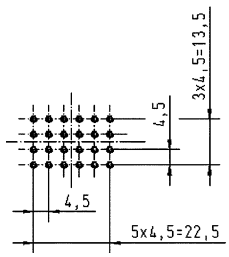
Han® PCB termination

Contents	Page

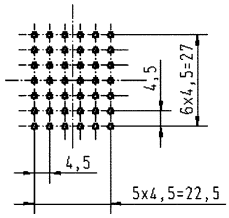
PCB adapter for Han DD®

Layout of PCB

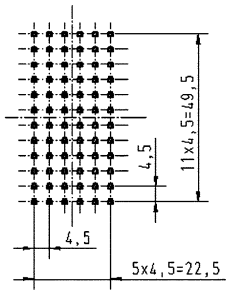
Han® 24 DD



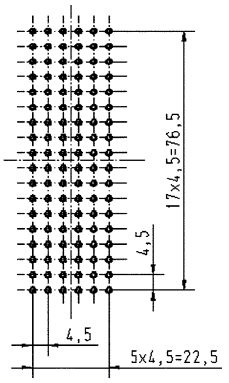
Han® 42 DD



Han® 72 DD

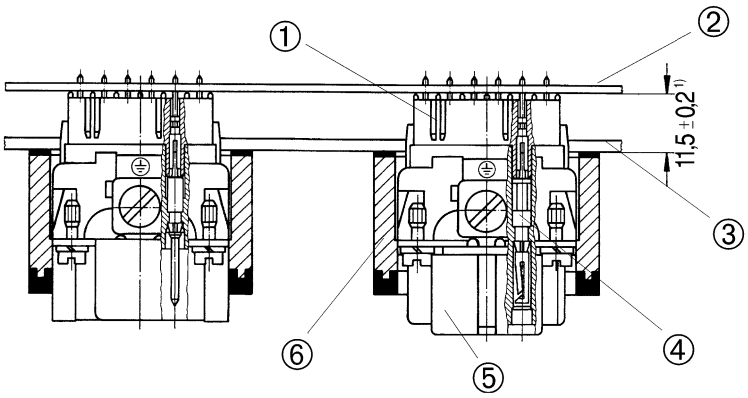


Han® 108 DD



Recommended hole diameter: 0.8 mm

Assembly situation

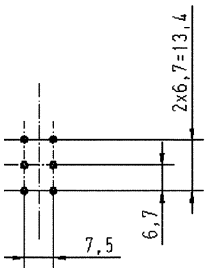


① PCB adapter
② Printed circuit board (PCB)
③ Switch board panel
④ Han DD® double contact
⑤ Han DD® insert
⑥ Han® B bulkhead mounted housing

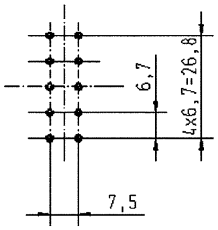
1) for Han® B EMC housings spacing of 12.5 ± 0.2 mm is necessary as no flange seal is used

Layout of PCB

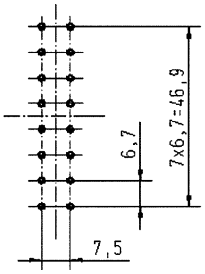
Han® 6 E



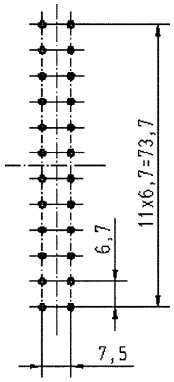
Han® 10 E



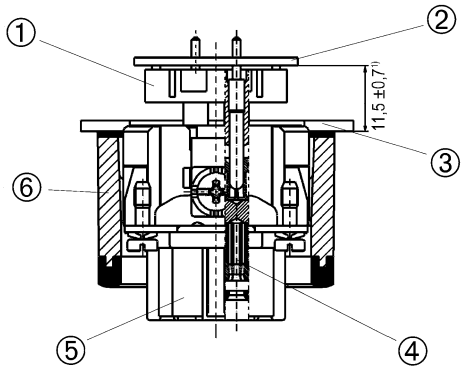
Han® 16 E



Han® 24 E



Assembly situation

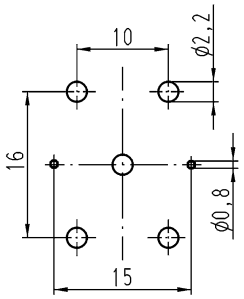


① PCB adapter
② Printed circuit board (PCB)
③ Switch board panel
④ Han E® double contact
⑤ Han E® insert
⑥ Han® B bulkhead mounted housing

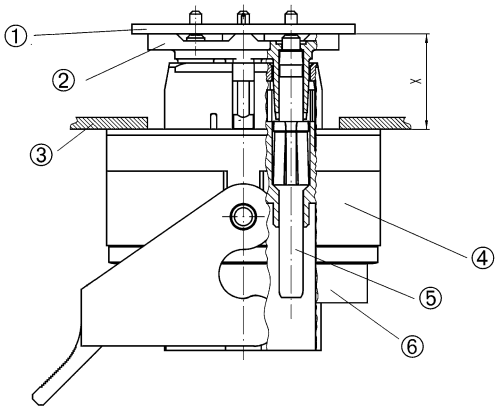
1) for Han® B EMC housings spacing of 12.5 ± 0.7 mm is necessary as no flange seal is used

