

Contents

Page

Han® Thermocouple . . . . .

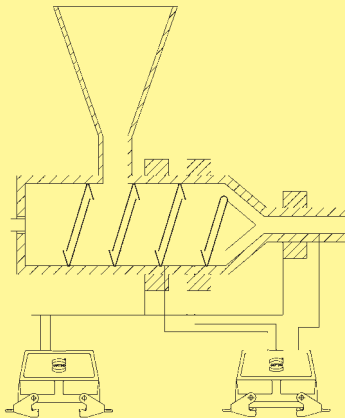
**41.02**

Thermo-  
couple

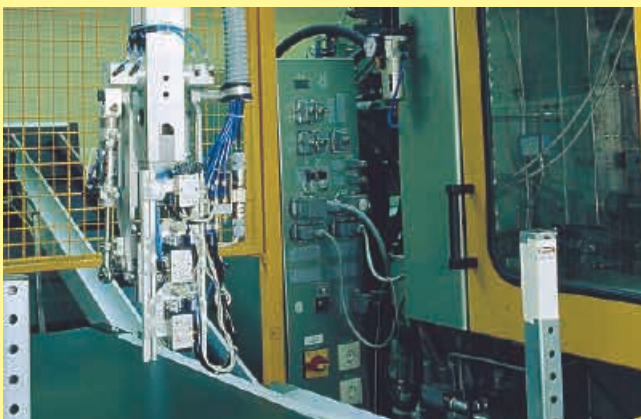
## Features

- Connector for temperature measurement conductors - Suitable for injection moulding machines
- Iron and constantan contacts according to DIN IEC 584 type J, screw and crimp terminals
- Mixed loading of thermocouple crimp contacts and standard contacts within one insert possible
- More combination possibilities with Han-Modular®
- According to EUROMAP 14, Part 1

## Application



Overview of a heating circuit



Connector at an injection moulding machine

## Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
----------------	-------------------------------

### Inserts

Electrical data acc. to EN 61 984	
- Han A®	<b>16 A 250 V 4 kV 3</b>
Rated current	16 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
- Han E®	<b>16 A 500 V 6 kV 3</b>
- Han® Q	<b>16 A 230/400 V 4 kV 3</b>
- Han D®	<b>10 A 50 V 4 kV 3</b>
- Han DD®	<b>10 A 250 V 4 kV 3</b>
Insulation resistance	≥ 10 <sup>10</sup> Ω
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Mechanical working life	
- mating cycles	
Flammability acc. to UL 94	V 0

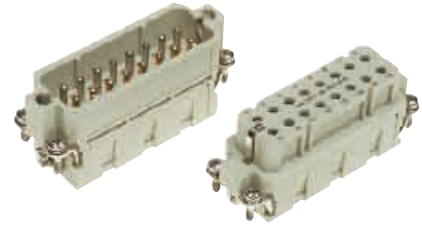
### Contacts

Material	constantan
Identification acc. to IEC 584	type J
Surface	silver
Contact resistance	≤ 1 mΩ
Crimp terminal Han E®	0,14 - 0,5 mm <sup>2</sup> AWG 24 - 20
Crimp terminal Han D®	0.14 - 0.37 mm <sup>2</sup> AWG 24 - 22
Screw terminal	2.5 mm <sup>2</sup> / AWG 14
- Tightening/test torque	0.5 Nm

Material	iron
Identification acc. to IEC 584	type J
Surface	silver
Contact resistance	≤ 1 mΩ
Crimp terminal Han E®	0.14 - 0.5 mm <sup>2</sup> AWG 24 - 20
Crimp terminal Han D®	0.14 - 0.37 mm <sup>2</sup> AWG 24 - 22
Screw terminal	2.5 mm <sup>2</sup> / AWG 14
- Tightening/test torque	0.5 Nm

### Hoods/housings (see chapter 30 / 31)

Material Hoods/Housings	aluminium die-cast
Surface	powder-coated, grey
Locking	steel, zinc-plated
Hoods/Housings sealing	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN 40 050 for coupled connector	IP 65



