

Contents

Page

Han® High Temp inserts.....

17.3

Han® High Temp contacts.....

17.8

Han® High Temp hoods/housings

17.9

High
Temp

Description

High
Temp

We used high-quality materials with wide temperature ranges to produce connectors that are uniquely suited for a wide variety of applications.

These connectors can withstand temperatures up to 200 °C – so they can be used directly in machines and facilities that would otherwise require cumbersome and complex constructions.

For our users, this delivers direct advantages:

- The electro-mechanical design process is optimized.
Machine parts which are exposed to high temperatures can be designed modularly.
- The work process is optimized
since lower wiring complexity results in reduced maintenance costs.
- The after-sales phase is optimized
because this more service-friendly approach results in less outages and down times.

Design overview

The basic structure of the Han® High Temp connector consists of a bulkhead mounted housing and a cable-side hood.

Hoods and housings:

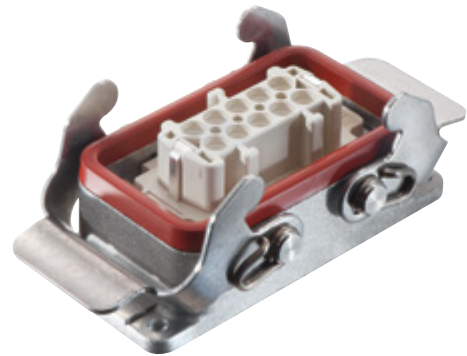
The aluminium die-cast hoods and housings feature a highly compressed surface with excellent non-stick properties. It also has a special non-stick coating on the bulkhead-side seal which allows easy handling without significant sticking.

Inserts:

The Han® High Temp series features very rugged contact inserts, which are really the heart of any connector. The LCP injection-moulded insert delivers outstanding temperature resistance coupled with excellent mechanical stability.

Contacts:

Our new temperature resistant contacts, for either screw or crimp terminations, ensure reliable connections with minimal contact resistance even at extreme temperatures.



Han® High Temp connectors
remain robust and reliable for their entire lifespan!

Features

- for extreme temperatures up to 200 °C
- All piece parts (contacts, insert material, hoods and housings, seals and grounding elements) are designed in a temperature resistant way

Technical characteristics

Number of contacts	6, 10, 16, 24
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
Insulation resistance	≥10 ¹⁰ Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +200 °C With Han® High Temp components
Mating cycles	≥500
Material (insert)	LCP
Material (contacts)	Copper alloy
RoHS	compliant, compliant with exemption
RoHS exemptions	6c: Copper alloy containing up to 4 % lead by weight

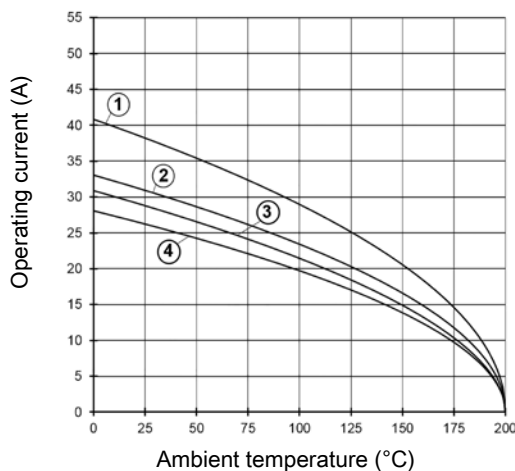
Derating

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

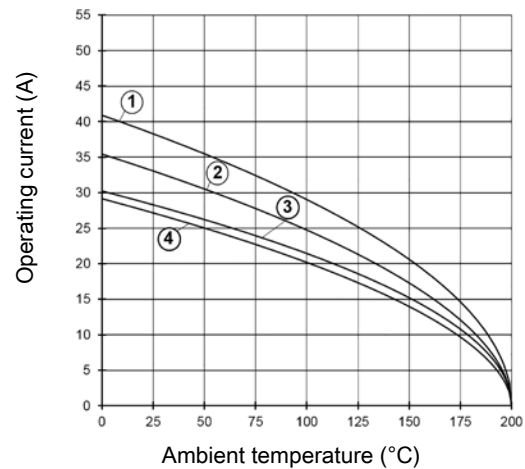
Crimp termination



- ① Han® 6 E High Temp 2,5 mm²
- ② Han® 10 E High Temp 2,5 mm²
- ③ Han® 16 E High Temp 2,5 mm²
- ④ Han® 24 E High Temp 2,5 mm²

