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<td>Description</td>
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<td>06.98</td>
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<td>06.102</td>
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Description of the Han-Modular® system

The Han-Modular® series is a new system of inserts designed to meet the specific requirements of individual customers. In close cooperation with potential users a range of modular inserts have been developed allowing the simple assembly of custom designed complete connectors which meet the diverse requirements encountered by designers today.

Han-Modular® is a logical development of the Han-Com® series which already offers the combination of power and signal circuits in one connector.

The individual modules of this series now allow the integration of electrical, optical and gaseous signal and power connections in one connector assembly.

The pneumatic contacts are also suitable for the connection of liquid media. However it must be stated that a combination of electrical and liquid connections in one connector is not allowed according to VDE regulations.

The individual contacts used in this system are all from existing well proven ranges and it is possible to use combinations of 1 to 12 modules depending on the size of the hoods and housings chosen.

The basic modules snap into a mounting frame and can be exchanged separately at any time.

Advantages:
- Custom designs can be simply assembled
- Optimum solutions can be reached
- Stock can be minimized
Han-Modular® Compact
Page 06.08

Han-Modular® Twin
Page 06.10

Han-Modular® Hinged frames in Han® B hoods and housings
Page 06.12

Han-Modular® Docking frame
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Han-Modular® ECO
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<tr>
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<th>Han® 200 A Axial module</th>
<th>Han® 200 A Crimp module</th>
<th>Han® 100 A Axial module</th>
<th>Han® 100 A Crimp module</th>
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<td>1</td>
<td>2</td>
<td>2</td>
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<td>Modules</td>
<td>Axial screw terminal</td>
<td>Crimp terminal</td>
<td>Axial screw terminal</td>
<td>Crimp terminal</td>
</tr>
<tr>
<td>Rated current</td>
<td>200 A</td>
<td>200 A</td>
<td>100 A</td>
<td>100 A</td>
</tr>
<tr>
<td>Rated voltage</td>
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<td>1000 / 1000 V</td>
<td>1000 V</td>
<td>1000 V</td>
</tr>
<tr>
<td>Wire gauge</td>
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<td>25 ... 70 mm²</td>
<td>10 ... 38 mm²</td>
<td>10 ... 35 mm²</td>
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<td>06.22</td>
<td>06.24</td>
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<table>
<thead>
<tr>
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<th>Han® 70 A Axial module</th>
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<td>40 A</td>
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<td>1000 V</td>
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<td>2.5 ... 10 mm²</td>
<td>1.5 ... 10 mm²</td>
<td>2.5 ... 10 mm²</td>
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<table>
<thead>
<tr>
<th>Series</th>
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<th>Han® CC Protected module</th>
<th>Han® CD module</th>
<th>Han® E® module</th>
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</thead>
<tbody>
<tr>
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<td>4</td>
<td>3 / 4</td>
<td>6</td>
</tr>
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<td>Modules</td>
<td>Crimp terminal</td>
<td>Crimp terminal</td>
<td>Crimp terminal</td>
<td>Crimp terminal</td>
</tr>
<tr>
<td>Rated current</td>
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<td>40 A</td>
<td>40 A / 10 A</td>
<td>16 A</td>
</tr>
<tr>
<td>Rated voltage</td>
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<td>830 V</td>
<td>830 V / 830 V</td>
<td>500 V</td>
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<tr>
<td>Wire gauge</td>
<td>1.5 ... 10 mm²</td>
<td>1.5 ... 6 mm²</td>
<td>1.5 ... 6 mm² / 0.14 ... 2.5 mm²</td>
<td>0.14 ... 4 mm²</td>
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<tr>
<td>Page</td>
<td>06.36</td>
<td>06.38</td>
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<table>
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<td>830 V</td>
<td>500 V</td>
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<td>0.5 ... 2.5 mm²</td>
<td>0.14 ... 4 mm²</td>
<td>0.14 ... 4 mm²</td>
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### Summary Han-Modular®

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<th>Series</th>
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<th>Han® HV module</th>
<th>Han® HV module</th>
<th>Han DD® module</th>
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<td>2</td>
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<td>Crimp terminal</td>
<td>Crimp terminal</td>
</tr>
<tr>
<td>Rated current</td>
<td>16 A 400 V 0.14 ... 2.5 mm² 06.52</td>
<td>16 A 2900 / 5000 V 0.5 ... 4 mm² 06.54</td>
<td>40 A 2900 / 5000 V 1.5 ... 10 mm² 06.56</td>
<td>10 A 250 V 0.14 ... 2.5 mm² 06.58</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>2400 V 2900 / 5000 V 250 V 0.08 ... 0.52 mm² 06.64</td>
<td>160 V 2900 / 5000 V 0.08 ... 0.52 mm² 06.66</td>
<td>50 V 2900 / 5000 V 0.08 ... 0.52 mm² 06.66</td>
<td>50 V 2900 / 5000 V 0.08 ... 0.52 mm² 06.66</td>
</tr>
<tr>
<td>Wire gauge</td>
<td>0.14 ... 2.5 mm²</td>
<td>0.5 ... 4 mm²</td>
<td>1.5 ... 10 mm²</td>
<td>0.14 ... 2.5 mm²</td>
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<table>
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<th>Han® High Density module</th>
<th>Han® D-Sub module</th>
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<td>Crimp terminal</td>
<td>Crimp terminal</td>
<td>Crimp terminal</td>
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<tr>
<td>Rated current</td>
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<td>10 A 160 V 0.14 ... 2.5 mm² 06.62</td>
<td>4 A 50 V 0.08 ... 0.52 mm² 06.64</td>
<td>5 A 50 V 0.08 ... 0.52 mm² 06.66</td>
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<tr>
<td>Rated voltage</td>
<td>160 V</td>
<td>50 V</td>
<td>50 V</td>
<td>50 V</td>
</tr>
<tr>
<td>Wire gauge</td>
<td>0.25 ... 1.5 mm²</td>
<td>0.14 ... 2.5 mm²</td>
<td>0.08 ... 0.52 mm²</td>
<td>0.08 ... 0.52 mm²</td>
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<table>
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<th>Han® FireWire module</th>
<th>Han® RJ45 module</th>
<th>Han® GigaBit module</th>
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<td>Modules</td>
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<td>IEEE 1394</td>
<td>Ethernet Cat. 5e</td>
<td>Ethernet Cat. 6</td>
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<th>Series</th>
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<th>Han® Multi Contact module</th>
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<tr>
<td>Modules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page Contacts</td>
<td>Quintax contact 4 + shielding</td>
<td>FOC contacts 50 Ω RG 174 75 Ω RG 179 50 Ω RG 58</td>
</tr>
<tr>
<td>Page Contacts</td>
<td>High Density Quintax contact 8 + shielding</td>
<td>Han D® D Coax contact 1 + shielding 75 Ω</td>
</tr>
<tr>
<td>Page Contacts</td>
<td>Han D® E Coax contact 1 + shielding</td>
<td>Han E® E Coax contact 1 + shielding 50 Ω</td>
</tr>
<tr>
<td>Contacts</td>
<td></td>
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* HCS®=Hard Clad Silica (is registered trade mark of the SpecTran Corporation)
## Summary Han-Modular®

<table>
<thead>
<tr>
<th>Series</th>
<th>Han® Pneumatic module</th>
<th>Han® SC module</th>
<th>Han-Elisa®</th>
<th>Dummy module</th>
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<td>4</td>
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<td>Modules</td>
<td>Page</td>
<td>Contacts</td>
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<td>06.92</td>
<td>06.94</td>
<td>06.96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.0 mm</td>
<td>SC contact</td>
<td>Temperature I/O modules ID module</td>
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<tr>
<td></td>
<td></td>
<td>Ø 1.6 mm 3.0 mm 4.0 mm</td>
<td></td>
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</table>
Han-Modular® Compact

**Features**

- Compact design saves space
- Modular structure increases flexibility
- Simple and quick assembly
- Robust design
- Two part grommet housing

**Technical characteristics**

<table>
<thead>
<tr>
<th>Hoods/Housings</th>
<th>Material</th>
<th>zinc die-cast</th>
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<tbody>
<tr>
<td></td>
<td>Surface</td>
<td>nickel plated</td>
</tr>
<tr>
<td></td>
<td>Locking element</td>
<td>stainless steel</td>
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<tr>
<td></td>
<td>Hoods/Housings sealing</td>
<td>NBR</td>
</tr>
<tr>
<td></td>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td></td>
<td>Degree of protection acc. to DIN EN 60 529</td>
<td>IP 65</td>
</tr>
<tr>
<td></td>
<td>Mechanical working life</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>PE contact</td>
<td>10 mm² / AWG 8</td>
</tr>
<tr>
<td></td>
<td>Stripping length</td>
<td>10 mm</td>
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<tr>
<td></td>
<td>Tightening torque</td>
<td>1 Nm</td>
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</table>

**Protection covers for housings, bulkhead mounting**

<table>
<thead>
<tr>
<th>Material</th>
<th>polycarbonate</th>
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<tbody>
<tr>
<td>Locking element</td>
<td>Polyamide</td>
</tr>
<tr>
<td>Hoods/Housings sealing</td>
<td>NBR</td>
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<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
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<tr>
<td>Degree of protection acc. to DIN EN 60 529</td>
<td>IP 65</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
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</table>

**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 according to DIN EN 60 512-5

---

![Graph showing current carrying capacity](image)

1. Han® Axial screw module, Wire gauge: 10 mm²
2. Han® C module, Wire gauge: 6 mm²

---

![Diagram of Han-Modular® Compact](image)

1. Hood with side entry
2. Thread M25
3. Bulkhead mounted housing with locking lever
4. Carrier hood
## Han-Modular® Compact

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoods side entry M25</td>
<td>19 14 001 0501</td>
<td><img src="image1.png" alt="Image" /></td>
<td>4 screws are included in the delivery range</td>
</tr>
<tr>
<td>Hoods top entry M25</td>
<td>19 14 001 0401</td>
<td><img src="image2.png" alt="Image" /></td>
<td>4 screws are included in the delivery range</td>
</tr>
<tr>
<td>Hoods top entry M32</td>
<td>19 14 001 0402</td>
<td><img src="image3.png" alt="Image" /></td>
<td>4 screws are included in the delivery range</td>
</tr>
<tr>
<td>Carrier hood</td>
<td>09 14 001 0311</td>
<td><img src="image4.png" alt="Image" /></td>
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</tr>
<tr>
<td>Protection covers</td>
<td>09 14 001 5402</td>
<td><img src="image5.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Housings, bulkhead mounting</td>
<td>09 14 001 0301</td>
<td><img src="image6.png" alt="Image" /></td>
<td>Panel cut out</td>
</tr>
<tr>
<td>Protection covers for housings, bulkhead mounting</td>
<td>09 14 001 5401</td>
<td><img src="image7.png" alt="Image" /></td>
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</table>
Han-Modular® Twin

Features

- Compact and space saving
- High degree of flexibility due to modular assembly
- Easy and quick assembly
- Robust design
- Hood consists of two parts

Technical characteristics

Hoods/Housings

<table>
<thead>
<tr>
<th>Material</th>
<th>aluminium die-cast</th>
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</thead>
<tbody>
<tr>
<td>Surface</td>
<td>powder-coated</td>
</tr>
<tr>
<td>Locking element</td>
<td>Han-Easy Lock®</td>
</tr>
<tr>
<td>Panel feed through housing / Shielding frame</td>
<td>zinc die-cast</td>
</tr>
<tr>
<td>Hoods/Housings seal</td>
<td>NBR</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Degree of protection acc. to DIN EN 60 529</td>
<td>for coupled connector IP 65</td>
</tr>
</tbody>
</table>

Mechanical working life

- mating cycles ≥ 500

PE contact

- wire gauge 10 mm² / AWG 8
- Stripping length 10 mm
- Tightening torque 1 Nm

Hood with top entry
Carrier hood
Bulkhead mounted housing with locking lever
Switch board panel
Split Hood
Thread M32
## Han-Modular® Twin

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoods</td>
<td>19 14 002 0402</td>
<td><img src="image1.png" alt="Hood Drawing" /></td>
<td></td>
<td>top entry M32</td>
</tr>
<tr>
<td>Shielding frame</td>
<td>09 14 000 9924</td>
<td><img src="image2.png" alt="Shielding Frame Drawing" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrier hood</td>
<td>09 14 002 0311</td>
<td><img src="image3.png" alt="Carrier Hood Drawing" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housings, bulkhead mounting</td>
<td>09 14 002 0301</td>
<td><img src="image4.png" alt="Housings Drawing" /></td>
<td>Panel cut out</td>
<td></td>
</tr>
<tr>
<td>Panel feed through housings</td>
<td>09 14 000 9928</td>
<td><img src="image5.png" alt="Panel Feed Drawing" /></td>
<td>Panel cut out</td>
<td></td>
</tr>
</tbody>
</table>

Stock items in bold type
### Features
- Pre-leading grounding system according VDE
- Modules can only be assembled polarized to guarantee a correct orientation
- Alphabetical marking of module position
- High mechanical reliability of modules in case of vibration and impact stress
- No tools necessary to remove modules

### Technical characteristics

#### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

#### Approvals

#### Hinged frames
- **Number of modules**: 2, 3, 4, 6
- **Wire gauge**
  - Power side: 4 ... 10 mm², AWG 12 ... 8
  - Signal side: 1 ... 2.5 mm², AWG 18 ... 14
- **Material**: zinc die-cast
- **Limiting temperatures**: -40 °C ... +125 °C
- **Mechanical working life**: ≥ 500 mating cycles

#### Hoods/Housings
- **Selection of hoods/housings**: see chapter 30 / chapter 31
- **Material**: aluminium die-cast
- **Surface**: powder-coated RAL 7037
- **Locking element**: Han-Easy Lock®
- **Hoods/Housings seal**: NBR
- **Limiting temperatures**: -40 °C ... +125 °C
- **Degree of protection acc. to DIN EN 60 529 for coupled connector**: IP 65

#### Accessories
- **Coding of hoods/housings**: chapter 40

* 10 mm² / AWG 8 only with ferrule crimp tool
09 99 000 0374
# Han-Modular® Hinged frames

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number for Hood/Housing 2)</th>
<th>Marking A ... F</th>
<th>Marking a ... f</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hinged frame for 2 modules</td>
<td>09 14 006 0303</td>
<td>09 14 006 0313</td>
<td></td>
<td>Wocks</td>
<td></td>
</tr>
<tr>
<td>Hinged frame for 3 modules</td>
<td>09 14 010 0303</td>
<td>09 14 010 0313</td>
<td></td>
<td>Housings</td>
<td></td>
</tr>
<tr>
<td>Hinged frame for 4 modules</td>
<td>09 14 016 0303</td>
<td>09 14 016 0313</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinged frame for 6 modules</td>
<td>09 14 024 0303</td>
<td>09 14 024 0313</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locking element for hinged frames (20 pieces per bloc)</td>
<td>09 14 000 9960</td>
<td>09 14 000 9960</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Distance max. 20.5 mm**
- **Hinged frames can be used either in hood or housing**
- **Both different markings must be used for one connector!**

**Panel cut out**

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 B</td>
<td>35</td>
<td>44</td>
<td>52</td>
</tr>
<tr>
<td>10 B</td>
<td>49</td>
<td>57</td>
<td>66</td>
</tr>
<tr>
<td>16 B</td>
<td>64</td>
<td>77.5</td>
<td>85.5</td>
</tr>
<tr>
<td>24 B</td>
<td>94</td>
<td>104</td>
<td>112</td>
</tr>
</tbody>
</table>

**Ideal to pre-assemble the hinged frames**
### Features
- Blind mating connector system for drawer systems
- Direct panel mounting without housing
- Very robust design
- Solid pre-leading guid pins and float bushes
- Can be fixed with standard M4 screws

**Notice:**
Due the plastic material used in the docking frame without PE, the panel will need to be grounded separately

### Technical characteristics

#### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

#### Docking frames
- **Number of modules:** 4, 6
- **Material:**
  - Docking frames: polycarbonate
  - Float washer: zinc die-cast
- **Floating tolerance:** ± 2 mm
- **Limiting temperatures:** -40 °C ... +125 °C
- **Flammability acc. to UL 94:** V 0
- **Mechanical working life:**
  - mating cycles: ≥ 500
### Han-Modular® Docking frame

