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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!

Number of contacts

5+

16 A 230/400 V 4 kV 3

High Temp

Technical characteristics

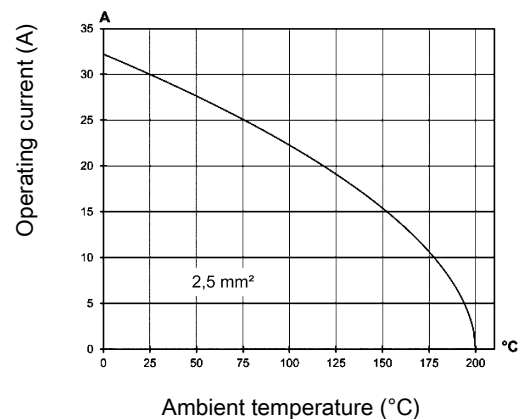
Number of contacts	5
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 ¹⁰ Ω
Limiting temperature	-40 ... +200 °C With Han [®] High Temp components
Mating cycles	≥500
Material (insert)	Liquid crystal polymer (LCP)
Colour (insert)	Black
Material flammability class acc. to UL 94	V-0

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



Specifications and approvals

EN 60664-1
IEC 61984

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han [®] Q High Temp, 5/0, Crimp termination Please order crimp contacts separately. Coding pins on request	0.14 ... 2.5	09 12 805 3004	09 12 805 3104	

Hoods/housings for harsh environments
Single locking lever

High
Temp

Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Stainless steel
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (locking)	Stainless steel

Technical characteristics

RoHS compliant

Specifications and approvals

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




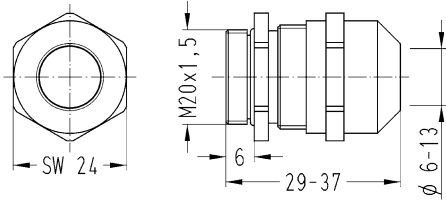
Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-INOX®, Han® High Temp, Hood, Top entry, IP65, IP67 Pack contents: With seal screw	1x M20	19 44 003 1440	
Han-INOX®, Han® High Temp, Bulkhead mounted housing, Straight, IP65, IP67 Pack contents: With seal screw		19 44 003 0301	<p>Panel cut out 22 x 22 mm</p>

Technical characteristics

Material (seal) FPM
 Colour (seal) Light grey

Technical characteristics

Material (cable glands) Stainless steel
 Material (clamping ring) Polyamide (PA) compliant
 RoHS

Identification	Size	Clamping range (mm)	Size	Part number	Drawing (dimensions in mm)
Han A®, Flange gasket, FPM 			3 A	09 37 000 9912	
Han-INOX®, Cable gland 	M20	6 ... 13		19 44 000 5082	

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
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)	Liquid crystal polymer (LCP)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