Layout of PCB

Dimensions in mm



Assembly situation

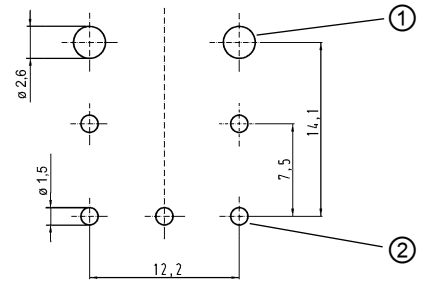


X = 16^{+1} with signal contact or 16^{+2} without signal contact

① Printed circuit board (PCB)
② PCB adapter
③ Switch board panel
④ Han-Compact® bulkhead mounted housing
⑤ Han® C double contact
⑥ Han® Q 4/2 insert

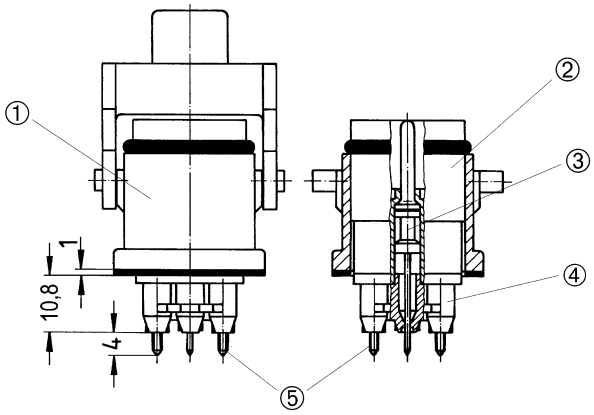
Layout of PCB

Dimensions in mm



① Recommended hole diameter: 2.6 mm
② Recommended hole diameter: 1.5 mm

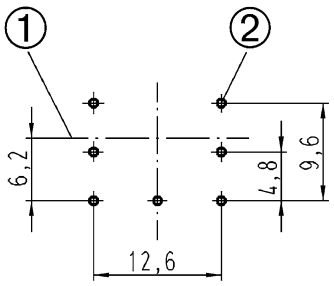
Assembly situation



① Han® 3 A bulkhead mounting housing
② Han® Q 5/0
③ Solder contacts
④ PCB adapter
⑤ Connection to printed circuit board

PCB adapter for Han® Q 7/0

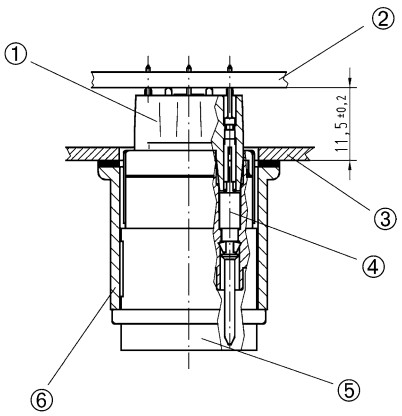
Layout of PCB



Dimensions in mm

① Median plane of the housing
② Recommended hole diameter: 0.8 mm

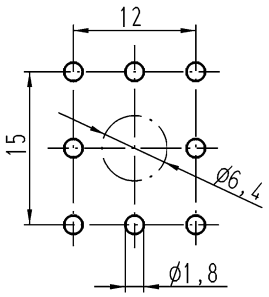
Assembly situation



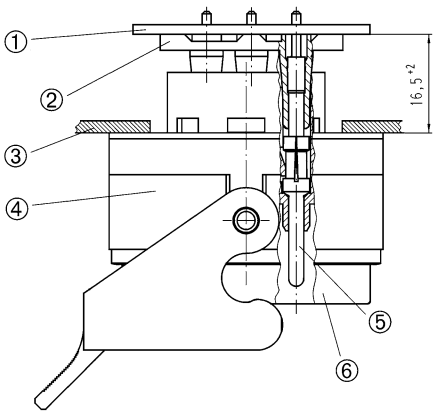
① PCB adapter
② Printed circuit board (PCB)
③ Switch board panel
④ Han D® double contact
⑤ Han® Q 7/0 Insert
⑥ Han® 3 A bulkhead mounting housing

Layout of PCB

Dimensions in mm



Assembly situation

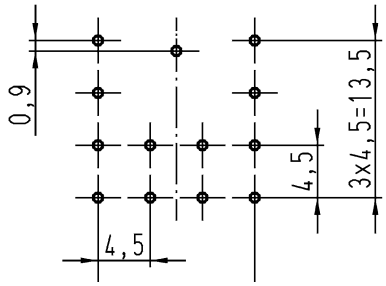


① Printed circuit board (PCB)
② PCB adapter
③ Switch board panel
④ Han-Compact® bulkhead mounted housing
⑤ Han E® double contact
⑥ Han® Q 8/0 Insert