Identification	Series	Part number		Contact arrangement view termination side	Dimensions in mm
		Male insert (M)	Female insert (F)		
Screw terminal	Han A® 16 A	09 20 016 2691	09 20 016 2891	<ul style="list-style-type: none"> <li>● Contacts FE</li> <li>○ Contacts CuNi</li> </ul>	
Screw terminal with wire protection	Han E® 10 E 16 E 24 E	09 33 010 2691 09 33 016 2691 09 33 024 2691	09 33 010 2791 09 33 016 2791 09 33 024 2791	<ul style="list-style-type: none"> <li>● Contacts FE</li> <li>○ Contacts CuNi</li> </ul>	
Screw terminal with wire protection	Han E® 24 E	09 33 024 2689	09 33 024 2789	<ul style="list-style-type: none"> <li>⊗ Standard contacts</li> <li>● Contacts FE</li> <li>○ Contacts CuNi</li> </ul>	

Dimensions for inserts see chapter of corresponding series

Stock items in bold type

Thermo-  
couple

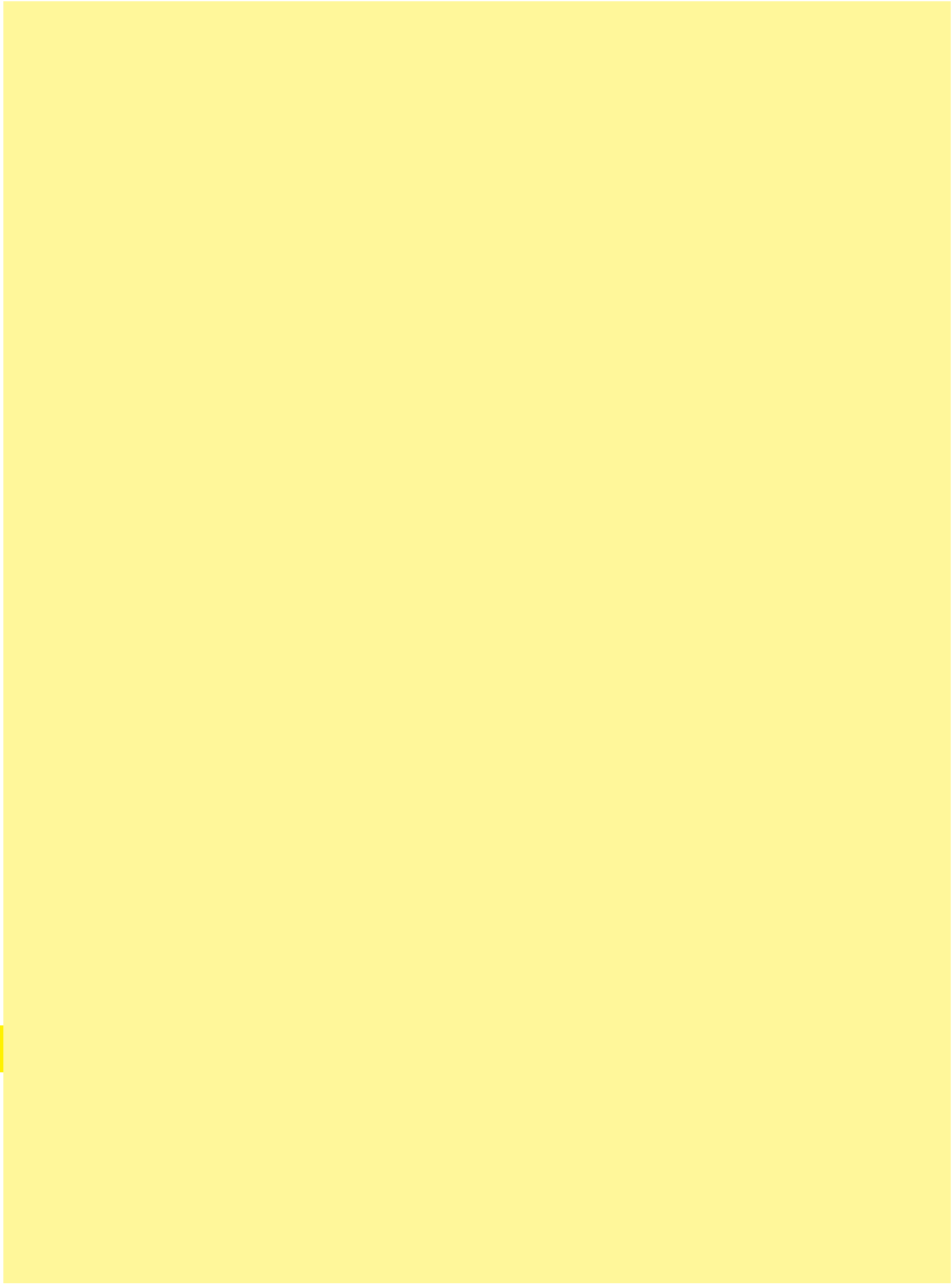
Identification	Series	Part number		Contact arrangement view termination side	Dimensions in mm
		Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	Han E® 6 E 10 E 16 E 24 E	<b>09 33 006 2602</b>	<b>09 33 006 2702</b>		
		<b>09 33 010 2602</b>	<b>09 33 010 2702</b>		
		<b>09 33 016 2602</b>	<b>09 33 016 2702</b>		
		<b>09 33 024 2602</b>	<b>09 33 024 2702</b>		
Crimp terminal Order crimp contacts separately	Han® Q	<b>09 12 005 3001</b>	<b>09 12 005 3101</b>		
Crimp terminal Order crimp contacts separately	Han A® 10 A 16 A	<b>09 20 010 3001</b>	<b>09 20 010 3101</b>		
		<b>09 20 016 3001</b>	<b>09 20 016 3101</b>		

