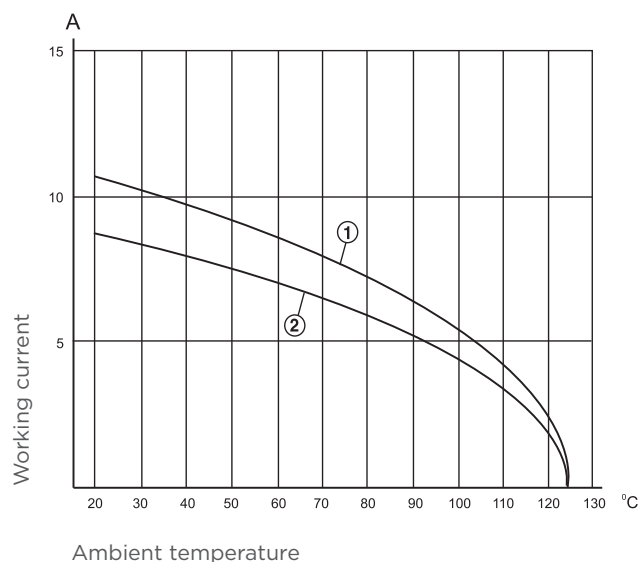
Working current ..... 10A max  
(See current carrying capacity)  
Working voltage ..... 250V  
Test voltage urms ..... 4KV  
Pollution degree ..... 3  
Insulation resistance .....  $\geq 10^{10}\Omega$   
Material ..... Polycarbonate  
Temperature range ..... -40°C... +125°C  
Flammability acc. to UL94 ..... 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>



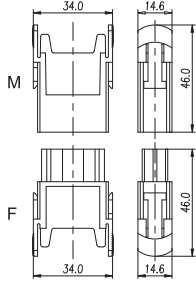
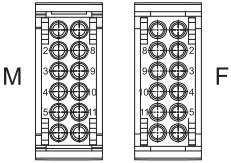


## HMN-012 module inserts


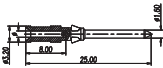

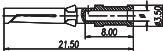
### CRIMP TERMINAL

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	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

## 10A/17 Poles module technical characteristics

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

### INSERTS

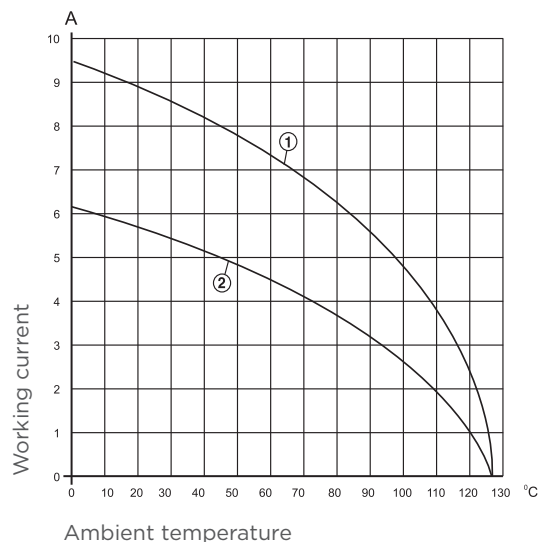
Working current ..... 10A max  
 (See current carrying capacity)  
 Working voltage ..... 160V  
 Test voltage urms ..... 2.5KV  
 Pollution degree ..... 3  
 Pollution degree acc. to TUV ..... 2  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -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.





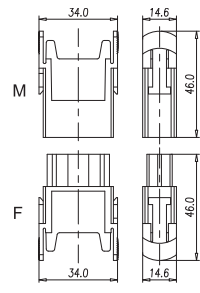
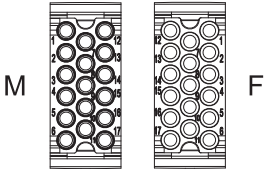
- 1 H24B hood/housing with 6 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 6 modules;  
wire gauge: 1.0mm<sup>2</sup>

## HMN-017 module inserts




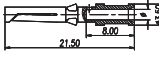
### CRIMP TERMINAL

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: $\leq 3\text{m}\Omega$ 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

## 16A/20 Poles module technical characteristics

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

### INSERTS

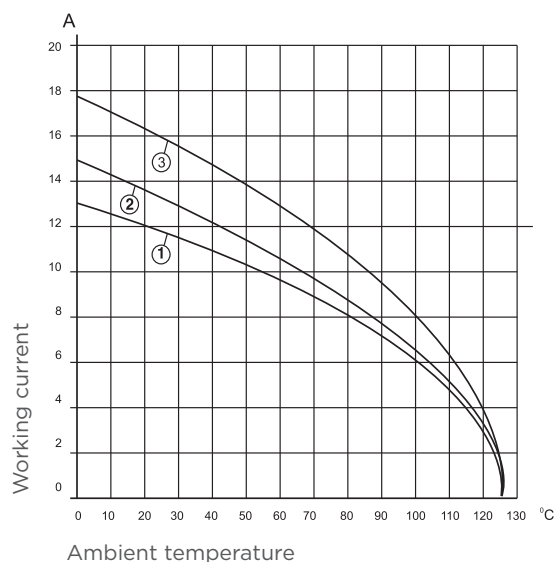
Working current ..... 16A max  
 (See current carrying capacity)  
 Working voltage ..... 500V  
 Test voltage urms ..... 6KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10} \Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc. 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 .....  $\leq 1 \text{ m}\Omega$   
 Terminal ..... Crimp terminal  
 -  $\text{mm}^2$  ..... 0.14-4.0  $\text{mm}^2$   
 - 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.




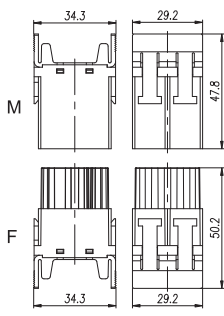
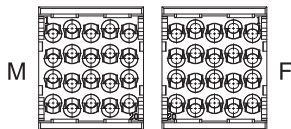
- 1 H24B hood/housing with 3 modules;  
wire gauge: 1.5mm<sup>2</sup>
- 2 H24B hood/housing with 3 modules;  
wire gauge: 2.5mm<sup>2</sup>
- 3 H24B hood/housing with 3 modules;  
wire gauge: 4mm<sup>2</sup>

## HMN-020 module inserts

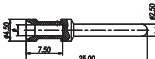


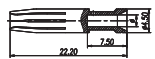
### CRIMP TERMINAL

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 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
<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

## 5A/25 Poles module technical characteristics

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

### INSERTS

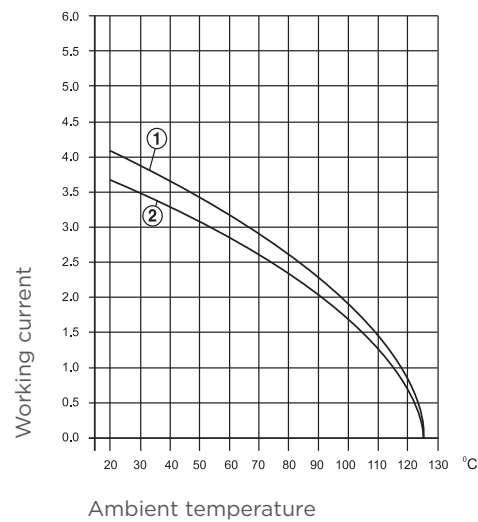
Working current ..... 5A max  
 (See current carrying capacity)  
 Working voltage ..... 50V  
 Test voltage urms ..... 0.8KV  
 Pollution degree ..... 3  
 Insulation resistance .....  $\geq 10^{10}\Omega$   
 Material ..... Polycarbonate  
 Temperature range ..... -40°C... +125°C  
 Flammability acc.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

### CONTACTS

Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 ..... Hard gold-plated  
 Contact resistance .....  $\leq 1\text{m}\Omega$   
 Terminal ..... Crimp terminal  
 -  $\text{mm}^2$  ..... 0.08-0.52 $\text{mm}^2$   
 - 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: 0.5 $\text{mm}^2$

#### Stamped contacts


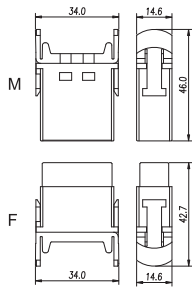
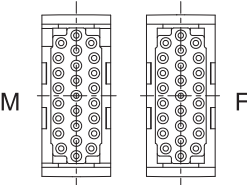
2 H24B hood/housing with 6 modules;  
 wire gauge: 0.5 $\text{mm}^2$

## HMN-025 module inserts

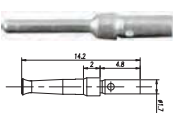
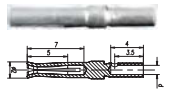
### CRIMP TERMINAL

50V MAX. 5A

25 poles

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HMN-025-M	T 2 11 125 2101-000	
		HMN-025-F		T 2 11 125 2201-000
Contact arrangement view from termination side				

### 5A Contact

Male		Wire gauge		Strip-ping length	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.08-0.21	28-24	5.0	CAM-08	T 2 07 0001008-000	DAM-08	T 2 07 001 1008-000
		0.13-0.33	26-22	5.0	CAM-13	T 2 07 0001013-000	DAM-13	T 2 07 001 1013-000
		0.33-0.52	22-20	5.0	CAM-33	T 2 07 0001033-000	DAM-33	T 2 07 001 1033-000
Female		mm <sup>2</sup>	AWG	mm	Type	Part Number	Type	Part Number
		0.08-0.21	28-24	5.0	CAF-08	T 2 07 000 2008-000	DAF-08	T 2 07 001 2008-000
		0.13-0.33	26-22	5.0	CAF-13	T 2 07 000 2013-000	DAF-13	T 2 07 001 2013-000
		0.33-0.52	22-20	5.0	CAF-33	T 2 07 000 2033-000	DAF-33	T 2 07 001 2033-000

## 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



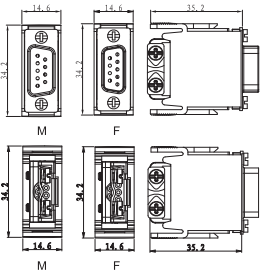


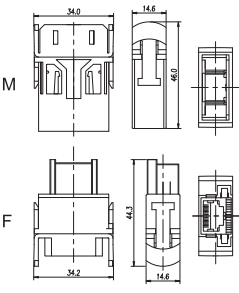


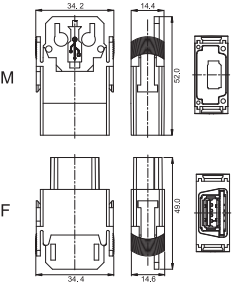
Material ..... Polycarbonate  
Temperature range ..... -40°C... +70°C  
Flammability acc. to UL94 ..... V0  
Stranded wire diameter ..... 0.94-1.07mm  
Wire gauge ..... AWG22-24



## 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

### 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

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


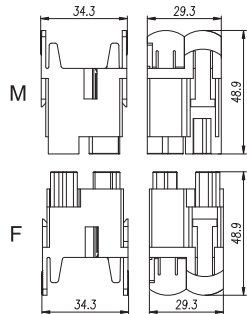
### CONTACTS

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

## 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


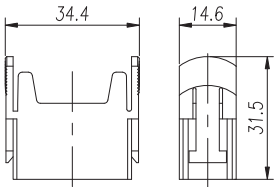
#### Quint 8-pos

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


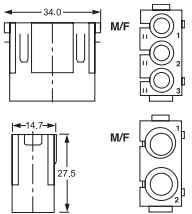
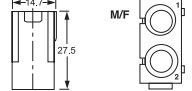
1

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


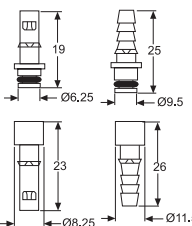
## HMN-P2, P3 module for pneumatic contacts

### 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	

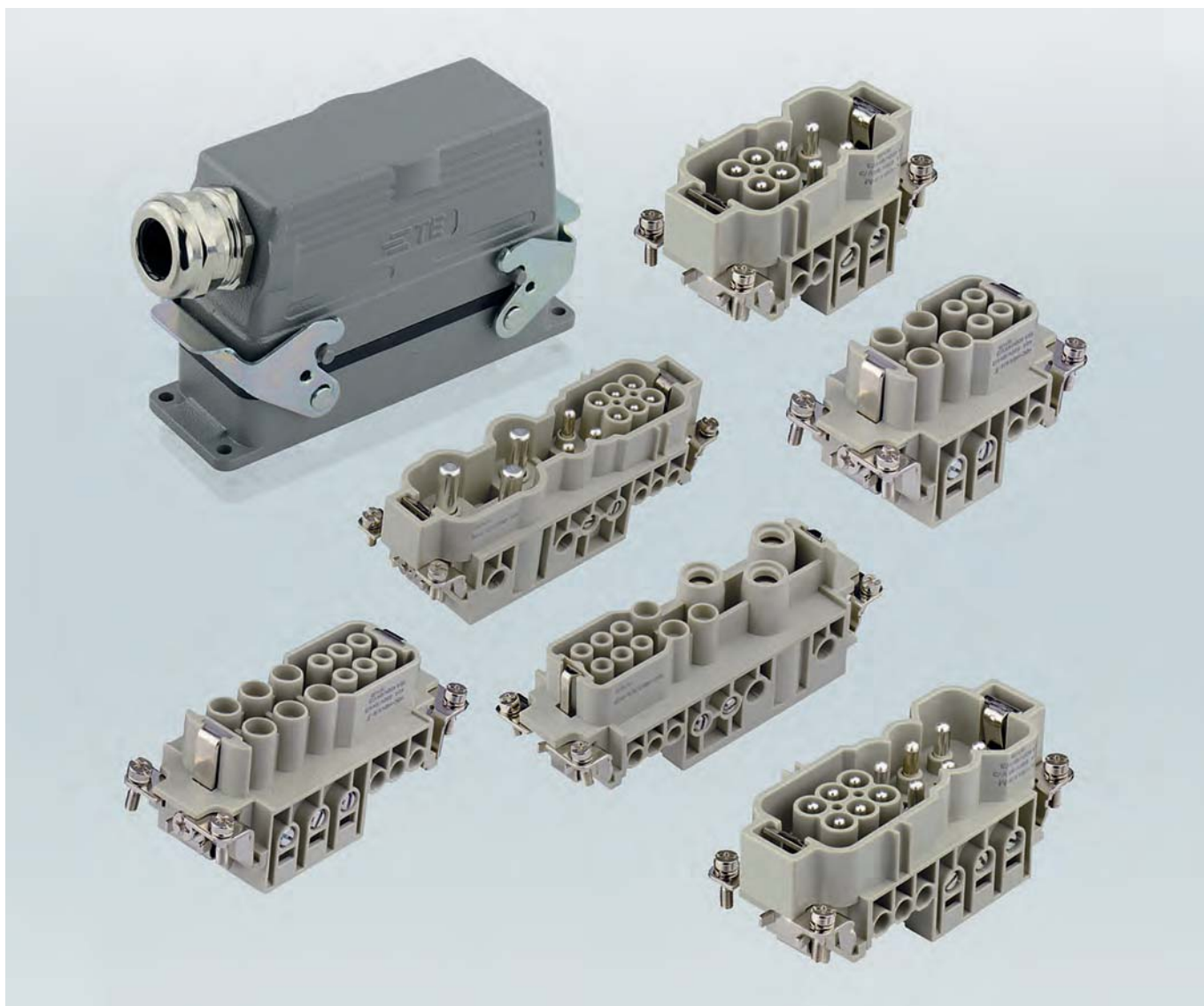
Pneumatic contacts with or without closing valve