Layout of PCB

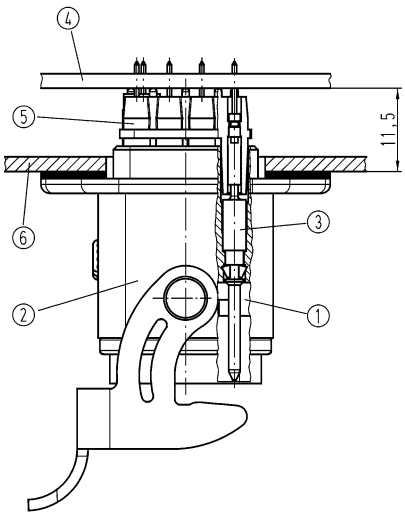
Dimensions in mm

Recommended hole diameter: 0.8 mm

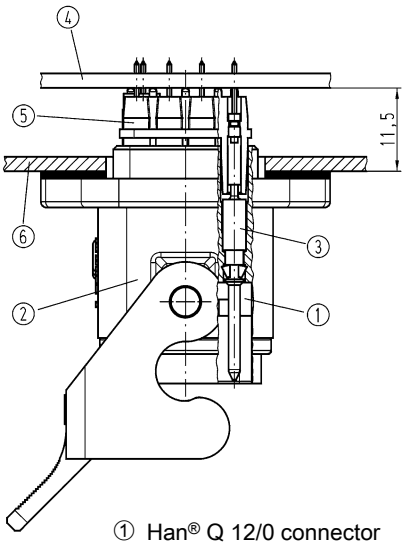


Assembly situation

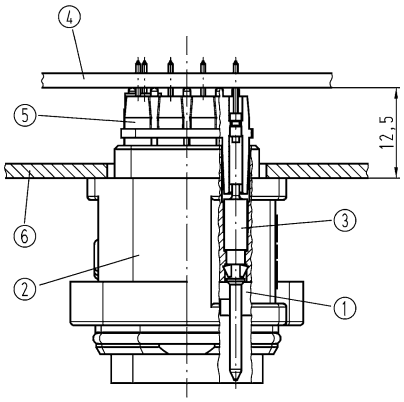
Han® 3 A Standard / EMC



Han® 3 A plastic



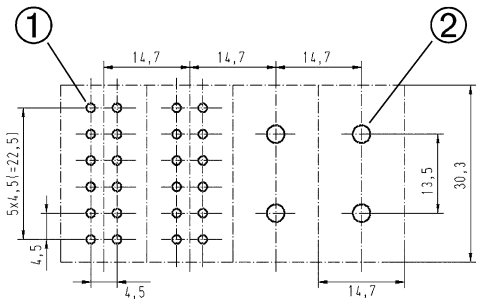
Han® 3 A HPR



① Han® Q 12/0 connector
② Han® 3 A housing bulkhead mounting
③ R15-double contact
④ Printed circuit board (PCB)
⑤ PCB adapter
⑥ Switch board panel

Layout of PCB

Dimensions in mm

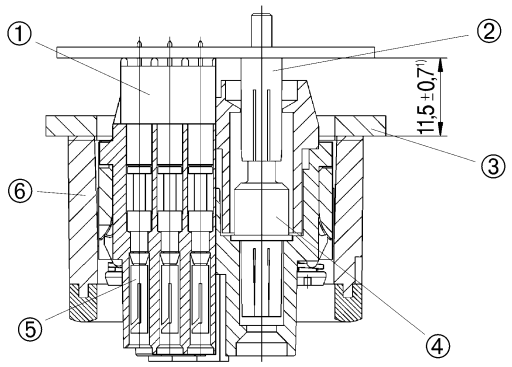


Han DD® module

Han® 40 A module

① Recommended hole diameter: 0.8 mm
② Recommended hole diameter: 3.2 mm

Assembly situation



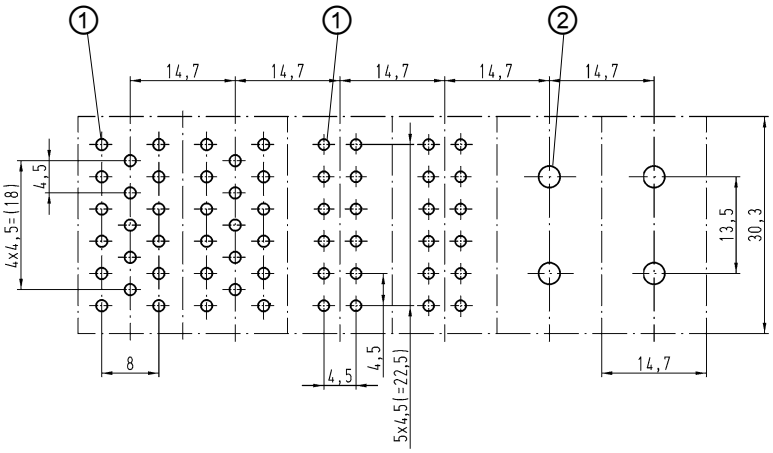
① Han DD® PCB-adapter
② Han® C solder contact
③ Switch board panel
④ Module for connection to printed circuit board
⑤ Han D® double contact
⑥ Han® B bulkhead mounted housing

