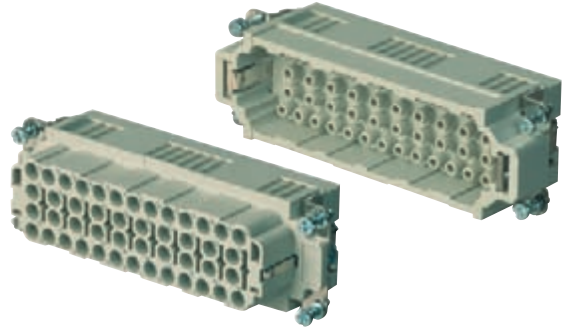


# HEE series – high contact density

The HEE series has a high contact density and its design is based on the proven HE inserts.



## Technical data

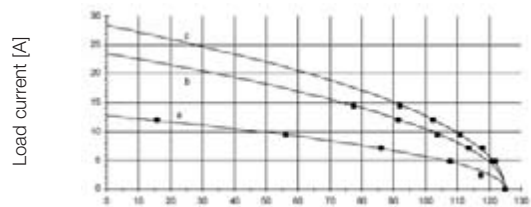
| Standards / approvals  |  |
|--|--|
| Standards  | DIN EN 61984<br>DIN EN 60664-1   |
| Approvals  | UL/CSA   |
| Inserts  |  |
| No. of poles   | 10, 18, 32, 46 (+PE)   |
| Rated voltage  | 500 V  |
| Rated voltage to UL/CSA                                      | 600 V  |
| Rated current  | 16 A   |
| Rated impulse withstand voltage                              | 6 kV   |
| Pollution severity   | 3  |
| Insulation resistance  | $\geq 10^{10} \Omega$  |
| Material   | Glass-fibre reinforced PC (in UL list and approved for railway applications) |
| Temperature range  | -40 °C ... +125 °C   |
| Flammability to UL 94  | V-0  |
| Mechanical service life                                      |  |
| - Plugging cycles Ag - Surface                               | $\geq 500$   |
| - Plugging cycles Au - Surface                               | $\geq 500$   |
| Contact resistance   |  |
| - Crimp connection   | $\leq 4 \text{ m}\Omega$   |
| Contacts / Material  |  |
| Sockets and plug-in contact                                  | Copper alloy   |
| Surface  | Passivated silver, or<br>0.8 $\mu\text{m}$ gold on 2 $\mu\text{m}$ nickel    |
| Crimp connection   |  |
| - Flexible conductor connection                              | 0.5 - 4 mm <sup>2</sup> (AWG 20 ... 12)                                      |
| - Stripping length   | 7,5 mm   |
| Clamping torque  |  |
| - Screw connection   |  |
| SD blades  |  |
| - Screw connection   |  |
| - Push In  |  |
| - Tension clamp connection                                   |  |
| PE connection  |  |
| - Clamping range   | 0.5 ... 4 mm <sup>2</sup>  |
| - solid / stranded   | 0.5 ... 4 mm <sup>2</sup> / 0.5 ... 4 mm <sup>2</sup>                        |
| - flexible / flexible with wire end ferrule, DIN 46228 pt. 1 | 0.5 ... 4 mm <sup>2</sup> / 0.5 ... 4 mm <sup>2</sup>                        |
| - AWG conductor  | AWG 20 .. 12   |
| - Stripping length   | 10 mm  |
| - Clamping torque  | 1.2 ... 1.5 Nm   |
| - Blade dimensions   | SD 0.8 x 4 mm or PZ 1  |

**Note:** Switch off power supply before handling plug-in connectors.

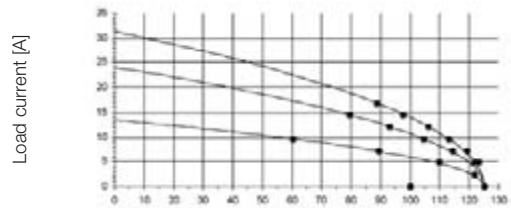
If crimped with a 4 mm<sup>2</sup> conductor, the current rating is:

For HEE 10 = 31 A, for HEE 18 = 28 A, for HEE 32 for 46 pole = 25 A

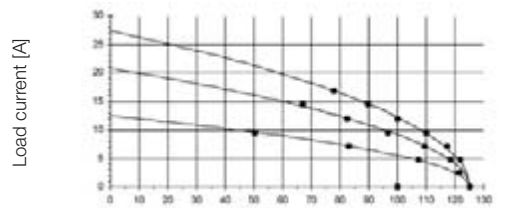
## Derating curves



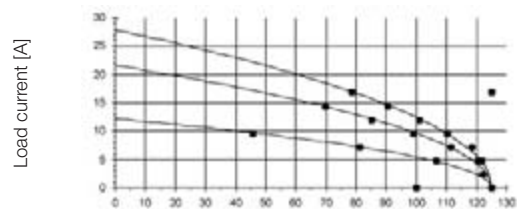
HEE 10-pole Ambient temperature [°C]



HEE 18-pole Ambient temperature [°C]



HEE 32-pole Ambient temperature [°C]







HEE 46-pole Ambient temperature [°C]

Curve a: 0.5 mm<sup>2</sup> conductor

Curve b: 2.5 mm<sup>2</sup> conductor

Curve c: 4.0 mm<sup>2</sup> conductor

Overview

|   |   | Rated voltage | Rated current | No. of poles | Tension clamp connection | Screw conn. with wire guard spring | Crimp connection | Push In | Axial screw connection | Page |
|---|---|---------------|---------------|--------------|--------------------------|------------------------------------|------------------|---------|------------------------|------|
|    |    | 500 V         | 16 A          | 10 + ⊕       |                          |                                    | •                |         |                        | B.32 |
|   |   | 500 V         | 16 A          | 18 + ⊕       |                          |                                    | •                |         |                        | B.34 |
|  |  | 500 V         | 16 A          | 32 + ⊕       |                          |                                    | •                |         |                        | B.36 |
|  |  | 500 V         | 16 A          | 46 + ⊕       |                          |                                    | •                |         |                        | B.38 |

**HEE series - high contact density**

500 V, 16 A, Size 3

10 + ⊕

**Inserts**

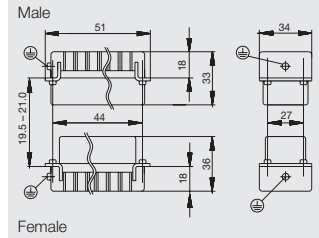


**Crimp connection**

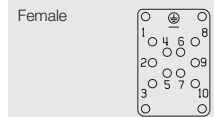
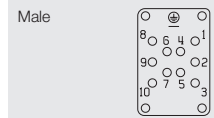


| Insert | Designation    | Order No.  |
|--------|----------------|------------|
| Male   | HDC HEE 10 SCM | 1826830000 |
| Female | HDC HEE 10 BCM | 1826840000 |

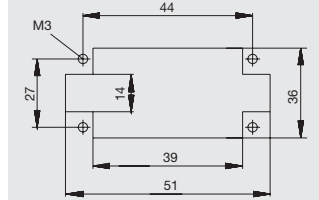
**Dimensions**



**Arrangement of contacts**



**Mounting cut-out**



**Accessories**

**Crimp contacts**

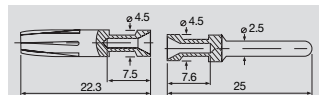
Surface silver



Surface gold



| Qty. | Male                | Order No.  | Female              | Order No.  |
|------|---------------------|------------|---------------------|------------|
| 100  | HDC-C-HE-SM0.5AG    | 1200500000 | HDC-C-HE-BM0.5AG    | 1201100000 |
| 100  | HDC-C-HE-SM0.75-1AG | 1200600000 | HDC-C-HE-BM0.75-1AG | 1201200000 |
| 100  | HDC-C-HE-SM1.5AG    | 1200700000 | HDC-C-HE-BM1.5AG    | 1201300000 |
| 100  | HDC-C-HE-SM2.5AG    | 1200800000 | HDC-C-HE-BM2.5AG    | 1201400000 |
| 100  | HDC-C-HE-SM4.0AG    | 1200900000 | HDC-C-HE-BM4.0AG    | 1201500000 |
| 100  | HDC-C-HE-SM0.5AU    | 1651420000 | HDC-C-HE-BM0.5AU    | 1651470000 |
| 100  | HDC-C-HE-SM0.75-1AU | 1651430000 | HDC-C-HE-BM0.75-1AU | 1651480000 |
| 100  | HDC-C-HE-SM1.5AU    | 1651440000 | HDC-C-HE-BM1.5AU    | 1651490000 |
| 100  | HDC-C-HE-SM2.5AU    | 1651450000 | HDC-C-HE-BM2.5AU    | 1651500000 |
| 100  | HDC-C-HE-SM4.0AU    | 1651460000 | HDC-C-HE-BM4.0AU    | 1651510000 |