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

## Notes

[illegible]

## 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 .....	16A max
Power contact .....	10A max
Signal contact.....	
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


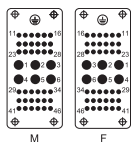


## HK8/24 inserts


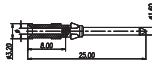

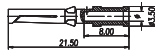
INSERTS FOR H10B HOOD/HOUSING

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


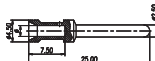

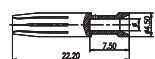
8/24+ Ⓢ

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


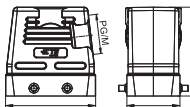
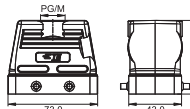


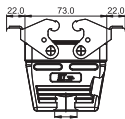
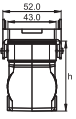

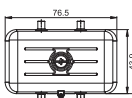
<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤3mΩ <b>Terminal:</b> crimp connection <b>CDM/Male</b> 	<b>10A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip-ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
		mm²	AWG	mm	Type	Part 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> 	<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

### 16A Contact

<b>Tech data</b> <b>Material:</b> copper alloy <b>Contact resistance:</b> ≤1mΩ <b>Terminal:</b> crimp connection <b>CEM/Male</b> 	<b>16A Male crimp contacts</b> 	<b>Wire gauge</b>		<b>Strip-ping length</b>	<b>Crimp contacts, silver-plated</b>		<b>Crimp contacts, gold-plated</b>	
					<b>Type</b>	<b>Part Number</b>	<b>Type</b>	<b>Part Number</b>
		mm²	AWG	mm	CEM-0.3	T 2 03 000 1002-000	DEM-0.3	T 2 03 001 1002-000
		0.14-0.37	26-22	7.5	CEM-0.5	T 2 03 000 1005-000	DEM-0.5	T 2 03 001 1005-000
		0.5	20	7.5	CEM-0.75	T 2 03 000 1008-000	DEM-0.75	T 2 03 001 1008-000
		0.75	18	7.5	CEM-1.0	T 2 03 000 1010-000	DEM-1.0	T 2 03 001 1010-000
		1.0	18	7.5	CEM-1.5	T 2 03 000 1015-000	DEM-1.5	T 2 03 001 1015-000
		1.5	16	7.5	CEM-2.5	T 2 03 000 1025-000	DEM-2.5	T 2 03 001 1025-000
		2.5	14	7.5	CEM-4.0	T 2 03 000 1040-000	DEM-4.0	T 2 03 001 1040-000
		4.0	12	7.5				
<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


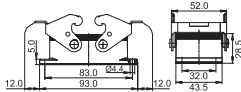

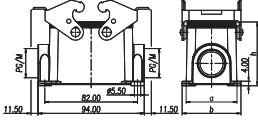

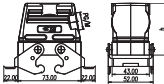

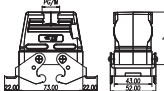


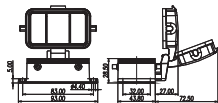
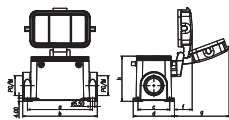
## H10B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <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>High construction</div> <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						
Hood: Top entry											
	<div>Low construction</div> <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>High construction</div> <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						
Cable-to-cable hood											
	<div><div><div>Low construction</div><div></div></div><div><div>High construction</div><div></div></div></div> <table><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-TBFS-PG16 H10B-TBFS-M20 H10B-TBFS-M25  H10B-TBFHS-PG21 H10B-TBFHS-PG29 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										
Protection covers for hoods											
				H10B-KDTP	T 1 01 010 1400-000						
Housing protection cover											
				H10B-KDBP	T 1 01 010 2100-000						


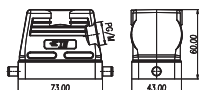

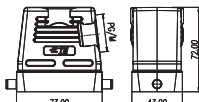

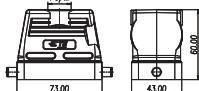

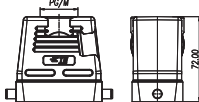

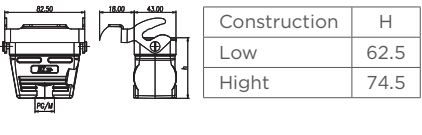

## H10B with 2 levers on the hoods/housings

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																													
	<div><div>1 Side entry</div><div>Low construction</div><div>M20</div><div>M25</div><div>2 Side entry</div><div>M20</div><div>M25</div><div>1 Side entry</div><div>High construction</div><div>M25</div><div>M32</div><div>2 Side entry</div><div>M25</div><div>M32</div></div> <div><table><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>Hight</td><td>45</td><td>57</td><td>74</td></tr></table></div>	Construction	A	B	H	Low	40	52	56	Hight	45	57	74	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																										
Side entry housing with two levers																													
	<div><div>Low construction</div><div>M20</div><div>M25</div><div>High construction</div><div>M25</div><div>M32</div></div> <div><table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></table></div>	Construction	H	Low	60	Hight	72	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																												
Top entry housing with two levers																													
	<div><div>Low construction</div><div>M20</div><div>M25</div><div>High construction</div><div>M25</div><div>M32</div></div> <div><table><tr><td>Construction</td><td>H</td></tr><tr><td>Low</td><td>60</td></tr><tr><td>Hight</td><td>72</td></tr></table></div>	Construction	H	Low	60	Hight	72	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																												
Bulkhead mounted with 4 bolts																													
 	<div>With protection cover</div> <div> <table><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>Hight</td><td>82</td><td>94</td><td>45</td><td>57</td><td>20</td><td>65</td><td>74</td></tr></table></div>	Construction	A	B	C	D	F	G	H	Low	82	94	40	52	22	67	54	Hight	82	94	45	57	20	65	74	1 Side entry 2 Side entry Low construction M20 M25  M20 M25  M25 M32  1 Side entry 2 Side entry High construction M25 M32  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																						


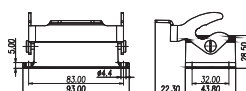

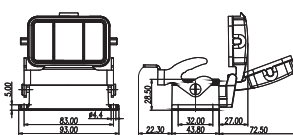

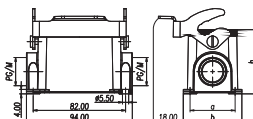

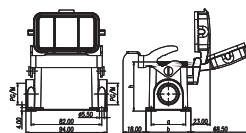
## H10B with 1 lever on the hoods/housings

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				
		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
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																
	<div><div><table><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table></div><div>1 Side entry Low construction 2 Side entry High construction 2 Side entry M20 M25 M20 M25 M25 M32 M25 M32</div></div>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	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 <div><div><table><tr><th>Construction</th><th>A</th><th>B</th><th>H</th></tr><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></table></div><div>1 Side entry Low construction 2 Side entry High construction 2 Side entry M20 M25 M20 M25 M25 M32 M25 M32</div></div>	Construction	A	B	H	Low	40	52	54	Hight	45	57	74	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


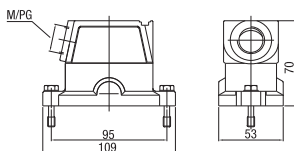

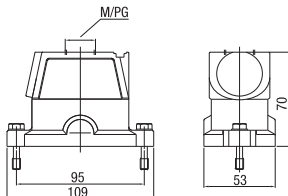

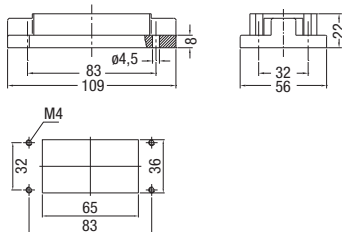
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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
Hood: Top entry					
		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
Surface mounted housing: Bottom entry					
				<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


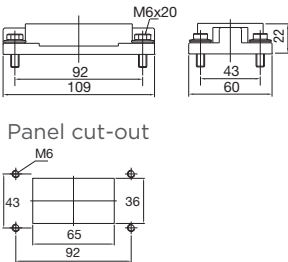

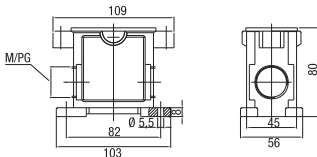

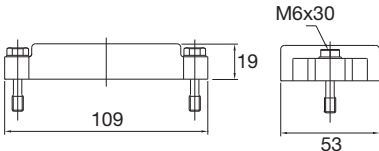
**HIP:** Pressure-tight, silver-grey

**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
Surface mounted housing: Bottom entry				
			<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
Surface mounted housing: Side entry				
		2xM32      2xM32	21 2x21  21 2x21  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
Protective covers for hoods and housing				
			<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

### 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 .....	40A max
Power contact .....	16A max
Signal contact .....	
Working voltage .....	690V
Power contact .....	400V
Signal contact.....	
Test voltage urms .....	6KV
Power contact .....	4KV
Signal contact.....	
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


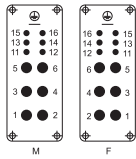


HWK 6/6 inserts

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

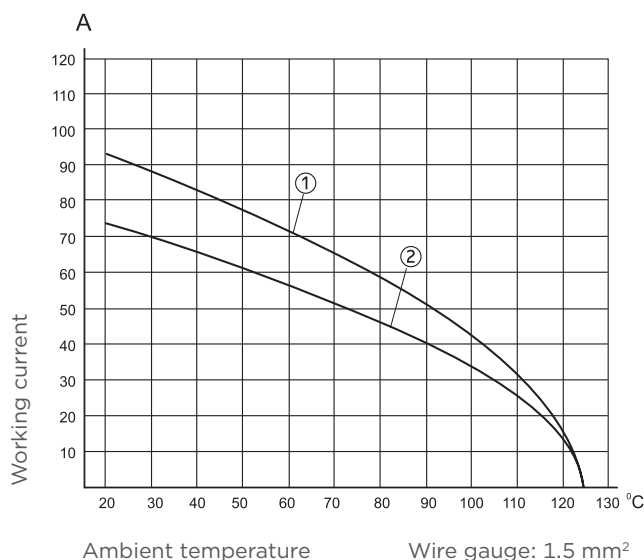
Material .....	Copper alloy
Surface .....	Hard silver-plated
.....	Hard gold-plated
Contact resistance .....	
Power contact .....	$\leq 0.3 \text{ m}\Omega$
Signal contact .....	$\leq 1 \text{ m}\Omega$
Terminal .....	Screw terminal
- mm <sup>2</sup> .....	
Power contact .....	1.5-16mm <sup>2</sup>
Signal 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.




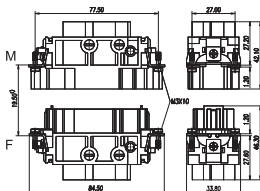
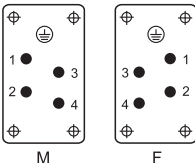
- 1 Wire gauge: 16mm<sup>2</sup>
- 2 Wire gauge: 10mm<sup>2</sup>


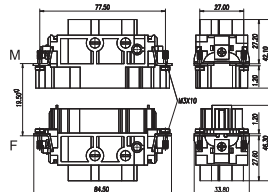
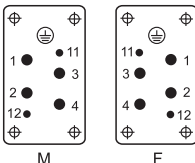
# HK4/0, HK4/2 inserts

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

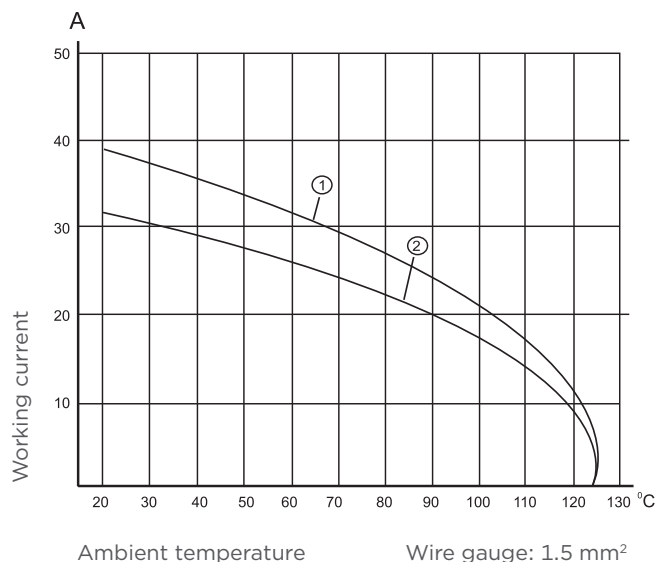
Material ..... Copper alloy  
 Surface ..... Hard silver-plated  
 ..... Hard gold-plated  
 Contact resistance  
 Power contact .....  $\leq 0.3m\Omega$   
 Signal contact .....  $\leq 3m\Omega$   
 Terminal ..... Crimp terminal  
 - mm<sup>2</sup>  
 Power contact ..... 1-6mm<sup>2</sup>  
 Signal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




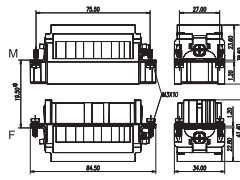
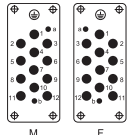
- 1 Wire gauge: 6.0mm<sup>2</sup>
- 2 Wire gauge: 4.0mm<sup>2</sup>

## HK12/2 inserts

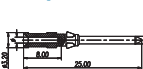


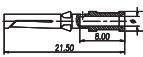
INSERT FOR H16B HOOD/HOUSING

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

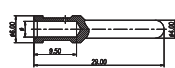



12/2+⊕

Dimensions (mm)		Type	Part Number	
			Male insert	Female insert
Crimp terminal (Order crimp contacts separately)	Size chart			
		HK12/2-014-M	T 2 12 014 2101-000	
		HK12/2-014-F		T 2 12 014 2201-000
Contact arrangement view from termination side				

### 10A Contact

Tech data Material: copper alloy Contact resistance: ≤3mΩ 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
		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
		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
		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

### 40A Contact

Tech data Material: copper alloy Contact resistance: ≤0.3mΩ Terminal: crimp connection CMM/Male	40A Male crimp contacts 	Wire gauge		Stripping length mm	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG		Type	Part Number
		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
		1.5	16	8.0	CMM-1.5	T 2 04 000 1015-000
		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
		1.5	16	8.0	CMF-1.5	T 2 04 000 2015-000

## 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

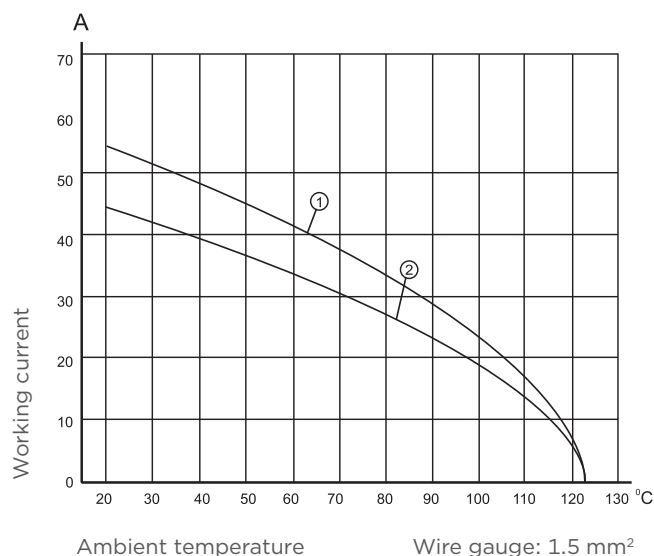
Material ..... Copper alloy  
Surface ..... Hard silver-plated  
..... Hard gold-plated  
Contact resistance  
Power contact .....  $\leq 0.3\text{m}\Omega$   
Signal contact .....  $\leq 3\text{m}\Omega$   
Terminal ..... Crimp terminal  
- mm<sup>2</sup>  
Power contact ..... 1-6mm<sup>2</sup>  
Signal 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.