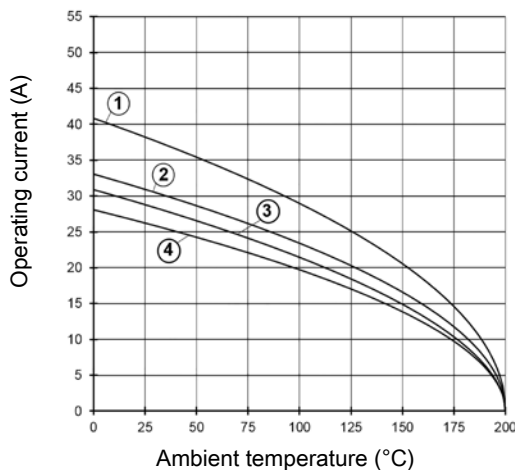
Derating

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

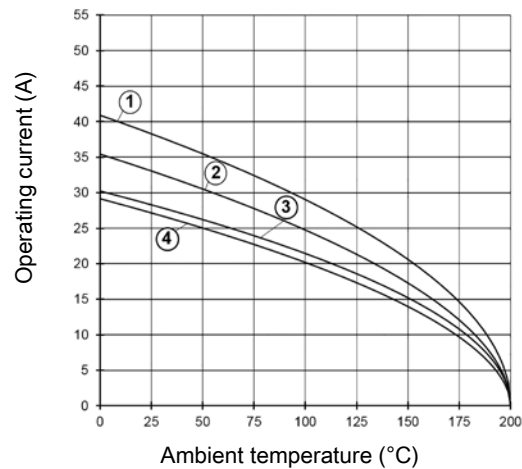
Crimp termination



- 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

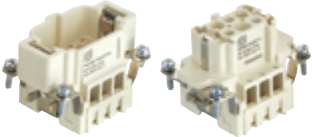
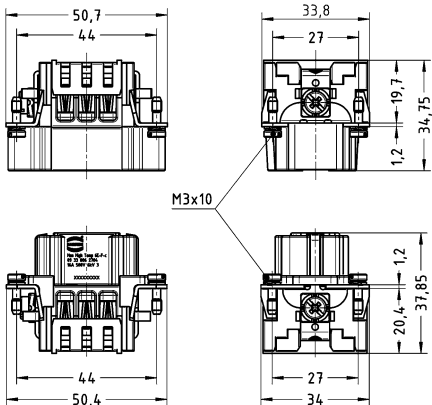
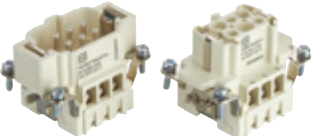
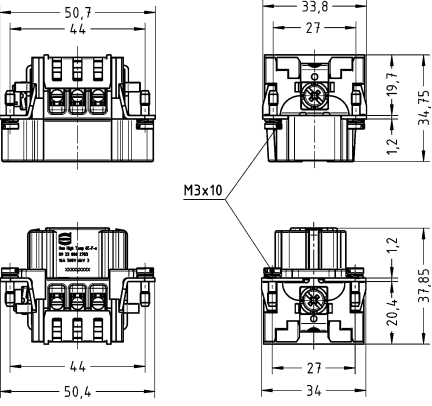
Tightening torque PE screw 1.2 Nm

Number of contacts

6+

16 A 500 V 6 kV 3

High Temp

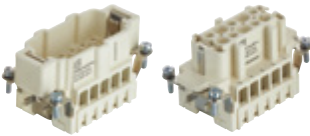
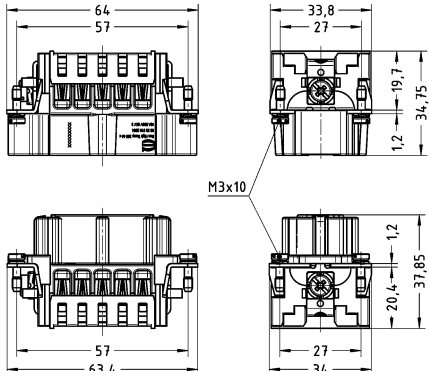
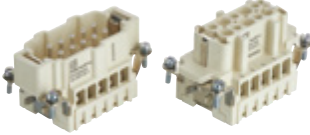
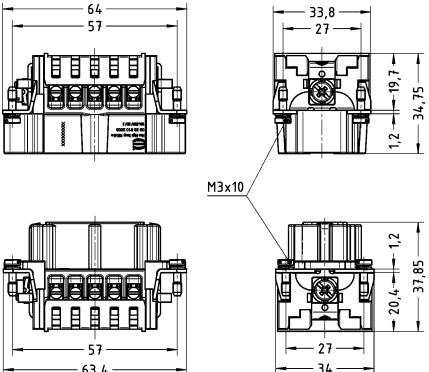
Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.5 ... 2.5	09 33 806 2604	09 33 806 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact 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