Derating

Screw termination



- ① Han® 6 E High Temp 2.5 mm²
- ② Han® 10 E High Temp 2.5 mm²
- ③ Han® 16 E High Temp 2.5 mm²
- ④ Han® 24 E High Temp 2.5 mm²

Specifications and approvals

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

Details

Han® High Temp crimp inserts are only for use with the special Han® High Temp crimp contacts.

Tightening torque 0.5 Nm

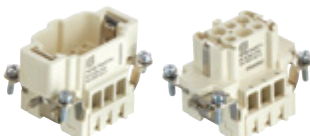
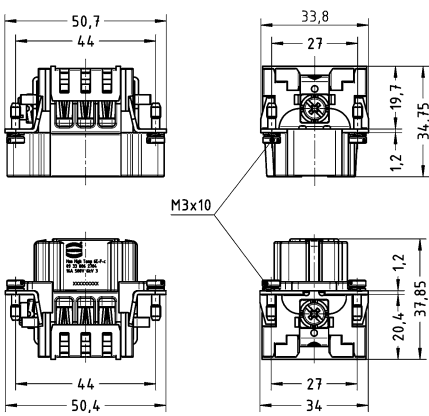

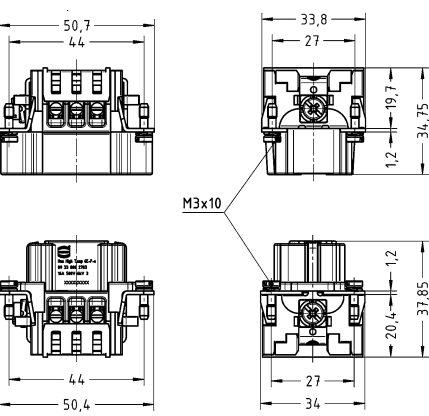
Tightening torque PE screw 1.2 Nm

Number of contacts

6+

16 A 500 V 6 kV 3

High Temp

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0,5 ... 2,5	09 33 806 2604	09 33 806 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0,75 ... 2,5	09 33 806 2603	09 33 806 2703	

Number of contacts

10+

16 A 500 V 6 kV 3

High Temp

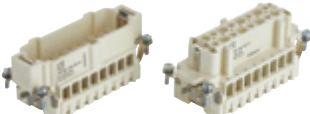
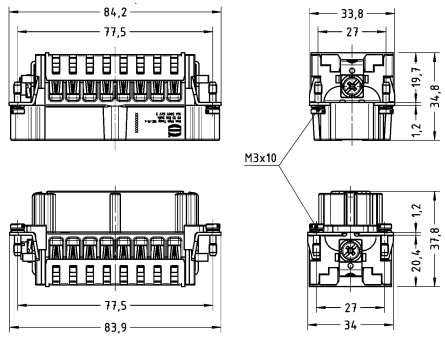
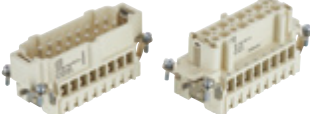
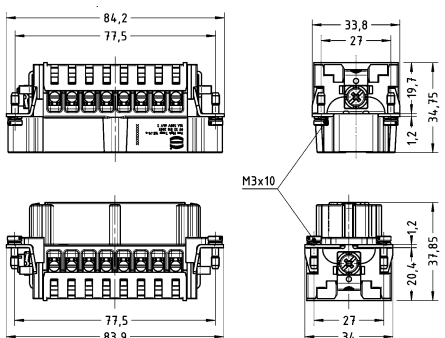
Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0,5 ... 2,5	09 33 810 2604	09 33 810 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p>	0,75 ... 2,5	09 33 810 2603	09 33 810 2703	