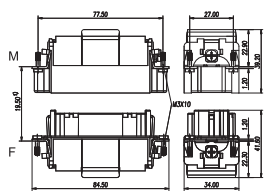
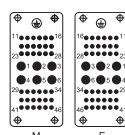
- 1 Wire gauge: 6.0mm<sup>2</sup>
- 2 Wire gauge: 4.0mm<sup>2</sup>

## HK6/36 inserts


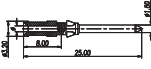

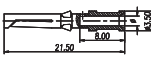
INSERT FOR H16B HOOD/HOUSING

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


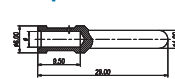

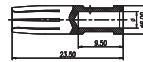
6/36+⊕

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	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

### 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

## H16B with 2 levers on the hoods/housings


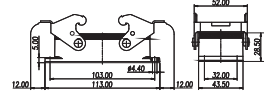

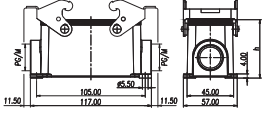

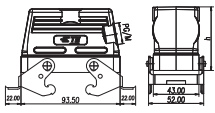

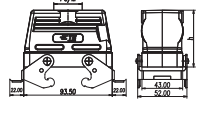


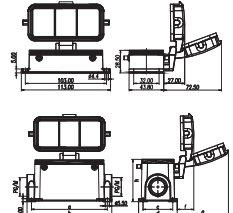
POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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											
	<div>Low construction</div> <div></div>	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						
	<div>High construction</div> <div></div>	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											
	<div></div> <div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	High	74.5	<div>Low construction</div> M25 M32 <div>High construction</div> M25 M32 M40	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	T 1 71 016 1121-000 T 1 71 016 1125-000 T 1 71 016 1132-000  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
Construction	H										
Low	62.5										
High	74.5										
Protection covers for hoods											
				H16B-KDTP	T 1 01 016 1400-000						
Housing protection cover											
				H16B-KDBP	T 1 01 016 2100-000						




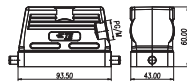

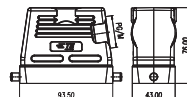

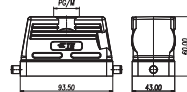

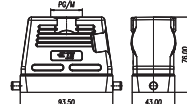

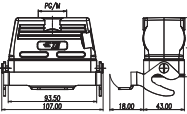

## H16B with 2 levers on the hoods/housings

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><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 2 Side entry Low construction 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><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><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	1 Side entry 2 Side entry Low construction High construction 1 Side entry 2 Side entry	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																							


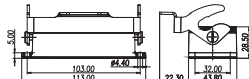

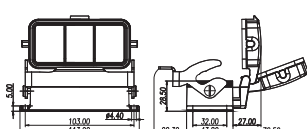

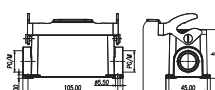

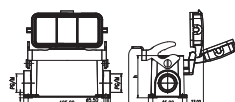
## H16B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>Hight</td><td>74.5</td></tr></table></div>	Construction	H	Low	62.5	Hight	74.5	<div>Low construction</div> M25 M32 <div>High construction</div> 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										
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							
	With protection cover 			H16B-AD-LB	T 1 51 016 3000-000							
Surface mounted: Side entry												
	 <table border="1" data-bbox="323 1142 542 1232"><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 2 Side entry High construction	M20 M25  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											
	With protection cover  <table border="1" data-bbox="323 1556 542 1646"><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 2 Side entry High construction	M20 M25  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


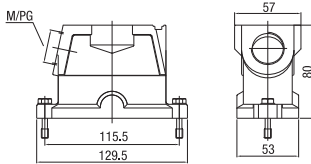

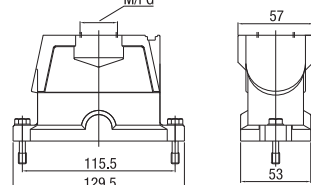

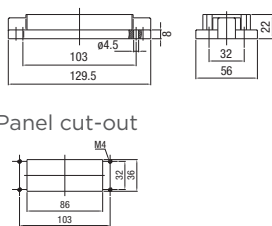

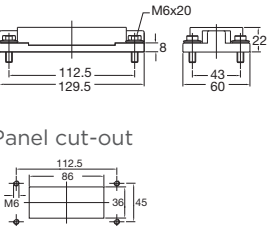
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry					
		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	<b>EMV-K</b> EMV-K.16/40.STS.1.29.G EMV-K.16/40.STS.1.M32.G	4-1102723-5 0-1106446-4
			21	EMV-K.16/40.STS.1.21.G	4-1102722-5
Hood: Top entry					
		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
Surface mounted housing: Bottom entry					
				<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


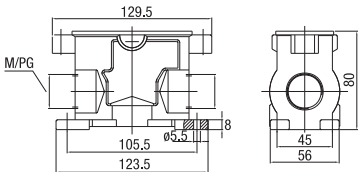

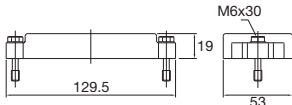
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Side entry					
		2xM32	21 2x21	<b>HIP</b> HIP.16/40.SG.1.21.G HIP.16/40.SG.2.21.G HIP.16/40.SG.2.M32.G	1-1102616-5 1-1102617-5 0-1106453-1
		2xM32	21 2x21	<b>HIP-K</b> HIP-K.16/40.SG.1.21.G HIP-K.16/40.SG.2.21.G HIP-K.16/40.SG.2.M32.G	5-1102616-5 2-1102617-5 0-1106443-1
	2xM32	21 2x21	<b>EMV-K</b> EMV-K.16/40.SG.1.21.Z EMV-K.16/40.SG.2.21.Z EMV-K.16/40.SG.2.M32.G	4-1102726-5 4-1102727-5 0-1106445-2	
Protective covers for housings					
			21	<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 .....  $\leq 0.1\text{m}\Omega$   
 Signal contact .....  $\leq 5\text{m}\Omega$   
 Terminal ..... Crimp terminal  
 -  $\text{mm}^2$   
 Power contact ..... 1.5-16 $\text{mm}^2$   
 Signal contact ..... 0.5-2.5 $\text{mm}^2$   
 - AWG  
 Power contact ..... 16-6  
 Signal contact ..... 20-14

- Tightening/test torque

- Power contact

$\text{mm}^2$	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

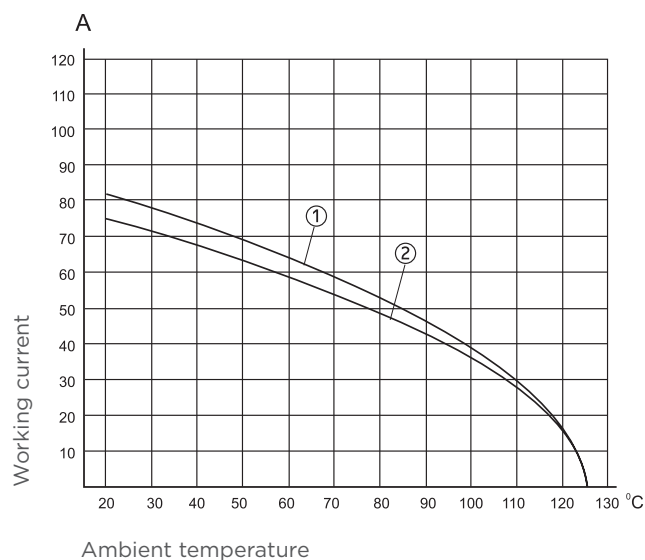
- Signal contact ..... 0.5 Nm

### 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.




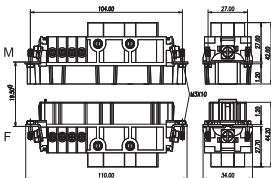
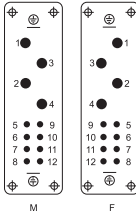
- 1 Wire gauge: 16 $\text{mm}^2$
- 2 Wire gauge: 10 $\text{mm}^2$

## 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 .....  $\leq 0.1\text{m}\Omega$   
Signal contact.....  $\leq 5\text{m}\Omega$   
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


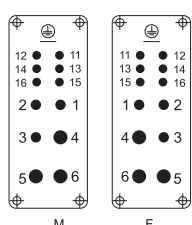


# HWK3/3/6 inserts

INSERTS FOR H24B HOOD/HOUSING

3/3/6+Ⓢ

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

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


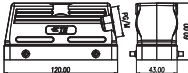

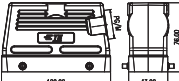

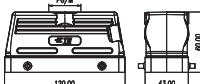

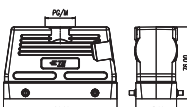

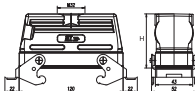

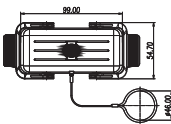

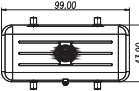
Material .....Copper alloy  
Surface .....Hard silver-plated  
.....Hard gold-plated  
Contact resistance  
Power contact .....≤0.1mΩ  
Signal contact..... ≤5mΩ  
Terminal ..... Screw terminal  
100A contact pin  
- mm<sup>2</sup>  
Power 1 contact.....16-35 mm<sup>2</sup>  
Power 2 contact.....2.5-6 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


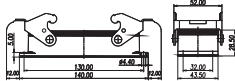

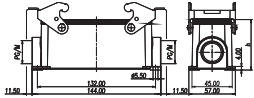

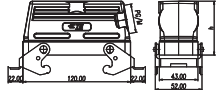




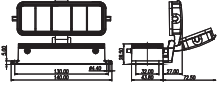
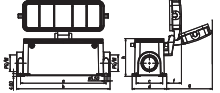
## H24B with 2 levers on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>High</td><td>78.5</td></tr></table></div> <div>Low construction High construction</div>	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						


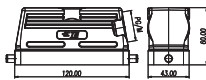

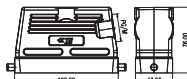

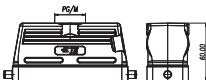

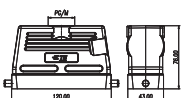

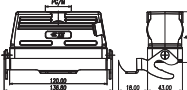

## H24B with 2 levers on the hoods/housings

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																														
	 <table border="1"><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	1 Side entry Low construction 2 Side entry High 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																													
Hight	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>Hight</td><td>76</td></tr></table>	Construction	H	Low	60	Hight	76	Low construction High construction	M20 M25 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																													
Hight	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>Hight</td><td>76</td></tr></table>	Construction	H	Low	60	Hight	76	Low construction High construction	M20 M25 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																													
Hight	76																													
Bulkhead mounted with 4 bolts																														
 	With protection cover   <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>Hight</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	Hight	132	144	45	57	20	65	81	1 Side entry Low construction 2 Side entry High construction	M25 M25 M25 M32 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
Construction	A	B	C	D	F	G	H																							
Low	132	144	45	57	20	65	56																							
Hight	132	144	45	57	20	65	81																							


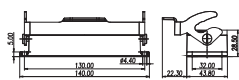

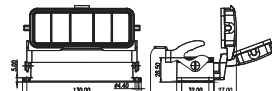

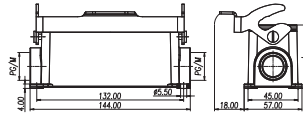

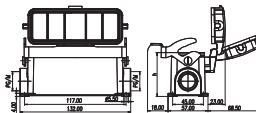
## H24B with 1 lever on the hoods/housings

POWDER-COATED, RAL 7037

Dimensions (mm)		Metr.	PG	Type	Part Number						
Hood: Side entry											
	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											
	<div><table><tr><th>Construction</th><th>H</th></tr><tr><td>Low</td><td>62.5</td></tr><tr><td>Hight</td><td>78.5</td></tr></table></div>	Construction	H	Low	62.5	Hight	78.5	Low construction M25 M32  High construction M25 M32 M40	PG21 PG29  PG21 PG29	H24B-TBF-LB-PG21 H24B-TBF-LB-PG29 H24B-TBF-LB-M25 H24B-TBF-LB-M32  H24B-TBFH-LB-PG21 H24B-TBFH-LB-PG29 H24B-TBFH-LB-M25 H24B-TBFH-LB-M32 H24B-TBFH-LB-M40	T 1 73 024 2121-000 T 1 73 024 2129-000 T 1 73 024 2125-000 T 1 73 024 2132-000  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
Construction	H										
Low	62.5										
Hight	78.5										
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											
	<div><div>1 Side entry</div><div>Low construction</div><div>2 Side entry</div><div>High construction</div><div>1 Side entry</div><div>2 Side entry</div></div>  <table><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	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><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	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-M2S 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