| Single contacts | Conductor mm <sup>2</sup> | AWG No. |
|-----------------|---------------------------|---------|
|                 | 0.50                      | 20      |
|                 | 0.75-1.00                 | 18      |
|                 | 1.50                      | 16      |
|                 | 2.50                      | 14      |
|                 | 4.00                      | 12      |

**Tools**



| Crimping tool        | Order No.  |
|----------------------|------------|
| CTX CM 1.6/2.5       | 9018490000 |
| Contact removal tool | Order No.  |
| Removal Tool HE      | 1866750000 |

Selection of Housings RockStar® IP65  
Size 3

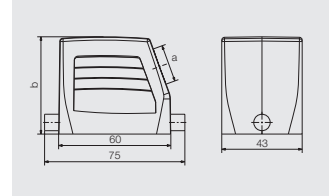


Hood

Hood, Cable Entry sideways



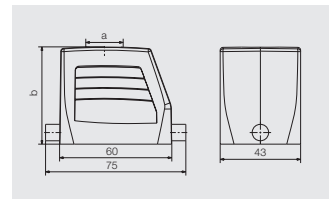
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 20 | with thread |       | 52     | HDC 06B TSLU 1M20G | 1788100000 |
| M 20 | with thread |       | 52     | HDC 06B TSLU 1M20G | 1805930000 |
| M 25 | with thread |       | 52     | HDC 06B TSLU 1M25G | 1788090000 |
| M 25 | with thread |       | 72     | HDC 16D TSLU 1M25G | 1787480000 |



Hood, Cable Entry at top



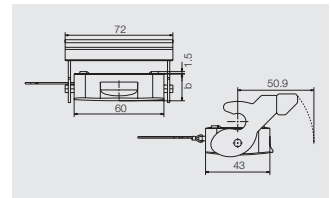
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 20 | with thread |       | 52     | HDC 06B TOLU 1M20G | 1788120000 |
| M 25 | with thread |       | 52     | HDC 06B TOLU 1M25G | 1788110000 |
| M 25 | with thread |       | 72     | HDC 16D TOLU 1M25G | 1787500000 |
| M 32 | with thread |       | 72     | HDC 16D TOLU 1M32G | 1787490000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for hoods | HDC 06B DMDL 1LB | 1665210000 |

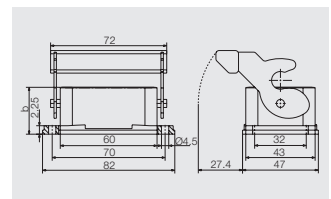


Base

Bulkhead housing



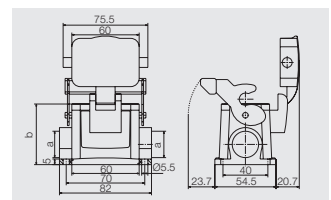
| Version | Cover      | b (mm) | Designation  | Order No.  |
|---------|------------|--------|--------------|------------|
|         |            | 29     | HDC 06B ALU  | 1202100000 |
|         | with cover | 47     | HDC 06B ADLU | 1202500000 |



Base housing



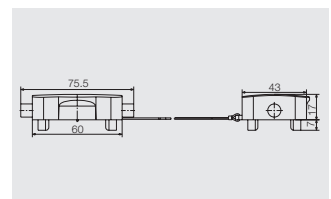
| a    | Version     | Cover      | b (mm) | Designation        | Order No.  |
|------|-------------|------------|--------|--------------------|------------|
| M 20 | with thread |            | 54     | HDC 06B SLU 2M20G  | 1788140000 |
| M 20 | with thread | with cover | 72     | HDC 06B SDLU 2M20G | 1788170000 |
| M 25 | with thread |            | 54     | HDC 06B SLU 2M25G  | 1788130000 |
| M 25 | with thread | with cover | 72     | HDC 06B SDLU 2M25G | 1788160000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for bases | HDC 06B DODL 2BO | 1665200000 |



