

**Specifications**

DIN VDE 0627  
DIN VDE 0110

**Approvals**

UL, CE, SEV, DNV,  
BVS, CERCHAR, SABS

**Inserts**

|                                                    |                                                              |
|----------------------------------------------------|--------------------------------------------------------------|
| Number of contacts                                 | 6, 10, 16, 24, 32 (2 x 16),<br>48 (2 x 24) + PE<br>16 A max. |
| Working current<br>(see current carrying capacity) |                                                              |
| Working voltage                                    | 400 V                                                        |
| Test voltage $U_{rms}$                             | 3 kV                                                         |
| Pollution degree                                   | 3 (C)                                                        |
| Insulation resistance                              | $\geq 10^{10} \Omega$                                        |
| Material                                           | Polycarbonate                                                |
| Temperature range                                  | - 40 °C ... +125 °C                                          |
| Flammability acc. to UL 94                         | V 0                                                          |
| Mechanical working life                            |                                                              |
| - Mating cycles                                    | $\geq 500$                                                   |
| Working voltage<br>acc. to UL/CSA                  | 600 V                                                        |

**Contacts**

|                          |                                            |
|--------------------------|--------------------------------------------|
| Material                 | copper alloy                               |
| Surface                  |                                            |
| - hard-silver plated     | 3 $\mu\text{m}$ Ag                         |
| - hard-gold plated       | 2 $\mu\text{m}$ Au over 3 $\mu\text{m}$ Ni |
| Contact resistance       | $\leq 1 \text{ m}\Omega$                   |
| Crimp terminal           |                                            |
| - $\text{mm}^2$          | 0.5 - 4.0 $\text{mm}^2$                    |
| - AWG                    | 20 - 12                                    |
| Screw terminal           |                                            |
| - $\text{mm}^2$          | 2.5 $\text{mm}^2$                          |
| - AWG                    | 14                                         |
| - Tightening/test torque | 0.5 Nm                                     |

**Hoods/Housings**

|                                                                  |                           |
|------------------------------------------------------------------|---------------------------|
| Material                                                         | GD-Al Si 8                |
| Surface                                                          | powder-coated<br>RAL 7037 |
| Locking element                                                  | steel, zinc plated        |
| Hoods/Housings sealing                                           | NBR                       |
| Temperature range                                                | - 40 °C ... +125 °C       |
| Degree of protection acc. to DIN<br>40 050 for coupled connector | IP 65                     |
| Further selection<br>of hoods/housings                           | chapter 30                |

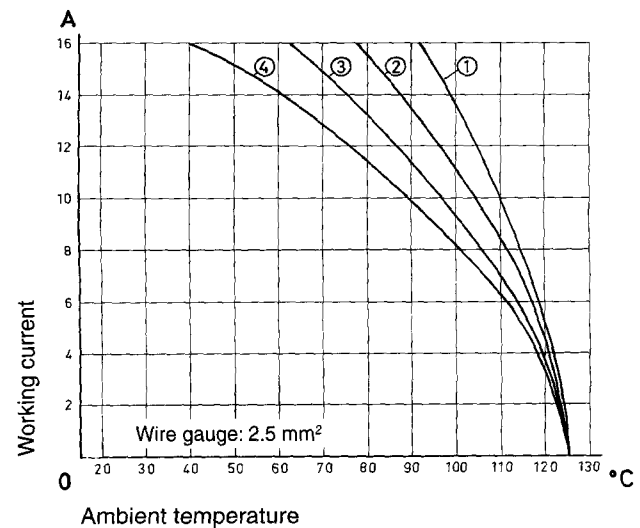
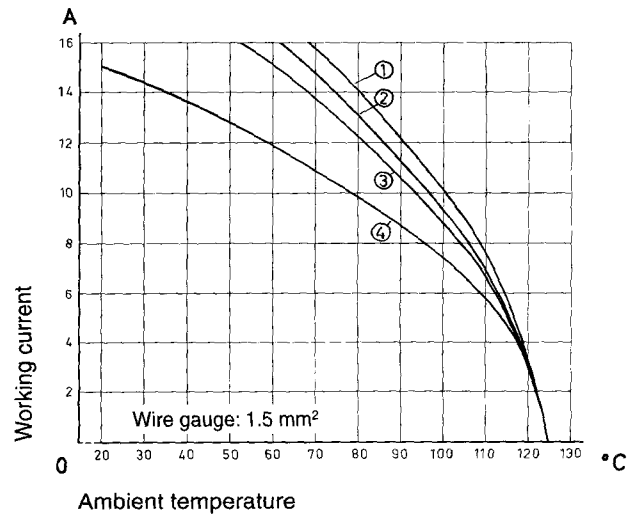
**Accessories**