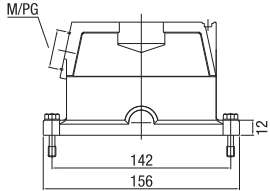

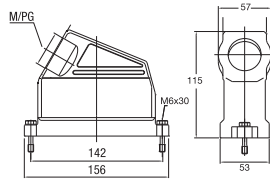

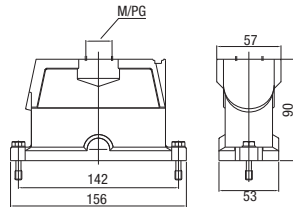
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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.1.36G 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
Hood: Top entry, Standard construction					
		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.10/24, HIP-K.10/24, EMV-K.10/24 housings


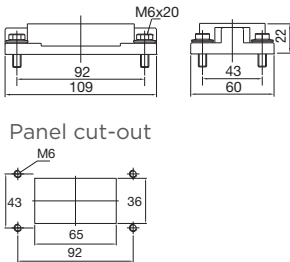

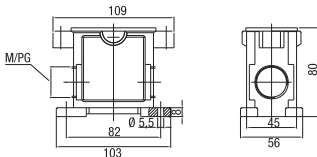

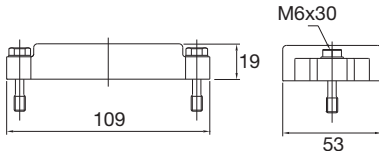
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Bottom entry					
			<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	
Surface mounted housing: Side entry					
		2xM32      2xM32	21 2x21  21 2x21  21 2x21  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
Protective covers for hoods and housing					
			<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	


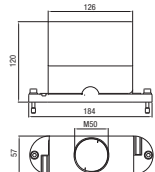

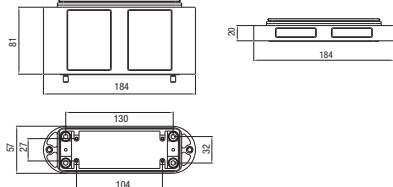

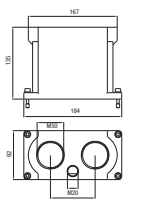

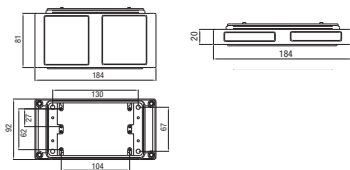
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**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>		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
		81 mm	20 mm		
		81 mm	20 mm		
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>		HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMVK-K.12.AG	0-1102838-2 0-1102838-1 0-1102192-2 0-1102192-1
		81 mm	20 mm		
		81 mm	20 mm		



---

## 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.

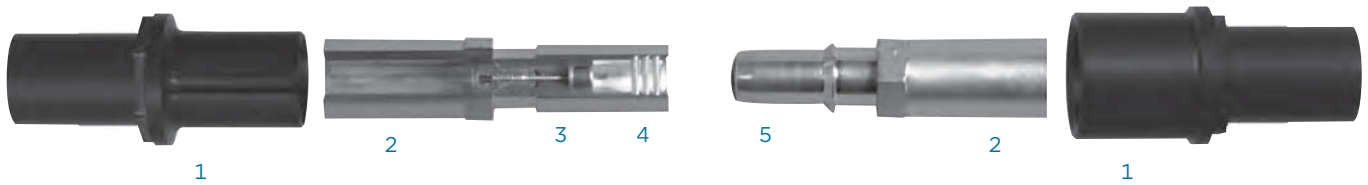
We also offer solutions for your application specific requirements.

### 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


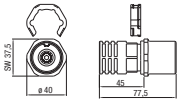

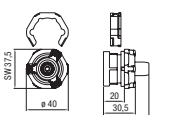

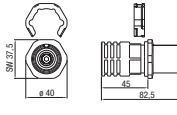

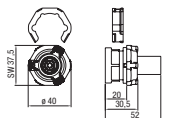
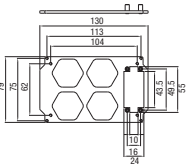
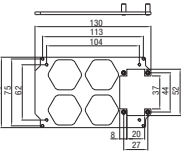
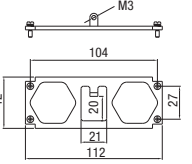
- Wear-resistant basic material
- Worn parts can be individually exchanged
- Surface coating according to customer application
- 30% reduced mating and pulling forces
- 50% increase of making cycles
- Variable wire termination

## 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 Modul</b>	1
Page	16

## HF-13 module

350A/3KV


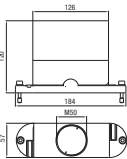

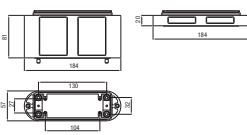
Description	Dimensions (mm)	Type	Part Number	
			Male insert	Female insert
		HF.13.Sti.	0-1110950-2	
		HF.13.Sti.E	0-1110950-4	
		HF.13.Bu.		0-1110951-2
		HF.13.Bu.E		0-1110951-4
			Top	Bottom
3 x for power 1 x for earth 1 x for signal (HA.10) Assembly in HF.12 Housings			0-1110955-3	0-1110955-1
3 x for power 1 x for earth 1x for signal (HE.6) Assembly in HF.12 Housings			0-1110955-4	0-1110955-2
2 x for power 1 x signal Assembly in HF.8 Housings			0-1110960-2	0-1110960-1

## HF.8 housings

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

### Screw lock on hood


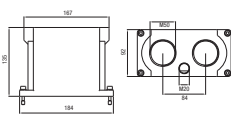

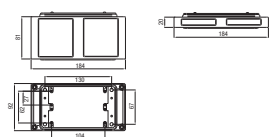
IP 68 / IP 69 K

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

### Screw lock on hood


**IP 68 / IP 69 K**

Surface mounted housing: side entry

## 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

## Notes

[illegible]



## 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


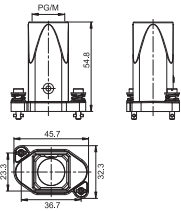

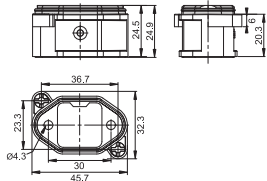

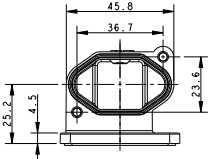
### 3. Approvals



RoHS


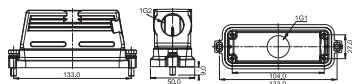

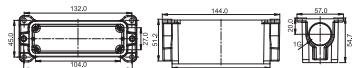
## HPR (IP68) series hoods/housings

### 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	<b>Top entry</b>	T 1 82 224 2121-000
			M32	PG29	H24BK-TGHC-PG21	T 1 82 224 2129-000
			M40		H24BK-TGHC-PG29	T 1 82 224 2125-000
					H24BK-TGHC-M25	T 1 82 224 2132-000
					H24BK-TGHC-M32	T 1 82 224 2140-000
			M25	PG21	<b>Side entry</b>	T 1 81 224 2121-000
			M32		H24BK-TSHC-PG21	T 1 81 224 2125-000
					H24BK-TSHC-M25	T 1 81 224 2132-000
					H24BK-TSHC-M32	T 1 81 224 2132-000
Surface mounted side entry						
		H24B	M25	PG21	<b>1 side entry</b>	T 1 85 224 2121-000
					H24BK-SGR-PG21	T 1 85 224 2125-000
					H24BK-SGR-M25	
			M25	PG21	<b>2 side entry</b>	T 1 85 224 2221-000
					H24BK-SGR-2PG21	T 1 85 224 2225-000
					H24BK-SGR-2M25	

## Special hoods

### SPECIAL HOODS (IP65) SERIES

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

## HA series hoods/housings

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

H10A metal hoods, housings	Metr.	PG	Type	H16A metal hoods, housings	Metr.	PG	Type
Hood: Side entry				Hood: Side entry			
	Low construction High construction M20 M25	PG16 PG21	H10A-TS-PG16 H10A-TS-PG21 H10A-TS-M20 H10A-TS-M25		Low construction High construction M20 M25 M25	PG16 PG21 PG21	H16A-TS-PG16 H16A-TS-PG21 H16A-TS-M20 H16A-TS-M25 H16A-TSH-PG21 H16A-TSH-M25
Hood: Top entry				Hood: Top entry			
	Low construction High construction M20 M25	PG16 PG21	H10A-TG-PG16 H10A-TG-PG21 H10A-TG-M20 H10A-TG-M25		Low construction High construction M20 M25 M25	PG16 PG21 PG21	H16A-TG-PG16 H16A-TG-PG21 H16A-TG-M20 H16A-TG-M25 H16A-TGH-PG21 H16A-TGH-M25
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			
	1 Side entry 2 Side entry M20 M25 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		1 Side entry 2 Side entry M20 M25 M20 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 M20 M25 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		1 Side entry 2 Side entry M20 M25 M20 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
Cable-to-cable hood				Cable-to-cable hood			
	Low construction High construction M20 M25 M25	PG16 PG21	H10A-TBFS-PG16 H10A-TBFS-M20 H10A-TBFS-M25 H10A-TBFHS-PG21 H10A-TBFHS-M25		Low construction High construction M20 M25 M25	PG16 PG21	H16A-TBFS-PG16 H16A-TBFS-M20 H16A-TBFS-M25 H16A-TBFHS-PG21 H16A-TBFHS-M25

## HA series hoods/housings

H32A metal hoods, housings	Metr.	PG	Type	H8A thermoplastic hoods, housings	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		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	H6B-SGRS-PG16 H6B-SGRS-PG21 H6B-SGRS-M20 H6B-SGRS-M25 H6B-SGRS-2PG16 H6B-SGRS-2PG21 H6B-SGRS-2M20 H6B-SGRS-2M25 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		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	H6B-SDRS-PG16 H6B-SDRS-PG21 H6B-SDRS-M20 H6B-SDRS-M25 H6B-SDRS-2PG16 H6B-SDRS-2PG21 H6B-SDRS-2M20 H6B-SDRS-2M25 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	
				Surface mounted: Side entry				
					1 Side entry Low construction	M20 M25	PG16 PG21	H10B-SGRS-PG16 H10B-SGRS-PG21 H10B-SGRS-M20 H10B-SGRS-M25
						2 Side entry	M20 M25	PG16 PG21
					1 Side entry High construction	M20 M32	PG21 PG29	H10B-SGRHS-PG21 H10B-SGRHS-PG29 H10B-SGRHS-M25 H10B-SGRHS-M32
						2 Side entry	M25 M32	PG21 PG29
Hood: Top entry				Side entry housing with two levers				
	M20 M25	PG16 PG21	H10B-TG-PG16 H10B-TG-PG21 H10B-TG-M20 H10B-TG-M25		Low construction	M20 M25	PG16 PG21	H10B-TSBS-PG16 H10B-TSBS-PG21 H10B-TSBS-M20 H10B-TSBS-M25
	M20 M25 M32	PG21 PG29	H10B-TGH-PG21 H10B-TGH-PG29 H10B-TGH-M20 H10B-TGH-M25 H10B-TGH-M32		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		Low construction	M20 M25	PG16 PG21	H10B-TGBS-PG16 H10B-TGBS-PG21 H10B-TGBS-M20 H10B-TGBS-M25
	High construction	M25 M32	PG21 PG29		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		1 Side entry Low construction	M20 M25	PG16 PG21	H10B-AD-BO H10B-SDR-BO-PG16 H10B-SDR-BO-PG21 H10B-SDR-BO-M20 H10B-SDR-BO-M25
						2 Side entry	M20 M25	PG16 PG21
Housing protection cover					1 Side entry High construction	M25 M32	PG21 PG29	H10B-SDRH-BO-PG21 H10B-SDRH-BO-PG29 H10B-SDRH-BO-M25 H10B-SDRH-BO-M32
			H10B-KDBP			2 Side entry	M25 M32	PG21 PG29

## 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 M20 M25 2 Side entry M20 M25 High construction 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
	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 M20 M25 2 Side entry M20 M25 High construction 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
Cable-to-cable hood							
	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				
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			
				 <div>1 Side entry Low construction</div> <div>2 Side entry High construction</div>	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
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	 <div>Low construction</div> <div>High construction</div>	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			
				 <div>Low construction</div> <div>High construction</div>	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			
 <div>Low construction</div> <div>High construction</div>	M25 M32 M25 M32 M40	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				 <div>1 Side entry Low construction</div> <div>2 Side entry High construction</div>	M25 M25 M25 M32 M25 M32	PG21 PG21 PG21 PG29 PG21 PG29	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				
Housing protection cover			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		1 Side entry Low construction 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
					2 Side entry High construction M20 M25	PG16 PG21	H16B-SGR-LB-2PG16 H16B-SGR-LB-2PG21 H16B-SGR-LB-2M20 H16B-SGR-LB-2M25
					1 Side entry High construction M25 M32	PG21 PG29	H16B-SGRH-LB-PG21 H16B-SGRH-LB-PG29 H16B-SGRH-LB-M32 H16B-SGRH-LB-2PG21 H16B-SGRH-LB-2PG29 H16B-SGRH-LB-2M25 H16B-SGRH-LB-2M32
					2 Side entry High construction M25 M32	PG21 PG29	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		1 Side entry Low construction 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
					2 Side entry High construction M20 M25	PG16 PG21	H16B-SDR-LB-2PG16 H16B-SDR-LB-2PG21 H16B-SDR-LB-2M20 H16B-SDR-LB-2M25
					1 Side entry High construction M25 M32	PG21 PG29	H16B-SDRH-LB-PG21 H16B-SDRH-LB-PG29 H16B-SDRH-LB-M32 H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32
					2 Side entry High construction M25 M32	PG21 PG29	H16B-SDRH-LB-2PG21 H16B-SDRH-LB-2PG29 H16B-SDRH-LB-2M25 H16B-SDRH-LB-2M32
Cable-to-cable hood							
	M25 M32	PG21 PG29	H16B-TBF-LB-PG21 H16B-TBF-LB-PG29 H16B-TBF-LB-M25 H16B-TBF-LB-M32				
	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
	M25 M32 M40	PG21 PG29	H24B-TSH-PG21 H24B-TSH-PG29 H24B-TSH-M25 H24B-TSH-M32 H24B-TSH-M40	Surface mounted: Side entry				
					1 Side entry Low construction M25 2 Side entry M25 1 Side entry High construction M25 2 Side entry 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	
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 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	
	M25 M32 M40	PG21 PG29	H24B-TGH-PG21 H24B-TGH-PG29 H24B-TGH-M25 H24B-TGH-M32 H24B-TGH-M40	Top entry housing with two levers				
					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	
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						1 Side entry Low construction M25 2 Side entry M25 1 Side entry High construction M25 2 Side entry M32 M25 M32	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
Housing protection cover								
			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		1 Side entry Low construction	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		2 Side entry High construction	M20 M25 M25 M32 M25 M32	PG16 PG21 PG21 PG29 PG21 PG29 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
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		1 Side entry Low construction	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		2 Side entry High construction	M20 M25 M25 M32 M25 M32	PG16 PG21 PG21 PG29 PG21 PG29 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
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							
	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							
			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			
	1 Side entry M32 M40 M50 2 Side entry M32 M40 M50	PG29 PG36 PG42 PG29 PG36 PG42	H48B-SGR-PG29 H48B-SGR-PG36 H48B-SGR-PG42 H48B-SGR-M32 H48B-SGR-M40 H48B-SGR-M50 H48B-SGR-2PG29 H48B-SGR-2PG36 H48B-SGR-2PG42 H48B-SGR-2M32 H48B-SGR-2M40 H48B-SGR-2M50				H3A-MTG-EMC-PG11 H3A-MTG-EMC-M20 H6B-TGBHS-EMC H10B-TGBHS-EMC H16B-TGBHS-EMC H24B-TGBHS-EMC
Surface mounted with cover				Bulkhead mounted			
	1 Side entry M32 M40 M50 2 Side entry M32 M40 M50	PG29 PG36 PG42 PG29 PG36 PG42	H48B-SDR-PG29 H48B-SDR-PG36 H48B-SDR-PG42 H48B-SDR-M32 H48B-SDR-M40 H48B-SDR-M50 H48B-SDR-2PG29 H48B-SDR-2PG36 H48B-SDR-2PG42 H48B-SDR-2M32 H48B-SDR-2M40 H48B-SDR-2M50				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