HEE series - high contact density

500 V, 16 A, Size 4

18 + ⊕

Inserts

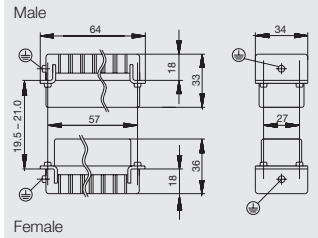


Crimp connection

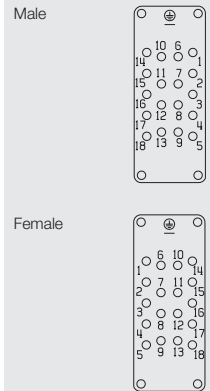


| Insert | Designation    | Order No.  |
|--------|----------------|------------|
| Male   | HDC HEE 18 SCM | 1826810000 |
| Female | HDC HEE 18 BCM | 1826820000 |

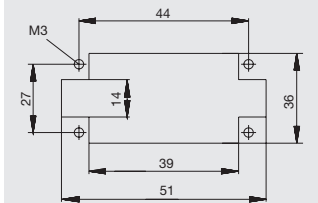
Dimensions



Arrangement of contacts



Mounting cut-out



Accessories

Crimp contacts

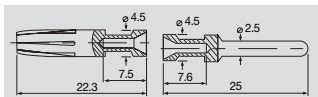
Surface silver



Surface gold



| Qty. | Male                | Order No.  | Female              | Order No.  |
|------|---------------------|------------|---------------------|------------|
| 100  | HDC-C-HE-SM0.5AG    | 1200500000 | HDC-C-HE-BM0.5AG    | 1201100000 |
| 100  | HDC-C-HE-SM0.75-1AG | 1200600000 | HDC-C-HE-BM0.75-1AG | 1201200000 |
| 100  | HDC-C-HE-SM1.5AG    | 1200700000 | HDC-C-HE-BM1.5AG    | 1201300000 |
| 100  | HDC-C-HE-SM2.5AG    | 1200800000 | HDC-C-HE-BM2.5AG    | 1201400000 |
| 100  | HDC-C-HE-SM4.0AG    | 1200900000 | HDC-C-HE-BM4.0AG    | 1201500000 |
| 100  | HDC-C-HE-SM0.5AU    | 1651420000 | HDC-C-HE-BM0.5AU    | 1651470000 |
| 100  | HDC-C-HE-SM0.75-1AU | 1651430000 | HDC-C-HE-BM0.75-1AU | 1651480000 |
| 100  | HDC-C-HE-SM1.5AU    | 1651440000 | HDC-C-HE-BM1.5AU    | 1651490000 |
| 100  | HDC-C-HE-SM2.5AU    | 1651450000 | HDC-C-HE-BM2.5AU    | 1651500000 |
| 100  | HDC-C-HE-SM4.0AU    | 1651460000 | HDC-C-HE-BM4.0AU    | 1651510000 |



| Single contacts           | AWG No. |
|---------------------------|---------|
| Conductor mm <sup>2</sup> |         |
| 0.50                      | 20      |
| 0.75-1.00                 | 18      |
| 1.50                      | 16      |
| 2.50                      | 14      |
| 4.00                      | 12      |

Tools



| Crimping tool        | Order No.  |
|----------------------|------------|
| CTX CM 1.6/2.5       | 9018490000 |
| Contact removal tool | Order No.  |
| Removal Tool HE      | 1866750000 |

Selection of Housings RockStar® IP65  
Size 4

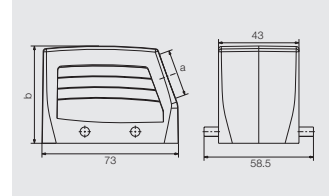


Hood

Hood, Cable Entry sideways



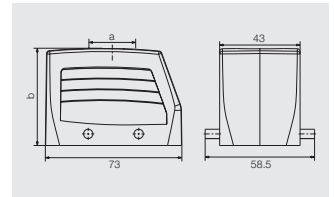
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 20 | with thread |       | 52     | HDC 10B TSBU 1M20G | 1787560000 |
| M 25 | with thread |       | 52     | HDC 10B TSBU 1M25G | 1787550000 |
| M 25 | with thread |       | 72     | HDC 24D TSBU 1M25G | 1787240000 |
| M 32 | with thread |       | 72     | HDC 24D TSBU 1M32G | 1787230000 |