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Marking A ... F ¹</th>
<th>Marking a ... f ²</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Docking frame for 4 modules</td>
<td>09 14 016 1701</td>
<td></td>
<td></td>
<td><img src="image" alt="Docking frame for 4 modules" /></td>
<td></td>
</tr>
<tr>
<td>Docking frame for 4 modules</td>
<td>09 14 016 1711</td>
<td></td>
<td></td>
<td><img src="image" alt="Docking frame for 4 modules" /></td>
<td></td>
</tr>
<tr>
<td>Docking frame for 6 modules</td>
<td>09 14 024 1701</td>
<td></td>
<td></td>
<td><img src="image" alt="Docking frame for 6 modules" /></td>
<td></td>
</tr>
<tr>
<td>Docking frame for 6 modules</td>
<td>09 14 024 1711</td>
<td></td>
<td></td>
<td><img src="image" alt="Docking frame for 6 modules" /></td>
<td></td>
</tr>
<tr>
<td>Float washer to enable the frame to be float mounted using standard M4 fixing screws</td>
<td>09 14 000 9936</td>
<td></td>
<td></td>
<td><img src="image" alt="Float washer" /></td>
<td></td>
</tr>
</tbody>
</table>

1) Float mount  
2) Fixed
Features

- Suitable for all Han-Modular® single modules
- The variant with PE connection uses pin 1 of the module as PE
- Slim, space saving design
- Low cost plastic hoods and housings

Technical characteristics

Specifications

- DIN EN 60 664-1
- DIN EN 61 984

Hoods/Housings

<table>
<thead>
<tr>
<th>Material</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Hoods/Housings</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>- Seal</td>
<td>NBR</td>
</tr>
<tr>
<td>- Cable seal</td>
<td>Polyamide</td>
</tr>
</tbody>
</table>

Limiting temperatures: -40 °C ... +85 °C

Flammability acc. to UL 94: V 0

Degree of protection acc. to DIN EN 60 529:
- for coupled connector: IP 20 / IP 65
- Mechanical working life: ≥ 500 mating cycles
Plastic hoods/housings with PE marking

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoods with PE marking (pin 1 = PE)</td>
<td>09 14 001 0421</td>
<td><img src="image1.png" alt="Drawing" /></td>
<td>20, 60, 21.8</td>
</tr>
<tr>
<td>IP 65 top entry</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Hoods with PE marking (pin 1 = PE)  | 09 14 001 0423 | ![Drawing](image2.png) | 50, 21.8 |
| IP 20 top entry                     |             |         |                  |

| Hoods with PE marking (pin 1 = PE)  | 09 14 001 0321 | ![Drawing](image3.png) | 21.8 |
| IP 20 / IP 65 top entry             |             |         |                  |

| Coding pin                          | 09 14 000 9929 | ![Drawing](image4.png) | Range of delivery: 8 pieces per frame |

Stock items in bold type
<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoods without PE IP 65 top entry</td>
<td>09 14 001 0420</td>
<td><img src="image1.png" alt="Hood Diagram" /></td>
<td><img src="image2.png" alt="Dimensions" /></td>
</tr>
<tr>
<td>Hoods without PE IP 20 top entry</td>
<td>09 14 001 0422</td>
<td><img src="image3.png" alt="Hood Diagram" /></td>
<td><img src="image4.png" alt="Dimensions" /></td>
</tr>
<tr>
<td>Hoods without PE IP 20/65 top entry</td>
<td>09 14 001 0320</td>
<td><img src="image5.png" alt="Hood Diagram" /></td>
<td><img src="image6.png" alt="Dimensions" /></td>
</tr>
<tr>
<td>Coding pin</td>
<td>09 14 000 9929</td>
<td><img src="image7.png" alt="Coding Pin Diagram" /></td>
<td><img src="image8.png" alt="Dimensions" /></td>
</tr>
</tbody>
</table>

Stock items in bold type

Plastic hoods/housings
without PE

Panel cut out

Range of delivery:
8 pieces per frame
Features

- Axial-screw termination
- No special tools required
- Power module for big wire gauge up to 70 mm²
- Suitable as a 3 + PE connector in a Han® 32 B housing
- Compatible to the Han® 200 A module with crimp terminal

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 according to DIN EN 60 512-5

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN EN 61 984</td>
</tr>
</tbody>
</table>

| Approvals | |
|-----------||

<table>
<thead>
<tr>
<th>Inserts</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Electrical data acc. to EN 61 984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current</td>
</tr>
<tr>
<td>Rated voltage</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
</tr>
<tr>
<td>Pollution degree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated voltage acc. to UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insulation resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 10¹⁰ Ω</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>polycarbonate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limiting temperatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40 °C ... +125 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flammability acc. to UL 94</th>
</tr>
</thead>
<tbody>
<tr>
<td>V 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical working life</th>
</tr>
</thead>
<tbody>
<tr>
<td>- mating cycles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contacts</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper alloy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>- hard-silver plated 3 µm Ag</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2 mΩ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screw terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Wire gauge 1) 25 ... 70 mm²</td>
</tr>
<tr>
<td>- AWG 2 ... 00</td>
</tr>
<tr>
<td>- Hexagonal driver SW 5</td>
</tr>
<tr>
<td>- Stripping length 16 mm</td>
</tr>
<tr>
<td>- Tightening torque</td>
</tr>
<tr>
<td>mm²</td>
</tr>
<tr>
<td>Nm</td>
</tr>
</tbody>
</table>

1) geometric wire gauge
## Han® 200 A Axial module

### Number of contacts

1

### Identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axial screw terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 ... 40 mm²</td>
<td>09 14 001 2663</td>
<td><img src="image" alt="M" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 14 001 2763</td>
<td><img src="image" alt="F" /></td>
<td></td>
</tr>
<tr>
<td>40 ... 70 mm²</td>
<td>09 14 001 2662</td>
<td><img src="image" alt="M" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 14 001 2762</td>
<td><img src="image" alt="F" /></td>
<td></td>
</tr>
<tr>
<td>Axial screw terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 A PE (Ground)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 ... 40 mm²</td>
<td>09 14 001 2668</td>
<td><img src="image" alt="M" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 14 001 2768</td>
<td><img src="image" alt="F" /></td>
<td></td>
</tr>
<tr>
<td>40 ... 70 mm²</td>
<td>09 14 001 2667</td>
<td><img src="image" alt="M" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>09 14 001 2767</td>
<td><img src="image" alt="F" /></td>
<td></td>
</tr>
<tr>
<td>Hex key SW 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for axial setscrew</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with grip</td>
<td>09 99 000 0364</td>
<td><img src="image" alt="M" /></td>
<td></td>
</tr>
<tr>
<td>adapter 3/8&quot;</td>
<td>09 99 000 0371</td>
<td><img src="image" alt="F" /></td>
<td></td>
</tr>
</tbody>
</table>

*Stock items in bold type*
Han® 200 A Crimp module

Features

- Crimp termination
- Contacts can be unlocked from the mating side
- Compatible with Han® 200 A modules with axial screw terminal

Technical characteristics

Specifications
EN 50 124-1
DIN EN 60 664-1
DIN EN 61 984

Inserts
Number of contacts 1
Electrical data
acc. to EN 61 984 200 A 1000 V 8 kV 3
Rated current 200 A
Rated voltage 1000 V
Rated impulse voltage 8 kV
Pollution degree 3
Insulation resistance ≥ 10¹⁰ Ω
Material polycarbonate
Limiting temperatures -40 °C ... +125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Contacts
Material copper alloy
Surface
- hard-silver plated 3 µm Ag
Contact resistance ≤ 0.3 mΩ
Crimp terminal
- mm² 25 ... 70 mm²
Stripping length 22.5 mm
Max. insulation diameter 18 mm

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image)

- Ambient temperature
  - 24 B hoods/housings with 3 modules; wire gauge: 50 mm²
  - 24 B hoods/housings with 3 modules; wire gauge: 70 mm²
**Han® 200 A Crimp module**

**1000 V 200 A**

Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal Modul</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part number</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 14 001 3001</td>
<td>09 14 001 3101</td>
<td></td>
<td>34,2</td>
<td>29,35</td>
</tr>
<tr>
<td>56,4</td>
<td>61,7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp contacts silver plated</td>
<td>25</td>
<td>09 11 000 6120</td>
<td>09 11 000 6220</td>
<td></td>
<td>34,2</td>
<td>29,35</td>
</tr>
<tr>
<td>56,4</td>
<td>61,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>09 11 000 6121</td>
<td>09 11 000 6221</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>09 11 000 6122</td>
<td>09 11 000 6222</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>09 11 000 6123</td>
<td>09 11 000 6223</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Ø</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 mm²</td>
<td>7</td>
<td>22.5 mm</td>
</tr>
<tr>
<td>35 mm²</td>
<td>8.2</td>
<td>22.5 mm</td>
</tr>
<tr>
<td>50 mm²</td>
<td>10</td>
<td>22.5 mm</td>
</tr>
<tr>
<td>70 mm²</td>
<td>11.5</td>
<td>22.5 mm</td>
</tr>
</tbody>
</table>

for stranded wire according to IEC 60 228 Class 5
### Features
- Axial-screw termination
- No special tools required
- Connect PE contact with special cable shoe
- Compatible to the Han® 100 A module with crimp terminal

### Technical characteristics

#### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

#### Approvals
- [UL](#)

#### Inserts
- Number of contacts: 2
- Electrical data:
  - acc. to EN 61 984: 100 A 1000 V 8 kV 3
  - Rated current: 100 A
  - Rated voltage: 1000 V
  - Rated impulse voltage: 8 kV
  - Pollution degree: 3
- Rated voltage acc. to UL: 600 V
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: polycarbonate
- Limiting temperatures acc. to UL 94: V 0
- Mechanical working life:
  - - mating cycles: ≥ 500

#### Contacts
- Material: copper alloy
- Surface:
  - - hard-silver plated: 3 µm Ag
- Contact resistance: 0.3 mΩ
- Screw terminal:
  - - Wire gauge 1): 10 ... 38 mm²
  - - AWG: 6 ... 2
  - - Hexagonal driver: SW 4
  - - Stripping length: 13 mm
  - - Tightening torque:
    - mm²: 10, 16, 25, 35
    - Nm: 6, 6, 7, 8

---

**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 according to DIN EN 60 512-5

---

![Graph of current carrying capacity](image)

**Ambient temperature**

1. 24 B hoods/housings with 3 modules; wire gauge: 35 mm²
2. 24 B hoods/housings with 3 modules; wire gauge: 25 mm²

1) geometric wire gauge
Han® 100 A Axial module

Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Part number Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axial screw terminal</td>
<td>100 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 … 25 mm²</td>
<td>09 14 002 2653</td>
<td>09 14 002 2753</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 … 35 mm²</td>
<td>09 14 002 2651</td>
<td>09 14 002 2751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 mm²</td>
<td>09 14 002 2650</td>
<td>09 14 002 2750</td>
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Identification

<table>
<thead>
<tr>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 99 000 0363</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 99 000 0370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 14 000 9912</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hex key SW 4
for axial setscrew
with grip
adapter 3/8”

Cable shoe 16 mm²
for PE extension
Comment for hoods/
housings high
construction only

Please use pressing tools for non-insulated cable shoes following DIN 46 230 with 16 mm² range (eg. K25, co. Klauke)
Features

- Crimp termination
- Unlock of contacts from mating side
- Connect PE contact with special cable shoe
- Compatible to Han® 100 A module with axial screw terminal

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td>100 A 1000 V 8 kV 3</td>
</tr>
<tr>
<td>acc. to EN 61 984</td>
<td></td>
</tr>
<tr>
<td>Rated current</td>
<td>100 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>1000 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

Contacts

Material: copper alloy
Surface: - hard-silver plated 3 µm Ag
Contact resistance ≤ 0.3 mΩ
Crimp terminal - mm² 10 ... 35 mm²
Max. cable diameter 14 mm

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-intermittently) through each contact element of the connector evenly, without exceeding the allowed maximum temperature. Measuring and testing techniques according to DIN EN 60 512-5
Han® 100 A Crimp module  

1000 V  100 A

Number of contacts

2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Part number Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td>09 14 002 3051</td>
<td>09 14 002 3151</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Removal tool</td>
<td>09 99 000 0383</td>
<td>09 99 000 0383</td>
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</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number Male contact</th>
<th>Part number Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>09 11 000 6114</td>
<td>09 11 000 6214</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>16</td>
<td>09 11 000 6116</td>
<td>09 11 000 6216</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>09 11 000 6125</td>
<td>09 11 000 6225</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>09 11 000 6135</td>
<td>09 11 000 6235</td>
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<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mm²</td>
<td>4.3</td>
</tr>
<tr>
<td>16 mm²</td>
<td>5.5</td>
</tr>
<tr>
<td>25 mm²</td>
<td>7</td>
</tr>
<tr>
<td>35 mm²</td>
<td>8.2</td>
</tr>
</tbody>
</table>

for stranded wire according to IEC 60 228 Class 5
## Features

- Axial-screw termination
- 2 contacts (70 A) for power circuits
- Male inserts with protection collar
- Polarisation of module
- Male and female contacts are finger safe

## Technical characteristics

### Specifications

<table>
<thead>
<tr>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current</td>
<td>70 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>1000 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>8 kV</td>
</tr>
</tbody>
</table>

### Approvals

- 

### Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data acc. to EN 61 984</td>
<td>70 A 1000 V 8 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>70 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>1000 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Rated voltage acc. to UL</td>
<td>600 V</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10^{10} \text{Ω}</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>- mating cycles ≥ 500</td>
</tr>
</tbody>
</table>

### Contacts

| Material | copper alloy |
| Surface | 3 \text{µm Ag} |
| Contact resistance | 0.5 \text{mΩ} |
| Screw terminal | |
| - Wire gauge | 6 ... 22 \text{mm}² |
| - AWG | 8 ... 4 |
| - Hexagonal driver | SW 2.5 |
| - Stripping length | |
| - Tightening torque | |

### 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 according to DIN EN 60 512-5

![Derating curve graph](#)

**Ambient temperature**

1. 24 B hoods/housings with 6 modules; wire gauge: 6 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 16 mm²
3. 24 B hoods/housings with 6 modules; wire gauge: 22 mm²

1) geometric wire gauge
### Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Axial screw terminal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 ... 16 mm²</td>
<td>09 14 002 2646</td>
<td>09 14 002 2741</td>
<td></td>
</tr>
<tr>
<td>14 ... 22 mm²</td>
<td>09 14 002 2647</td>
<td>09 14 002 2742</td>
<td></td>
</tr>
<tr>
<td><strong>Axial screw terminal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with finger protected male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 ... 16 mm²</td>
<td>09 14 002 2641</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 ... 22 mm²</td>
<td>09 14 002 2642</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hex key SW 2.5</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for axial setscrew</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bit 1/4&quot;</td>
<td>09 99 000 0375</td>
<td></td>
<td></td>
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</tbody>
</table>
Han® Modular

Han® 40 A Axial module

Features

- Axial-screw termination
- No special tools required
- Compatible to Han® 40 A module with crimp terminal

Technical characteristics

Specifications
DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts
Number of contacts 2
Electrical data acc. to EN 61 984
Rated current 40 A
Rated voltage 1000 V
Rated impulse voltage 8 kV
Pollution degree 3

Rated voltage acc. to UL
600 V
Insulation resistance ≥ 10¹⁰ Ω
Material polycarbonate
Limiting temperatures -40 °C ... +125 °C
Flammability acc. to UL 94 V 0
Mechanical working life - mating cycles ≥ 500

Contacts
Material copper alloy
Surface - hard-silver plated 3 µm Ag
Contact resistance 0.5 mΩ
Screw terminal - Wire gauge 1)
- AWG
- Hexagonal driver
- Stripping length
- Tightening torque

Operating current

Ambient temperature

1) geometric wire gauge

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 according to DIN EN 60 512-5