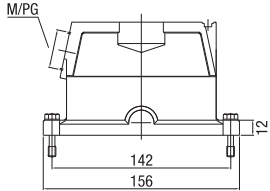

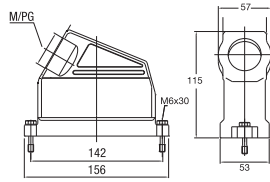

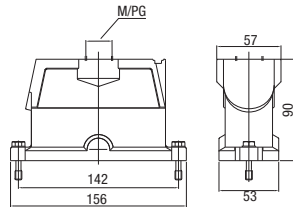
**HIP:** Pressure-tight, silver-grey

**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
Hood: Side entry, Standard construction					
		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.1.36G 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
Hood: Top entry, Standard construction					
		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


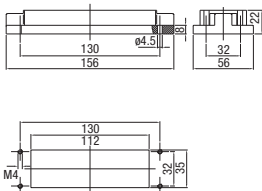

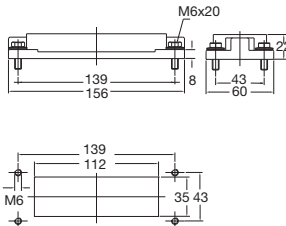

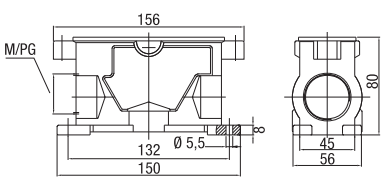

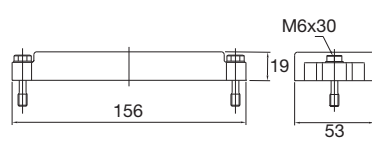
**HIP:** Pressure-tight, silver-grey

**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	
Surface mounted housing: Bottom entry, Standard construction					
			<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 HIP-K.24/64.AG.M6.D HIP-K-I.24/64.AG.M6.D	2-1102626-5 2-1102628-5 0-1108533-1	
			<b>EMV-K</b> EMV-K.24/64.AG.M6	4-1102736-5	
Surface mounted housing: Side entry, Standard construction					
		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
		2xM40	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
		2xM40	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
Protective cover housings					
			<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	


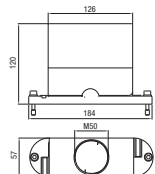

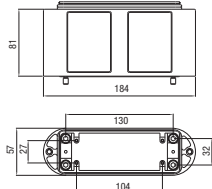

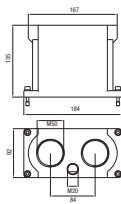

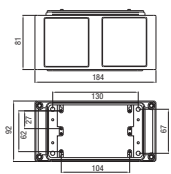
## HF-HIP-K 8/HF-EMV-K 8, HF-HIP-K 12/HF-EMV-K 12 housings

**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


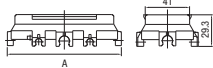

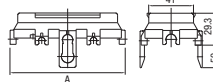

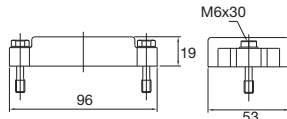

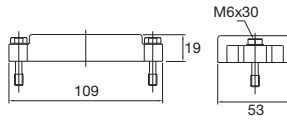

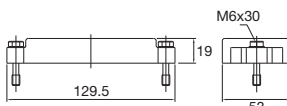
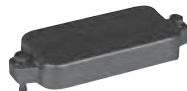
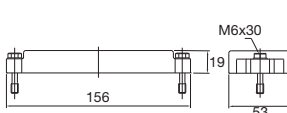

Description		Metr.	PG	Type	Part Number
Hood					
		1xM50 1xM50 2xM40 2xM40		HF-HIP-K.8.Sto.1.M50G HF.8.EMV-K.8.Sto.1.M50G HF.HIP-K.8.Sto.2.M40G HF.EMV-K.8.Sto.2.M40G	0-1102839-4 0-1102839-3 0-1102839-2 0-1102839-1
Housing bottom					
		Height 20 mm 20 mm		HF-HIP-K.8.AG.N HF-EMV-K.8.AG.N HF-HIP-K.8.AG 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					
		Height 20 mm 20 mm		HF-HIP-K.12.AG.N HF-EMV-K.12.AG.N HF-HIP-K.12.AG HF-EMVK-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

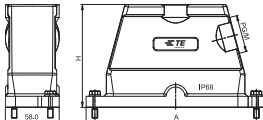
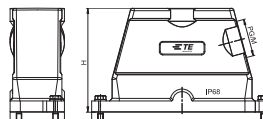
Metal-Version

Size 3, 4, 6 + 8

Description			Type	Part Number					
Protective cover for hoods and housings with bolts									
  Size 6/8	 <table><tr><th>Size</th><th>A=mm</th></tr><tr><td>6</td><td>105</td></tr><tr><td>8</td><td>132</td></tr></table>	Size	A=mm	6	105	8	132	SKP.6 SKP.8  with attachment string SKP.6.F SKP.8.F	0-1110684-3 0-1110661-3  0-1106258-3 0-1106258-4
Size	A=mm								
6	105								
8	132								
Protective cover for hoods with central locking clip									
  Size 6/8	 <table><tr><th>Size</th><th>A=mm</th></tr><tr><td>6</td><td>105</td></tr><tr><td>8</td><td>132</td></tr></table>	Size	A=mm	6	105	8	132	SKP.6/R SKP.8/R  with attachment string SKP.6/R.F SKP.8/R.F	0-1110684-4 0-1110661-4  0-1106259-3 0-1106259-4
Size	A=mm								
6	105								
8	132								
Protective covers for housings series HIP, EMV, EMV-K									
		<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>HIP</b> HIP/EMV.10/24.SKB	3-1106202-5						
		<b>HIP-K/EMV-K</b> HIP-K/EMV-K.10/24.SKB	4-1106202-5						
		<b>HIP</b> HIP/EMV.16/40.SKB	3-1106203-5						
		<b>HIP-K</b> HIP-K.16/40.SKB	4-1106203-5						
		<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						

## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

Opposite angle locking		Size	Metr.	PG	Type	Part Number																	
Hood: Side entry																							
	 <table><tr><th>SIZE</th><th>A</th><th>H</th></tr><tr><td>H6BPR</td><td>133</td><td>101</td></tr><tr><td>H10BPR</td><td>146</td><td>101</td></tr><tr><td>H16BPR</td><td>166</td><td>111</td></tr><tr><td>H24BPR</td><td>193</td><td>111</td></tr></table>	SIZE	A	H	H6BPR	133	101	H10BPR	146	101	H16BPR	166	111	H24BPR	193	111	H6BPR	M20 M25 M32	PG16 PG21 PG29	H6BPR-TSH-PG16 H6BPR-TSH-PG21 H6BPR-TSH-PG29 H6BPR-TSH-M20 H6BPR-TSH-M25 H6BPR-TSH-M32	T 1 91 006 0116-000 T 1 91 006 0121-000 T 1 91 006 0129-000 T 1 91 006 0120-000 T 1 91 006 0125-000 T 1 91 006 0132-000		
		SIZE	A	H																			
		H6BPR	133	101																			
		H10BPR	146	101																			
		H16BPR	166	111																			
		H24BPR	193	111																			
		H10BPR	M20 M25 M32	PG16 PG21 PG29	H10BPR-TSH-PG16 H10BPR-TSH-PG21 H10BPR-TSH-PG29 H10BPR-TSH-M20 H10BPR-TSH-M25 H10BPR-TSH-M32	T 1 91 010 0116-000 T 1 91 010 0121-000 T 1 91 010 0129-000 T 1 91 010 0120-000 T 1 91 010 0125-000 T 1 91 010 0132-000																	
		H16BPR	M25 M32 M40	PG16 PG21 PG29	H16BPR-TSH-PG16 H16BPR-TSH-PG21 H16BPR-TSH-PG29 H16BPR-TSH-M25 H16BPR-TSH-M32 H16BPR-TSH-M40	T 1 91 016 0116-000 T 1 91 016 0121-000 T 1 91 016 0129-000 T 1 91 016 0125-000 T 1 91 016 0132-000 T 1 91 016 0140-000																	
		H24BPR	M25 M32 M40	PG16 PG21 PG29	H24BPR-TSH-PG16 H24BPR-TSH-PG21 H24BPR-TSH-PG29 H24BPR-TSH-M25 H24BPR-TSH-M32 H24BPR-TSH-M40	T 1 91 024 0116-000 T 1 91 024 0121-000 T 1 91 024 0129-000 T 1 91 024 0125-000 T 1 91 024 0132-000 T 1 91 024 0140-000																	
		Hood: Top entry																					
			 <table><tr><th>SIZE</th><th>A</th><th>H</th></tr><tr><td>H6BPR</td><td>133</td><td>101</td></tr><tr><td>H10BPR</td><td>146</td><td>101</td></tr><tr><td>H16BPR</td><td>166</td><td>111</td></tr><tr><td>H24BPR</td><td>193</td><td>111</td></tr></table>	SIZE	A	H	H6BPR	133	101	H10BPR	146	101	H16BPR	166	111	H24BPR	193	111	H6BPR	M20 M25 M32	PG16 PG21 PG29	H6BPR-TGH-PG16 H6BPR-TGH-PG21 H6BPR-TGH-PG29 H6BPR-TGH-M20 H6BPR-TGH-M25 H6BPR-TGH-M32	T 1 92 006 0116-000 T 1 92 006 0121-000 T 1 92 006 0129-000 T 1 92 006 0120-000 T 1 92 006 0125-000 T 1 92 006 0132-000
				SIZE	A	H																	
				H6BPR	133	101																	
				H10BPR	146	101																	
				H16BPR	166	111																	
				H24BPR	193	111																	
				H10BPR	M20 M25 M32	PG16 PG21 PG29	H10BPR-TGH-PG16 H10BPR-TGH-PG21 H10BPR-TGH-PG29 H10BPR-TGH-M20 H10BPR-TGH-M25 H10BPR-TGH-M32	T 1 92 010 0116-000 T 1 92 010 0121-000 T 1 92 010 0129-000 T 1 92 010 0120-000 T 1 92 010 0125-000 T 1 92 010 0132-000															
				H16BPR	M25 M32 M40	PG16 PG21 PG29	H16BPR-TGH-PG16 H16BPR-TGH-PG21 H16BPR-TGH-PG29 H16BPR-TGH-M25 H16BPR-TGH-M32 H16BPR-TGH-M40	T 1 92 016 0116-000 T 1 92 016 0121-000 T 1 92 016 0129-000 T 1 92 016 0125-000 T 1 92 016 0132-000 T 1 92 016 0140-000															
				H24BPR	M25 M32 M40	PG16 PG21 PG29	H24BPR-TGH-PG16 H24BPR-TGH-PG21 H24BPR-TGH-PG29 H24BPR-TGH-M25 H24BPR-TGH-M32 H24BPR-TGH-M40	T 1 92 024 0116-000 T 1 92 024 0121-000 T 1 92 024 0129-000 T 1 92 024 0125-000 T 1 92 024 0132-000 T 1 92 024 0140-000															


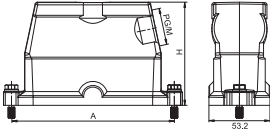

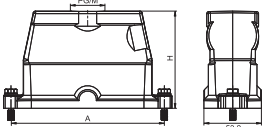

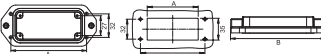


## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

Opposite angle locking		Size	Metr.	PG	Type	Part Number																				
Bulkhead mounted																										
	<div><table><tr><th>SIZE</th><th>A</th><th>B</th><th>C</th></tr><tr><td>H6BPR</td><td>70</td><td>133</td><td>48</td></tr><tr><td>H10BPR</td><td>83</td><td>146</td><td>60</td></tr><tr><td>H16BPR</td><td>103</td><td>166</td><td>82</td></tr><tr><td>H24BPR</td><td>130</td><td>193</td><td>108</td></tr></table></div>	SIZE	A	B	C	H6BPR	70	133	48	H10BPR	83	146	60	H16BPR	103	166	82	H24BPR	130	193	108	H6BPR H10BPR H16BPR H24BPR			H6BPR-AG H10BPR-AG H16BPR-AG H24BPR-AG	T 1 93 006 0000-000 T 1 93 010 0000-000 T 1 93 016 0000-000 T 1 93 024 0000-000
SIZE	A	B	C																							
H6BPR	70	133	48																							
H10BPR	83	146	60																							
H16BPR	103	166	82																							
H24BPR	130	193	108																							
Straight surface mounted																										
	<div><table><tr><th>SIZE</th><th>A</th><th>B</th></tr><tr><td>H10BPR</td><td>140</td><td>169</td></tr></table></div>	SIZE	A	B	H10BPR	140	169	H10BPR	M25 M32	PG21 PG29	H10BPR-SGRH-PG21 H10BPR-SGRH-PG29 H10BPR-SGRH-M25 H10BPR-SGRH-M32	T 1 95 010 0121-000 T 1 95 010 0129-000 T 1 95 010 0125-000 T 1 95 010 0132-000														
SIZE	A	B																								
H10BPR	140	169																								
Cover																										
	<div><table><tr><th>SIZE</th><th>A</th></tr><tr><td>H6BPR</td><td>133</td></tr><tr><td>H10BPR</td><td>146</td></tr><tr><td>H16BPR</td><td>166</td></tr><tr><td>H24BPR</td><td>193</td></tr></table></div>	SIZE	A	H6BPR	133	H10BPR	146	H16BPR	166	H24BPR	193	H6BPR H10BPR H16BPR H24BPR			H6BPR-KDB H10BPR-KDB H16BPR-KDB H24BPR-KDB	T 1 99 006 0000-000 T 1 99 010 0000-000 T 1 99 016 0000-000 T 1 99 024 0000-000										
SIZE	A																									
H6BPR	133																									
H10BPR	146																									
H16BPR	166																									
H24BPR	193																									
Frame																										
	<div><table><tr><th>SIZE</th><th>A</th><th>B</th></tr><tr><td>H24BPR</td><td>130</td><td>156</td></tr></table></div>	SIZE	A	B	H24BPR	130	156	H24BPR			H24BPR-FRAME	T 1 99 024 0001-000														
SIZE	A	B																								
H24BPR	130	156																								