Number of contacts

16+

16 A 500 V 6 kV 3

High
Temp

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E® High Temp, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0,5 ... 2,5	09 33 816 2604	09 33 816 2704		
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0,75 ... 2,5	09 33 816 2603	09 33 816 2703		

Number of contacts

24+

16 A 500 V 6 kV 3

High Temp

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0,5 ... 2,5	09 33 824 2604	09 33 824 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p>	0,75 ... 2,5	09 33 824 2603	09 33 824 2703	

Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption
RoHS exemptions	6c: Copper alloy containing up to 4 % lead by weight

Specifications and approvals


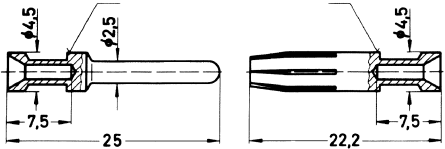
EN 60664-1
IEC 61984

Details

Crimping tools see chapter 90

Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han E® High Temp, Crimp contact, Contact surface: Silver plated 	0,5	09 33 800 6121	09 33 800 6220																			
	0,75	09 33 800 6114	09 33 800 6214																			
	1	09 33 800 6105	09 33 800 6205																			
	1,5	09 33 800 6104	09 33 800 6204																			
	2,5	09 33 800 6102	09 33 800 6202																			
		<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22 no groove</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20 no groove</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18 1 groove*</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18 1 groove</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16 2 grooves</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14 3 grooves</td> </tr> <tr> <td>3 mm²</td> <td>AWG 12 wide groove</td> </tr> <tr> <td>4 mm²</td> <td>AWG 12 no groove</td> </tr> </tbody> </table>		Conductor cross-section	Identification	0.14-0.37 mm ²	AWG 26-22 no groove	0.5 mm ²	AWG 20 no groove	0.75 mm ²	AWG 18 1 groove*	1 mm ²	AWG 18 1 groove	1.5 mm ²	AWG 16 2 grooves	2.5 mm ²	AWG 14 3 grooves	3 mm ²	AWG 12 wide groove	4 mm ²	AWG 12 no groove	
Conductor cross-section	Identification																					
0.14-0.37 mm ²	AWG 26-22 no groove																					
0.5 mm ²	AWG 20 no groove																					
0.75 mm ²	AWG 18 1 groove*																					
1 mm ²	AWG 18 1 groove																					
1.5 mm ²	AWG 16 2 grooves																					
2.5 mm ²	AWG 14 3 grooves																					
3 mm ²	AWG 12 wide groove																					
4 mm ²	AWG 12 no groove																					
		* on the back crimp collar Stripping length 7.5 mm																				

Features

- for extreme temperatures up to 200 °C
- All piece parts (contacts, insert material, hoods and housings, seals and grounding elements) are designed in a temperature resistant way
- Hoods/Housings, corrosion resistant metal

Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	FPM
Colour (seal)	Red
RoHS	compliant

High Temp


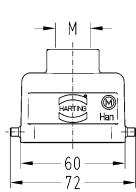
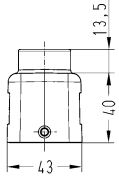

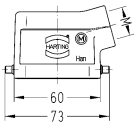
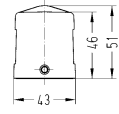

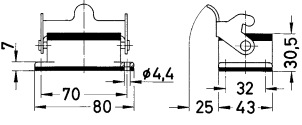
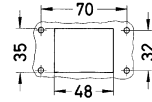
Specifications and approvals