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>2.5</th>
<th>4</th>
<th>6</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mm³</td>
<td>5²</td>
<td>5¹</td>
<td>8¹</td>
<td>11¹</td>
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</table>

1) geometric wire gauge
### Han® 40 A Axial module

#### Number of contacts

2

#### Axial Screw Terminal 40 A

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axial screw terminal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 ... 8 mm²</td>
<td>09 14 002 2601</td>
<td>09 14 002 2701</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 ... 10 mm²</td>
<td>09 14 002 2602</td>
<td>09 14 002 2702</td>
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</table>

Contact arrangement view from termination side

#### Hex Key SW 2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hex key SW 2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>for axial setscrew</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with grip</td>
<td>09 99 000 0313</td>
<td></td>
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</tr>
<tr>
<td>Bit 1/4&quot;</td>
<td>09 99 000 0369</td>
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</table>

Stock items in bold type
Han® 40 A Crimp module

Features

• Crimp termination
• Compatible with Han® 40 A module with axial screw terminal

Technical characteristics

Specifications
DIN EN 60 664-1
DIN EN 61 984

Inserts
Number of contacts 2
Electrical data
acc. to EN 61 984
Rated current 40 A
Rated voltage 1000 V
Rated impulse voltage 8 kV
Pollution degree 3
Insulation resistance ≥ 10¹⁰ Ω
Material polycarbonate
Limiting temperatures -40 °C ... +125 °C
Flammability acc. to UL 94 V 0
Mechanical working life - mating cycles

Contacts
Material copper alloy
Surface - hard-silver plated 3 µm Ag
Contact resistance ≤ 0.3 mΩ
Crimp terminal - mm² 1.5 ... 10 mm²
- AWG 16 ... 8

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image)

1. 24 B hoods/housings with 6 modules; wire gauge: 10 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 6 mm²
### Han® 40 A Crimp module

#### Number of contacts

2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td>Male insert (M)</td>
<td>Female insert (F)</td>
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</tr>
<tr>
<td>Order crimp contacts separately</td>
<td>09 14 002 3002</td>
<td>09 14 002 3102</td>
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</tr>
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</table>

- **Crimp terminal**

#### Wire gauge (mm²) and Part number

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp contacts</td>
<td>Male contact</td>
<td>Female contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power contacts</td>
<td>silver plated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>09 32 000 6104</td>
<td>09 32 000 6204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>09 32 000 6105</td>
<td>09 32 000 6205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 mm²</td>
<td>09 32 000 6107</td>
<td>09 32 000 6207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mm²</td>
<td>09 32 000 6108</td>
<td>09 32 000 6208</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 mm²</td>
<td>09 32 000 6109</td>
<td>09 32 000 6209</td>
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<td></td>
</tr>
</tbody>
</table>

- **Crimping contacts**

- **Power contacts**

- **Silver plated**

#### Wire gauge and Stripping length

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm²</td>
<td>AWG 16</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>AWG 14</td>
</tr>
<tr>
<td>4 mm²</td>
<td>AWG 12</td>
</tr>
<tr>
<td>6 mm²</td>
<td>AWG 10</td>
</tr>
<tr>
<td>10 mm²</td>
<td>AWG 8</td>
</tr>
</tbody>
</table>

Stripping length a = 15 mm for cables ≥ 5 mm
Stripping length a = 18 mm for cables ≥ 6.4 mm

---

*Stock items in bold type*
Han® C Axial module

Features

- Axial screw terminal
- No special tools required for assembly
- Compatible to Han® C module with crimp terminal

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 according to DIN EN 60 512-5

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

- Number of contacts: 3
- Electrical data: acc. to EN 61 984
  - Rated current: 40 A
  - Rated voltage: 690 V
  - Rated impulse voltage: 8 kV
  - Pollution degree: 3
- Rated voltage: acc. to UL 600 V
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: polycarbonate
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94 V 0
- Mechanical working life: ≥ 500

Contacts

- Material: copper alloy
- Surface: hard-silver plated 3 µm Ag
- Contact resistance: 0.3 mΩ
- Screw terminal:
  - Wire gauge: 2.5 ... 10 mm²
  - AWG: 14 ... 8
  - Hexagonal driver SW 2
  - Stripping length:
    - 2.5 mm²: 4 mm
    - 6 mm²: 5 mm
    - 10 mm²: 8 mm
- Tightening torque:
  - 2.5 mm²: 1.5 Nm
  - 4 mm²: 1.5 Nm
  - 6 mm²: 2 Nm
  - 10 mm²: 2 Nm

1) geometric wire gauge

- Ambient temperature

- Operating current

- 24 B hoods/housings with 6 modules; wire gauge: 4 mm²
- 24 B hoods/housings with 6 modules; wire gauge: 6 mm²
- 24 B hoods/housings with 6 modules; wire gauge: 10 mm²
### Han® C Axial module

**690 V 40 A**

#### Number of contacts

<table>
<thead>
<tr>
<th>Part number</th>
<th>Identification</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 14 003 2601</td>
<td>Axial screw terminal 40 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 14 003 2701</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 14 003 2602</td>
<td>2.5 ... 8 mm²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 14 003 2702</td>
<td>6 ... 10 mm²</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Identification**

- **Axial screw terminal 40 A**
- **Hex key SW 2** for axial setscrew

**Part number**

- 09 14 003 2601
- 09 14 003 2701
- 09 14 003 2602
- 09 14 003 2702
- 09 99 000 0313
- 09 99 000 0369

**Diagram**

- Axial screw terminal 40 A
- Hex key SW 2

**Dimensions in mm**

- 2.5 ... 8 mm²
- 6 ... 10 mm²

**Notes**

- Stock items in bold type

---

**Stock items in bold type**
Han® C module

Features

- Suitable for Han® C crimp contacts
- Standard module for power up to 40 A
- Compatible to Han® C module with axial screw terminal

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image)

Operating current vs. Ambient temperature

1. 24 B hoods/housings with 6 modules; wire gauge: 4 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 6 mm²
3. 24 B hoods/housings with 6 modules; wire gauge: 10 mm²

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approvals</td>
<td>UL, CE</td>
<td></td>
</tr>
</tbody>
</table>

Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td>acc. to EN 61 984</td>
</tr>
<tr>
<td>Cable diameter up to 5 mm</td>
<td>40 A 400/690 V 6 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>40 A</td>
</tr>
<tr>
<td>Rated voltage conductor - ground</td>
<td>400 V</td>
</tr>
<tr>
<td>Rated voltage conductor - conductor</td>
<td>690 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>6 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cable diameter up to 7.5 mm</th>
<th>40 A 500 V 6 kV 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current</td>
<td>40 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>500 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>6 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
</tbody>
</table>

| Rated voltage acc. to UL/CSA | 600 V |
| Rated current acc. to UL/CSA  | 32 A  |
| Insulation resistance        | ≥ 10¹⁰ Ω          |
| Material                     | polycarbonate    |
| Limiting temperatures        | -40 °C ... +125 °C |
| Flammability acc. to UL 94   | V 0              |
| Mechanical working life      | ≥ 500             |

Contacts

<table>
<thead>
<tr>
<th>Material</th>
<th>copper alloy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>3 µm Ag</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>≤ 0.3 mΩ</td>
</tr>
<tr>
<td>Crimp terminal</td>
<td>mm² 1.5 ... 10</td>
</tr>
<tr>
<td></td>
<td>AWG 16 ... 8</td>
</tr>
</tbody>
</table>
### Han® C module

#### 400 / 690 V 40 A

**Number of contacts**

3

<table>
<thead>
<tr>
<th>Identification</th>
<th>Crimp terminal</th>
<th>Part number</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order crimp contacts separately</td>
<td>09 14 003 3001</td>
<td>09 14 003 3101</td>
<td></td>
<td></td>
<td></td>
<td>914 003 3001 39.1 mm 09 14 003 3002 43.1 mm</td>
</tr>
<tr>
<td>Cable diameter up to 5 mm</td>
<td>09 14 003 3002</td>
<td>09 14 003 3102</td>
<td></td>
<td></td>
<td></td>
<td>914 003 3101 40.7 mm 09 14 003 3102 44.7 mm</td>
</tr>
</tbody>
</table>

Contact arrangement view from termination side

<table>
<thead>
<tr>
<th>Identification</th>
<th>Cable diameter up to 7.5 mm</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power contacts</td>
<td>silver plated</td>
<td>1.5</td>
<td>09 32 000 6104</td>
<td>09 32 000 6204</td>
<td></td>
<td></td>
<td>9 32 000 6104 3104 1.5 9 32 000 6205 3105 2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.5</td>
<td>09 32 000 6105</td>
<td>09 32 000 6205</td>
<td></td>
<td></td>
<td>9 32 000 6106 3106 2.5 9 32 000 6206 3107 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>09 32 000 6107</td>
<td>09 32 000 6207</td>
<td></td>
<td></td>
<td>9 32 000 6108 3108 4 9 32 000 6208 3109 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>09 32 000 6108</td>
<td>09 32 000 6208</td>
<td></td>
<td></td>
<td>9 32 000 6109 3109 6 9 32 000 6209 3110 10*</td>
</tr>
</tbody>
</table>

#### Stripping length

- Stripping length a = 15 mm for cables ≥ 5 mm
- Stripping length a = 18 mm for cables ≥ 6.4 mm

* for modules 09 14 003 3002 and 09 14 003 3102 only
Features

- Suitable for Han® C crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts
- High contact density

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 according to DIN EN 60 512-5

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals

 inserts

Number of contacts
4

Electrical data

acc. to EN 61 984

Rated current
40 A

Rated voltage
830 V

Rated impulse voltage
8 kV

Pollution degree
3

Rated voltage

acc. to UL

600 V

Insulation resistance

≥ 10¹⁰ Ω

Material

polycarbonate

Limiting temperatures

-40 °C ... +125 °C

Flammability acc. to UL 94

V 0

Mechanical working life

- mating cycles

≥ 500

Contacts

Material
copper alloy

Surface

- hard-silver plated

3 µm Ag

Contact resistance

≤ 0.3 mΩ

Crimp terminal

- mm²

1.5 ... 6 mm²

- AWG

16 ... 10

Insulation resistance ≥ 10¹⁰ Ω

Material polycarbonate

Limiting temperatures -40 °C ... +125 °C

Flammability acc. to UL 94 V 0

Mechanical working life ≥ 500

Handles

- hard-silver plated 3 µm Ag

Contact resistance ≤ 0.3 mΩ

Crimp terminal

- mm² 1.5 ... 6 mm²

- AWG 16 ... 10

Ambient temperature

24 B hoods/housings with 6 modules; wire gauge: 4 mm²

24 B hoods/housings with 6 modules; wire gauge: 6 mm²
### Number of contacts

4

### Crimp terminal

Order crimp contacts separately

<table>
<thead>
<tr>
<th>Identification</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td></td>
<td></td>
<td><img src="https://example.com/crimp-terminal.png" alt="Image" /></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09 14 004 3041</td>
<td>09 14 004 3141</td>
<td></td>
<td></td>
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</tbody>
</table>

Contact arrangement view from termination side

### Wire gauge

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge</th>
<th>Part number</th>
<th></th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp contacts</td>
<td></td>
<td></td>
<td><img src="https://example.com/wire-gauge.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Power contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge</th>
<th>Part number</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>silver plated</td>
<td>1.5</td>
<td>09 32 000 6104</td>
<td>09 32 000 6204</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>09 32 000 6105</td>
<td>09 32 000 6205</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>09 32 000 6107</td>
<td>09 32 000 6207</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>09 32 000 6108</td>
<td>09 32 000 6208</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>Ø</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm²</td>
<td>1.75</td>
<td>9 mm</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>2.25</td>
<td>9 mm</td>
</tr>
<tr>
<td>4 mm²</td>
<td>2.85</td>
<td>9.6 mm</td>
</tr>
<tr>
<td>6 mm²</td>
<td>3.5</td>
<td>9.8 mm</td>
</tr>
</tbody>
</table>

Stock items in bold type

---

Han® CC Protected module

830 V 40 A
Features

- 3 contacts (40 A) for power circuits and 4 contacts (10 A) for signal circuits
- Ideal as motor drive connector
- Male and female contacts are finger safe

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>3 / 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td>acc. to EN 61 984</td>
</tr>
<tr>
<td>Power contacts</td>
<td>40 A 830 V 8 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>40 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>830 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Signal contacts</td>
<td>10 A 830 V 8 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>10 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>830 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>acc. to UL</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10^10 Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>- mating cycles</td>
</tr>
</tbody>
</table>

Contacts

| Material               | copper alloy |
|                       |              |
| Surface               |              |
| - hard-silver plated  | 3 µm Ag      |
| - hard-gold plated    | 2 µm Au over 3 µm Ni |
| Contact resistance    |              |
| Power contacts        | ≤ 0.3 mΩ     |
| Signal contacts       | ≤ 3 mΩ       |
| Crimp terminal        |              |
| - mm²                 |              |
| Power contacts        | 1.5 ... 6 mm² |
| Signal contacts       | 0.14 ... 2.5 mm² |
| - AWG                 |              |
| Power contacts        | 16 ... 10    |
| Signal contacts       | 26 ... 14    |
| Max. insulation diameter | - Power contacts | 5 mm |

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image)
## Number of contacts

**3 / 4**

### Crimp Terminal

Order crimp contacts separately

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male insert (M)</td>
<td>Female insert (F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>09 14 007 3001</td>
<td>09 14 007 3101</td>
<td></td>
<td></td>
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</tbody>
</table>

### Wire Gauge

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power contacts</td>
<td>Male contact</td>
<td>Female contact</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>09 15 000 6104</td>
<td>09 15 000 6204</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>09 15 000 6105</td>
<td>09 15 000 6205</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>09 15 000 6107</td>
<td>09 15 000 6207</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>09 15 000 6108</td>
<td>09 15 000 6208</td>
<td></td>
</tr>
</tbody>
</table>

### Signal Contacts

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver plated</td>
<td>Male contact</td>
<td>Female contact</td>
<td></td>
</tr>
<tr>
<td>0.14-0.37</td>
<td>09 15 000 6104</td>
<td>09 15 000 6204</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>09 15 000 6105</td>
<td>09 15 000 6205</td>
<td></td>
</tr>
<tr>
<td>0.75</td>
<td>09 15 000 6106</td>
<td>09 15 000 6206</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>09 15 000 6107</td>
<td>09 15 000 6207</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>09 15 000 6108</td>
<td>09 15 000 6208</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>09 15 000 6109</td>
<td>09 15 000 6209</td>
<td></td>
</tr>
</tbody>
</table>

### Gold Plated

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14-0.37</td>
<td>09 15 000 6114</td>
<td>09 15 000 6214</td>
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</tr>
<tr>
<td>0.5</td>
<td>09 15 000 6115</td>
<td>09 15 000 6215</td>
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<tr>
<td>0.75</td>
<td>09 15 000 6116</td>
<td>09 15 000 6216</td>
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<td>1</td>
<td>09 15 000 6117</td>
<td>09 15 000 6217</td>
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<td>1.5</td>
<td>09 15 000 6118</td>
<td>09 15 000 6218</td>
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</tr>
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<td>2.5</td>
<td>09 15 000 6119</td>
<td>09 15 000 6219</td>
<td></td>
</tr>
</tbody>
</table>

**Stock Items in Bold Type**

---

Han® CD module 830 / 830 V 10 / 40 A
Han E® module

Features

• Suitable for Han E® crimp contacts
• Standard module for power up to 40 A

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals


Inserts

Number of contacts 6
Electrical data
acc. to EN 61 984 16 A 500 V 6 kV 3
Rated current 16 A
Rated voltage 500 V
Rated impulse voltage 6 kV
Pollution degree 3

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance ≥ 10¹⁰ Ω
Material polycarbonate
Limiting temperatures -40 °C ... +125 °C
Flammability acc. to UL 94 V 0
Mechanical working life - mating cycles ≥ 500

Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
- hard-gold plated 2 µm Au over 3 µm Ni
Contact resistance ≤ 1 mΩ
Crimp terminal
- mm² 0.14 ... 4 mm²
- AWG 26 ... 12