|                              |            |
|------------------------------|------------|
| Crimping tools               | chapter 12 |
| Cable clamps                 | chapter 40 |
| Coding of Hoods/Housings     | chapter 40 |
| Label acc. to CSA-approval   | chapter 40 |
| Han-Snap                     | chapter 11 |
| Test connectors              | chapter 20 |
| Special insert fixing screws | chapter 20 |

**Current carrying capacity**

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

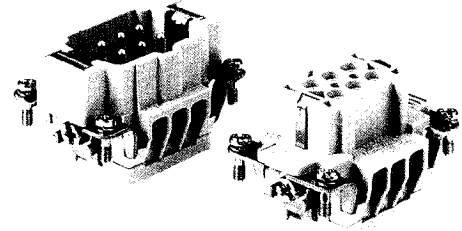
Control and test procedures according to DIN IEC 512-3.



- ① Han 6 E
- ② Han 10 E
- ③ Han 16 E
- ④ Han 24 E

Number of contacts

6 +

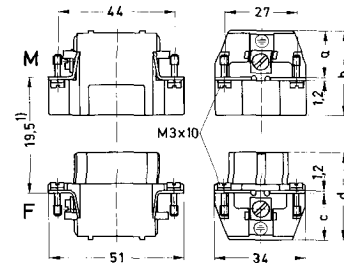


Inserts

| Identification                                          | Series  | Part No.              |                       |
|---------------------------------------------------------|---------|-----------------------|-----------------------|
|                                                         |         | Male insert (M)       | Female insert (F)     |
| <b>Screw terminal</b><br>with wire protection           | Han E   | <b>09 33 006 2601</b> | <b>09 33 006 2701</b> |
|                                                         |         |                       |                       |
| <b>Cage-clamp terminal</b>                              | Han ES  | <b>09 33 006 2616</b> | <b>09 33 006 2716</b> |
|                                                         |         |                       |                       |
| <b>Cage-clamp terminal</b><br>two terminals per contact | Han ESS | <b>09 33 006 2672</b> | <b>09 33 006 2772</b> |
|                                                         |         |                       |                       |
| <b>Crimp terminal</b><br>Order contacts separately      | Han E   | <b>09 33 006 2602</b> | <b>09 33 006 2702</b> |
|                                                         |         |                       |                       |

Drawing

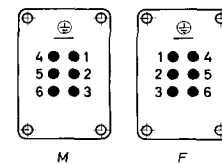
Dimensions in mm



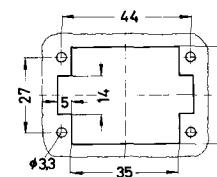
<sup>1)</sup> Distance for contact max. 21 mm

|         | a  | b  | c  | d  |
|---------|----|----|----|----|
| Han E   | 20 | 35 | 21 | 37 |
| Han ES  | 21 | 36 | 19 | 35 |
| Han ESS | 34 | 49 | 32 | 49 |

Contact arrangement View from termination side



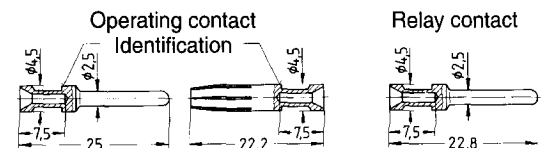
Panel cut out for inserts  
for use without hoods/housings