Identification	Wire gauge (mm <sup>2</sup> )	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts Han E®  Constantan   Iron; gold plated   Standard contacts; silver plated 	0.14-0.37 0.5	<b>09 33 000 6163</b>	<b>09 33 000 6263</b>		
		<b>09 33 000 6162</b>	<b>09 33 000 6262</b>		
	0.14-0.37 0.5	<b>09 33 000 6173</b>	<b>09 33 000 6273</b>		
		<b>09 33 000 6172</b>	<b>09 33 000 6272</b>		
	0.5 0.75 1 1.5 2.5 4	<b>09 33 000 6121</b>	<b>09 33 000 6220</b>		
		<b>09 33 000 6114</b>	<b>09 33 000 6214</b>		
		<b>09 33 000 6105</b>	<b>09 33 000 6205</b>		
		<b>09 33 000 6104</b>	<b>09 33 000 6204</b>		
		<b>09 33 000 6102</b>	<b>09 33 000 6202</b>		
	<b>09 33 000 6107</b>	<b>09 33 000 6207</b>			

Thermo-  
couple

Identification	Series	Part number		Contact arrangement view termination side	Dimensions in mm
		Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	Han D® 8 D	<b>09 36 008 3001</b>	<b>09 36 008 3101</b>		
Crimp terminal Order crimp contacts separately	Han DD® 24 DD 42 DD 72 DD 108 DD	<b>09 16 024 3001</b> <b>09 16 042 3001</b> <b>09 16 072 3001</b> <b>09 16 108 3001</b>	<b>09 16 024 3101</b> <b>09 16 042 3101</b> <b>09 16 072 3101</b> <b>09 16 108 3101</b>		

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts Han D® Constantan 	0.14-0.37	<b>09 15 000 6161</b>	<b>09 15 000 6261</b>		
Iron; gold plated 	0.14-0.37	<b>09 15 000 6171</b>	<b>09 15 000 6271</b>		
Standard contacts; silver plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	<b>09 15 000 6104</b> <b>09 15 000 6103</b> <b>09 15 000 6105</b> <b>09 15 000 6102</b> <b>09 15 000 6101</b> <b>09 15 000 6106</b>	<b>09 15 000 6204</b> <b>09 15 000 6203</b> <b>09 15 000 6205</b> <b>09 15 000 6202</b> <b>09 15 000 6201</b> <b>09 15 000 6206</b>		



Thermo-  
couple