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 according to DIN EN 60 512-5

![Diagram of current carrying capacity](image)

- Ambient temperature
  1. 24 B hoods/housings with 6 modules; wire gauge: 2.5 mm²
  2. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
**Han E® module**

500 V 16 A

Number of contacts

6

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crimp contacts</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Power contacts</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>silver plated</td>
<td>0.14-0.37</td>
<td>09 33 000 6127</td>
<td>09 33 000 6227</td>
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</tr>
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<td>0.5</td>
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<td>0.75</td>
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<td>09 33 000 6214</td>
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<td>4</td>
<td>09 33 000 6107</td>
<td>09 33 000 6207</td>
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<tr>
<td>gold plated</td>
<td>0.14-0.37</td>
<td>09 33 000 6117</td>
<td>09 33 000 6217</td>
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<td>09 33 000 6115</td>
<td>09 33 000 6215</td>
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<td>2.5</td>
<td>09 33 000 6123</td>
<td>09 33 000 6223</td>
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<td>4</td>
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<td>09 33 000 6221</td>
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<tr>
<td>Relay contact</td>
<td>silver plated</td>
<td>0.75-1</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001

Stock items in bold type

**Han Modular**
Han® EE module

Features

- Suitable for Han E® crimp contacts
- High contact density
- Compatible to the Han® EE module with Quick Lock terminal

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN EN 61 984</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
</tr>
<tr>
<td>Electrical data acc. to EN 61 984</td>
</tr>
<tr>
<td>Rated current</td>
</tr>
<tr>
<td>Rated voltage</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
</tr>
<tr>
<td>Pollution degree</td>
</tr>
</tbody>
</table>

| Rated voltage acc. to UL | 600 V |
| Insulation resistance | ≥ 10^10 Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

<table>
<thead>
<tr>
<th>Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Surface</td>
</tr>
<tr>
<td>- hard-silver plated</td>
</tr>
<tr>
<td>- hard-gold plated</td>
</tr>
<tr>
<td>Contact resistance</td>
</tr>
<tr>
<td>Crimp terminal - mm²</td>
</tr>
<tr>
<td>- AWG</td>
</tr>
</tbody>
</table>

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 according to DIN EN 60 512-5

![Graph showing the relationship between operating current and ambient temperature.](image)

1. 24 B hoods/housings with 6 modules; wire gauge: 2.5 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
### Number of contacts

8

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td></td>
<td></td>
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<tr>
<td>Order crimp contacts separately</td>
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<td></td>
</tr>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>09 14 008 3101</td>
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Contact arrangement view from termination side

<table>
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<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
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<tr>
<td>Power contacts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>silver plated</td>
<td>0.14-0.37 0.5</td>
<td>09 33 000 6127 09 33 000 6227</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.75 1.5 2.5 3 4</td>
<td>09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107 09 33 000 6204 09 33 000 6205 09 33 000 6206 09 33 000 6207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gold plated</td>
<td>0.14-0.37 0.5 0.75 1 1.5 2.5</td>
<td>09 33 000 6117 09 33 000 6114 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119 09 33 000 6217 09 33 000 6222 09 33 000 6218 09 33 000 6216 09 33 000 6223</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relay contact</td>
<td>silver plated 0.75-1 1.5 2.5</td>
<td>09 33 000 6109 09 33 000 6110 09 33 000 6111</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001

* on the back crimp collar
Features

- Innitative Han-Quick Lock® termination technology
- Field assembly without special tools
- Compatible to Han® EE module with crimp terminal
- Reduced wiring times

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN EN 61 984</td>
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<tr>
<td>Electrical data</td>
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<tr>
<td>acc. to EN 61 984</td>
<td>16 A 400 V 6 kV 3</td>
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<td>Rated current</td>
<td>16 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>400 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>6 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td></td>
</tr>
<tr>
<td>- mating cycles</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

| Contacts                       |                  |
| Material                       | copper alloy      |
| Surface                        |                  |
| - hard-silver plated           | 3 µm Ag          |
| Contact resistance             | ≤ 1 mΩ           |
| Quick Lock termination         |                  |
| - mm²                          | 0.5 ... 2.5 mm²  |
| - AWG                          | 20 ... 14        |

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 according to DIN EN 60 512-5

![Graph](image)

1 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
2 24 B hoods/housings with 6 modules; wire gauge: 2.5 mm²
### Han® EE Quick Lock module

**Number of contacts**

8

<table>
<thead>
<tr>
<th>Identification</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
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<tbody>
<tr>
<td>Quick Lock termination</td>
<td>09 14 008 2633</td>
<td>09 14 008 2733</td>
<td><img src="image" alt="Drawing" /></td>
<td><img src="image" alt="Dimensions" /></td>
</tr>
</tbody>
</table>

*Contact arrangement view from termination side*

**Stock items in bold type**
**Features**

- Suitable for Han E® crimp contacts
- designed for a high working voltage up to 830 V
- finger safe male and female contacts

**Technical characteristics**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
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<td>DIN EN 61 984</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approvals</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
</tr>
<tr>
<td>Electrical data acc. to EN 61 984</td>
</tr>
<tr>
<td>Rated current</td>
</tr>
<tr>
<td>Rated voltage</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
</tr>
<tr>
<td>Pollution degree</td>
</tr>
</tbody>
</table>

| Rated voltage acc. to UL | 600 V |
| Insulation resistance | ≥ 10^10 Ω |
| Material | polycarbonate |
| Limiting temperatures Flammability acc. to UL 94 V 0 | -40 °C ... +125 °C |
| Mechanical working life - mating cycles | ≥ 500 |

<table>
<thead>
<tr>
<th>Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Surface</td>
</tr>
<tr>
<td>- hard-silver plated</td>
</tr>
<tr>
<td>- hard-gold plated</td>
</tr>
<tr>
<td>Contact resistance</td>
</tr>
<tr>
<td>Crimp terminal - mm²</td>
</tr>
<tr>
<td>- AWG</td>
</tr>
</tbody>
</table>

**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 according to DIN EN 60 512-5

![Graph showing current carrying capacity vs. ambient temperature]

1. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 2.5 mm²
3. 24 B hoods/housings with 6 modules; wire gauge: 4 mm²
### Number of contacts

6

### Crimp terminal

**Order crimp contacts separately**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male insert (M)</td>
<td>09 14 006 3041</td>
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</tr>
<tr>
<td>Female insert (F)</td>
<td>09 14 006 3141</td>
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Contact arrangement view from termination side

### Crimp contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td>0.14-0.37</td>
<td>09 33 000 6127</td>
<td>09 33 000 6227</td>
</tr>
<tr>
<td>Power contacts</td>
<td>0.5</td>
<td>09 33 000 6121</td>
<td>09 33 000 6220</td>
</tr>
<tr>
<td></td>
<td>0.75</td>
<td>09 33 000 6114</td>
<td>09 33 000 6214</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>09 33 000 6105</td>
<td>09 33 000 6205</td>
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<tr>
<td></td>
<td>1.5</td>
<td>09 33 000 6104</td>
<td>09 33 000 6204</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>09 33 000 6102</td>
<td>09 33 000 6202</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>09 33 000 6106</td>
<td>09 33 000 6206</td>
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<tr>
<td></td>
<td>4</td>
<td>09 33 000 6107</td>
<td>09 33 000 6207</td>
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<tr>
<td>Relay contacts</td>
<td>0.14-0.37</td>
<td>09 33 000 6117</td>
<td>09 33 000 6217</td>
</tr>
<tr>
<td>Relay contact</td>
<td>0.5</td>
<td>09 33 000 6122</td>
<td>09 33 000 6222</td>
</tr>
<tr>
<td>silver plated</td>
<td>0.75</td>
<td>09 33 000 6115</td>
<td>09 33 000 6215</td>
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<tr>
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<td>1</td>
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<td>09 33 000 6121</td>
<td>09 33 000 6220</td>
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<tr>
<td></td>
<td>0.75</td>
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<td>09 33 000 6204</td>
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<td>4</td>
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### Power contacts

<table>
<thead>
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<tr>
<td></td>
<td>no groove</td>
<td>0.5 mm²</td>
</tr>
<tr>
<td></td>
<td>1 groove*</td>
<td>0.75 mm²</td>
</tr>
<tr>
<td></td>
<td>1 groove</td>
<td>1 mm²</td>
</tr>
<tr>
<td></td>
<td>2 grooves</td>
<td>1.5 mm²</td>
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<tr>
<td></td>
<td>3 grooves</td>
<td>2.5 mm²</td>
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<tr>
<td></td>
<td>wide groove</td>
<td>3 mm²</td>
</tr>
<tr>
<td></td>
<td>no groove</td>
<td>4 mm²</td>
</tr>
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</table>

* on the back crimp collar

Crimp contacts 0.14 … 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001
Han® EEE module

Features

- Suitable for Han E® crimp contacts
- High contact density
- Up to 16 A per contact
- Also suitable as a reliable signal connector

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 according to DIN EN 60 512-5

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
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<tbody>
<tr>
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<td>Rated current</td>
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<td>Rated voltage</td>
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<tr>
<td>Rated impulse voltage</td>
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<tr>
<td>Pollution degree</td>
</tr>
<tr>
<td>Rated voltage acc. to UL</td>
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<tr>
<td>Insulation resistance</td>
</tr>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Limiting temperatures</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
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<td>Mechanical working life - mating cycles</td>
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<tr>
<td>Material</td>
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<tr>
<td>Surface</td>
</tr>
<tr>
<td>- hard-silver plated</td>
</tr>
<tr>
<td>- hard-gold plated over 3 µm Ni</td>
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<tr>
<td>Contact resistance</td>
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<tr>
<td>Crimp terminal - mm²</td>
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<tr>
<td>- AWG</td>
</tr>
</tbody>
</table>

Current carrying capacity curve

Ambient temperature

1. 24 B hoods/housings with 3 modules; wire gauge: 1.5 mm²
2. 24 B hoods/housings with 3 modules; wire gauge: 2.5 mm²
3. 24 B hoods/housings with 3 modules; wire gauge: 4 mm²
Han® EEE module

Number of contacts

20

<table>
<thead>
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<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
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<td>Order crimp contacts separately</td>
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<td>Power contacts</td>
<td>0.14-0.37</td>
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<td>09 33 000 6227</td>
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<tr>
<td>silver plated</td>
<td></td>
<td>0.5</td>
<td>09 33 000 6121</td>
<td>09 33 000 6220</td>
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<tr>
<td></td>
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<td>0.75</td>
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<td>09 33 000 6107</td>
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<td>09 33 000 6222</td>
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<td>0.75-1</td>
<td>09 33 000 6109</td>
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<td>1.5</td>
<td>09 33 000 6110</td>
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<td>2.5</td>
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</tr>
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</table>

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001

Stock items in bold type
Features

- Cage-clamp terminal
- No special tools required

Technical characteristics

Specifications
DIN EN 60 664-1
DIN EN 61 984

Approvals

<table>
<thead>
<tr>
<th>Inserts</th>
<th>Number of contacts</th>
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</tr>
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<tbody>
<tr>
<td>Electrical data</td>
<td>acc. to EN 61 984</td>
<td>16 A 400 V 6 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>16 A</td>
<td></td>
</tr>
<tr>
<td>Rated voltage</td>
<td>400 V</td>
<td></td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>6 kV</td>
<td></td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Rated voltage acc. to UL</td>
<td>600 V</td>
<td></td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
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</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
<td></td>
</tr>
<tr>
<td>Mechanical working life - mating cycles</td>
<td>≥ 500</td>
<td></td>
</tr>
</tbody>
</table>

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 according to DIN EN 60 512-5

![Diagram](image)

1. 24 B hoods/housings with 6 modules; wire gauge: 2.5 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²

Contacts

Material | copper alloy
---|---
Surface - hard-silver plated | 3 µm Ag
Contact resistance | ≤ 3 mΩ
Cage clamp terminal - mm² | 0.14 ... 2.5 mm²
- AWG | 26 ... 14
Number of contacts

5

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Part number Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cage-clamp terminal</td>
<td>09 14 005 2616</td>
<td>09 14 005 2716</td>
<td>Contact arrangement view from termination side</td>
<td></td>
</tr>
</tbody>
</table>

Stock items in bold type
Han® HV module

**Features**
- Suitable for Han E® crimp contacts
- 2 contacts up to 5000 V
- Insulator out of a voltage resistant teflon material
- Combination of all other modules (pneumatic, signal etc.)

**Technical characteristics**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 61 984</th>
<th>DIN VDE 0115</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
</table>

**Approvals**

![Approvals Icon]

**Inserts**
- Number of contacts: 2
- Electrical data:
  - acc. to EN 61 984: 16 A
  - Rated current: 16 A
  - Rated voltage conductor - ground: 2900 V
  - Rated voltage conductor - conductor: 5000 V
  - Rated impulse voltage: 15 kV
- Pollution degree: 3
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: polycarbonate/Teflon (PTFE)
- Limiting temperatures: -40 °C ... +125 °C
- Mechanical working life: ≥ 500

**Contacts**
- Material: copper alloy
- Surface:
  - hard-silver plated: 3 µm Ag
  - hard-gold plated: 2 µm Au over 3 µm Ni
- Contact resistance: ≤ 1 mΩ
- Crimp terminal:
  - mm²: 0.5 ... 4 mm²
  - AWG: 20 ... 12

**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 according to DIN EN 60 512-5

![Current carrying capacity graph]

- Housing Han® 16 B with 1 Han® HV module, wire gauge: 2.5 mm²

**Assembly instructions**

- Han E® Crimp contact
- Locking sleeve
- Cable
- Crimp with BUCHANAN crimping tool
  - 09 99 000 0001
  - Snap crimped cable in the insert
  - Shrink the heat shrink tube over the rear of contact
## Han® HV module

### Number of contacts

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>2</td>
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</tbody>
</table>

### Crimp terminal

Order crimp contacts separately

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
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</thead>
<tbody>
<tr>
<td>Male insert (M)</td>
<td>09 14 002 3021</td>
<td><img src="image" alt="Crimp terminal drawing" /></td>
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<tr>
<td>Female insert (F)</td>
<td>09 14 002 3121</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Range of delivery:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1 module</td>
</tr>
<tr>
<td>- 2 locking sleeves</td>
</tr>
<tr>
<td>- 2 heat shrink tubes</td>
</tr>
</tbody>
</table>

### Removal tool

for locking sleeve

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09 99 000 0327</td>
<td><img src="image" alt="Removal tool drawing" /></td>
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### Wire gauge

<table>
<thead>
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<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male contact</td>
<td>Female contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crimp contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>09 33 000 6121</td>
<td>09 33 000 6220</td>
<td><img src="image" alt="Crimp contacts drawing" /></td>
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</tr>
<tr>
<td>075</td>
<td>09 33 000 6114</td>
<td>09 33 000 6214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>09 33 000 6105</td>
<td>09 33 000 6205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>09 33 000 6104</td>
<td>09 33 000 6204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>09 33 000 6102</td>
<td>09 33 000 6202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>09 33 000 6106</td>
<td>09 33 000 6206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>09 33 000 6107</td>
<td>09 33 000 6207</td>
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<td></td>
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<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>no groove</td>
<td>0.5 mm²</td>
<td>AWG 20</td>
</tr>
<tr>
<td>1 groove*</td>
<td>0.75 mm²</td>
<td>AWG 18</td>
</tr>
<tr>
<td>1 groove</td>
<td>1 mm²</td>
<td>AWG 18</td>
</tr>
<tr>
<td>2 grooves</td>
<td>1.5 mm²</td>
<td>AWG 16</td>
</tr>
<tr>
<td>3 grooves</td>
<td>2.5 mm²</td>
<td>AWG 14</td>
</tr>
<tr>
<td>wide groove</td>
<td>3 mm²</td>
<td>AWG 12</td>
</tr>
<tr>
<td>no groove</td>
<td>4 mm²</td>
<td>AWG 12</td>
</tr>
</tbody>
</table>

* on the back crimp collar

---

*Stock items in bold type*
**Features**

- Suitable for Han® C crimp contacts
- 2 contacts up to 5000 V
- Insulator out of a voltage resistant teflon material
- Combination of all other modules (pneumatic, signal etc.)