## HPR (IP68) series hoods/housings

### HBPR (IP68) SERIES

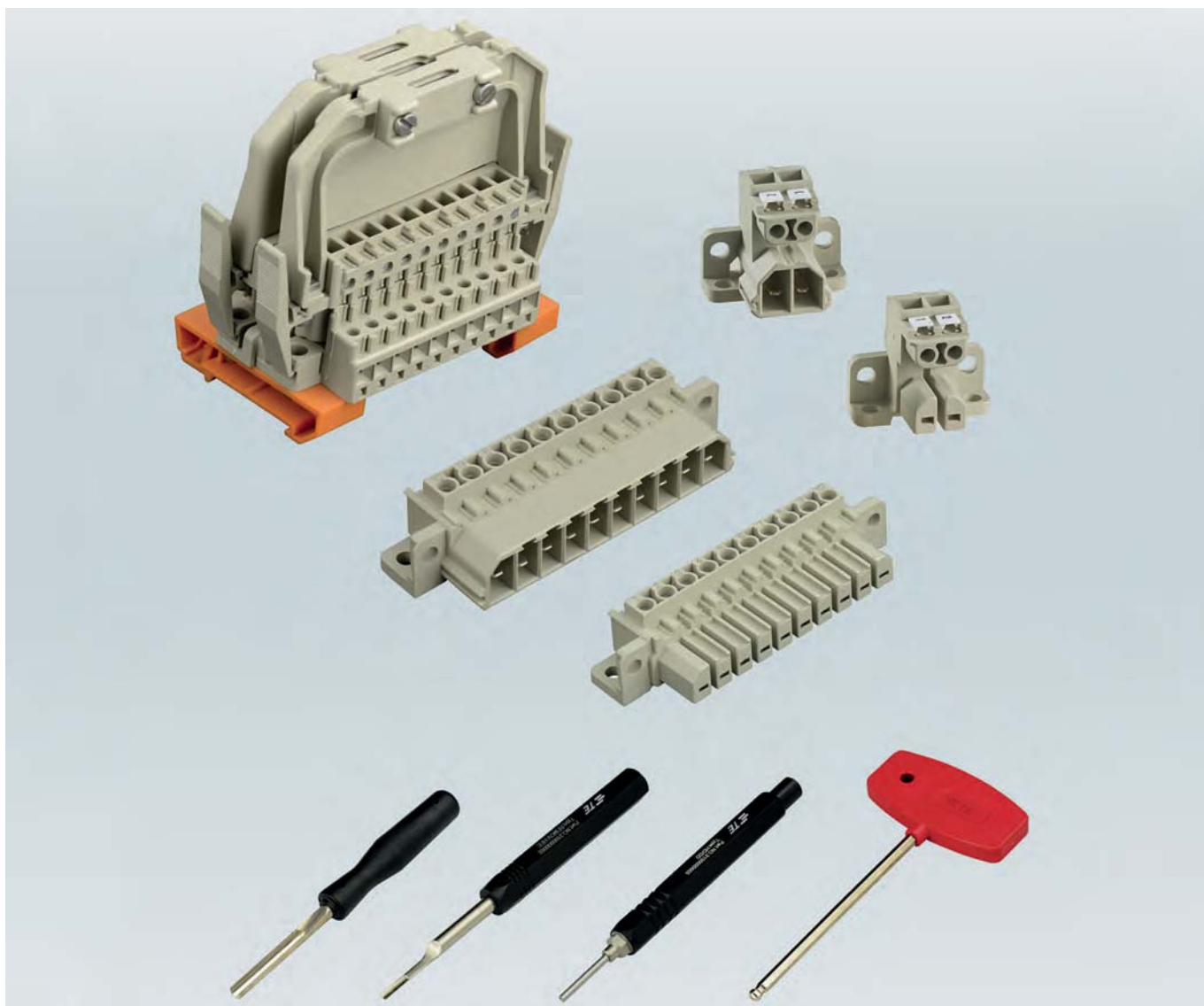
Central locking	Size	Metr.	PG	Type	Part Number																					
Hood: Side entry																										
	 <table><tr><th>SIZE</th><th>A</th><th>H</th></tr><tr><td>H6BPR</td><td>96</td><td>70</td></tr><tr><td>H10BPR</td><td>110</td><td>70</td></tr><tr><td>H16BPR</td><td>130</td><td>80</td></tr><tr><td>H24BPR</td><td>156</td><td>80</td></tr></table>	SIZE	A	H	H6BPR	96	70	H10BPR	110	70	H16BPR	130	80	H24BPR	156	80	H6BPR	M25 M32 M40	PG21 PG29 PG36	H6BPR-TSHC-PG21 H6BPR-TSHC-PG29 H6BPR-TSHC-PG36 H6BPR-TSHC-M25 H6BPR-TSHC-M32 H6BPR-TSHC-M40	T 1 91 206 1121-000 T 1 91 206 1129-000 T 1 91 206 1136-000 T 1 91 206 1125-000 T 1 91 206 1132-000 T 1 91 206 1140-000					
		SIZE	A	H																						
		H6BPR	96	70																						
		H10BPR	110	70																						
	H16BPR	130	80																							
	H24BPR	156	80																							
	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																										
	 <table><tr><th>SIZE</th><th>A</th><th>H</th></tr><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></table>	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					
		SIZE	A	H																						
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		H10BPR	110	70																						
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	H24BPR	156	80																							
	H10BPR	M25 M32 M40	PG21 PG29 PG36	H10BPR-TGHC-PG21 H10BPR-TGHC-PG29 H10BPR-TGHC-PG36 H10BPR-TGHC-M25 H10BPR-TGHC-M32 H10BPR-TGHC-M40	T 1 92 210 1121-000 T 1 92 210 1129-000 T 1 92 210 1136-000 T 1 92 210 1125-000 T 1 92 210 1132-000 T 1 92 210 1140-000																					
			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																										
	 <table><tr><th>SIZE</th><th>A</th><th>B</th><th>C</th></tr><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></table>	SIZE	A	B	C	H6BPR	70	96	48	H10BPR	83	110	60	H16BPR	103	130	82	H24BPR	130	156	108	H6BPR			H6BPR-AGC	T 1 93 206 1000-000
		SIZE	A	B	C																					
		H6BPR	70	96	48																					
		H10BPR	83	110	60																					
		H16BPR	103	130	82																					
H24BPR	130	156	108																							
H10BPR			H10BPR-AGC	T 1 93 210 1000-000																						
H16BPR			H16BPR-AGC	T 1 93 216 1000-000																						
H24BPR			H24BPR-AGC	T 1 93 224 1000-000																						
Cover																										
		H24BPR			H24BPR-KDBP	T 1 99 024 0000-000																				

## Notes

[illegible]



## 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

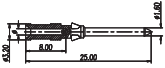

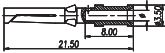

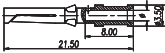
<b>Crimp tool</b>  Wire range: 0.5-4.0mm <sup>2</sup> Suitable for CDM/CDF and CEM/CEF contacts			<b>Crimp tool</b>  Wire range: 4.0-10.0mm <sup>2</sup> Used for CMM/CMF contacts		
<b>Type</b>	CRIMPBOX-0.5/4		<b>Type</b>	CRIMPBOX-4.0/10.0	
<b>Part Number</b>	T 3 10 000 0001-000		<b>Part Number</b>	T 3 10 000 1001-000	
<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			<b>Remove tool</b>  Used for CDM/CDF contact series		
<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	
<b>Remove tool</b>  Used for CEM/CMF contact series			<b>Remove tool</b>  Used for 5A contacts (Ø1mm)		
<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
<b>Remove tool</b>  Used for CMM/CMF contact series					
<b>Type</b>	REMOV-MM				
<b>Part Number</b>	T 3 10 000 0013-000				

### Axial screw tool and crimping tool

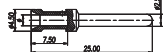




<b>M3 screw driver</b> Used for HA/HE inserts			<b>Tool</b> Used for 100A inserts		
<b>Type</b>	SCREWD-M3		<b>Type</b>	HEXA-D1	
<b>Part Number</b>	T 3 10 000 0009-000		<b>Part Number</b>	T 3 10 000 0010-000	
<b>Tool</b> Used for 40A inserts			<b>Crimping tool</b> Wire range: 10.0-120.0mm <sup>2</sup> Used for 200A contacts		
<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

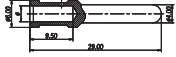


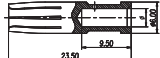
Tech data Material: copper alloy Contact resistance: $\leq 3\text{m}\Omega$ Terminal: crimp connection CDM/Male	10A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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
		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 		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
		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

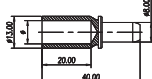


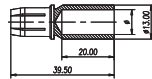
Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CEM/Male	16A Male crimp contacts 	Wire gauge		Strip- ping length mm	Crimp contacts, silver-plated		Crimp contacts, gold-plated	
		mm <sup>2</sup>	AWG		Type	Part Number	Type	Part Number
		0.14-0.37	26-22	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 		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

### 40A Contact


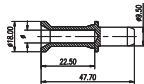

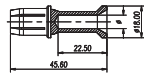
Tech data Material: copper alloy Contact resistance: $\leq 0.3\text{m}\Omega$ Terminal: crimp connection CMM/Male	40A Male crimp contacts 	Wire gauge		Stripping length mm	Crimp contacts, silver-plated	
		mm <sup>2</sup>	AWG		Type	Part Number
		1.5	16	8.0	CMM-1.5	T 2 04 000 1015-000
		2.5	14	8.0	CMM-2.5	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

### 100A Contact

Tech data Material: copper alloy Contact resistance: $\leq 1\text{m}\Omega$ Terminal: crimp connection CDM/Male	100A Male crimp contacts 	Wire gauge	Ø	Stripping length mm	Crimp contacts, silver-plated	
		mm <sup>2</sup>			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

# Crimp contacts

## 200A Contact

<b>Tech data</b> <b>Material:</b> copper <b>Contact resistance:</b> ≤0.3mΩ <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

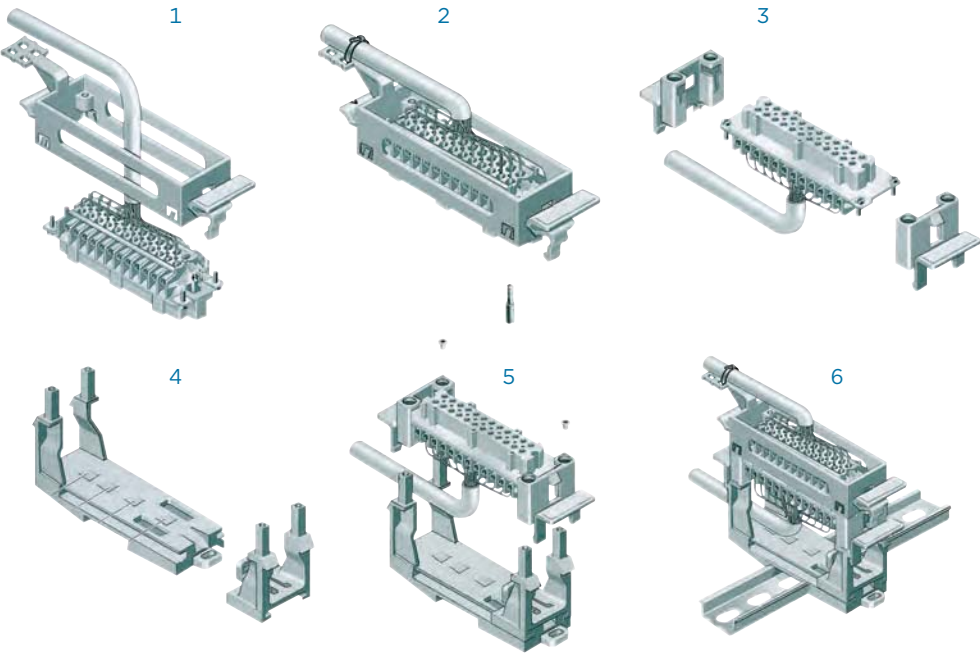
## PCB Adapter

			
<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


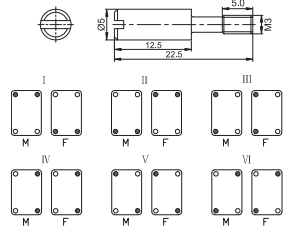

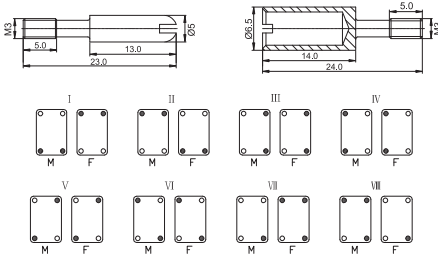

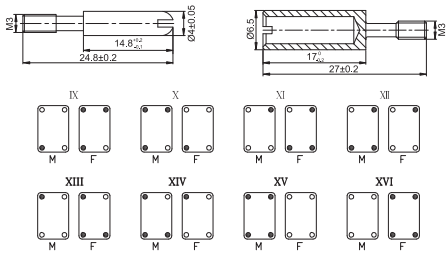


Set	Parts order		Type	Part Number
Insert mounting with carrier element				
	H6B set	Top	H6B-Rail-top	T 1 87 006 2101-000
		Base	HB-Rail-base	T 1 87 000 2201-000
	H10B set	Top	H10B-Rail-top	T 1 87 010 2101-000
		Base	HB-Rail-base	T 1 87 000 2201-000
	H16B set	Top	H16B-Rail-top	T 1 87 016 2101-000
		Base	HB-Rail-base	T 1 87 000 2201-000
	H24B set	Top	H24B-Rail-top	T 1 87 024 2101-000
		Base	HB-Rail-base	T 1 87 000 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