| Identification        | Wire gauge (mm <sup>2</sup> ) | Part No.              |                       |
|-----------------------|-------------------------------|-----------------------|-----------------------|
|                       |                               | Male contacts         | Female contacts       |
| <b>Crimp contacts</b> | <b>0.5</b>                    | <b>09 33 000 6121</b> | <b>09 33 000 6220</b> |
| Power contacts        | <b>0.75</b>                   | <b>09 33 000 6114</b> | <b>09 33 000 6214</b> |
|                       | <b>1.0</b>                    | <b>09 33 000 6105</b> | <b>09 33 000 6205</b> |
| silver plated         | <b>1.5</b>                    | <b>09 33 000 6104</b> | <b>09 33 000 6204</b> |
|                       | <b>2.5</b>                    | <b>09 33 000 6102</b> | <b>09 33 000 6202</b> |
|                       | <b>3</b>                      | <b>09 33 000 6106</b> | <b>09 33 000 6206</b> |
|                       | <b>4</b>                      | <b>09 33 000 6107</b> | <b>09 33 000 6207</b> |
|                       | <b>0.5</b>                    | <b>09 33 000 6122</b> | <b>09 33 000 6222</b> |
|                       | <b>0.75</b>                   | <b>09 33 000 6115</b> | <b>09 33 000 6215</b> |
| gold plated           | <b>1.0</b>                    | <b>09 33 000 6118</b> | <b>09 33 000 6218</b> |
|                       | <b>1.5</b>                    | <b>09 33 000 6116</b> | <b>09 33 000 6216</b> |
|                       | <b>2.5</b>                    | <b>09 33 000 6123</b> | <b>09 33 000 6223</b> |
|                       | <b>4.0</b>                    | <b>09 33 000 6119</b> | <b>09 33 000 6221</b> |
| Relay contact         | <b>0.75-1</b>                 | <b>09 33 000 6109</b> |                       |
| silver plated         | <b>1.5</b>                    | <b>09 33 000 6110</b> |                       |
|                       | <b>2.5</b>                    | <b>09 33 000 6111</b> |                       |

Drawing

Dimensions in mm



Crimp contact identification

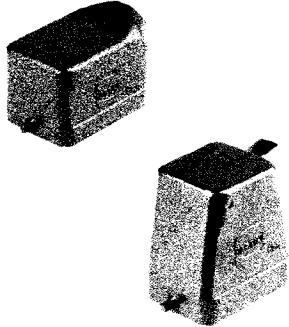
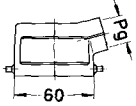

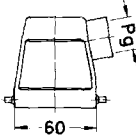
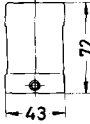
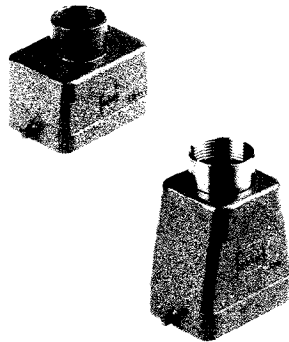
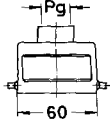
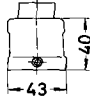
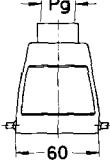
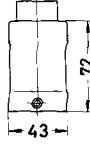
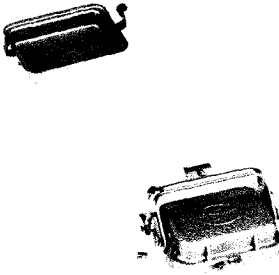
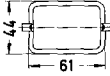
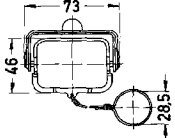
| Identification | Wire gauge           |        | Stripping length |
|----------------|----------------------|--------|------------------|
| no groove      | 0.5 mm <sup>2</sup>  | AWG 20 | 7.5 mm           |
| 1 groove*      | 0.75 mm <sup>2</sup> | AWG 18 | 7.5 mm           |
| 1 groove       | 1 mm <sup>2</sup>    | AWG 18 | 7.5 mm           |
| 2 grooves      | 1.5 mm <sup>2</sup>  | AWG 16 | 7.5 mm           |
| 3 grooves      | 2.5 mm <sup>2</sup>  | AWG 14 | 7.5 mm           |
| wide groove    | 3.0 mm <sup>2</sup>  | AWG 12 | 7.5 mm           |
| no groove      | 4 mm <sup>2</sup>    | AWG 12 | 7.5 mm           |