**Technical characteristics**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 61 984</th>
<th>DIN VDE 0115</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
</table>

**Inserts**

- Number of contacts: 2
- Electrical data: 40 A, 2900/5000 V, 15 kV, 3
- Rated current: 40 A
- Rated voltage conductor - ground: 2900 V
- Rated voltage conductor - conductor: 5000 V
- Rated impulse voltage: 15 kV
- Pollution degree: 3
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: Polycarbonate/Teflon (PTFE)
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94: V 0
- Max. cable diameter: 9 mm
- Mechanical working life: ≥ 500

**Contacts**

- Material: Copper alloy
- Surface: Hard-silver plated 3 µm Ag
- Contact resistance: ≤ 0.3 mΩ
- Crimp terminal: 1.5 ... 10 mm², 16 ... 8 AWG

**Assembly instructions**

Crimp with tool 0999 000 0001, 0999 000 0110 or 0999 000 0377
Snap crimped cable in the insert
Shrink the heat shrink tube over the rear of contact
### Han® HV module

2900 / 5000 V  40 A

**Number of contacts**

2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Crimp terminal</th>
<th>Order crimp contacts separately</th>
<th>09 14 002 3023</th>
<th>09 14 002 3123</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of delivery:</td>
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<tr>
<td>- 1 module</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 2 locking sleeves</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 2 heat shrink tubes</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Removal tool</th>
<th>for locking sleeve</th>
<th>09 99 000 0327</th>
<th>09 99 000 0327</th>
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</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Crimp contacts</th>
<th>Power contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>silver plated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>09 32 000 6104</td>
<td>09 32 000 6105</td>
<td>09 32 000 6106</td>
</tr>
<tr>
<td>2.5</td>
<td>09 32 000 6105</td>
<td>09 32 000 6105</td>
<td>09 32 000 6105</td>
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<td>4</td>
<td>09 32 000 6108</td>
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<tr>
<td>6</td>
<td>09 32 000 6108</td>
<td>09 32 000 6108</td>
<td>09 32 000 6108</td>
</tr>
<tr>
<td>10</td>
<td>09 32 000 6109</td>
<td>09 32 000 6109</td>
<td>09 32 000 6109</td>
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</table>

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>Ø</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm²</td>
<td>1.75</td>
<td>13 mm</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>2.25</td>
<td>13 mm</td>
</tr>
<tr>
<td>4 mm²</td>
<td>2.85</td>
<td>13 mm</td>
</tr>
<tr>
<td>6 mm²</td>
<td>3.5</td>
<td>13 mm</td>
</tr>
<tr>
<td>10 mm²</td>
<td>4.3</td>
<td>13 mm</td>
</tr>
</tbody>
</table>

*Stock items in bold type*
Han DD® module

Features

• Suitable for Han D® crimp contacts
• Standard module for power up to 10 A

Technical characteristics

Specifications

DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts: 12
Electrical data: acc. to EN 61 984
Rated current: 10 A
Rated voltage: 250 V
Rated impulse voltage: 4 kV
Pollution degree: 3

Rated voltage: acc. to UL/CSA 600 V
Insulation resistance: ≥ 10¹⁰ Ω
Material: polycarbonate
Limiting temperatures: -40 °C ... +125 °C
Flammability acc. to UL 94 V 0
Mechanical working life - mating cycles: ≥ 500

Contacts

Material: copper alloy
Surface: - hard-silver plated 3 µm Ag
- hard-gold plated 2 µm Au over 3 µm Ni
Contact resistance: ≤ 3 mΩ
Crimp terminal: - mm²: 0.14 ... 2.5 mm²
- AWG: 26 ... 14

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 according to DIN EN 60 512-5

![Current carrying capacity graph]

Ambient temperature

1. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 1.0 mm²
### Han DD® module

#### 250 V 10 A

**Number of contacts**

12

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td></td>
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</tr>
<tr>
<td>Order crimp contacts separately</td>
<td>09 14 012 3001</td>
<td>09 14 012 3101</td>
<td></td>
</tr>
</tbody>
</table>

#### Wire gauge

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>silver plated</td>
<td>0.14-0.37</td>
<td>09 15 000 6104</td>
<td>09 15 000 6204</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>09 15 000 6103</td>
<td>09 15 000 6203</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.75</td>
<td>09 15 000 6105</td>
<td>09 15 000 6205</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>09 15 000 6102</td>
<td>09 15 000 6202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>09 15 000 6101</td>
<td>09 15 000 6201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>09 15 000 6106</td>
<td>09 15 000 6206</td>
<td></td>
</tr>
<tr>
<td>gold plated</td>
<td>0.14-0.37</td>
<td>09 15 000 6124</td>
<td>09 15 000 6224</td>
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</tr>
<tr>
<td></td>
<td>0.5</td>
<td>09 15 000 6123</td>
<td>09 15 000 6223</td>
<td></td>
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<td></td>
<td>0.75</td>
<td>09 15 000 6125</td>
<td>09 15 000 6225</td>
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<td></td>
<td>1</td>
<td>09 15 000 6122</td>
<td>09 15 000 6222</td>
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<td>1.5</td>
<td>09 15 000 6121</td>
<td>09 15 000 6221</td>
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<td>2.5</td>
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<td>F.O. contacts</td>
<td></td>
<td>20 10 001 3211</td>
<td>20 10 001 3221</td>
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</table>

#### Stock items in bold type

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>Stripping length</th>
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<tbody>
<tr>
<td>0.14-0.37 mm²</td>
<td>0.9 mm</td>
</tr>
<tr>
<td>0.5 mm²</td>
<td>1.1 mm</td>
</tr>
<tr>
<td>0.75 mm²</td>
<td>1.3 mm</td>
</tr>
<tr>
<td>1 mm²</td>
<td>1.45 mm</td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>1.75 mm</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>2.25 mm</td>
</tr>
</tbody>
</table>

*F.O.* contacts for 1 mm plastic fibre
Han DD® Quick Lock module

Features

- Innovative Han-Quick Lock® termination technology
- Field assembly without special tools
- Mating compatible with standard Han® DD module with crimp terminal
- Reduced wiring times

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
</table>

Inserts

- Number of contacts: 12
- Electrical data:
  - acc. to EN 61 984: 10 A, 250 V, 4 kV, 3
  - Rated current: 10 A
  - Rated voltage: 250 V
  - Rated impulse voltage: 4 kV
  - Pollution degree: 3
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: polycarbonate
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94: V-0
- Mechanical working life - mating cycles

Contacts

- Material: copper alloy
- Surface:
  - hard-silver plated: 3 µm Ag
- Contact resistance: ≤ 3 mΩ
- Quick Lock termination:
  - mm²: 0.25 ... 1.5 mm²
  - AWG: 22 ... 16

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity vs. ambient temperature]

1. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
Han DD® Quick Lock module

Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Part number Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
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<tbody>
<tr>
<td>Quick Lock termination</td>
<td>09 14 012 2632</td>
<td>09 14 012 2732</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact arrangement view from termination side
**Han® DDD module**

### Features

- Suitable for Han D® crimp contacts
- High contact density

### Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
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<tbody>
<tr>
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<td>DIN EN 61 984</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Inserts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
<td>17</td>
</tr>
<tr>
<td>Electrical data</td>
<td></td>
</tr>
<tr>
<td>acc. to EN 61 984</td>
<td>10 A 160 V 2.5 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>10 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>160 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>2.5 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
</tbody>
</table>

| Rated voltage acc. to UL| 250 V                |
| Insulation resistance   | \( \geq 10^{10} \) Ω |
| Material                | polycarbonate        |
| Limiting temperatures   | -40 °C ... +125 °C   |
| Flammability acc. to UL 94 | V 0               |
| Mechanical working life | ≥ 500                |

<table>
<thead>
<tr>
<th>Contacts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>copper alloy</td>
</tr>
<tr>
<td>Surface</td>
<td></td>
</tr>
<tr>
<td>- hard-silver plated</td>
<td>3 µm Ag</td>
</tr>
<tr>
<td>- hard-gold plated</td>
<td>2 µm Au over 3 µm Ni</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>≤ 3 mΩ</td>
</tr>
<tr>
<td>Crimp terminal</td>
<td></td>
</tr>
<tr>
<td>- mm²</td>
<td>0.14 ... 2.5 mm²</td>
</tr>
<tr>
<td>- AWG</td>
<td>26 ... 14</td>
</tr>
</tbody>
</table>

### 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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image)

1. 24 B hoods/housings with 6 modules; wire gauge: 1.5 mm²
2. 24 B hoods/housings with 6 modules; wire gauge: 1.0 mm²
### Han® DDD module

**Number of contacts**

17

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td>09 14 017 3001</td>
<td>09 14 017 3101</td>
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</table>

Order crimp contacts separately

<table>
<thead>
<tr>
<th>Crimp contacts</th>
<th>Power contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire gauge (mm²)</td>
<td>Male contact</td>
</tr>
<tr>
<td>silver plated</td>
<td>0.14-0.37</td>
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<tr>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>0.75</td>
</tr>
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<td>1</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>2.5</td>
</tr>
<tr>
<td>gold plated</td>
<td>0.14-0.37</td>
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<td>0.5</td>
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<td>1.5</td>
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<tr>
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<td>2.5</td>
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</table>

<table>
<thead>
<tr>
<th>Wire gauge</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14-0.37 mm²</td>
<td>AWG 26-22</td>
</tr>
<tr>
<td>0.5 mm²</td>
<td>AWG 20</td>
</tr>
<tr>
<td>0.75 mm²</td>
<td>AWG 18</td>
</tr>
<tr>
<td>1 mm²</td>
<td>AWG 18</td>
</tr>
<tr>
<td>1.5 mm²</td>
<td>AWG 16</td>
</tr>
<tr>
<td>2.5 mm²</td>
<td>AWG 14</td>
</tr>
</tbody>
</table>

F.O. contacts

for 1 mm plastic fibre

<table>
<thead>
<tr>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 10 001 3211</td>
</tr>
</tbody>
</table>

Stock items in bold type
Features

- Suitable for D-Sub crimp contacts
- High contact density
- Using of guiding pins (male and female) is recommended (see chapter 40).

Technical characteristics

Specifications

- DIN EN 60 664-1
- DIN EN 61 984

Inserts

- Number of contacts: 25
- Electrical data: 4 A, 50 V, 0.8 kV, 3
- Rated current: 4 A
- Rated voltage: 50 V
- Rated impulse voltage: 0.8 kV
- Pollution degree: 3
- Insulation resistance: ≥ 10^{10} Ω
- Material: polycarbonate
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94: V 0
- Mechanical working life: ≥ 500

Contacts

- Crimp terminal:
  - mm²: 0.08 ... 0.52 mm²
  - AWG: 28 ... 20
- turned contacts:
  - Performance level 1
  - as per CECC 75 301-802,
  - 500 mating cycles,
  - 10 days 4 mixed gas test -
  - IEC 60 512

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 according to DIN EN 60 512-5

![Graph showing current carrying capacity](image-url)
### Crimp terminal

**Order crimp contacts separately**

<table>
<thead>
<tr>
<th>Crimp terminal</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09 14 025 3001</td>
<td>09 14 025 3101</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact arrangement view from termination side

### D-Sub crimp contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-Sub crimp contacts</td>
<td>0.08-0.21</td>
<td>61 03 000 0078</td>
<td>61 03 000 0080</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.13-0.33</td>
<td>61 03 000 0094</td>
<td>61 03 000 0096</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.33-0.52</td>
<td>61 03 000 0073</td>
<td>61 03 000 0074</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Order crimp contacts separately**

<table>
<thead>
<tr>
<th>Insertion / Removal tool for D-Sub crimp contacts</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09 99 000 0368</td>
<td>09 99 000 0368</td>
<td></td>
</tr>
</tbody>
</table>

### Wire gauge

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Stripping length</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08-0.21 mm²</td>
<td>AWG 28-24</td>
</tr>
<tr>
<td>0.13-0.33 mm²</td>
<td>AWG 26-22</td>
</tr>
<tr>
<td>0.33-0.52 mm²</td>
<td>AWG 22-20</td>
</tr>
</tbody>
</table>

**Dimensions in mm**

- 5 mm
Features

- 9-pin D-Sub connector of the Han-Modular® system
- Ideal for the transmission of sensitive signals
- Compatible to crimp, solder or IDC termination
- Using of guiding pins (male and female) is recommended (see chapter 40).

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN EN 61 984</td>
</tr>
</tbody>
</table>

Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td></td>
</tr>
<tr>
<td>acc. to EN 61 984</td>
<td>5 A 50 V 0.8 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>5 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>50 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>$\geq 10^{10}$ Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
<tr>
<td>- mating cycles</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>
# Han® D-Sub module

## Number of contacts

9

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crimp terminal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order crimp contacts separately (see page 06.65)</td>
<td>09 14 009 3001</td>
<td>09 14 009 3101</td>
<td></td>
</tr>
<tr>
<td><strong>Adapter module without D-Sub insert</strong></td>
<td>09 14 000 9930</td>
<td>09 14 000 9931</td>
<td></td>
</tr>
<tr>
<td>for one cable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for two cables</td>
<td>09 14 000 9932</td>
<td>09 14 000 9933</td>
<td></td>
</tr>
<tr>
<td><strong>Screw terminal</strong></td>
<td></td>
<td>09 14 009 3151</td>
<td></td>
</tr>
<tr>
<td>for RS 485-based bus systems with T-functionality</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact arrangement view from termination side

<table>
<thead>
<tr>
<th>Signal</th>
<th>Contact no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
</tbody>
</table>
Features

- According to USB 2.0 specification
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

Technical characteristics

**Specifications**

<table>
<thead>
<tr>
<th>DIN EN 60 664-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN EN 61 984</td>
</tr>
</tbody>
</table>

**Inserts**

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td>1 A 50 V 0.8 kV 3</td>
</tr>
<tr>
<td>acc. to EN 61 984</td>
<td>1 A</td>
</tr>
<tr>
<td>Rated current</td>
<td>50 V</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +85 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

- mating cycles ≥ 500
### Han® USB module

#### Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module for patch cable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male insert</td>
<td>09 14 001 4601</td>
<td><img src="/images/han_usb_drawing_1.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td><strong>Module for patch cable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female insert</td>
<td>09 14 001 4701</td>
<td><img src="/images/han_usb_drawing_2.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td><strong>Module for screw termination</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male insert</td>
<td>09 14 001 4651</td>
<td><img src="/images/han_usb_drawing_3.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td><strong>Patch cable USB</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male / male</td>
<td>2 m 39 50 903 0050</td>
<td><img src="/images/han_usb_drawing_4.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td>Style A</td>
<td>2 m 39 50 903 0050</td>
<td><img src="/images/han_usb_drawing_5.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 m 39 50 903 0051</td>
<td><img src="/images/han_usb_drawing_6.png" alt="Drawing" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 m 39 50 903 0051</td>
<td><img src="/images/han_usb_drawing_7.png" alt="Drawing" /></td>
<td></td>
</tr>
</tbody>
</table>

*Stock items in bold type*
## Han® FireWire module

### Features
- Compatibel to IEEE 1394
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

### Technical characteristics

#### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

#### Inserts
<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data</td>
<td>1 A, 50 V, 0.8 kV, 3</td>
</tr>
<tr>
<td>acc. to EN 61 984</td>
<td></td>
</tr>
<tr>
<td>Rated current</td>
<td>1 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>50 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>( \geq 10^{10} ) ( \Omega )</td>
</tr>
<tr>
<td>Material</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +85 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
<tr>
<td>- mating cycles</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>
Han® FireWire module

Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module for patch cable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male insert</td>
<td>09 14 001 4611</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female insert</td>
<td>09 14 001 4711</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stock items in bold type
### Features

- Single module with standard shielded RJ45 plug and jack
- Cat 5e for all data pairs (all 8 pins)
- Conforming to the RoHS directive
- The RJ45 inserts are protected by a reliable plastic insulator
- Patch cables are assembled/removed without tools