[1] for Han® B EMC housings spacing of 12.5 ± 0.7 mm is necessary as no flange seal is used

PCB adapter for Han® DDD module

Layout of PCB

Dimensions in mm

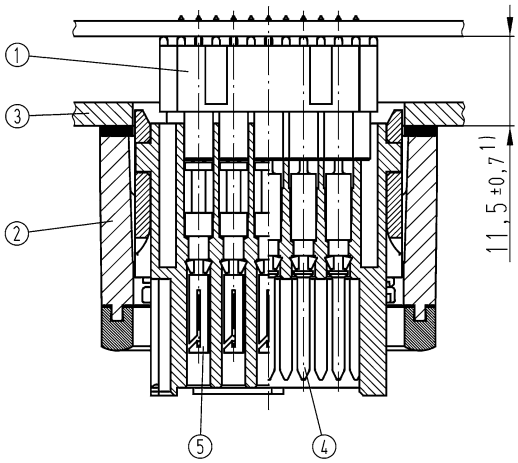


Han® DDD module Han® DD module Han® 70 A module

① Recommended hole diameter: 0.8 mm
② Recommended hole diameter: 3.2 mm

Assembly situation

Dimensions in mm



① Han DDD® PCB adapter 5 pins
② Han® B bulkhead mounted housing
③ Switch board panel
④ Han D® double male contact, 09 15 000 6197
⑤ Han D® double female contact, 09 15 000 6291

1) for Han® B EMV hood and housing spacing of 12.5 ±0.7 mm is necessary as no flange seal is used.

For further information and Han-Modular® frames please refer to chapter 06 (Han-Modular®)

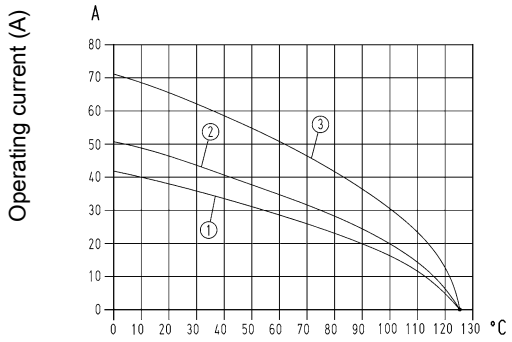
Features

- Solder free PCB termination
- PCB contact with locking element
- Machine processing
- Flexible in terms of applications
- Practical and easy handling
- Fast assembly to PCB
- Locking directly on the PCB

Technical characteristics

Contact resistance	≤2 mΩ
Material (locking)	Copper alloy
Surface (locking)	Passivated
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Derating



Ambient temperature (°C)

① Conductor cross-section 4 mm²
② Conductor cross-section 6 mm²
③ Conductor cross-section 10 mm²

Specifications and approvals

UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076

Details

PCB thickness 1.6 ... 3.2 mm

Clearance and creepage distances have to be considered for the printed circuit board

Finished hole d= 4.4 mm +0.05/-0.04

The new connection of wires to the PCB offers optimized PCB design, combined with outstanding contact qualities.

The Han-Fast® Lock is flexible and allows a fast and simple PCB connection. The PCB has one drilled hole and a pad.

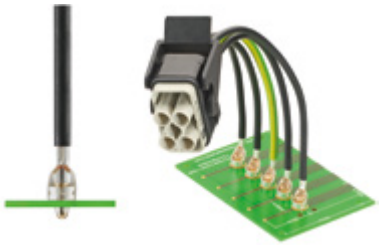
The inner surface of the plated drilled hole serves as the interface. The Han-Fast® Lock is simply inserted into the through-plated PCB hole. The locking pin is pushed in and hence locks the contact into position.

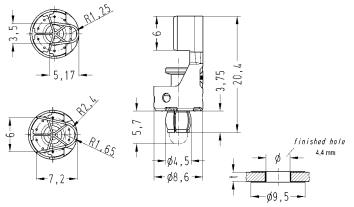
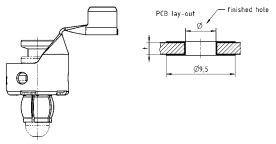
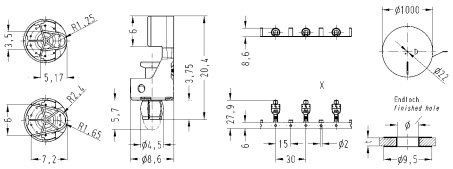
The solder free connection technique is easy to handle and to operate. Maintenance has been made simple with the facility to detach the contact.

Han-Fast® Lock also supports SMD assembly of the PCB.