Hood, Cable Entry at top



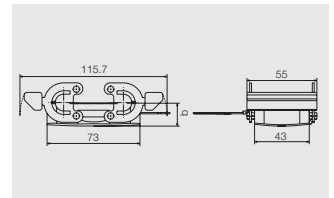
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 20 | with thread |       | 52     | HDC 10B TOBU 1M20G | 1787600000 |
| M 25 | with thread |       | 52     | HDC 10B TOBU 1M25G | 1787590000 |
| M 25 | with thread |       | 72     | HDC 24D TOBU 1M25G | 1787300000 |
| M 32 | with thread |       | 72     | HDC 24D TOBU 1M32G | 1787290000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for hoods | HDC 10B DMDQ 2QB | 1665240000 |

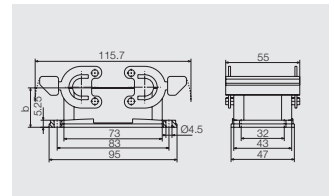


Base

Bulkhead housing



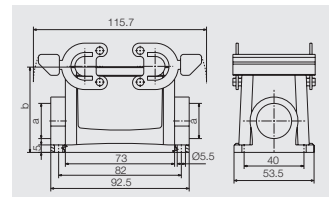
| Version | Cover | b (mm) | Designation | Order No.  |
|---------|-------|--------|-------------|------------|
|         |       | 29.3   | HDC 10B ABU | 1205000000 |



Base housing



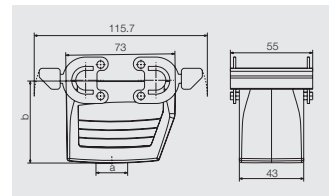
| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 20 | with thread |       | 57     | HDC 10B SBU 2M20G | 1787640000 |
| M 25 | with thread |       | 57     | HDC 10B SBU 2M25G | 1787630000 |
| M 25 | with thread |       | 74     | HDC 24D SBU 2M25G | 1787350000 |
| M 32 | with thread |       | 74     | HDC 24D SBU 2M32G | 1787360000 |



Coupling hood



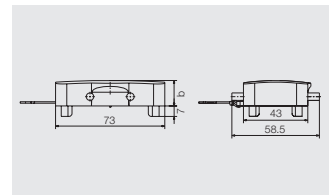
| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 20 | with thread |       | 55     | HDC 10B KBU 1M20G | 1787720000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for bases | HDC 10B DODQ 4BO | 1665230000 |



## HEE series - high contact density

500 V, 16 A, Size 6

32 + ⊕

### Inserts

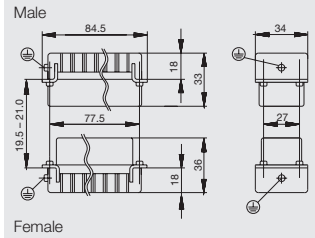


#### Crimp connection

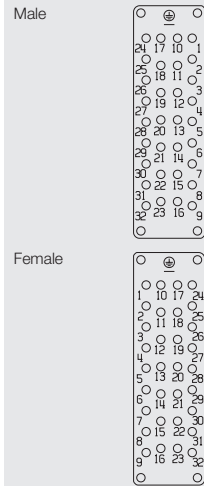


| Insert | Designation    | Order No.  |
|--------|----------------|------------|
| Male   | HDC HEE 32 SCM | 1826790000 |
| Female | HDC HEE 32 BCM | 1826800000 |