### Technical characteristics

#### Specifications

<table>
<thead>
<tr>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
</table>

#### Inserts

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical data acc. to EN 61 984</td>
<td>1 A 50 V 0.8 kV 3</td>
</tr>
<tr>
<td>Rated current</td>
<td>1 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>50 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
<tr>
<td>Transmission features</td>
<td>Category 5 / Class D up to 100 MHz; acc. to ISO/IEC 11 801:2002 and EN 50 173-1</td>
</tr>
<tr>
<td>Transmission rate</td>
<td>10/100 Mbit/s</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
</tr>
<tr>
<td>Material</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +85 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life - mating cycles</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>
## Han® RJ45 module

### Number of contacts

8

<table>
<thead>
<tr>
<th>Identification</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Changer for patch cable</td>
<td></td>
<td>09 14 001 4721</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male insert for patch cable</td>
<td>09 14 001 4623</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adapter for HARTING patch cable</td>
<td>09 14 000 9966</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Han® RJ45 module Patch cables

## Features
- Locking lever protection for RJ45 connector latch
- Very short plug design in combination with robust bend protection
- RoHS compliant
- Fully EMC screened (aluminium-clad foil and braid)

## Technical characteristics

|----------------|----------------|----------------|------------------|

### Cat. 5 e RJ45 patch cable

<table>
<thead>
<tr>
<th>Transmission features</th>
<th>Category 5 / Class D up to 100 MHz; acc. to ISO/IEC 24 702 or ISO/IEC 11 801</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission rate</td>
<td>10/100/1000 Mbit/s</td>
</tr>
<tr>
<td>Cable type</td>
<td>1:1 EIA/TIA 568 B, 8 poles</td>
</tr>
<tr>
<td>Material cables</td>
<td>SF/UTP, PUR, yellow</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td></td>
</tr>
<tr>
<td>- mobile</td>
<td>0 °C ... +60 °C</td>
</tr>
<tr>
<td>- stationary</td>
<td>-40 °C ... +80 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>flame retardant, halogen-free</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 20</td>
</tr>
</tbody>
</table>

### Cat. 6 RJ45 patch cable

<table>
<thead>
<tr>
<th>Transmission features</th>
<th>Category 6 / Class E up to 250 MHz; acc. to ISO/IEC 24 702 or ISO/IEC 11 801</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission rate</td>
<td>10/1000 Mbit/s</td>
</tr>
<tr>
<td>Cable type</td>
<td>1:1 EIA/TIA 568 B, 8 poles</td>
</tr>
<tr>
<td>Material cables</td>
<td>SF/UTP, PUR, yellow</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td></td>
</tr>
<tr>
<td>- mobile</td>
<td>0 °C ... +60 °C</td>
</tr>
<tr>
<td>- stationary</td>
<td>-20 °C ... +80 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>flame retardant, halogen-free</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 20</td>
</tr>
</tbody>
</table>
Han® RJ45 module Patch cables

Number of contacts

8

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cat. 5e RJ45 patch cable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>Part number</td>
<td>Drawing</td>
<td>Dimensions in mm</td>
</tr>
<tr>
<td>0.2 m</td>
<td>09 47 474 7001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.3 m</td>
<td>09 47 474 7002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4 m</td>
<td>09 47 474 7003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5 m</td>
<td>09 47 474 7004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.6 m</td>
<td>09 47 474 7005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.7 m</td>
<td>09 47 474 7006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.8 m</td>
<td>09 47 474 7007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.9 m</td>
<td>09 47 474 7008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0 m</td>
<td>09 47 474 7009</td>
<td></td>
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</tr>
<tr>
<td>1.5 m</td>
<td>09 47 474 7010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0 m</td>
<td>09 47 474 7011</td>
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<td></td>
</tr>
<tr>
<td>2.5 m</td>
<td>09 47 474 7012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0 m</td>
<td>09 47 474 7013</td>
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</tr>
<tr>
<td>4.0 m</td>
<td>09 47 474 7014</td>
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<td></td>
</tr>
<tr>
<td>5.0 m</td>
<td>09 47 474 7015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 m</td>
<td>09 47 474 7016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.0 m</td>
<td>09 47 474 7017</td>
<td></td>
<td></td>
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<tr>
<td>7.5 m</td>
<td>09 47 474 7018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.0 m</td>
<td>09 47 474 7019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.0 m</td>
<td>09 47 474 7020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 m</td>
<td>09 47 474 7021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 m</td>
<td>09 47 474 7022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 m</td>
<td>09 47 474 7023</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Cat. 6 RJ45 patch cable** | | |
| Length          | Part number | Drawing | Dimensions in mm |
| 0.2 m           | 09 47 474 7101 | | |
| 0.3 m           | 09 47 474 7102 | | |
| 0.4 m           | 09 47 474 7103 | | |
| 0.5 m           | 09 47 474 7104 | | |
| 0.6 m           | 09 47 474 7105 | | |
| 0.7 m           | 09 47 474 7106 | | |
| 0.8 m           | 09 47 474 7107 | | |
| 0.9 m           | 09 47 474 7108 | | |
| 1.0 m           | 09 47 474 7109 | | |
| 1.5 m           | 09 47 474 7110 | | |
| 2.0 m           | 09 47 474 7111 | | |
| 2.5 m           | 09 47 474 7112 | | |
| 3.0 m           | 09 47 474 7113 | | |
| 4.0 m           | 09 47 474 7114 | | |
| 5.0 m           | 09 47 474 7115 | | |
| 6.0 m           | 09 47 474 7116 | | |
| 7.0 m           | 09 47 474 7117 | | |
| 7.5 m           | 09 47 474 7118 | | |
| 8.0 m           | 09 47 474 7119 | | |
| 9.0 m           | 09 47 474 7120 | | |
| 10 m            | 09 47 474 7121 | | |
| 15 m            | 09 47 474 7122 | | |
| 20 m            | 09 47 474 7123 | | |

Stock items in bold type
Features

Han-Modular® RJ Industrial RJ45 connector set
- Conforming to the RoHS directive
- 360° shielded contact
- Field assembly without tools possible by means of HARAX® rapid termination in IDC technology
- Suitable for termination of massive and flexible wires

Han-Modular® RJ Industrial Gigalink RJ45 connector set
- Conforming to the RoHS directive
- 360° shielded contact
- Field assembly by means of piercing contacts
- Suitable for termination of flexible wires

Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>IEC 60 603-7</th>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
</table>

HARTING RJ Industrial®, 4 pins

Number of contacts: 4
Transmission features: Category 5 / Class D up to 100 MHz; acc. to ISO/IEC 11 801:2002 and EN 50 173-1
Transmission rate: 10/100 Mbit/s
Wire termination: IDC contacts; without tools
Terminated cable:
- Conductor cross section:
  - flexible: AWG 24/7 ... AWG 22/7
  - solid: AWG 23/1 ... AWG 22/1
- Cable outside diameter: ≤ 1.6 mm
Material insert: polyamide
Limiting temperatures: -40 °C ... +70 °C

HARTING RJ Industrial® Gigalink, 8 pins

Number of contacts: 8
Transmission features: Category 6 / Class E up to 250 MHz; acc. to ISO/IEC 11 801:2002 and EN 50 173-1
Transmission rate: 10/100/1000 Mbit/s
Wire termination: Piercing contacts
Terminated cable:
- Conductor cross section:
  - flexible: AWG 28/7 ... AWG 24/7
  - Cable outside diameter: ≤ 1.05 mm
- Material insert: polyamide
- Limiting temperatures: -40 °C ... +70 °C

HARTING RJ Industrial® 10G, 8 pins

Number of contacts: 8
Transmission features: Category 6 / Class E up to 250 MHz; acc. to ISO/IEC 11 801:2002 and EN 50 173-1
Transmission rate: 10/100/1000 Mbit/s
Wire termination: IDC contacts; without tools
Terminated cable:
- Conductor cross section:
  - flexible: AWG 27/7 ... AWG 22/7
  - solid: AWG 27/1 ... AWG 22/1
- Cable outside diameter: ≤ 1.5 mm
- Material insert: polyamide
- Limiting temperatures: -40 °C ... +70 °C
Han® RJ45 module  
RJ Industrial

Number of contacts
4 / 8

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Han-Modular® RJ Industrial RJ45 connector set</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cat. 5</td>
<td>09 45 400 1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 pins for AWG 24 ... 22</td>
<td>09 45 400 1109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 pins for AWG 26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cat. 6</td>
<td>09 45 400 1500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gigalink, 8 pins</td>
<td>09 45 400 1510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gigalink, 8 pins</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cat. 6</td>
<td>09 45 400 1560</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10G, 8 pins</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HARTING RJ Industrial® Gigalink Assembly tool

<table>
<thead>
<tr>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 45 800 0500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Set consists of the relevant RJ45 insert and the suitable adapter for Han® RJ45 module, male, part number 09 14 001 4623

* usable with male insert 09 14 001 4623 (see page 06.73)
# Han® GigaBit module

## Features
- Shielding bus separate from housing potential
- Ideal for the transmission of sensitive signals (e.g. bus signals)
- Usable for Gigabit Ethernet Cat. 6

## Technical characteristics

### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

### Inserts
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
<td>8</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10^10 Ω</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

### GigaBit contacts
- Number of contacts: 8 + shielding

### Electrical data
- acc. to EN 61 984
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current</td>
<td>5 A</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>50 V</td>
</tr>
<tr>
<td>Rated impulse voltage</td>
<td>0.8 kV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>3</td>
</tr>
</tbody>
</table>

### Material
- Insulator: polycarbonate
- Outer conductor: zinc alloy
- Contact resistance: ≤ 4 mΩ
- Limiting temperatures: -40 °C ... +85 °C
- Flammability acc. to UL 94: V 0
- Outer surface finish: nickel
- Cable diameter: 5 ... 12 mm

### D-Sub crimp contacts
- Crimp terminal
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm²</td>
<td>0.08 ... 0.52 mm²</td>
</tr>
<tr>
<td>AWG</td>
<td>28 ... 20</td>
</tr>
</tbody>
</table>
- turned contacts: Performance level 1
## GigaBit Contacts

### Identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>GigaBit contacts</td>
<td>08-0.21</td>
<td>09 14 008 3011</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0.13-0.33</td>
<td>61 03 000 0094</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0.33-0.52</td>
<td>61 03 000 0073</td>
<td>M</td>
</tr>
<tr>
<td>D-Sub crimp contacts</td>
<td>08-0.21</td>
<td>09 14 008 3111</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0.13-0.33</td>
<td>61 03 000 0096</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0.33-0.52</td>
<td>61 03 000 0074</td>
<td>M</td>
</tr>
</tbody>
</table>

### Dimensions in mm

<table>
<thead>
<tr>
<th></th>
<th>Stripping length</th>
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</thead>
<tbody>
<tr>
<td>0.08-0.21 mm²</td>
<td>AWG 28-24</td>
</tr>
<tr>
<td>0.13-0.33 mm²</td>
<td>AWG 26-22</td>
</tr>
<tr>
<td>0.33-0.52 mm²</td>
<td>AWG 22-20</td>
</tr>
</tbody>
</table>

#### Stock items in bold type
### Han® GigaBit module / Accessories

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crimp flange</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D1 D2</td>
<td>61 03 000 0062</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.0 4.0</td>
<td>61 03 000 0063</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.5 4.5</td>
<td>61 03 000 0064</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.0 5.0</td>
<td>61 03 000 0065</td>
<td></td>
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<tr>
<td></td>
<td>4.5 5.5</td>
<td>61 03 000 0066</td>
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<td></td>
<td>5.0 6.0</td>
<td>61 03 000 0166</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.5 6.5</td>
<td>61 03 000 0067</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.0 7.0</td>
<td>61 03 000 0068</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.5 7.5</td>
<td>61 03 000 0069</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.0 8.0</td>
<td>61 03 000 0070</td>
<td></td>
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<tr>
<td></td>
<td>7.5 8.5</td>
<td>61 03 000 0071</td>
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<td></td>
<td>8.0 9.0</td>
<td>61 03 000 0165</td>
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<td></td>
<td>8.5 9.5</td>
<td>61 03 000 0072</td>
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</tr>
<tr>
<td></td>
<td>9.0 10.0</td>
<td>61 03 000 0073</td>
<td></td>
</tr>
<tr>
<td><strong>Crimp ferrule</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>D3 D4</td>
<td>61 03 000 0052</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.0 6.0</td>
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<td>5.5 6.5</td>
<td>61 03 000 0046</td>
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<td>6.0 7.0</td>
<td>61 03 000 0047</td>
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<td>6.5 7.5</td>
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<td>7.0 8.0</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>7.5 8.5</td>
<td>61 03 000 0050</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.0 9.0</td>
<td>61 03 000 0051</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.5 9.5</td>
<td>61 03 000 0054</td>
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<tr>
<td></td>
<td>9.0 10.0</td>
<td>61 03 000 0055</td>
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<td></td>
<td>9.5 10.5</td>
<td>61 03 000 0056</td>
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<td></td>
<td>10.0 11.0</td>
<td>61 03 000 0057</td>
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<td></td>
<td>10.5 11.5</td>
<td>61 03 000 0058</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.0 12.0</td>
<td>61 03 000 0142</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.5 12.5</td>
<td>61 03 000 0059</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.0 13.0</td>
<td>61 03 000 0127</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.5 13.5</td>
<td>61 03 000 0143</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.0 14.0</td>
<td>61 03 000 0141</td>
<td></td>
</tr>
<tr>
<td><strong>Cable clamp</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>cable diameter approx. 5 … 7 mm</td>
<td>61 03 000 0141</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cable diameter approx. 7 … 10 mm</td>
<td>61 03 000 0044</td>
<td></td>
</tr>
<tr>
<td></td>
<td>cable diameter approx. 10 … 12 mm</td>
<td>61 03 000 0143</td>
<td></td>
</tr>
</tbody>
</table>

*Stock items in bold type*
## Features

- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals (eg. bus signals)
- The four pole Han® Quintax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.