Specifications and approvals


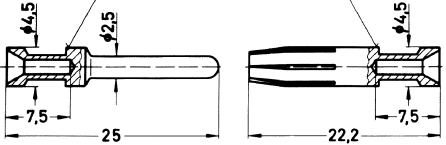
EN 60664-1
IEC 61984

Details

Crimping tools see chapter Han 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	 <table border="1" data-bbox="1002 1216 1449 1503"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm² AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm² AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm² AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm² AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm² AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm² AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm² AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm² AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	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 groove	2.5 mm ² AWG 14	3 groove	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																				
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2.5 mm ² AWG 14	3 groove																					
3 mm ² AWG 12	wide groove																					
4 mm ² AWG 12	no groove																					
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																				

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
Material (locking)	Stainless steel
RoHS	compliant, compliant with exemption


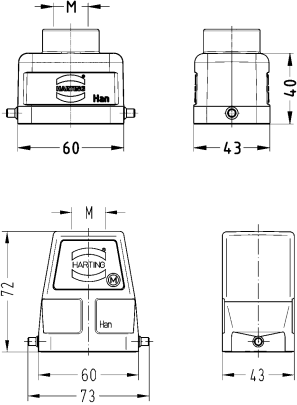

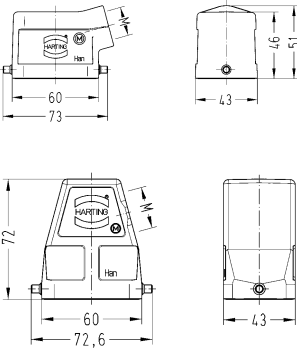

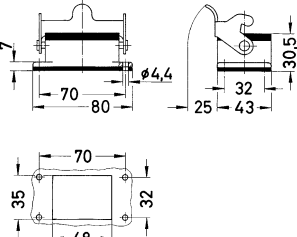
Specifications and approvals

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, Hood, Top entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1440	19 62 806 0446 19 62 806 0447		
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1540 19 62 806 1541	19 62 806 0546 19 62 806 0547		
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 806 0391		 <p>Panel cut out</p>	




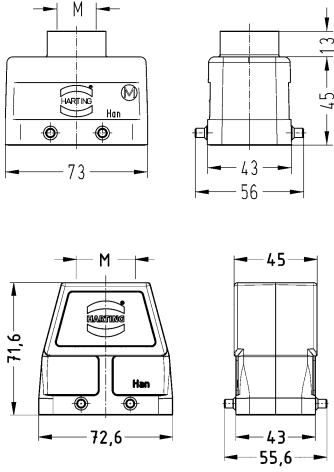

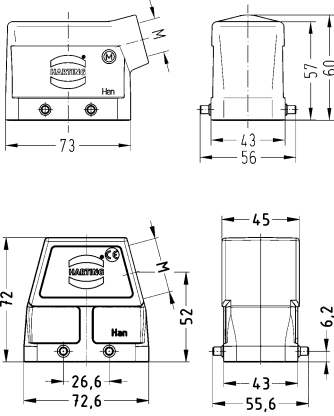

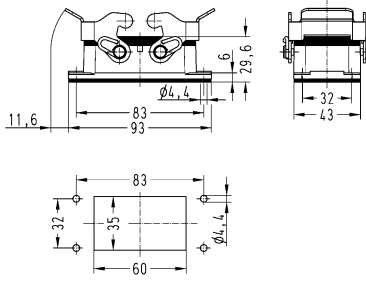
High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65	1x M20 1x M20 2x M20	19 62 806 1291 19 62 806 2255 19 62 806 2295		