- Current up to 60 Amps
- Standard drilled hole with pad
- Position independent of connector
- Solder free PCB termination
- Easy locking solution

Han-Fast® Lock



Identification	Conductor cross-section (mm²)	Part number	Drawing (dimensions in mm)
Han-Fast® Lock , PCB contact, With pin , Pack contents: Single contact Contact surface: Silver plated	1,5 ... 2,5 4 ... 6 10	09 08 000 7122 09 08 000 7123 09 08 000 7124	 Stripping length 7.5 mm
Han-Fast® Lock , PCB contact, With pin Angled , Pack contents: Single contact Contact surface: Silver plated	1,5 ... 2,5 4 ... 6 10	09 08 000 7222 09 08 000 7223 09 08 000 7224	 Stripping length 7.5 mm
Han-Fast® Lock , PCB contact, With pin , Pack contents: On a reel Contact surface: Silver plated	1,5 ... 2,5 4 ... 6 10	09 08 000 6122 09 08 000 6123 09 08 000 6124	 Stripping length 7.5 mm

PCB adapter for Han DD®

Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- High density of contacts

Technical characteristics

Electrical data acc. to IEC 61984	7,5 A 250 V 4 kV 3
Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polyamide
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076

Details

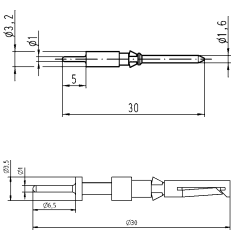
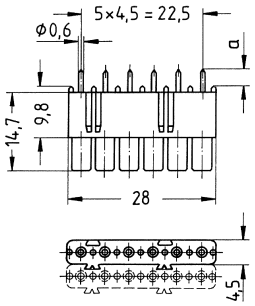
Han DD® crimp inserts see chapter 02

Modules see chapter 06

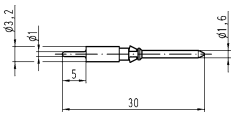
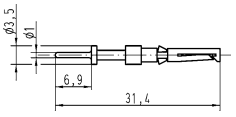
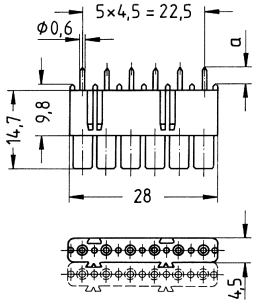
Han® B bulkhead mounted housings see chapter 31

Crimping tools see chapter 90

PCB adapter for Han DD® crimp inserts

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6191	09 15 000 6291	
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 1.6 mm	09 16 000 9905	09 16 000 9905	 09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 2.4 mm	09 16 000 9908	09 16 000 9908	

PCB adapter for Han DD® module

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6191	09 15 000 6294	 
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 1.6 mm	09 16 000 9905	09 16 000 9905	 09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 2.4 mm	09 16 000 9908	09 16 000 9908	

PCB adapter for Han® DDD module

Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- High density of contacts

Technical characteristics

Electrical data acc. to IEC 61984	7,5 A 160 V 2,5 kV 3
Rated current	7.5 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polyamide
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Specifications and approvals

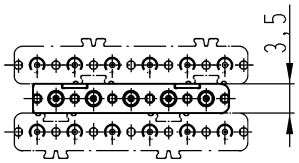
EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076

Details

Modules see chapter 06

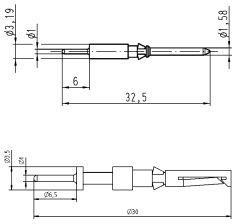
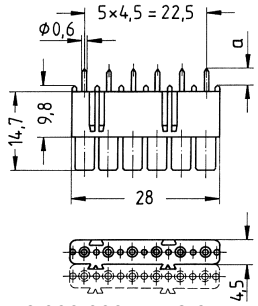
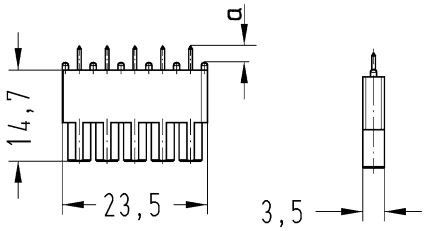
Han® B bulkhead mounted housings see chapter 31

Crimping tools see chapter 90



For a 17-pin PCB termination with the Han® DDD module two 6-pin and one 5-pin PCB adapters are necessary.

PCB adapter for Han® DDD module

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6197	09 15 000 6291	
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 1.6 mm	09 16 000 9905	09 16 000 9905	 09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)  for PCB´s up to 2.4 mm	09 16 000 9908	09 16 000 9908	
PCB adapter, 5-pin, In the Han® DDD module  for PCB´s up to 1.6 mm	09 16 000 9915	09 16 000 9915	 09 16 000 9915 a= 2.6 09 16 000 9918 a= 3.4
PCB adapter, 5-pin, In the Han® DDD module  for PCB´s up to 2.4 mm	09 16 000 9918	09 16 000 9918	

PCB adapter for Han® 40 A Axial module

Features

- Modular assembly
- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs

Technical characteristics

Electrical data acc. to IEC 61984	40 A 500 V 6 kV 3
Rated current	40 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

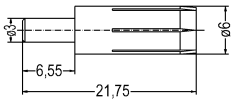
Specifications and approvals

EN 60664-1
IEC 61984

Details

Hinged frames see chapter 06

PCB adapter for Han® 40 A Axial module

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han® C , PCB contact, Contact surface: Silver plated 	09 32 000 6295		
PCB adapter, In the Han® 40 A Axial module 	09 14 002 2603	09 14 002 2703	

PCB adapter for Han E®

Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- Counter connector available with screw, crimp or cage clamp termination