## Technical characteristics

<table>
<thead>
<tr>
<th>Specifications</th>
<th>DIN EN 60 664-1</th>
<th>DIN EN 61 984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approvals</td>
<td>ÚL 94</td>
<td></td>
</tr>
<tr>
<td>Inserts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of contacts</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>≥ 10¹⁰ Ω</td>
<td></td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
<td></td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +125 °C</td>
<td></td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
<td></td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
<td></td>
</tr>
</tbody>
</table>

### Quintax contacts

<table>
<thead>
<tr>
<th>Number of contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Quintax 4 + shielding</td>
</tr>
<tr>
<td>- High Density Quintax 8 + shielding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical data acc. to EN 61 984</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Quintax 10 A 50 V 0.8 kV 3</td>
</tr>
<tr>
<td>- High Density Quintax 5 A 50 V 0.8 kV 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated current</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 A / 5 A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rated impulse voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8 kV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollution degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulator polycarbonate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 4 mΩ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limiting temperatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40 °C ... +85 °C</td>
</tr>
</tbody>
</table>

### Han D® contacts

<table>
<thead>
<tr>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>copper alloy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>- hard-gold plated 2 µm Au over 3 µm Ni</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 3 mΩ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crimp terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>- mm² 0.14 ... 2.5 mm²</td>
</tr>
<tr>
<td>- AWG 26 ... 14</td>
</tr>
</tbody>
</table>

### D-Sub crimp contacts

<table>
<thead>
<tr>
<th>Crimp terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>- mm² 0.08 ... 0.52 mm²</td>
</tr>
<tr>
<td>- AWG 28 ... 20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>turned contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance level 1</td>
</tr>
</tbody>
</table>
## Han-Quintax® module

### Number of contacts

2

### Crimp terminal

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male insert (M)</td>
<td>09 14 002 3001</td>
<td>![Crimp terminal drawing]</td>
<td></td>
</tr>
<tr>
<td>Female insert (F)</td>
<td>09 14 002 3101</td>
<td>![Crimp terminal drawing]</td>
<td></td>
</tr>
</tbody>
</table>

### Quintax metal adapter option

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09 14 000 9915</td>
<td>![Crimp terminal drawing]</td>
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</tbody>
</table>

### Wire gauge

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
</table>

#### Quintax contact

4 + shielding

Han D® crimp contacts

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14-0.37</td>
<td>09 15 004 3013</td>
<td>09 15 004 3113</td>
<td>![Quintax contact drawing]</td>
<td></td>
</tr>
</tbody>
</table>

**Han D® Crimp contact gold plated**

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>09 15 000 6124</td>
<td>09 15 000 6224</td>
<td>![Quintax contact drawing]</td>
<td></td>
</tr>
<tr>
<td>0.75</td>
<td>09 15 000 6125</td>
<td>09 15 000 6225</td>
<td>![Quintax contact drawing]</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>09 15 000 6122</td>
<td>09 15 000 6222</td>
<td>![Quintax contact drawing]</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>09 15 000 6121</td>
<td>09 15 000 6221</td>
<td>![Quintax contact drawing]</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>09 15 000 6126</td>
<td>09 15 000 6226</td>
<td>![Quintax contact drawing]</td>
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</tr>
</tbody>
</table>

#### High Density Quintax contact

8 + shielding

Han® D-Sub contacts

<table>
<thead>
<tr>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 15 008 3013</td>
<td>![High Density Quintax contact drawing]</td>
<td></td>
</tr>
</tbody>
</table>

**D-Sub crimp contact**

<table>
<thead>
<tr>
<th>Wire gauge (mm²)</th>
<th>Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.08-0.21</td>
<td>61 03 000 0078</td>
<td>61 03 000 0080</td>
<td>![D-Sub crimp contact drawing]</td>
<td></td>
</tr>
<tr>
<td>0.13-0.33</td>
<td>61 03 000 0094</td>
<td>61 03 000 0096</td>
<td>![D-Sub crimp contact drawing]</td>
<td></td>
</tr>
<tr>
<td>0.33-0.52</td>
<td>61 03 000 0073</td>
<td>61 03 000 0074</td>
<td>![D-Sub crimp contact drawing]</td>
<td></td>
</tr>
</tbody>
</table>

Order crimp contacts separately

*Stock items in bold type*
Han® Coax module

Features

• Well known Quintax concept
• Suitable for contacts with large diameters
• Han E® coax is applicable to the ETCS Eurobalise cable

RF transmission characteristics

Impedance 75 Ω

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 MHz</td>
<td>0.69</td>
</tr>
<tr>
<td>3 GHz</td>
<td>0.31</td>
</tr>
<tr>
<td>6 GHz</td>
<td>0.35</td>
</tr>
<tr>
<td>8 GHz</td>
<td>0.34</td>
</tr>
<tr>
<td>10 GHz</td>
<td>0.32</td>
</tr>
</tbody>
</table>

- 75 Ω cable
- 75 Ω cable with Han D® Coax
- 75 Ω coax cable diameter shielding: 7.3 mm

Impedance 50 Ω

Han E® Coax with ETCS S21 Eurobalise cable (4 mm²)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Return loss [db]</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 MHz</td>
<td>2.3</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Han E® Coax with RG 213 cable (2.5 mm²)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Return loss [db]</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 MHz</td>
<td>23.8</td>
<td>0.07</td>
</tr>
<tr>
<td>500 MHz</td>
<td>21.1</td>
<td>0.11</td>
</tr>
<tr>
<td>1 GHz</td>
<td>18.7</td>
<td>0.17</td>
</tr>
<tr>
<td>1.2 GHz</td>
<td>&gt;17.7</td>
<td>0.2</td>
</tr>
<tr>
<td>1.5 GHz</td>
<td>&gt;16.4</td>
<td>&lt;0.23</td>
</tr>
<tr>
<td>2 GHz</td>
<td>&gt;14.1</td>
<td>&lt;0.53</td>
</tr>
<tr>
<td>2.5 GHz</td>
<td>&gt;12.0</td>
<td>&lt;2.0</td>
</tr>
</tbody>
</table>

Technical characteristics

Specifications
- DIN EN 60 664-1
- DIN EN 61 984

Approvals
- UL

Inserts
- Number of contacts: 2
- Insulation resistance: ≥ 10¹⁰ Ω
- Material: polycarbonate
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94: V 0
- Mechanical working life: ≥ 500

Coax contacts
- Number of contacts: 1 + shielding
- Han D® Coax
- Rated current: 10 A / 16 A
- Rated voltage: 50 V
- Rated impulse voltage: 0.8 kV
- Pollution degree: 3
- Impedance: 75 Ω
- Han E® Coax
- Rated current: 16 A / 20 A
- Rated voltage: 50 V
- Rated impulse voltage: 0.8 kV
- Pollution degree: 3
- Impedance: 50 Ω

Material
- Han D® Coax: polymer
- Han E® Coax: polymer

Contact resistance
- Han D® Coax: ≤ 4 mΩ
- Han E® Coax: ≤ 3 mΩ

Crimp terminal
- Han D® Coax: 0.14 ... 2.5 mm²
- Han E® Coax: 0.14 ... 5.5 mm²

Cable diameter
- Han D® Coax: 3 ... 9.5 mm
- Han E® Coax: 3 ... 9.5 mm

Han D® contacts

Material: copper alloy
- Surface: hard-gold plated
- Contact resistance: ≤ 3 mΩ
- Crimp terminal: 0.14 ... 2.5 mm²
- AWG: 26 ... 14

Han E® contacts

Material: copper alloy
- Surface: hard-gold plated
- Contact resistance: ≤ 1 mΩ
- Crimp terminal: 0.14 ... 5.5 mm²
- AWG: 26 ... 10

Impedance 75 Ω

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Return loss [db]</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 MHz</td>
<td>0.35</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Impedance 50 Ω

Han D® Coax with ETCS S21 Eurobalise cable (4 mm²)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Return loss [db]</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 MHz</td>
<td>2.3</td>
<td>0.017</td>
</tr>
</tbody>
</table>

Han E® Coax with RG 213 cable (2.5 mm²)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Return loss [db]</th>
<th>Attenuation [db]</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 MHz</td>
<td>23.8</td>
<td>0.07</td>
</tr>
<tr>
<td>500 MHz</td>
<td>21.1</td>
<td>0.11</td>
</tr>
<tr>
<td>1 GHz</td>
<td>18.7</td>
<td>0.17</td>
</tr>
<tr>
<td>1.2 GHz</td>
<td>&gt;17.7</td>
<td>0.2</td>
</tr>
<tr>
<td>1.5 GHz</td>
<td>&gt;16.4</td>
<td>&lt;0.23</td>
</tr>
<tr>
<td>2 GHz</td>
<td>&gt;14.1</td>
<td>&lt;0.53</td>
</tr>
<tr>
<td>2.5 GHz</td>
<td>&gt;12.0</td>
<td>&lt;2.0</td>
</tr>
</tbody>
</table>

Return loss [db]: 35.4

Attenuation [db]: 0.17

Impedance 50 Ω

Han E® Coax: 0.17

Han D® Coax: 0.35
### Han® Coax module

#### Number of contacts

2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimp terminal</td>
<td>09 14 002 3001</td>
<td>09 14 002 3101</td>
<td>Contact arrangement view from termination side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Wire gauge (mm²)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Han® D Coax contact 1 + shielding, 75 Ω Han D® crimp contacts</td>
<td>1.00-0.37</td>
<td>09 15 001 3113</td>
<td>09 15 001 3113</td>
<td></td>
</tr>
<tr>
<td>Han D® Crimp contact gold plated</td>
<td>0.5</td>
<td>09 15 000 6124</td>
<td>09 15 000 6224</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.75</td>
<td>09 15 000 6125</td>
<td>09 15 000 6225</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>09 15 000 6126</td>
<td>09 15 000 6226</td>
<td></td>
</tr>
<tr>
<td>Han® E Coax contact 1 + shielding, 50 Ω Han E® crimp contacts</td>
<td>0.14-0.37</td>
<td>09 15 001 3123</td>
<td>09 15 001 3123</td>
<td></td>
</tr>
<tr>
<td>Han E® contacts gold plated</td>
<td>0.5</td>
<td>09 33 000 6117</td>
<td>09 33 000 6217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.75</td>
<td>09 33 000 6122</td>
<td>09 33 000 6222</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>09 33 000 6118</td>
<td>09 33 000 6218</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>09 33 000 6116</td>
<td>09 33 000 6216</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5</td>
<td>09 33 000 6123</td>
<td>09 33 000 6223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>09 33 000 6119</td>
<td>09 33 000 6221</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.5</td>
<td>09 33 000 6139</td>
<td>09 33 000 6239</td>
<td></td>
</tr>
</tbody>
</table>

Order crimp contacts separately

Stock items in bold type
Han® Multi Contact module - DIN 41 626

Features

- Suitable for FOC and coaxial contacts acc. to DIN 41 626
- Using of guiding pins (male and female) is imperative (see chapter 40).

Contact arrangement
according to following matrix

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Male insert (M)</th>
<th>Female insert (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09 14 004 4501</td>
<td>09 14 004 4512</td>
<td></td>
</tr>
<tr>
<td>Coaxial contacts</td>
<td>09 14 000 62xx</td>
<td>09 14 000 61xx</td>
</tr>
<tr>
<td>F.O. contacts</td>
<td>20 10 xxx 421x</td>
<td>20 10 xxx 422x</td>
</tr>
</tbody>
</table>

Technical characteristics

Specifications
- DIN EN 60 664-1
- DIN EN 61 984

Approvals

<table>
<thead>
<tr>
<th>Inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
</tr>
<tr>
<td>Insulation resistance</td>
</tr>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Limiting temperatures</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
</tr>
<tr>
<td>Mechanical working life</td>
</tr>
</tbody>
</table>

Contacts

Coaxial contacts
- Material: copper alloy
- Surface: hard-gold plated demand level 2
- Impedance: 50 Ω / 75 Ω
- Contact resistance:
  - Internal wire: $\leq 10$ mΩ
  - Outer conductor: $\leq 3$ mΩ
- Rated current: 1.5 A
- Rated voltage: 50 V
- Attenuation:
  - 50 Ω: 2.5 dB
  - 75 Ω: 2.65 dB

F.O. contacts
- Fibre type: Glas fibre (GI)
- Attenuation: < 1.5 dB
- Fibre type: Polymer Optical Fibre (POF)
- Attenuation: < 2.5 dB

Assembly instructions

Stripping description
- For coaxial contacts

Solder temperature: approx. 300 °C
Solder duration: approx. 2 s

Due to the closed entry design of female insert the upper part has to be removed by screw driver (7 mm) before extracting the contacts. In this case the module will be destroyed.
## Han® Multi Contact module

### Number of contacts

4

### Identification | Part number | Drawing | Dimensions in mm
---|---|---|---
Multicontact module acc. to DIN 41 626 | Male insert (M) | Female insert (F) |  
| 09 14 004 4501 | 09 14 004 4512 |

Contact arrangement view from termination side

### Identification | Impedance | Part number | Drawing | Dimensions in mm
---|---|---|---|---
Coaxial contacts acc. to DIN 41 626* | 50 Ω | 09 14 000 6211 | 09 14 000 6221 | 23,9
75 Ω | 09 14 000 6111 | 09 14 000 6121 | 23,9

For cable group 2 flexible wires

F.O. contacts acc. to DIN 41 626 | 20 10 230 4211 | 20 10 230 4221 |

for SI fibre (HCS®) 200/230 µm

for GI fibre 50/125 µm or 62.5/125 µm ceramic ferrule

for 1 mm plastic fibre

* Using of guiding pins is imperative (see chapter 40).
# Han® Multi Contact module - D-Sub

## Features
- Suitable for coaxial contacts acc. to D-Sub (DIN 41 652)
- Using of guiding pins (male and female) is recommended (see chapter 40).

## Technical characteristics

### Specifications
- DIN EN 60 664-1
- DIN EN 61 984

### Approvals
- 

### Inserts
- Number of contacts: 4
- Insulation resistance: $\geq 10^{10}$ Ω
- Material: polycarbonate
- Limiting temperatures: -40 °C ... +125 °C
- Flammability acc. to UL 94: V 0
- Mechanical working life: ≥ 500

### Contacts
- **Coaxial contacts**
  - Material: copper alloy
  - Surface: demand level 2, S4
  - Impedance: 50 Ω / 75 Ω
  - Contact resistance:
    - Internal wire: ≤ 10 mΩ
    - Outer conductor: ≤ 3 mΩ
  - Rated current: 1.5 A
  - Rated voltage: 50 V

### Contact arrangement

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Male insert (M) 09 14 004 4501</th>
<th>Female insert (F) 09 14 004 4513</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coaxial contacts</td>
<td>09 14 000 62xx</td>
<td>09 14 000 61xx</td>
</tr>
<tr>
<td>Coaxial contacts</td>
<td>09 69 28x 5xxx</td>
<td>09 69 18x 5xxx</td>
</tr>
</tbody>
</table>
## Han® Multi Contact module

### Number of contacts

4

#### Identification

<table>
<thead>
<tr>
<th>Multicontact module acc. to D-Sub</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order contacts separately</td>
<td>Male insert (M)</td>
<td>09 14 004 4501</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female insert (F)</td>
<td>09 14 004 4513*</td>
<td></td>
</tr>
</tbody>
</table>

* Due to the closed entry design of female insert the upper part has to be removed by screw driver (7 mm) before extracting the contacts. In this case the module will be destroyed.

#### Identification

<table>
<thead>
<tr>
<th>Coaxial contacts acc. to D-Sub</th>
<th>Impedance</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance level 2</td>
<td>50 Ω</td>
<td>09 14 000 6215</td>
<td>09 14 000 6115</td>
<td>RG 58</td>
</tr>
<tr>
<td>Solder / solder contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Identification

<table>
<thead>
<tr>
<th>Solder / crimp contact Performance level S4</th>
<th>Impedance</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 Ω</td>
<td>09 69 281 5140</td>
<td>09 69 181 5140</td>
<td>RG 174 U, 188 AU, 316 U</td>
</tr>
<tr>
<td></td>
<td>50 Ω</td>
<td>09 69 281 5141</td>
<td>09 69 181 5141</td>
<td>RG 178 BU, 196 AU, 404 U</td>
</tr>
<tr>
<td></td>
<td>75 Ω</td>
<td>09 69 281 5143</td>
<td>09 69 181 5143</td>
<td>RG 58 CU, 141 AU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>09 69 281 5230</td>
<td>09 69 181 5230</td>
<td>RG 179 BU, 187 AU</td>
</tr>
</tbody>
</table>

#### Identification

<table>
<thead>
<tr>
<th>Crimp / crimp terminal Performance level S4</th>
<th>Impedance</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 Ω</td>
<td>09 69 282 5140</td>
<td>09 69 182 5140</td>
<td>RG 174 U, 188 AU, 316 U</td>
</tr>
<tr>
<td></td>
<td>75 Ω</td>
<td>09 69 282 5230</td>
<td>09 69 182 5230</td>
<td>RG 179 BU, 187 AU</td>
</tr>
</tbody>
</table>

Stock items in bold type
Han® Pneumatic module

Features

- For the transmission of clean and dry compressed
- Female contacts with / without shut off
- Removal of tubes from pre-assembled pneumatic contacts is possible

Shut off principle:
In the disconnected position the spring integrated in the female contact is active, thus the O-ring of the valve seals the opening of the air-way. During the mating process, when the defined depth of insertion is reached the male contact presses on the valve head and moves it backwards against the spring tension, so that the air-way opens.

Using of guiding pins in connection with pneumatic modules is imperative.
In addition to this guiding pins guarantee a coding, if pneumatic modules are used exclusively.