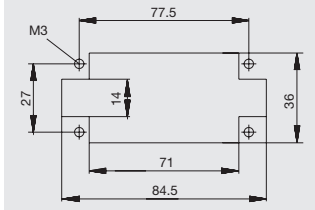
#### Dimensions



#### Arrangement of contacts



#### Mounting cut-out



### Accessories

#### Crimp contacts

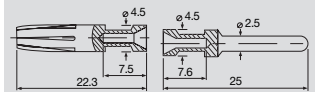
Surface silver



Surface gold



| Qty. | Male                | Order No.  | Female              | Order No.  |
|------|---------------------|------------|---------------------|------------|
| 100  | HDC-C-HE-SM0.5AG    | 1200500000 | HDC-C-HE-BM0.5AG    | 1201100000 |
| 100  | HDC-C-HE-SM0.75-1AG | 1200600000 | HDC-C-HE-BM0.75-1AG | 1201200000 |
| 100  | HDC-C-HE-SM1.5AG    | 1200700000 | HDC-C-HE-BM1.5AG    | 1201300000 |
| 100  | HDC-C-HE-SM2.5AG    | 1200800000 | HDC-C-HE-BM2.5AG    | 1201400000 |
| 100  | HDC-C-HE-SM4.0AG    | 1200900000 | HDC-C-HE-BM4.0AG    | 1201500000 |
| 100  | HDC-C-HE-SM0.5AU    | 1651420000 | HDC-C-HE-BM0.5AU    | 1651470000 |
| 100  | HDC-C-HE-SM0.75-1AU | 1651430000 | HDC-C-HE-BM0.75-1AU | 1651480000 |
| 100  | HDC-C-HE-SM1.5AU    | 1651440000 | HDC-C-HE-BM1.5AU    | 1651490000 |
| 100  | HDC-C-HE-SM2.5AU    | 1651450000 | HDC-C-HE-BM2.5AU    | 1651500000 |
| 100  | HDC-C-HE-SM4.0AU    | 1651460000 | HDC-C-HE-BM4.0AU    | 1651510000 |



| Single contacts           | AWG No. |
|---------------------------|---------|
| Conductor mm <sup>2</sup> |         |
| 0.50                      | 20      |
| 0.75-1.00                 | 18      |
| 1.50                      | 16      |
| 2.50                      | 14      |
| 4.00                      | 12      |

#### Tools



| Crimping tool        | Order No.  |
|----------------------|------------|
| CTX CM 1.6/2.5       | 9018490000 |
| Contact removal tool | Order No.  |
| Removal Tool HE      | 1866750000 |

Selection of Housings RockStar® IP65  
Size 6

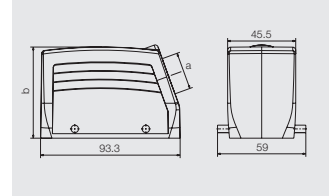


Hood

Hood, Cable Entry sideways



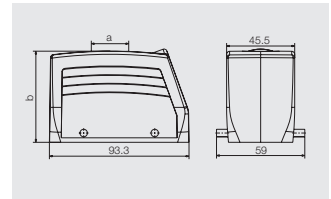
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 25 | with thread |       | 61     | HDC 16B TSBU 1M25G | 1788180000 |
| M 25 | with thread |       | 76     | HDC 40D TSBU 1M25G | 1787010000 |
| M 32 | with thread |       | 76     | HDC 40D TSBU 1M32G | 1787000000 |



Hood, Cable Entry at top



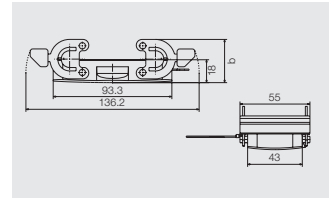
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 25 | with thread |       | 61     | HDC 16B TOBU 1M25G | 1788210000 |
| M 25 | with thread |       | 76     | HDC 40D TOBU 1M25G | 1787070000 |
| M 32 | with thread |       | 76     | HDC 40D TOBU 1M32G | 1787060000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for hoods | HDC 16B DMDQ 2QB | 1665270000 |

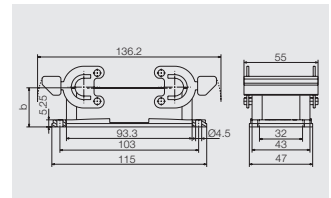


Base

Bulkhead housing



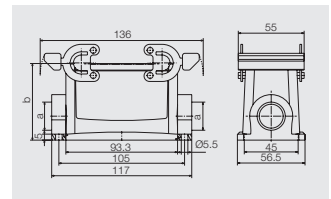
| Version | Cover | b (mm) | Designation | Order No.  |
|---------|-------|--------|-------------|------------|
|         |       | 29     | HDC 16B ABU | 1208600000 |