Technical characteristics

Electrical data acc. to IEC 61984	16 A 500 V 6 kV 3
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Specifications and approvals

EN 60664-1
IEC 61984

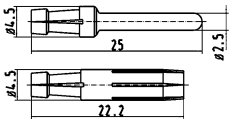
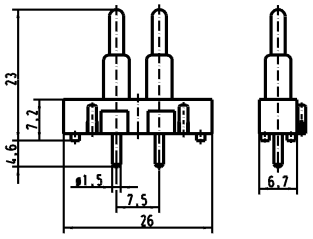
Details

Han E® crimp inserts see chapter 03

Hoods/Housings see chapter 31

Crimping tools see chapter 90

PCB adapter for Han E®

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han E® , PCB contact, Contact surface: Silver plated 	09 33 000 6180	09 33 000 6280	
PCB adapter, In the Han E® crimp insert 	09 33 000 9996	09 33 000 9996	

PCB adapter for Han® Q 4/2

Features

- Robust design
- Low wiring costs
- High density of contacts
- Suitable for Han-Compact® hoods and housings

Technical characteristics

Electrical data acc. to IEC 61984	30 A 400/690 V 6 kV 2
Rated current	30 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	2
Electrical data, signal	7,5 A 250 V 4 kV 2
Rated current (signal)	7.5 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	2
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 12
Material (insert)	LCP
Material (hood/housing)	Polycarbonate
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide
Colour (locking)	RAL 9005 (jet black)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Specifications and approvals

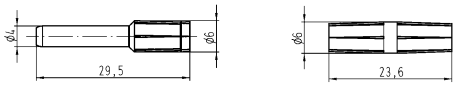
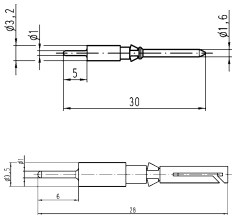
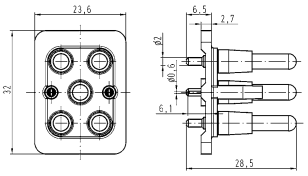
EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076
DNV GL

Details

Han® Q inserts see chapter 13

Crimping tools see chapter 90

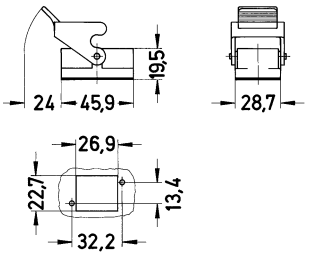
PCB adapter for Han® Q 4/2

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han® C , PCB contact, Contact surface: Silver plated 	09 32 000 6180	09 32 000 6280	
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6191	09 15 000 6293	
PCB adapter, In the Han® Q 4/2  for PCB´s up to 2.4 mm	09 12 006 9901	09 12 006 9901	

PCB adapter for Han® Q 4/2

Size Han-Compact®

Hoods/housings for industrial applications
Single locking lever

Identification	Part number	Drawing (dimensions in mm)
Han-Compact® , Bulkhead mounted housings, Straight 	09 12 008 0327	

PCB adapter for Han® Q 5/0

Features

- Robust design
- Suitable only for EMC housings size Han® 3 A
- Additional robust and secure PE-connection between housing and PCB

Technical characteristics

Electrical data acc. to IEC 61984	10 A 230/400 V 4 kV 3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Material (insert)	Polycarbonate
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	PTFE
Material (locking)	Steel
Surface (locking)	Zinc plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption, compliant
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight, **6a:** Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight

Specifications and approvals

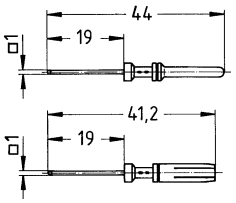
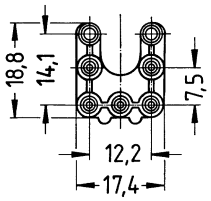
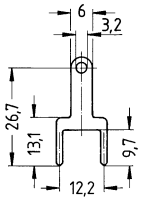
EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
DNV GL

Details

Han® Q inserts see chapter 13

Crimping tools see chapter 90

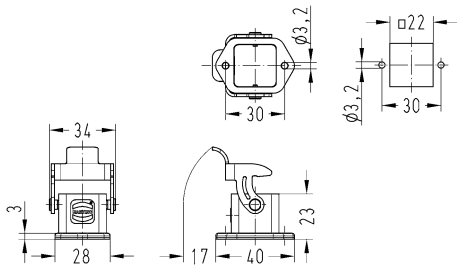
PCB adapter for Han® Q 5/0

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han E® , PCB contact, Contact surface: Silver plated 	09 33 000 6195	09 33 000 6295	
PCB adapter, 5-pin, In the Han® Q 5/0  for PCB´s up to 2.4 mm	09 12 000 9905	09 12 000 9905	 Adapter PE contact panel 

PCB adapter for Han® Q 5/0

Size 3 A

Hoods/Housings for higher EMC requirements
Single locking lever

Identification	Part number	Drawing (dimensions in mm)
Han® EMC , Bulkhead mounted housings, Straight, for PCB termination with Han® Q 5/0 	09 62 003 0304	