Technical characteristics

| Inserts * |  |
| Number of contacts | 2 |
| Colour | blue |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +80 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life | ≥ 500 |

| Contacts | |
| Material | delrin acetal |
| Colour | black |
| Tube termination | 6.0 mm / 1/4“ |
| Working pressure | up to 8 bar / 116 psi |

| Sealing | |
| Material | Buna-N |

| Shut off valve | |
| Material | Polypropylene |

* Assemble contacts before module is fixed into the frame
**Han® Pneumatic module**

Number of contacts

2

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>for 6 mm</td>
<td>Male insert (M)</td>
<td>Female insert (F)</td>
<td></td>
</tr>
<tr>
<td>Order contacts separately</td>
<td>09 14 002 4501*</td>
<td>09 14 002 4501*</td>
<td>Contact arrangement view from termination side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>ID (mm)</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumatic contacts without shut off for tube internal diameter (ID)</td>
<td>6.0</td>
<td>Male contact 09 14 000 6174</td>
<td>Female contact 09 14 000 6274</td>
<td></td>
</tr>
<tr>
<td>Pneumatic contacts with shut off for tube internal diameter (ID)</td>
<td>6.0</td>
<td>Male contact 09 14 000 6279</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Using of guiding pins is imperative (see chapter 40).
**Han® Pneumatic module**

### Features

- For the transmission of clean and dry compressed air
- Female contacts with / without shut off
- Removal of tubes from pre-assembled pneumatic contacts is possible

### Shut off principle:

In the disconnected position the spring integrated in the female contact is active, thus the O-ring of the valve seals the opening of the air-way. During the mating process, when the defined depth of insertion is reached the male contact presses on the valve head and moves it backwards against the spring tension, so that the air-way opens.

Using of guiding pins in connection with pneumatic modules is imperative.
In addition to this guiding pins guarantee a coding, if pneumatic modules are used exclusively.

### Technical characteristics

#### Approvals

- UL, CE

#### Inserts *

<table>
<thead>
<tr>
<th>Number of contacts</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>blue</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +80 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

#### Contacts

<table>
<thead>
<tr>
<th>Material</th>
<th>delrin acetal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>black</td>
</tr>
<tr>
<td>Tube termination</td>
<td>- Internal diameter (ID)</td>
</tr>
<tr>
<td></td>
<td>1.6 mm / 1/16&quot;</td>
</tr>
<tr>
<td></td>
<td>3.0 mm</td>
</tr>
<tr>
<td></td>
<td>4.0 mm / 1/8&quot;</td>
</tr>
<tr>
<td>Working pressure</td>
<td>up to 8 bar / 116 psi</td>
</tr>
</tbody>
</table>

#### Sealing

<table>
<thead>
<tr>
<th>Material</th>
<th>Buna-N</th>
</tr>
</thead>
</table>

#### Shut off valve

<table>
<thead>
<tr>
<th>Material</th>
<th>Polypropylene</th>
</tr>
</thead>
</table>

* Assemble contacts before module is fixed into the frame
**Han® Pneumatic module**

Number of contacts

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>for 1.6; 3; 4 mm</strong></td>
<td><strong>Male insert (M)</strong></td>
<td><strong>Female insert (F)</strong></td>
<td></td>
</tr>
<tr>
<td>Order contacts separately</td>
<td>09 14 003 4501*</td>
<td>09 14 003 4501*</td>
<td></td>
</tr>
</tbody>
</table>

Contact arrangement view from termination side

**Identification** | **ID (mm)** | **Part number** | **Male contact** | **Female contact** | **Drawing** | **Dimensions in mm** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pneumatic contacts without shut off</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for tube internal diameter (ID)</td>
<td>1.6</td>
<td>09 14 000 6151</td>
<td>09 14 000 6251</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>09 14 000 6152</td>
<td>09 14 000 6252</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>09 14 000 6153</td>
<td>09 14 000 6253</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pneumatic contacts with shut off** | | | | | | |
| for tube internal diameter (ID) | 1.6 | | | | | |
| | 3.0 | | | | | |
| | 4.0 | | | | |

* Using of guiding pins is imperative (see chapter 40).
## Features

- Suitable for HARTING SC contacts
- For GI-Fibre 50 - 62.5 / 125µm
- Using of guiding pins (male and female) is recommended (see chapter 40).

## Technical characteristics

<table>
<thead>
<tr>
<th>Inserts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of contacts</td>
<td>4</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>&lt; 0.5 dB</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
<tr>
<td>Limiting temperatures</td>
<td>-40 °C ... +85 °C</td>
</tr>
<tr>
<td>Flammability acc. to UL 94</td>
<td>V 0</td>
</tr>
<tr>
<td>Mechanical working life</td>
<td>≥ 500</td>
</tr>
</tbody>
</table>

## Assembly instructions

### Male insert (09 14 004 4701)

A. Assemble the SC contact

Push the SC contact from the side into the relevant insert (1)
Push the fixing plate from the side over the contacts (2)

B. SC contact fixed in the module

### Female insert (09 14 004 4711)

A. Assemble the SC contact

Push the centering ferrule (included in delivery) on the SC contact (1)
Push the SC contact from the side into the relevant insert (2)
Push the fixing plate from the side over the contacts (3)

B. SC contact fixed in the module
# Han® SC module

**Number of contacts**

4

## SC module

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC module</td>
<td>09 14 004 4701</td>
<td>09 14 004 4711*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>separately</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The female inserts are equipped with centering ferrules. 4 ferrules are included in delivery range.*

## Fixing plate

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Female insert (F)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing plate</td>
<td>09 14 000 9965</td>
<td>09 14 000 9965</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## SC contact

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male contact</th>
<th>Female contact</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC contact</td>
<td>20 10 125 5211</td>
<td>20 10 125 5211</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for GI fibre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50/125 µm or 62.5/125 µm ceramic ferrule</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for SI fibre (HCS®)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200/230 µm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with quick assembly technique</td>
<td>20 10 001 5217</td>
<td>20 10 001 5217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for 1 mm POF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with crimp technique</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>for 1 mm POF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Stock items in bold type

---

*The female inserts are equipped with centering ferrules. 4 ferrules are included in delivery range.*
Features

• Signal pre-processing and conversion do fit into the connector
• Individual combination of input and output modules for optimal signal pre-processing
• Minimum size for integration in Han® industrial connectors (Han-Modular® and Han-Snap®)
• Economy of space by reduction the number of terminal blocks and interface modules in the switch cabinet

Technical characteristics

Power supply
(combination input and output module)
Supply voltage 24 V (-10 % ... +25 %)
Current consumption < 0.08 A
Power consumption < 2 W
Total transmission error < 0.2 %

General description

The Han-Elisa® modules are a flexible I/O system - directly in the connector.
The input and output modules are developed for 1 or 2 channels and can be combined variously and flexible for optimal signal pre-processing. Within the product family modules are available for current/voltage conversion, temperature, relay and timer. Due to the minimized size these modules can be integrated into the Han-Modular® and Han-Snap® system. Signal pre-processing and conversion do fit into the connector and this will reduce installation space for terminal blocks and the number of interface modules. So the switch cabinets can be made smaller.
## Product matrix and possible combinations

<table>
<thead>
<tr>
<th>Input module (male)</th>
<th>Output module (female)</th>
<th>Relay</th>
<th>Optocoupler</th>
<th>Output current</th>
<th>Output voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Different versions</td>
<td></td>
<td>Different versions</td>
<td>4 ... 20 mA</td>
<td>0 ... 10 V</td>
</tr>
<tr>
<td>Timing</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connecting 1:1</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>Pt100</td>
<td></td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Different temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>thermo element</td>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td></td>
<td>type J, K</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Different temperature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input current</td>
<td>4 ... 20 mA</td>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>Input voltage</td>
<td>0 ... 10 V</td>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
</tbody>
</table>

○ = on request  
● = available
Features

- Minimum size for integration in Han® industrial connectors (Han-Modular® and Han-Snap®)
- Economy of space by reduction the number of terminal blocks and interface modules in the switch cabinet
- Male module for signal input

Technical characteristics

<table>
<thead>
<tr>
<th>Inserts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor</td>
<td>Pt100 acc. to IEC 751</td>
</tr>
<tr>
<td>Termination technology</td>
<td>2-, 3-, 4 wire technology</td>
</tr>
<tr>
<td>Sensor input current</td>
<td>0.8 mA, constant</td>
</tr>
<tr>
<td>Conductor resistance, max. permissible</td>
<td>10 Ω per conductor</td>
</tr>
<tr>
<td>Min. measuring range</td>
<td>100 °C</td>
</tr>
<tr>
<td>Open circuit detection</td>
<td>integrated</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate / LCP</td>
</tr>
<tr>
<td>Termination</td>
<td>Cage-clamp terminal</td>
</tr>
<tr>
<td>- mm²</td>
<td>0.14 ... 1.5 mm²</td>
</tr>
<tr>
<td>- AWG</td>
<td>26 ... 16</td>
</tr>
<tr>
<td>Power diagnostic</td>
<td>LED (green)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working temperature</td>
</tr>
<tr>
<td>Stock temperature</td>
</tr>
</tbody>
</table>
## Han-Elisa® Pt100 module

### Pt100 Input module

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature module Pt100</td>
<td>Male insert (M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measuring range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 ... 100 °C</td>
<td>20 75 108 1101</td>
<td><img src="image1.jpg" alt="Drawing 1" /></td>
<td>35.2</td>
</tr>
<tr>
<td>0 ... 200 °C</td>
<td>20 75 108 1103</td>
<td><img src="image2.jpg" alt="Drawing 2" /></td>
<td>33.1</td>
</tr>
</tbody>
</table>

Additional measuring ranges on request

*Stock items in bold type*
### Features

- Minimum size for integration in Han® industrial connectors (Han-Modular® and Han-Snap®)
- Economy of space by reduction the number of terminal blocks and interface modules in the switch cabinet
- Female module for signal output

### Technical characteristics

#### Inserts

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>24 V (-10 % ... +25 %)</td>
</tr>
<tr>
<td>Load $I_{out}$</td>
<td>&lt; 500 Ω</td>
</tr>
<tr>
<td>Load $U_{out}$</td>
<td>≥ 10 kΩ</td>
</tr>
<tr>
<td>Residual ripple</td>
<td>&lt; 20 mV (500 Ω)</td>
</tr>
<tr>
<td>Step response (0 ... 99 %)</td>
<td>&lt; 30 ms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>Polycarbonate / LCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination</td>
<td>Cage-clamp terminal</td>
</tr>
<tr>
<td>- mm²</td>
<td>0.14 ... 1.5 mm²</td>
</tr>
<tr>
<td>- AWG</td>
<td>26 ... 16</td>
</tr>
</tbody>
</table>

| Power diagnostic        | LED (green)           |

#### Temperature range

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working temperature</td>
<td>-20 °C ... +65 °C</td>
</tr>
<tr>
<td>Stock temperature</td>
<td>-40 °C ... +125 °C</td>
</tr>
</tbody>
</table>
### Han-Elisa® Output module

#### Output module

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output module, current 3-ways-isolating amplifier; galvanically isolated</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output signal</td>
<td>4 … 20 mA</td>
<td><strong>20 75 104 2201</strong></td>
<td></td>
</tr>
<tr>
<td>Additional output signal ranges on request</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output module, voltage 3-ways-isolating amplifier; galvanically isolated</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output signal</td>
<td>0 … 10 V</td>
<td><strong>20 75 105 2201</strong></td>
<td></td>
</tr>
<tr>
<td>Additional output signal ranges on request</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Han-Elisa® ID module

Features

- Coding of tools possible (e.g. press tools) by means of an alphanumeric identification
- I²C bus EEPROM as memory medium
- Communication with PLC via conventional digital I/Os
- Physical connection of PLC by means of well-proven Han® contacts
- Assembly of the ID module to the device by means of a Han® industrial connector

Technical characteristics

<table>
<thead>
<tr>
<th>Inserts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>24 V</td>
</tr>
<tr>
<td>Electrical connector, 24 V</td>
<td>via digital I/O device Han E® module (see page 06.42)</td>
</tr>
<tr>
<td>Memory capacity</td>
<td>max. 128 Byte</td>
</tr>
<tr>
<td>Material</td>
<td>polycarbonate</td>
</tr>
</tbody>
</table>

| Working temperature          | 0 °C ... +70 °C |
| Stock temperature            | 0 °C ... +85 °C |

| Max. length recommended      | 100 m * |
| between I/O device and ID module |

General description

The HARTING connector identification module (ID module) is suitable for storing of data and for coding of connectors. It is integrated in a Han-Modular® standard E module.

The module can be connected to a 24 V digital I/O device of a PLC. Two digital inputs are used for detecting the module connection and the data input. Two digital outputs are used for the data output and the system clock. Furthermore the ID module must be connected with 24 V and GND. Communication is carried out with voltage levels of 24 V according to the I²C bus standard. The total memory capacity is 128 Byte, e.g. for storing part numbers to identify the module. It is also possible to store the start parameters or operating data for machine components.

A typical data structure is displayed in the following table:

<table>
<thead>
<tr>
<th>Byte no.</th>
<th>16</th>
<th>15</th>
<th>14</th>
<th>13</th>
<th>12</th>
<th>11</th>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check sum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating hours of tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start parameter of the unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part number of the unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Applications for the ID module can be found in modular machines and product lines. A great advantage of the ID module is the non-volatile decentralized storing of e.g. operating data. When changing the location stored data can protect the machines from damages. In service cases of the equipment data can be analyzed to minimize service time.

* The use of shielded cables is recommended for longer distances or EMC loaded environments.
Han-Elisa® ID module

Input module

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number Male insert (M)</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic identification module</td>
<td>20 70 001 1001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Block diagram / Wiring plan

Meaning of the connections

<table>
<thead>
<tr>
<th>Pin no.</th>
<th>Name</th>
<th>Meaning/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Data IN</td>
<td>Input for data and control signals from PLC</td>
</tr>
<tr>
<td>2</td>
<td>DC 24 V</td>
<td>Power connection of the ID module</td>
</tr>
<tr>
<td>3</td>
<td>Data OUT</td>
<td>Output for data signals from ID module to PLC</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>5</td>
<td>CLK</td>
<td>System clock for synchronisation</td>
</tr>
<tr>
<td>6</td>
<td>Connection</td>
<td>Output of the ID module for connection detection</td>
</tr>
</tbody>
</table>
# Han-Modular® - Accessories

<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Han-Modular® Dummy module to fill up module spaces not in use in the frame</td>
<td>09 14 000 9950</td>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Module clamp without strain relief</td>
<td>09 14 000 0311</td>
<td><img src="image3.png" alt="Diagram" /></td>
<td>1 Slot for identification strip</td>
</tr>
<tr>
<td>Delivery comprises one module clamp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Module clamp with strain relief</td>
<td>09 14 000 0312</td>
<td><img src="image4.png" alt="Diagram" /></td>
<td>1 Slot for identification strip</td>
</tr>
<tr>
<td>Delivery comprises one module clamp.</td>
<td></td>
<td></td>
<td>2 For cable ties with max. 5 mm width</td>
</tr>
<tr>
<td>Module clamp for rail</td>
<td>09 14 000 0313</td>
<td><img src="image5.png" alt="Diagram" /></td>
<td>1 G-rail DIN EN 60 715-G32</td>
</tr>
<tr>
<td>Delivery comprises one module clamp.</td>
<td></td>
<td></td>
<td>2 rail DIN EN 60 715-35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness</td>
</tr>
<tr>
<td>Frame for 1 module</td>
<td>09 14 000 0304</td>
<td><img src="image6.png" alt="Diagram" /></td>
<td>1 Distance max. 23.5 mm</td>
</tr>
<tr>
<td>in housing Han® 10 A</td>
<td></td>
<td></td>
<td>2 Hoods</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 Housings</td>
</tr>
</tbody>
</table>

* Suitable for the single modules Han® C Crimp, Han® C Axial, Han E® Crimp, Han EE®, Han E® Protected, Han DD® Crimp, Han® High Density, Han® USB, Han® Firewire, Han® Multi Contact and Han® SC
<table>
<thead>
<tr>
<th>Identification</th>
<th>Part number</th>
<th>Drawing</th>
<th>Dimensions in mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixing bracket for Han-Modular® Compact</td>
<td>09 14 009 9947</td>
<td><img src="image" alt="Drawing" /></td>
<td>36, 32, 18.6, 37.6, 12, 22.5, Panel cut out</td>
</tr>
</tbody>
</table>

*Stock items in bold type*