Base housing



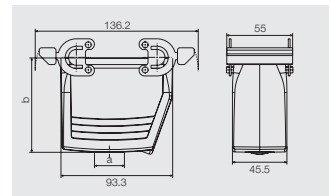
| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 25 | with thread |       | 64     | HDC 16B SBU 2M25G | 1788240000 |
| M 25 | with thread |       | 84     | HDC 40D SBU 2M25G | 1787120000 |
| M 32 | with thread |       | 84     | HDC 40D SBU 2M32G | 1787110000 |



Coupling hood



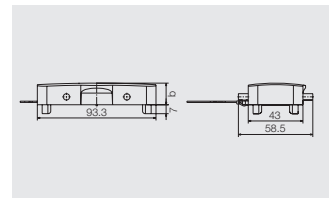
| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 25 | with thread |       | 79     | HDC 40D KBU 1M25G | 1787200000 |
| M 32 | with thread |       | 79     | HDC 40D KBU 1M32G | 1787190000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for bases | HDC 16B DODQ 4B0 | 1665260000 |





HEE series - high contact density

500 V, 16 A, Size 8

46 + ⊕

Inserts

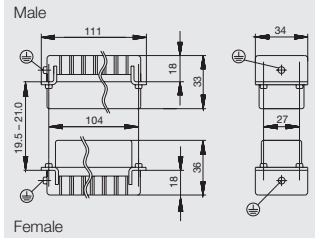


Crimp connection

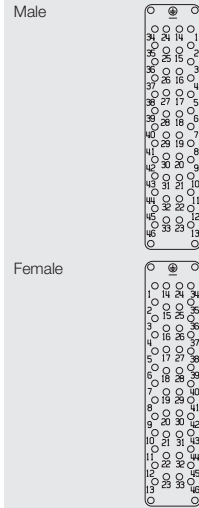


| Insert | Designation    | Order No.  |
|--------|----------------|------------|
| Male   | HDC HEE 46 SCM | 1826770000 |
| Female | HDC HEE 46 BCM | 1826780000 |

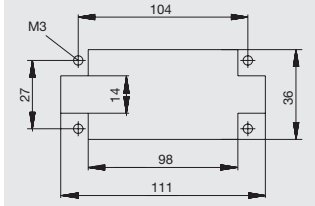
Dimensions



Arrangement of contacts



Mounting cut-out



Accessories

Crimp contacts

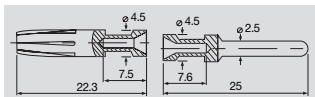
Surface silver



Surface gold



| Qty. | Male                | Order No.  | Female              | Order No.  |
|------|---------------------|------------|---------------------|------------|
| 100  | HDC-C-HE-SM0.5AG    | 1200500000 | HDC-C-HE-BM0.5AG    | 1201100000 |
| 100  | HDC-C-HE-SM0.75-1AG | 1200600000 | HDC-C-HE-BM0.75-1AG | 1201200000 |
| 100  | HDC-C-HE-SM1.5AG    | 1200700000 | HDC-C-HE-BM1.5AG    | 1201300000 |
| 100  | HDC-C-HE-SM2.5AG    | 1200800000 | HDC-C-HE-BM2.5AG    | 1201400000 |
| 100  | HDC-C-HE-SM4.0AG    | 1200900000 | HDC-C-HE-BM4.0AG    | 1201500000 |
| 100  | HDC-C-HE-SM0.5AU    | 1651420000 | HDC-C-HE-BM0.5AU    | 1651470000 |
| 100  | HDC-C-HE-SM0.75-1AU | 1651430000 | HDC-C-HE-BM0.75-1AU | 1651480000 |
| 100  | HDC-C-HE-SM1.5AU    | 1651440000 | HDC-C-HE-BM1.5AU    | 1651490000 |
| 100  | HDC-C-HE-SM2.5AU    | 1651450000 | HDC-C-HE-BM2.5AU    | 1651500000 |
| 100  | HDC-C-HE-SM4.0AU    | 1651460000 | HDC-C-HE-BM4.0AU    | 1651510000 |



| Single contacts           | AWG No. |
|---------------------------|---------|
| Conductor mm <sup>2</sup> |         |
| 0.50                      | 20      |
| 0.75-1.00                 | 18      |
| 1.50                      | 16      |
| 2.50                      | 14      |
| 4.00                      | 12      |