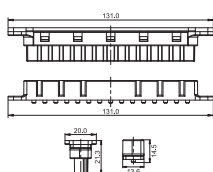
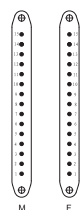

Coding of hoods/housings and inserts		Type	Part Number
Standard code pin (Stainless steel) 		Ordinary type CODING-PIN-M3-TM CODING-PIN-M3-TF  Stainless steel CODING-PIN-M3-STM CODING-PIN-M3-STF	Ordinary type T 0 93 100 0423-000 T 0 93 100 6524-000  Stainless steel T 0 93 200 0423-000 T 0 93 200 6524-000
Guiding pins (Stainless steel) 		Ordinary type King-size CODING-PIN-M3-LTM CODING-PIN-M3-LTF  Stainless steel, King-size CODING-PIN-M3-LSTM CODING-PIN-M3-LSTF	Ordinary type King-size T 0 93 100 0425-000 T 0 93 100 6527-000  Stainless steel, King-size T 0 93 110 0425-000 T 0 93 110 6527-000
Guiding pins (screw thread extended) 		Ordinary type (screw thread extended) CODING-PIN-M3-LTM CODING-PIN-M3-LTF  Stainless steel (screw thread extended) CODING-PIN-M3-STM CODING-PIN-M3-STF	Ordinary type (screw thread extended) T 0 93 110 0425-000 T 0 93 110 6527-000  Ordinary type (screw thread extended) T 0 93 110 0423-000 T 0 93 110 6524-000

# HEE-015 insert

INSERTS MOUNTING WITHOUT HOOD/HOUSING

200V MAX. 16A

15+ 

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


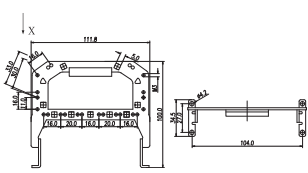





Female contact p/n: T0080002015-010



# Other connectors

		Designation	Type	Part Number
<b>3-poles connector</b>  <b>Rated:</b> 25A, 500V  <b>Contact surface:</b> Silver plated  <b>Flammability acc. to UL94:</b> V0  <b>Terminal:</b> Screw terminal		3 poles male insert 3 poles female insert	HCC-003-M HCC-003-F	T 2 10 003 2101-000 T 2 10 003 2101-000

## Installation elements

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



PG	M
PG11	M20
PG13.5	
PG16	M25
PG21	M32
PG29	M40
PG36	
PG42	M50

	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					
  Sealing with different colors   <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)	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					
  <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	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
Metal clamp glands					
 <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
Metal flexible tube fittings					
 <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
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-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
Nylon blind plugs				
 <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
Metal increasers				
 <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	INCR-7/9-PG	T 3 033 0709 01-000
		PG9-PG11	INCR-9/11-PG	T 3 033 0911 01-000
		PG11-PG13.5	INCR-11/13-PG	T 3 033 1113 01-000
		PG11-PG16	INCR-11/16-PG	T 3 033 1116 01-000
		PG13.5-PG16	INCR-13/16-PG	T 3 033 1316 01-000
		PG13.5-PG21	INCR-13/21-PG	T 3 033 1321 01-000
		PG16-PG21	INCR-16/21-PG	T 3 033 1621 01-000
		PG21-PG29	INCR-21/29-PG	T 3 033 2129 01-000
		PG29-PG36	INCR-29/36-PG	T 3 033 2936 01-000
		PG36-PG42	INCR-36/42-PG	T 3 033 3642 01-000
			INCR-16/20-M	T 3 033 1620 50-000
			INCR-20/25-M	T 3 033 2025 50-000
			INCR-25/32-M	T 3 033 2532 50-000
			INCR-32/40-M	T 3 033 3240 50-000
			INCR-40/50-M	T 3 033 4050 50-000
			INCR-50/63-M	T 3 033 5063 50-000
Metal reducers				
 <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	REDU-9/7-PG	T 3 071 0907 01-000
		PG11-PG7	REDU-11/7-PG	T 3 071 1107 01-000
		PG13.5-PG9	REDU-13/9-PG	T 3 071 1309 01-000
		PG13.5-PG11	REDU-13/11-PG	T 3 071 1311 01-000
		PG16-PG9	REDU-16/9-PG	T 3 071 1609 01-000
		PG16-PG11	REDU-16/11-PG	T 3 071 1611 01-000
		PG16-PG13.5	REDU-16/13-PG	T 3 071 1613 01-000
		PG21-PG11	REDU-21/11-PG	T 3 071 2111 01-000
		PG21-PG13.5	REDU-21/13-PG	T 3 071 2113 01-000
		PG21-PG16	REDU-21/16-PG	T 3 071 2116 01-000
		PG29-PG16	REDU-29/16-PG	T 3 071 2916 01-000
		PG29-PG21	REDU-29/21-PG	T 3 071 2921 01-000
		PG36-PG21	REDU-36/21-PG	T 3 071 3621 01-000
		PG36-PG29	REDU-36/29-PG	T 3 071 3629 01-000
		PG42-PG29	REDU-42/29-PG	T 3 071 4229 01-000
		PG42-PG36	REDU-42/36-PG	T 3 071 4236 01-000
		PG48-PG36	REDU-48/36-PG	T 3 071 4836 01-000
		PG48-PG42	REDU-48/42-PG	T 3 071 4842 01-000
			REDU-16/12-M	T 3 071 1612 50-000
			REDU-20/12-M	T 3 071 2012 50-000
			REDU-20/16-M	T 3 071 2016 50-000
			REDU-25/20-M	T 3 071 2520 50-000
			REDU-32/20-M	T 3 071 3220 50-000
			REDU-32/25-M	T 3 071 3225 50-000
			REDU-40/25-M	T 3 071 4025 50-000
			REDU-40/32-M	T 3 071 4032 50-000
			REDU-50/32-M	T 3 071 5032 50-000
			REDU-50/40-M	T 3 071 5040 50-000
			REDU-63/40-M	T 3 071 6340 50-000
			REDU-63/50-M	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
		SKTP15-32SC	15-32	T 3 9301 532 01-000
Mounting rails		SKT2-6	2-6	T 3 9100 206 01-000
		SKT3-8	3-8	T 3 9100 308 01-000
		SKT4-13.5	4-13.5	T 3 9100 413 01-000
		SKT10-20	10-20	T 3 9101 020 01-000
Quick installation yokes		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

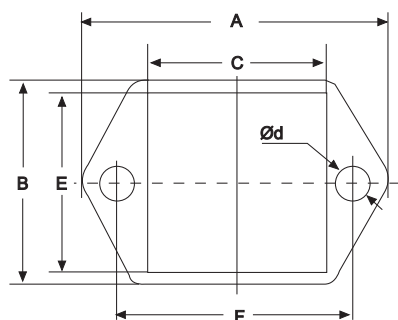
## Cable fittings and accessories

	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

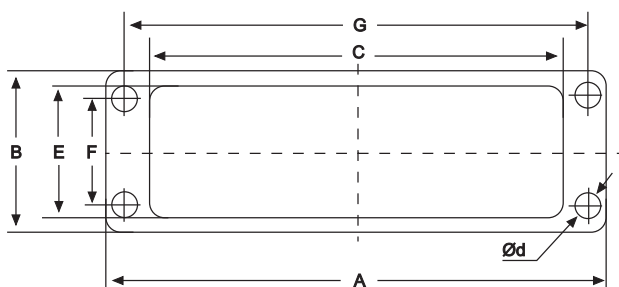
## Cable fittings and accessories

	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>	M12 X 1.5 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	PG11 PG13.5 PG16 PG21 PG29 PG36	STUD-PG11 STUD-PG13.5 STUD-PG16 STUD-PG21 STUD-PG29 STUD-PG36	T 3 333 1111 02-000 T 3 333 1313 02-000 T 3 333 1616 02-000 T 3 333 2121 02-000 T 3 333 2929 02-000 T 3 333 3636 02-000
			STUD-M12 STUD-M16 STUD-M20 STUD-M25 STUD-M32 STUD-M40 STUD-M50 STUD-M63	T 3 333 1212 01-000 T 3 333 1616 01-000 T 3 333 2020 01-000 T 3 333 2525 01-000 T 3 333 3232 01-000 T 3 333 4040 01-000 T 3 333 5050 01-000 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  WSM-21-MS  WSM-32-M	T 3 125 1601 11-000  T 3 125 2101 11-000  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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0-0164160-4	111	0-1102839-2	273	0-1103092-1	195
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
0-1102792-1	152	0-1102840-1	153	0-1106401-3	59
0-1102792-1	266	0-1102840-1	268	0-1106401-3	188
0-1102792-1	293	0-1102840-1	273	0-1106401-4	36
0-1102836-1	100	0-1102840-1	295	0-1106401-4	59
0-1102836-1	153	0-1102840-2	100	0-1106401-4	188
0-1102836-1	268	0-1102840-2	153	0-1106402-2	35
0-1102836-1	273	0-1102840-2	268	0-1106402-2	58
0-1102836-1	295	0-1102840-2	273	0-1106402-2	187
0-1102836-2	100	0-1102840-2	295	0-1106402-3	35
0-1102836-2	153	0-1102840-3	100	0-1106402-3	58
0-1102836-2	268	0-1102840-3	153	0-1106402-3	187
0-1102836-2	273	0-1102840-3	268	0-1106407-1	36
0-1102836-2	295	0-1102840-3	273	0-1106407-1	59
0-1102837-1	100	0-1102840-3	295	0-1106407-1	188
0-1102837-1	153	0-1102840-4	100	0-1106407-2	36
0-1102837-1	268	0-1102840-4	153	0-1106407-2	59
0-1102837-1	273	0-1102840-4	268	0-1106407-2	188
0-1102837-1	295	0-1102840-4	273	0-1106408-1	35
0-1102837-2	100	0-1102840-4	295	0-1106408-1	58
0-1102837-2	153	0-1102855-1	111	0-1106408-1	187
0-1102837-2	268	0-1102855-6	111	0-1106408-2	35
0-1102837-2	273	0-1102877-1	44	0-1106408-2	58
0-1102837-2	295	0-1102877-2	44	0-1106408-2	187
0-1102838-1	100	0-1102879-1	45	0-1106408-3	35
0-1102838-1	153	0-1102879-2	45	0-1106408-3	58
0-1102838-1	268	0-1102942-1	123	0-1106408-3	187
0-1102838-1	273	0-1102983-1	99	0-1106413-3	123
0-1102838-1	295	0-1102983-1	152	0-1106415-2	123
0-1102838-2	100	0-1102983-1	266	0-1106416-3	73
0-1102838-2	153	0-1102983-1	293	0-1106416-3	122
0-1102838-2	268	0-1103072-1	194	0-1106416-4	73
0-1102838-2	273	0-1103072-2	194	0-1106416-4	122
0-1102838-2	295	0-1103073-3	193	0-1106424-1	123
0-1102839-1	100	0-1103073-4	193	0-1106424-2	123
0-1102839-1	153	0-1103074-1	196	0-1106425-1	73
0-1102839-1	268	0-1103074-2	196	0-1106425-1	122
0-1102839-1	273	0-1103074-3	196	0-1106425-2	73
0-1102839-1	295	0-1103074-4	196	0-1106425-2	122
0-1102839-2	100	0-1103074-5	196	0-1106425-3	73
0-1102839-2	153	0-1103074-6	196	0-1106425-3	122

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0-1106425-4	122	0-1106446-3	256	0-1106473-4	266
0-1106425-6	73	0-1106446-4	89	0-1106473-4	293
0-1106425-6	122	0-1106446-4	141	0-1106474-1	99
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
0-1106426-2	267	0-1106453-1	142	0-1106474-2	99
0-1106426-2	274	0-1106453-1	177	0-1106474-2	152
0-1106427-3	80	0-1106453-1	257	0-1106474-2	266
0-1106427-3	131	0-1106454-1	89	0-1106474-2	293
0-1106427-3	242	0-1106454-1	141	0-1106479-1	47
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T 1 01 003 3100-000	33	T 1 21 010 0125-000	127	T 1 22 010 0125-000	127
T 1 01 003 3100-000	56	T 1 21 010 0125-000	238	T 1 22 010 0125-000	238
T 1 01 003 3100-000	185	T 1 21 016 0116-000	85	T 1 22 016 0116-000	85
T 1 01 003 3200-000	34	T 1 21 016 0116-000	137	T 1 22 016 0116-000	137
T 1 01 003 3200-000	57	T 1 21 016 0116-000	172	T 1 22 016 0116-000	172
T 1 01 003 3200-000	186	T 1 21 016 0116-000	252	T 1 22 016 0116-000	252
T 1 01 006 1400-000	71	T 1 21 016 0120-000	85	T 1 22 016 0121-000	85
T 1 01 006 1400-000	120	T 1 21 016 0125-000	85	T 1 22 016 0121-000	137
T 1 01 010 1400-000	76	T 1 21 016 0120-000	137	T 1 22 016 0121-000	172
T 1 01 010 1400-000	127	T 1 21 016 0125-000	137	T 1 22 016 0121-000	252
T 1 01 010 1400-000	238	T 1 21 016 0120-000	172	T 1 22 016 0125-000	85
T 1 01 010 1500-000	78	T 1 21 016 0125-000	172	T 1 22 016 0125-000	137
T 1 01 010 1500-000	129	T 1 21 016 0120-000	252	T 1 22 016 0125-000	172