\* on the back crimp collar

# Standard Hoods with 1 lever on the housing

Size 6 B

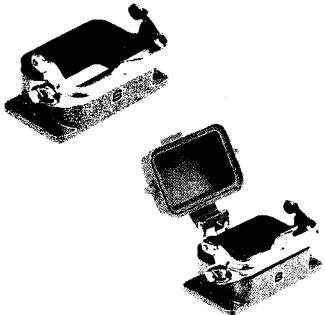
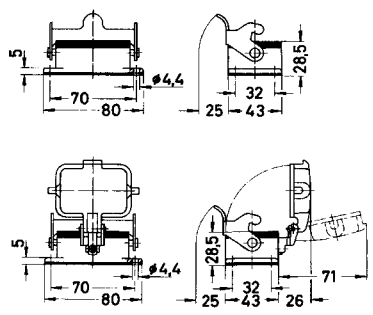

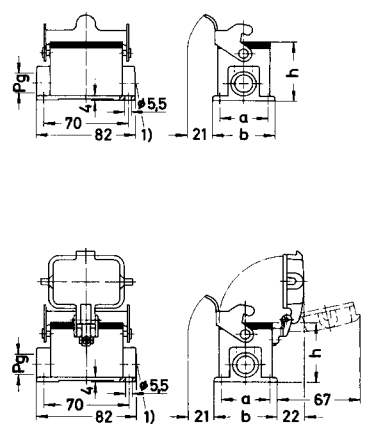
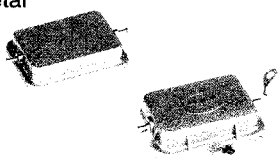
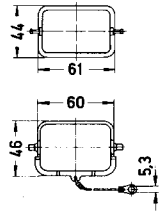

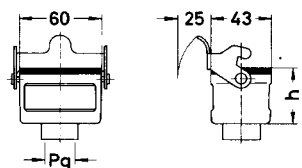

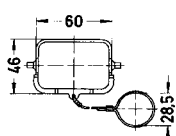


| Identification                                                                                                        | Part No.                                                                                                      |                   | Pg             | Drawing                                                                             | Dimensions in mm                                                                      |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                                                                       | Low construction                                                                                              | High construction |                |                                                                                     |                                                                                       |                                                                                       |
| <b>Hoods side-entry</b><br>          | 09 30 006 1540                                                                                                |                   | 13.5           |  |    |                                                                                       |
|                                                                                                                       | 09 30 006 1541                                                                                                |                   | 16             |                                                                                     |                                                                                       |                                                                                       |
|                                                                                                                       |                                                                                                               |                   | 09 30 006 0542 | 21                                                                                  |    |    |
|                                                                                                                       |                                                                                                               |                   | 09 30 006 0543 | 29                                                                                  |                                                                                       |                                                                                       |
|                                                                                                                       | <b>Hoods top-entry</b><br> | 09 30 006 1440    |                | 13.5                                                                                |  |  |
|                                                                                                                       |                                                                                                               | 09 30 006 1441    |                | 16                                                                                  |                                                                                       |                                                                                       |
|                                                                                                                       |                                                                                                               |                   | 09 30 006 0442 | 21                                                                                  |  |  |
|                                                                                                                       |                                                                                                               |                   | 09 30 006 0443 | 29                                                                                  |                                                                                       |                                                                                       |
| <b>Protection covers metal</b><br> |                                                                                                               | 09 30 006 5401    |                |                                                                                     |  |                                                                                       |
|                                                                                                                       |                                                                                                               | 09 30 006 5423    |                |                                                                                     |  |                                                                                       |

