# HC-BB18-I-PT-F - Contact insert

1014419

https://www.phoenixcontact.com/us/products/1014419

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Contact insert, number of positions: 18+PE, size: B10, power contacts: 18, control contacts: 0, number of connections per position: 1, Socket, Push-in connection, 500 V, 16 A, 0.5 $mm^2$ ... 2.5 $mm^2$, application: Power

## Your advantages

- Easy installation without tools, even when mounted, with push-in connection technology
- Shortest installation time compared to other connection technologies
- Quick and effortless wiring, in particular when space is tight
- Automatic cabling with robots possible
- Safe wiring and operation with color-coded actuators
- Shock and vibration-resistant in accordance with DIN EN 61373
- Cost-effective and fast coding with plastic profiles
- High contact density

## Commercial data

| | |
|---|---|
| Item number | 1014419 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF61 |
| Product key | AF7ABD |
| GTIN | 4055626492964 |
| Weight per piece (including packing) | 82 g |
| Weight per piece (excluding packing) | 82.7 g |
| Customs tariff number | 85366990 |
| Country of origin | CN |

## Technical data

### Notes

| | |
|---|---|
| General | for flexible conductors with or without ferrules |
| General | Connectors may be operated only when there is no load/voltage. |
| General | Flexible conductors may be used without ferrules as long as they comply with IEC 60228 Class 1 ... 5. The individual litz wires must have a min. diameter of 0.17 mm. |

### Mounting

| | |
|---|---|
| Assembly note | To ensure correct use, installation in housing with IP54 protection or better is required |

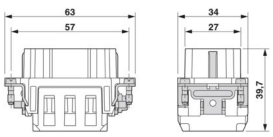
### Product properties

| | |
|---|---|
| Product type | Contact insert with a fixed no. of positions |
| Series | HC-BB |
| Application | Power |
| Type | B10 |
| Number of positions | 18 |
| Connection profile | 18+PE |
| Contact numbering | 1 - 18 |
| Number of connections per position | 1 |
| No. of power contacts | 18 |
| No. of control contacts | 0 |
| Contact material type | turned |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |
| Degree of pollution | 3 |

### Dimensions

| | |
|---|---|
| Dimensional drawing |   |
| Width | 34 mm |
| Height | 33.2 mm |
| Length | 64 mm |
| Drill hole distance, horizontal | 57 mm |
| Drill hole distance, vertical | 27 mm |

Mechanical characteristics

| | |
|---|---|
| Minimum housing height | 72 mm |
| Contact diameter | 2.5 mm |

## Connection data

### Connection technology

| | |
|---|---|
| Connection technology | Push-in connection |
| Number of connections per position | 1 |
| Connection in acc. with standard | IEC / EN |

### Conductor connection

| | |
|---|---|
| Conductor cross-section | 0.5 mm² ... 2.5 mm² |
| Connection cross section AWG | 20 ... 14 |
| Tightening torque | 0.8 Nm ... 1.2 Nm (PE connection) |
| | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length of the individual wire | 10 mm |

## Electrical properties

| | |
|---|---|
| Rated voltage (III/3) | 500 V |
| Rated surge voltage | 6 kV |
| Rated current | 16 A (power contacts) |
| SCCR | 5 kA |

## Mechanical properties

### Mechanical data

| | |
|---|---|
| Insertion/withdrawal cycles | ≥ 500 |

## Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Contact material | Copper alloy |
| Contact surface material | Ag |
| Contact carrier material | PC |

## Environmental and real-life conditions

### Ambient conditions

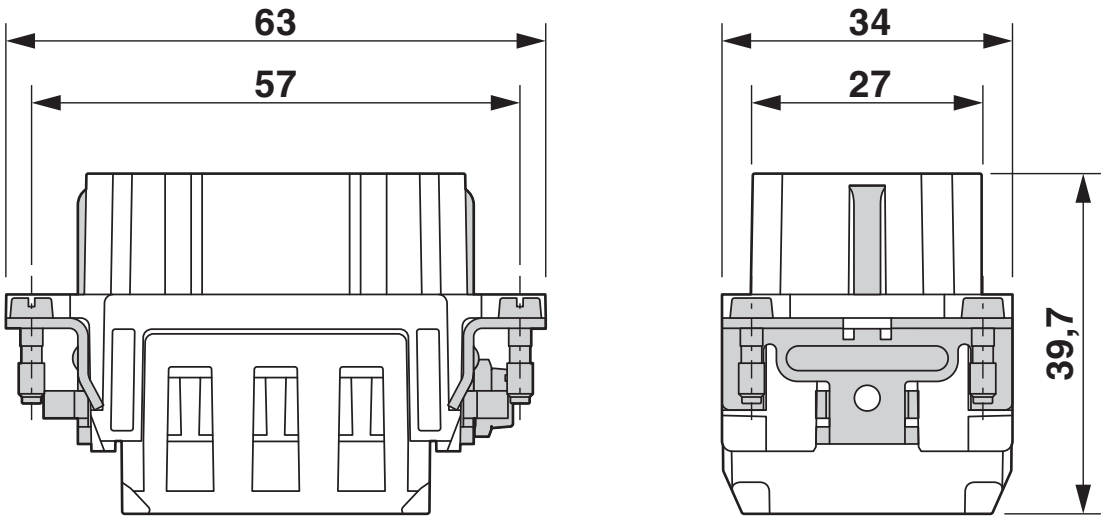
| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 125 °C (including heating up of contacts) |