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T 1 22 016 0132-000	85	T 1 23 010 0132-000	76	T 1 24 010 2120-000	280
T 1 22 016 0132-000	137	T 1 23 010 0132-000	127	T 1 24 016 0121-000	85
T 1 22 016 0132-000	172	T 1 23 010 0132-000	238	T 1 24 016 0121-000	137
T 1 22 016 0132-000	252	T 1 23 010 2116-000	280	T 1 24 016 0121-000	172
T 1 22 024 0116-000	94	T 1 23 010 2120-000	280	T 1 24 016 0121-000	252
T 1 22 024 0116-000	147	T 1 23 016 0121-000	85	T 1 24 016 0125-000	85
T 1 22 024 0116-000	262	T 1 23 016 0121-000	137	T 1 24 016 0125-000	137
T 1 22 024 0121-000	94	T 1 23 016 0121-000	172	T 1 24 016 0125-000	172
T 1 22 024 0121-000	147	T 1 23 016 0121-000	252	T 1 24 016 0125-000	252
T 1 22 024 0121-000	262	T 1 23 016 0129-000	85	T 1 24 016 0129-000	85
T 1 22 024 0125-000	94	T 1 23 016 0129-000	137	T 1 24 016 0129-000	137
T 1 22 024 0125-000	147	T 1 23 016 0129-000	172	T 1 24 016 0129-000	172
T 1 22 024 0125-000	262	T 1 23 016 0129-000	252	T 1 24 016 0129-000	252
T 1 22 024 0132-000	94	T 1 23 016 0132-000	85	T 1 24 016 0132-000	85
T 1 22 024 0132-000	147	T 1 23 016 0132-000	137	T 1 24 016 0132-000	137
T 1 22 024 0132-000	262	T 1 23 016 0132-000	172	T 1 24 016 0132-000	172
T 1 22 032 0121-000	104	T 1 23 016 0132-000	252	T 1 24 016 0132-000	252
T 1 22 032 0121-000	158	T 1 23 016 0140-000	85	T 1 24 016 0140-000	85
T 1 22 032 0121-000	179	T 1 23 016 0140-000	137	T 1 24 016 0140-000	137
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T 1 22 032 0125-000	158	T 1 23 016 0140-000	252	T 1 24 016 0140-000	252
T 1 22 032 0125-000	179	T 1 23 016 2121-000	280	T 1 24 016 2121-000	280
T 1 22 032 0129-000	104	T 1 23 016 2125-000	280	T 1 24 016 2125-000	280
T 1 22 032 0129-000	158	T 1 23 024 0121-000	94	T 1 24 024 0121-000	94
T 1 22 032 0129-000	179	T 1 23 024 0121-000	147	T 1 24 024 0121-000	147
T 1 22 032 0132-000	104	T 1 23 024 0121-000	262	T 1 24 024 0121-000	262
T 1 22 032 0132-000	158	T 1 23 024 0125-000	94	T 1 24 024 0125-000	94
T 1 22 032 0132-000	179	T 1 23 024 0125-000	147	T 1 24 024 0125-000	147
T 1 22 032 0136-000	104	T 1 23 024 0125-000	262	T 1 24 024 0125-000	262
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T 1 22 032 0140-000	104	T 1 23 024 0129-000	262	T 1 24 024 0129-000	262
T 1 22 032 0140-000	158	T 1 23 024 0132-000	94	T 1 24 024 0132-000	94
T 1 22 032 0140-000	179	T 1 23 024 0132-000	147	T 1 24 024 0132-000	147
T 1 22 032 0142-000	104	T 1 23 024 0132-000	262	T 1 24 024 0132-000	262
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T 1 23 006 0125-000	85	T 1 24 010 0120-000	76	T 1 25 010 3116-000	77
T 1 23 006 0125-000	137	T 1 24 010 0120-000	127	T 1 25 010 3116-000	128
T 1 23 006 0125-000	172	T 1 24 010 0120-000	238	T 1 25 010 3116-000	239
T 1 23 006 0125-000	252	T 1 24 010 0121-000	76	T 1 25 010 3120-000	77
T 1 23 010 0120-000	76	T 1 24 010 0121-000	127	T 1 25 010 3120-000	128
T 1 23 010 0120-000	127	T 1 24 010 0121-000	238	T 1 25 010 3120-000	239
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T 1 23 010 0121-000	238	T 1 24 010 0129-000	76	T 1 25 010 3125-000	77
T 1 23 010 0125-000	76	T 1 24 010 0129-000	127	T 1 25 010 3125-000	128
T 1 23 010 0125-000	127	T 1 24 010 0129-000	238	T 1 25 010 3125-000	239
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T 1 23 010 0129-000	76	T 1 24 010 0132-000	127	T 1 25 016 3116-000	138
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T 1 25 016 3120-000	138	T 1 26 024 3120-000	263	T 1 28 010 3132-000	77
T 1 25 016 3120-000	173	T 1 26 024 3121-000	95	T 1 28 010 3132-000	128
T 1 25 016 3120-000	253	T 1 26 024 3121-000	148	T 1 28 010 3132-000	239
T 1 25 016 3121-000	86	T 1 26 024 3121-000	263	T 1 28 016 3121-000	86
T 1 25 016 3121-000	138	T 1 26 024 3125-000	95	T 1 28 016 3121-000	138
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T 1 25 016 3121-000	253	T 1 26 024 3125-000	263	T 1 28 016 3121-000	253
T 1 25 016 3125-000	86	T 1 27 010 3121-000	77	T 1 28 016 3125-000	86
T 1 25 016 3125-000	138	T 1 27 010 3121-000	128	T 1 28 016 3125-000	138
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T 1 25 016 3125-000	253	T 1 27 010 3125-000	77	T 1 28 016 3125-000	253
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T 1 25 024 3116-000	148	T 1 27 010 3125-000	239	T 1 28 016 3129-000	138
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T 1 25 024 3120-000	95	T 1 27 010 3129-000	128	T 1 28 016 3129-000	253
T 1 25 024 3120-000	148	T 1 27 010 3129-000	239	T 1 28 016 3132-000	86
T 1 25 024 3120-000	263	T 1 27 010 3132-000	77	T 1 28 016 3132-000	138
T 1 25 024 3121-000	95	T 1 27 010 3132-000	128	T 1 28 016 3132-000	173
T 1 25 024 3121-000	148	T 1 27 010 3132-000	239	T 1 28 016 3132-000	253
T 1 25 024 3121-000	263	T 1 27 016 3121-000	86	T 1 28 024 3121-000	95
T 1 25 024 3125-000	95	T 1 27 016 3121-000	138	T 1 28 024 3121-000	148
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T 1 26 010 3125-000	77	T 1 27 016 3132-000	138	T 1 31 006 0116-000	120
T 1 26 010 3125-000	128	T 1 27 016 3132-000	173	T 1 31 006 0120-000	71
T 1 26 010 3125-000	239	T 1 27 016 3132-000	253	T 1 31 006 0120-000	120
T 1 26 016 3116-000	86	T 1 27 024 3121-000	95	T 1 31 006 0121-000	71
T 1 26 016 3116-000	138	T 1 27 024 3121-000	148	T 1 31 006 0121-000	120
T 1 26 016 3116-000	173	T 1 27 024 3121-000	263	T 1 31 006 0125-000	71
T 1 26 016 3116-000	253	T 1 27 024 3125-000	95	T 1 31 006 0125-000	120
T 1 26 016 3120-000	86	T 1 27 024 3125-000	148	T 1 31 010 0116-000	78
T 1 26 016 3120-000	138	T 1 27 024 3125-000	263	T 1 31 010 0116-000	129
T 1 26 016 3120-000	173	T 1 27 024 3129-000	95	T 1 31 010 0116-000	240
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T 1 26 016 3121-000	86	T 1 27 024 3129-000	263	T 1 31 010 0120-000	129
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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
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T 1 26 024 3116-000	148	T 1 28 010 3125-000	239	T 1 31 016 0121-000	139
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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 0125-000	264	T 1 31 916 0116-000	40	T 1 32 024 0121-000	96
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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
T 1 31 024 0129-000	149	T 1 31 916 0121-000	65	T 1 32 024 0125-000	264
T 1 31 024 0129-000	264	T 1 31 916 0125-000	40	T 1 32 024 0129-000	96
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T 1 31 024 0132-000	149	T 1 31 932 0121-000	42	T 1 32 024 0129-000	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
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T 1 31 048 0129-000	164	T 1 32 006 0120-000	120	T 1 32 032 0132-000	180
T 1 31 048 0132-000	109	T 1 32 006 0121-000	71	T 1 32 032 0136-000	105
T 1 31 048 0132-000	164	T 1 32 006 0121-000	120	T 1 32 032 0136-000	159
T 1 31 048 0136-000	109	T 1 32 006 0125-000	71	T 1 32 032 0136-000	180
T 1 31 048 0136-000	164	T 1 32 006 0125-000	120	T 1 32 032 0140-000	105
T 1 31 048 0140-000	109	T 1 32 010 0116-000	78	T 1 32 032 0140-000	159
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T 1 31 903 0120-000	56	T 1 32 016 0121-000	87	T 1 32 048 0136-000	109

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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
T 1 32 903 1120-000	34	T 1 33 010 0129-000	240	T 1 34 010 0121-000	78
T 1 32 903 1111-000	57	T 1 33 010 0132-000	78	T 1 34 010 0121-000	129
T 1 32 903 1120-000	57	T 1 33 010 0132-000	129	T 1 34 010 0121-000	240
T 1 32 903 1111-000	186	T 1 33 010 0132-000	240	T 1 34 010 0125-000	78
T 1 32 903 1120-000	186	T 1 33 016 0121-000	87	T 1 34 010 0125-000	129
T 1 32 908 0120-000	193	T 1 33 016 0121-000	139	T 1 34 010 0125-000	240
T 1 32 908 0125-000	193	T 1 33 016 0121-000	174	T 1 34 010 0129-000	78
T 1 32 910 0116-000	38	T 1 33 016 0121-000	254	T 1 34 010 0129-000	129
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 0120-000	62	T 1 33 016 0125-000	174	T 1 34 010 0132-000	129
T 1 32 910 0121-000	38	T 1 33 016 0125-000	254	T 1 34 010 0132-000	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
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T 1 32 916 0120-000	65	T 1 33 016 0132-000	174	T 1 34 016 0125-000	174
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 32 916 0125-000	40	T 1 33 016 0140-000	139	T 1 34 016 0129-000	139
T 1 32 916 0125-000	65	T 1 33 016 0140-000	174	T 1 34 016 0129-000	174
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
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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
T 1 33 006 0120-000	71	T 1 33 024 0132-000	264	T 1 34 024 0125-000	96
T 1 33 006 0120-000	120	T 1 33 024 0140-000	96	T 1 34 024 0125-000	149
T 1 33 006 0121-000	71	T 1 33 024 0140-000	149	T 1 34 024 0125-000	264
T 1 33 006 0121-000	120	T 1 33 024 0140-000	264	T 1 34 024 0129-000	96
T 1 33 006 0125-000	71	T 1 33 916 0121-000	40	T 1 34 024 0129-000	149



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T 1 34 024 0132-000	96	T 1 44 010 1125-000	239	T 1 44 032 2150-000	104
T 1 34 024 0132-000	149	T 1 44 010 1216-000	77	T 1 44 032 2150-000	158
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 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	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
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T 1 41 032 2000-000	179	T 1 44 016 1225-000	86	T 1 44 032 2263-000	158
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T 1 44 010 1125-000	77	T 1 44 032 2142-000	158	T 1 46 010 0216-000	239

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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 0125-000	95	T 1 47 016 1225-000	253	T 1 49 010 0232-000	239
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T 1 61 024 3216-000	97	T 1 61 903 0111-000	185	T 1 62 006 2216-000	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 61 048 2150-000	164	T 1 61 916 1216-000	65	T 1 62 016 3121-000	140
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T 1 61 048 2250-000	164	T 1 62 006 2121-000	121	T 1 62 016 3220-000	140

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T 1 62 016 3220-000	255	T 1 62 048 0136-000	164	T 1 65 006 2129-000	121
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T 1 62 016 3225-000	140	T 1 62 048 0150-000	164	T 1 65 006 2225-000	121
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T 1 62 016 3225-000	255	T 1 62 048 0229-000	164	T 1 65 006 2229-000	121
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T 1 62 024 3116-000	150	T 1 62 048 0232-000	164	T 1 65 006 2232-000	121
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T 1 65 024 3121-000	97	T 1 66 010 3225-000	130	T 1 66 024 3225-000	150
T 1 65 024 3121-000	150	T 1 66 010 3225-000	241	T 1 66 024 3225-000	265
T 1 65 024 3121-000	265	T 1 66 010 3229-000	79	T 1 66 024 3229-000	97
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T 1 73 016 3121-000	174	T 1 75 010 1129-000	76	T 1 77 010 3125-000	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 77 024 3121-000	96	T 1 91 016 0121-000	297	T 1 92 024 0121-000	297
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T 1 81 224 2125-000	279	T 1 91 216 1125-000	299	T 1 92 224 1125-000	299
T 1 81 224 2132-000	279	T 1 91 216 1129-000	299	T 1 92 224 1129-000	299
T 1 82 224 2121-000	279	T 1 91 216 1132-000	299	T 1 92 224 1132-000	299
T 1 82 224 2125-000	279	T 1 91 216 1136-000	299	T 1 92 224 1136-000	299
T 1 82 224 2129-000	279	T 1 91 216 1140-000	299	T 1 92 224 1140-000	299
T 1 82 224 2132-000	279	T 1 91 224 1121-000	299	T 1 93 003 0000-000	278
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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
T 2 02 001 2002-000	66	T 2 02 001 2008-000	106	T 2 02 001 2015-000	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
T 2 02 001 2010-000	66	T 2 02 001 2025-000	106	T 2 02 001 2005-000	303
T 2 02 001 2015-000	66	T 2 02 001 2002-000	108	T 2 02 001 2008-000	303
T 2 02 001 2025-000	66	T 2 02 001 2005-000	108	T 2 02 001 2010-000	303
T 2 02 001 2002-000	69	T 2 02 001 2008-000	108	T 2 02 001 2015-000	303
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T 2 02 001 2010-000	69	T 2 02 001 2025-000	108	T 2 02 007 2101-000	55
T 2 02 001 2015-000	69	T 2 02 001 2002-000	110	T 2 02 007 2201-000	27
T 2 02 001 2025-000	69	T 2 02 001 2005-000	110	T 2 02 007 2201-000	55
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T 2 02 040 2201-000	82	T 2 03 000 1008-000	125	T 2 03 000 1008-000	145
T 2 02 040 2201-000	101	T 2 03 000 1010-000	125	T 2 03 000 1010-000	145
T 2 02 050 2101-000	66	T 2 03 000 1015-000	125	T 2 03 000 1015-000	145
T 2 02 050 2201-000	66	T 2 03 000 1025-000	125	T 2 03 000 1025-000	145
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T 2 02 064 2201-000	106	T 2 03 000 1008-000	126	T 2 03 000 1008-000	146
T 2 02 080 2101-000	101	T 2 03 000 1010-000	126	T 2 03 000 1010-000	146
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T 2 02 128 2101-000	106	T 2 03 000 1025-000	126	T 2 03 000 1025-000	146
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T 2 03 000 1015-000	162	T 2 03 000 1015-000	237	T 2 03 000 2010-000	125
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T 2 03 001 2005-000	124	T 2 03 001 2005-000	144	T 2 03 001 2005-000	161
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