PCB adapter for Han® Q 7/0

Features

- Robust design
- Suitable for standard and EMC hoods and housings
- High density of contacts

Technical characteristics

Electrical data acc. to IEC 61984	7,5 A 250 V 4 kV 3
Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Material (insert)	Polycarbonate
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Steel
Surface (locking)	Zinc plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight, **6a:** Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight

Specifications and approvals

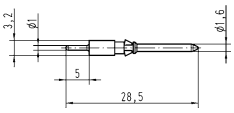
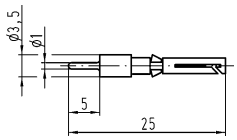
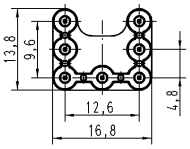
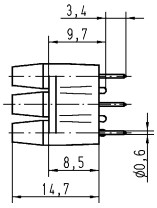
EN 60664-1
IEC 61984
DNV GL

Details

Han® Q inserts see chapter 13

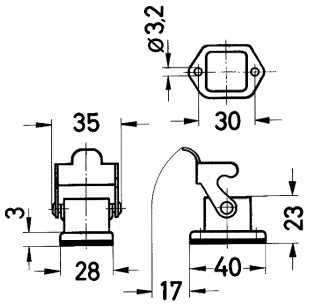
Crimping tools see chapter 90

PCB adapter for Han® Q 7/0

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6190	09 15 000 6290	 
PCB adapter, In the Han® Q 7/0  for PCB´s up to 2.4 mm	09 12 000 9908	09 12 000 9908	 

PCB adapter for Han® Q 7/0 Size 3 A

Standard Hoods/housings for industrial applications
Single locking lever

Identification	Part number	Drawing (dimensions in mm)
Han A® , Bulkhead mounted housings, Straight 	09 20 003 0301	 Panel cut out 22 x 22 mm

PCB adapter for Han® Q 8/0

Features

- Robust design
- Suitable for Han-Compact® hoods and housings
- Low wiring costs
- High density of contacts

Technical characteristics

Electrical data acc. to IEC 61984	16 A 230/400 V 4 kV 2
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	2
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 12
Material (insert)	LCP
Material (hood/housing)	Polycarbonate
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide
Colour (locking)	RAL 9005 (jet black)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Specifications and approvals

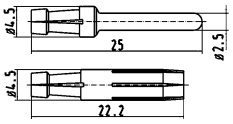
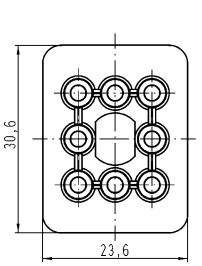
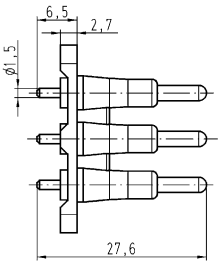
EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076
DNV GL

Details

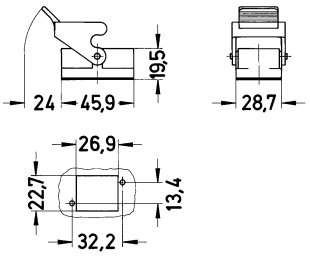
Han® Q inserts see chapter 13

Crimping tools see chapter 90

PCB adapter for Han® Q 8/0

Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han E® , PCB contact, Contact surface: Silver plated 	09 33 000 6180	09 33 000 6280	
PCB adapter, In the Han® Q 8/0  for PCB´s up to 1.6 mm	09 12 008 9901	09 12 008 9901	 

Hoods/housings for industrial applications
Single locking lever

Identification	Part number	Drawing (dimensions in mm)
Han-Compact® , Bulkhead mounted housings, Straight 	09 12 008 0327	

PCB adapter for Han® Q 12/0

Features

- Robust design
- Suitable for standard and EMC hoods and housings
- High density of contacts

Technical characteristics

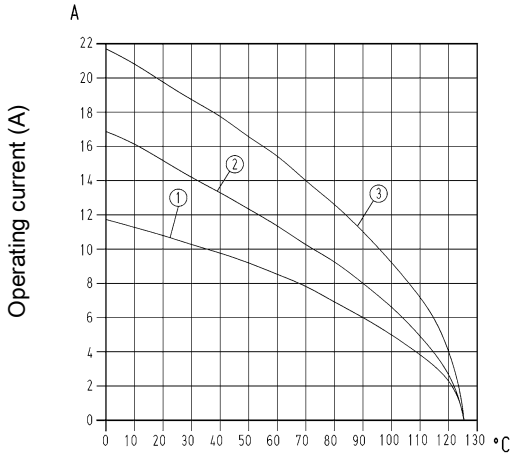
Number of contacts	12
Electrical data acc. to IEC 61984	7,5 A 250 V 4 kV 3
Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	≥10^{10} Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption
RoHS exemptions	**6c:** Copper alloy containing up to 4 % lead by weight

Derating

Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① Conductor cross-section 0.75 mm²
② Conductor cross-section 1.5 mm²
③ Conductor cross-section 2.5 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076
DNV GL