## Standards and regulations

| | |
|---|---|
| Standards/regulations | PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

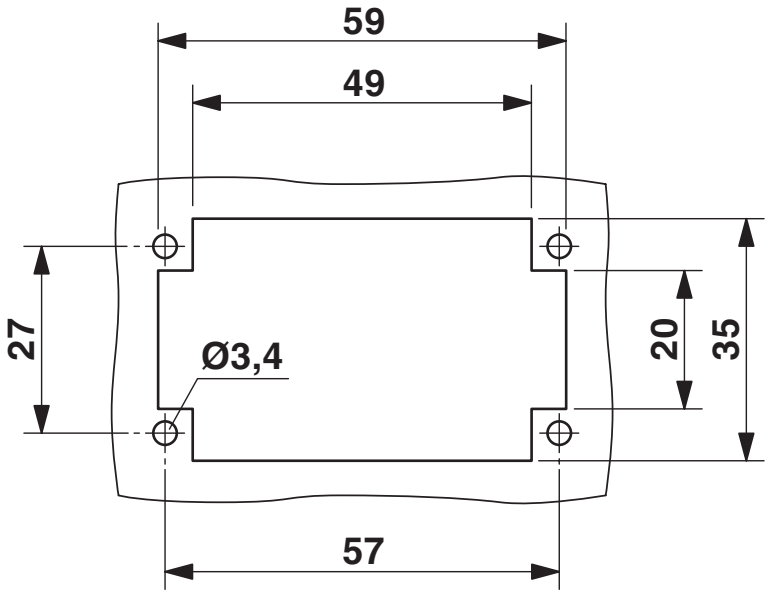
## Drawings

Dimensional drawing



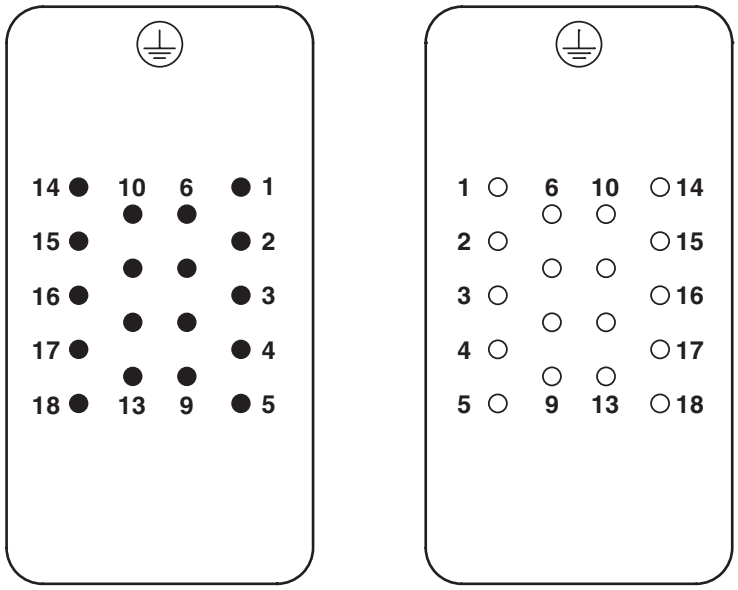

Female insert

Dimensional drawing



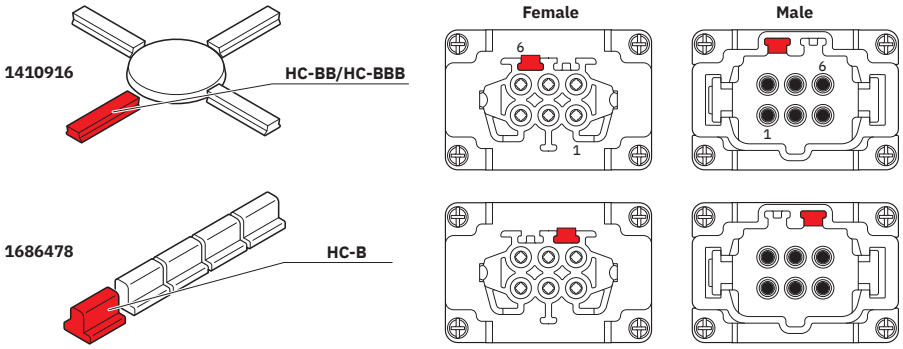

Mounting cutout when used without housing

Schematic diagram



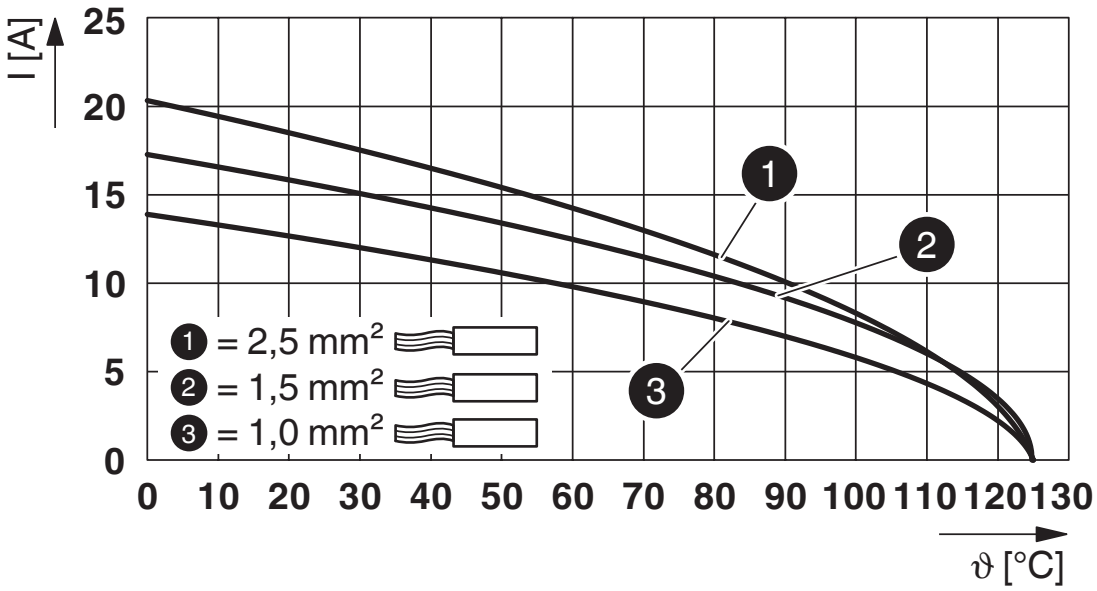

Connector pin assignment: Left pin - right socket

Schematic diagram



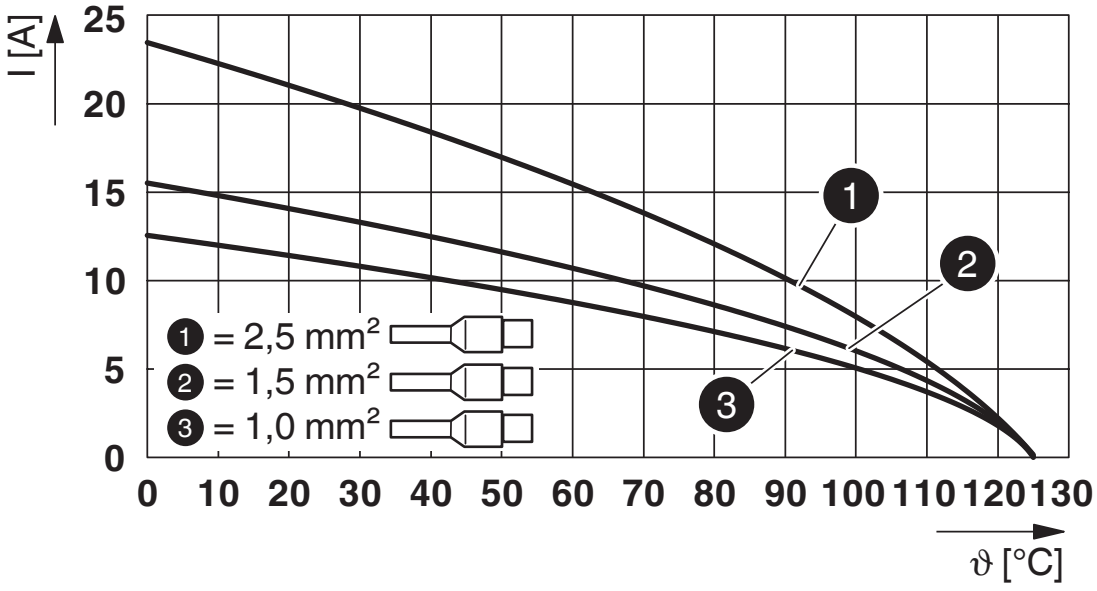

Coding options

Diagram




Derating diagram for flexible conductors

Diagram




Derating diagram for flexible conductors with ferrule

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1014419

**DNV**
Approval ID: TAE000037S

**UL Recognized**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 21 A | - 14 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440205 |
| ECLASS-15.0 | 27440205 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC000438 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121500 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |


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