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






Single locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B Han® High Temp , Hoods, Top entry 	1x M20 1x M25 1x M32	19 62 806 1440	19 62 806 0446 19 62 806 0447	 	
Han® EMC/B Han® High Temp , Hoods, Side entry 	1x M20 1x M25 1x M32	19 62 806 1540	19 62 806 0546 19 62 806 0547	 	
Han® High Temp , Bulkhead mounted housings 		09 62 806 0391		  <p>Panel cut out</p>	


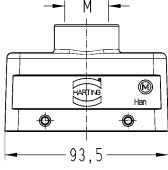
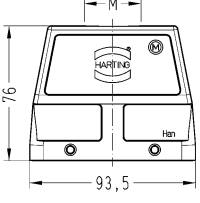
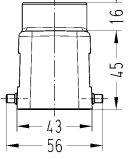
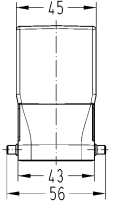

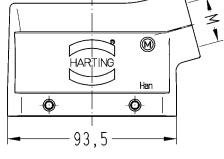
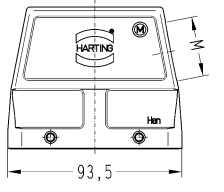
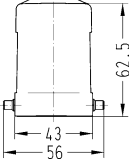
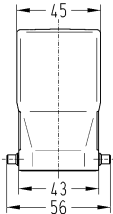

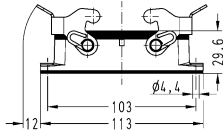
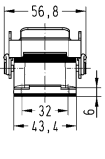
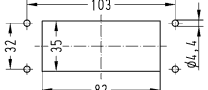
Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B Han® High Temp , Hoods, Top entry 	1x M20 1x M25 1x M32	19 62 810 1420 19 62 810 1421	19 62 810 0426 19 62 810 0427	
Han® EMC/B Han® High Temp , Hoods, Side entry 	1x M20 1x M25 1x M32	19 62 810 1520	19 62 810 0526 19 62 810 0527	
Han® High Temp , Bulkhead mounted housings 		09 62 810 0391		<p>Panel cut out</p>


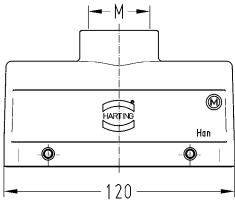
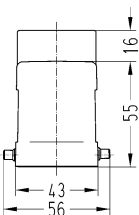

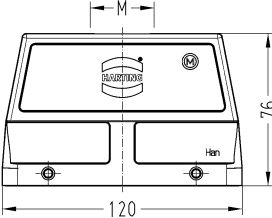
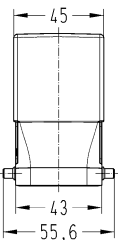

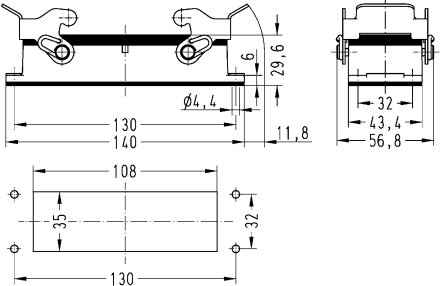
Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B Han® High Temp , Hoods, Top entry 	1x M25 1x M32 1x M40	19 62 816 1421	19 62 816 0427 19 62 816 0428	 	 
Han® EMC/B Han® High Temp , Hoods, Side entry 	1x M25 1x M32 1x M40	19 62 816 1521	19 62 816 0527 19 62 816 0528	 	 
Han® High Temp , Bulkhead mounted housings 		09 62 816 0391		 	 <p>Panel cut out</p>

Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B Han® High Temp , Hoods, Top entry 	1x M32	19 62 824 1422	19 62 824 0427	 	
Han® EMC/B Han® High Temp , Hoods, Side entry 	1x M25 1x M32 1x M40	19 62 824 1521	19 62 824 0527 19 62 824 0528	 	
Han® High Temp , Bulkhead mounted housings 		09 62 824 0391		 <p>Panel cut out</p>	