Details

Crimping tools see chapter 90

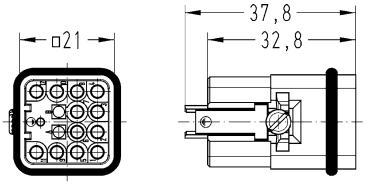
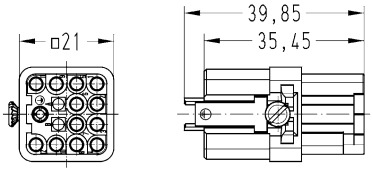
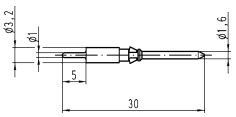
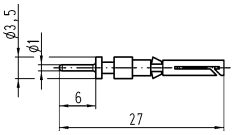
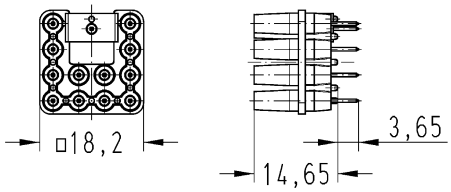
PCB adapter for Han® Q 12/0

Size 3 A

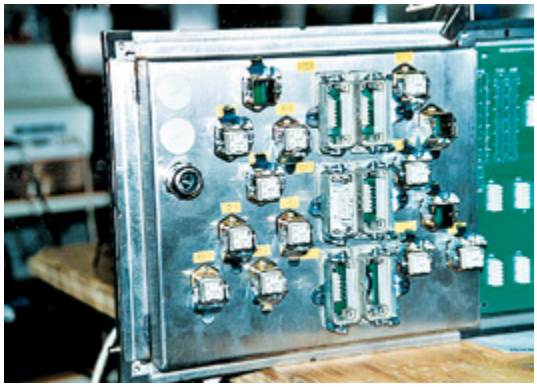
Number of contacts

12+ ⏚

7,5 A 250 V 4 kV 3

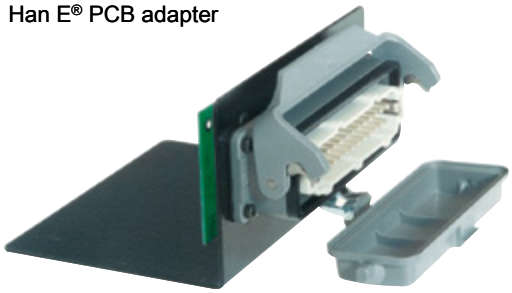
Identification	Part number Male	Part number Female	Drawing (dimensions in mm)
Han® Q , for PCB adapter, Solder termination  Please order contacts separately.	09 12 012 3002	09 12 012 3102	M  F 
Han D® , PCB contact, Contact surface: Silver plated 	09 15 000 6191	09 15 000 6297	 
PCB adapter, In the Han® Q 12/0  for PCB´s up to 2.4 mm	09 12 012 9901	09 12 012 9901	

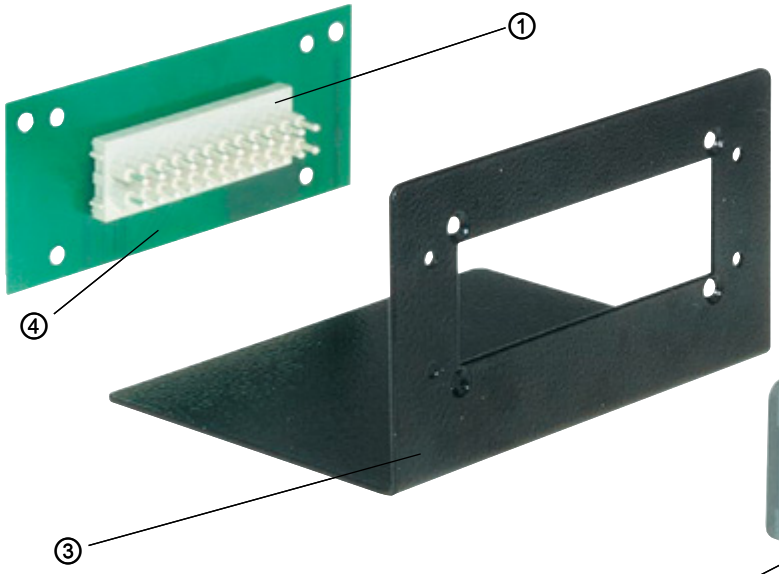
- Secondary mating between industrial connector and printed circuit board.
- No higher force is applied on the soldering joint when mating the industrial connector due to an additional mating point.
- No wiring between printed circuit board and industrial connector necessary.
- This means no wiring faults ➪ no testing, no costs
- Connecting times are minimized.
- Easy handling is time and cost saving.
- The production of mechanical and electrical / electronically components can be completely separated.
- Possibility to reach a higher degree of automation in the production (e.g. wave soldering of the PCBs).



Han DD® and Han® Q 5/0 PCB adapter
Wilhelm Fette GmbH, Germany

Han E® PCB adapter





① PCB adapter for Han E®
② Han E® connector in a bulkhead mounted housing
③ Switch board panel
④ Printed circuit board (PCB)