Tools



| Crimping tool        | Order No.  |
|----------------------|------------|
| CTX CM 1.6/2.5       | 9018490000 |
| Contact removal tool | Order No.  |
| Removal Tool HE      | 1866750000 |

Selection of Housings RockStar® IP65  
Size 8

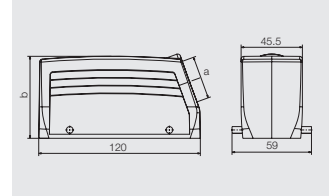


Hood

Hood, Cable Entry sideways



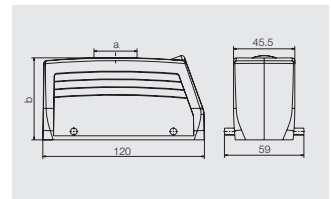
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 25 | with thread |       | 61     | HDC 24B TSBU 1M25G | 1787760000 |
| M 32 | with thread |       | 61     | HDC 24B TSBU 1M32G | 1787750000 |
| M 25 | with thread |       | 76     | HDC 64D TSBU 1M25G | 1786780000 |
| M 32 | with thread |       | 76     | HDC 64D TSBU 1M32G | 1786770000 |



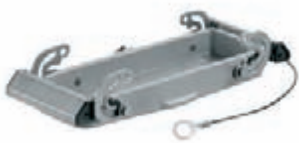
Hood, Cable Entry at top



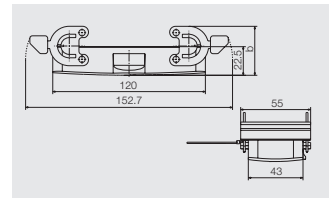
| a    | Version     | Cover | b (mm) | Designation        | Order No.  |
|------|-------------|-------|--------|--------------------|------------|
| M 25 | with thread |       | 61     | HDC 24B TOBU 1M25G | 1787820000 |
| M 32 | with thread |       | 61     | HDC 24B TOBU 1M32G | 1787810000 |
| M 32 | with thread |       | 76     | HDC 64D TOBU 1M32G | 1786830000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for hoods | HDC 24B DMDQ 2QB | 1665640000 |

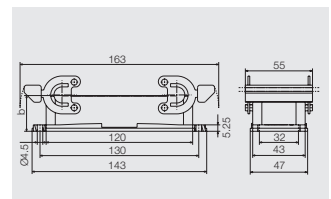


Base

Bulkhead housing



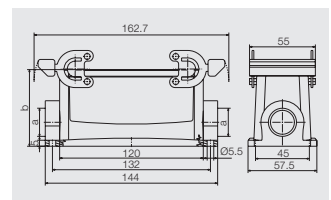
| Version | Cover | b (mm) | Designation | Order No.  |
|---------|-------|--------|-------------|------------|
|         |       | 29.3   | HDC 24B ABU | 1212400000 |



Base housing



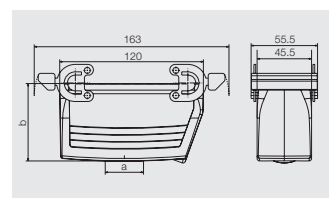
| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 25 | with thread |       | 64     | HDC 24B SBU 2M25G | 1787870000 |
| M 25 | with thread |       | 84     | HDC 64D SBU 2M25G | 1786890000 |
| M 32 | with thread |       | 84     | HDC 64D SBU 2M32G | 1786880000 |



Coupling hood



| a    | Version     | Cover | b (mm) | Designation       | Order No.  |
|------|-------------|-------|--------|-------------------|------------|
| M 25 | with thread |       | 65     | HDC 24B KBU 1M25G | 1787920000 |
| M 32 | with thread |       | 79     | HDC 64D KBU 1M32G | 1786960000 |



Cover



| Version   | Designation      | Order No.  |
|-----------|------------------|------------|
| for bases | HDC 24B DODQ 4BO | 1665630000 |