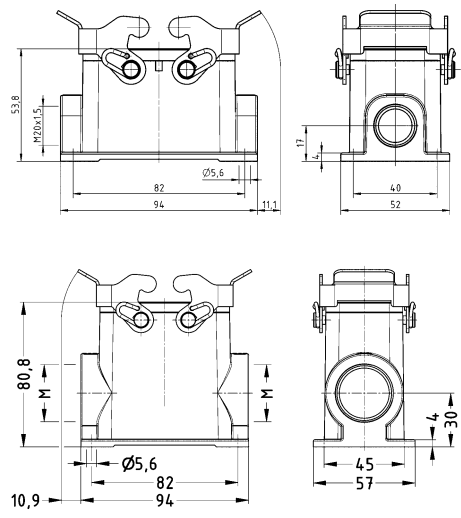
Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M20 1x M25 1x M32 1x M40	19 62 810 1420 19 62 810 1421	19 62 810 0426 19 62 810 0427 19 62 810 0428	
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 810 1520	19 62 810 0526 19 62 810 0527	
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 810 0391		 Panel cut out


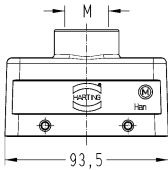
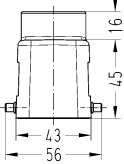

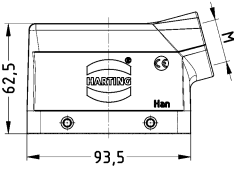
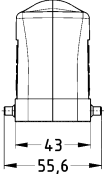

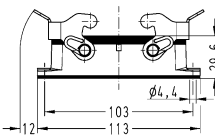
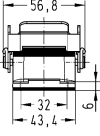
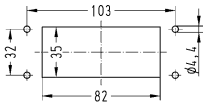


High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65 	1x M20 2x M32	19 62 810 1235	19 62 810 0292	

Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M25 1x M32 1x M40	19 62 816 1421	19 62 816 0427 19 62 816 0428		
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M25 1x M32 1x M40	19 62 816 1521	19 62 816 0527 19 62 816 0528		
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 816 0391			
				 <p>Panel cut out</p>	




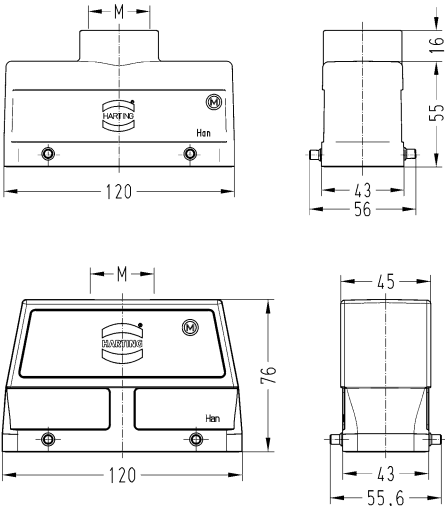

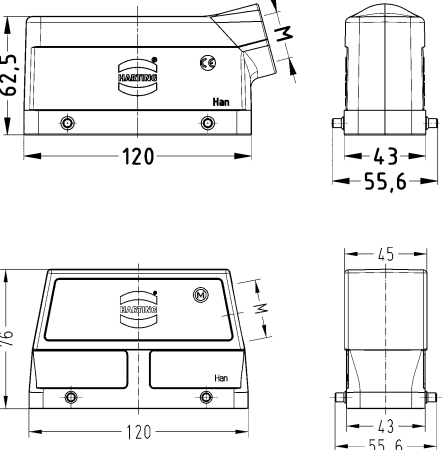

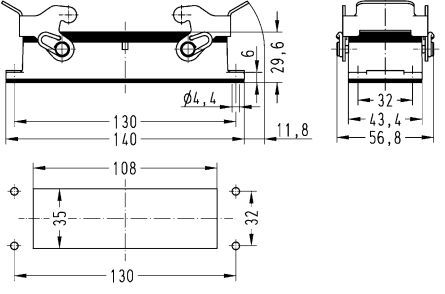
High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65	2x M32		19 62 816 0292	

Han
17
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18


Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M32 1x M40 1x M50	19 62 824 1422	19 62 824 0427 19 62 824 0428 19 62 824 0429	
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M25 1x M32 1x M40	19 62 824 1521	19 62 824 0527 19 62 824 0528	
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 824 0391		 Panel cut out



High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65 	2x M32		19 62 824 0292	