# Standard Housings with 1 lever on the housing

Size 6 B



| Identification                                                                                                                                                                                                                                                                                                                                                    | Part No.         |                                                    | Pg                                                                          | Drawing                                                                                                                                                                                                                                                                            | Dimensions in mm |      |      |   |   |                  |    |    |    |                   |    |    |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------|------|---|---|------------------|----|----|----|-------------------|----|----|----|
|                                                                                                                                                                                                                                                                                                                                                                   | Low construction | High construction                                  |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <b>Housings</b><br>bulkhead mounting<br>                                                                                                                                                                                                                                         |                  | <b>09 30 006 0301</b>                              | —                                                                           | Panel cut out 48 x 35 cm<br>                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with thermo-plastic cover<br><b>09 30 006 0302</b> | —                                                                           |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with metal cover<br><b>09 30 006 0318</b>          | —                                                                           |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <b>Housings</b><br>surface mounting<br>                                                                                                                                                                                                                                          | 1 side-entry     | <b>09 30 006 1251</b>                              | 16                                                                          |                                                                                                                                                                                                |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | 2 side-entries   | <b>09 30 006 1291</b>                              |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with thermo-plastic cover<br><b>09 30 006 1256</b> | <b>09 30 006 0292</b><br><b>09 30 006 0293</b>                              |                                                                                                                                                                                                                                                                                    | 16<br>21<br>29   |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | 1 side-entry     | <b>09 30 006 1256</b>                              |                                                                             |                                                                                                                                                                                                                                                                                    | 16               |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with metal cover<br><b>09 30 006 2256</b>          |                                                                             |                                                                                                                                                                                                                                                                                    | 16               |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with thermo-plastic cover<br><b>09 30 006 1296</b> | with thermo-plastic cover<br><b>09 30 006 0297</b><br><b>09 30 006 0298</b> |                                                                                                                                                                                                                                                                                    | 16<br>21<br>29   |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | 2 side-entries   | <b>09 30 006 2296</b>                              | with metal cover<br><b>09 30 006 2297</b><br><b>09 30 006 2298</b>          |                                                                                                                                                                                                                                                                                    | 16<br>21<br>29   |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | with metal cover<br><b>09 30 006 2296</b>          | with metal cover<br><b>09 30 006 2297</b><br><b>09 30 006 2298</b>          |                                                                                                                                                                                                                                                                                    | 16<br>21<br>29   |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | 2 side-entries   | <b>09 30 006 2296</b>                              |                                                                             |                                                                                                                                                                                                                                                                                    | 16               |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    | 21<br>29         |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <sup>1)</sup> Blind way for one cable entry <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>a</th> <th>b</th> <th>h</th> </tr> </thead> <tbody> <tr> <td>Low construction</td> <td>40</td> <td>52</td> <td>54</td> </tr> <tr> <td>High construction</td> <td>45</td> <td>57</td> <td>74</td> </tr> </tbody> </table> |                  |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      | a    | b | h | Low construction | 40 | 52 | 54 | High construction | 45 | 57 | 74 |
|                                                                                                                                                                                                                                                                                                                                                                   | a                | b                                                  | h                                                                           |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| Low construction                                                                                                                                                                                                                                                                                                                                                  | 40               | 52                                                 | 54                                                                          |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| High construction                                                                                                                                                                                                                                                                                                                                                 | 45               | 57                                                 | 74                                                                          |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <b>Protection covers</b><br>metal<br>                                                                                                                                                                                                                                          |                  | <b>09 30 006 5404</b>                              |                                                                             |                                                                                                                                                                                               |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | <b>09 30 006 5425</b>                              |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <b>Hoods</b><br>cable to cable<br>                                                                                                                                                                                                                                             |                  | <b>09 30 006 1750</b>                              | 13.5                                                                        | <table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>h</th> </tr> </thead> <tbody> <tr> <td>42.5</td> </tr> <tr> <td>72.5</td> </tr> </tbody> </table>  | h                | 42.5 | 72.5 |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | h                |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   | 42.5             |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| 72.5                                                                                                                                                                                                                                                                                                                                                              |                  |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  | <b>09 30 006 0752</b><br><b>09 30 006 0753</b>     | 21<br>29                                                                    |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
|                                                                                                                                                                                                                                                                                                                                                                   |                  |                                                    |                                                                             |                                                                                                                                                                                                                                                                                    |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |
| <b>Protection cover</b><br>metal<br>                                                                                                                                                                                                                                           |                  | <b>09 30 006 5427</b>                              |                                                                             |                                                                                                                                                                                               |                  |      |      |   |   |                  |    |    |    |                   |    |    |    |