

HC-BB18-I-PT-M - Contact insert



1014420

<https://www.phoenixcontact.com/us/products/1014420>

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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, Pin, Push-in connection, 500 V, 16 A, 0.5 mm² ... 2.5 mm², 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 | 1014420 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF61 |
| Product key | AF7ABD |
| GTIN | 4055626492179 |
| Weight per piece (including packing) | 76.4 g |
| Weight per piece (excluding packing) | 76 g |
| Customs tariff number | 85366990 |
| Country of origin | CN |

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

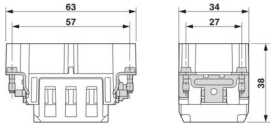
Product properties

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

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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 mm ² ... 2.5 mm ² |
| 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 |
| Standards/regulations | PC |

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

Testing

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

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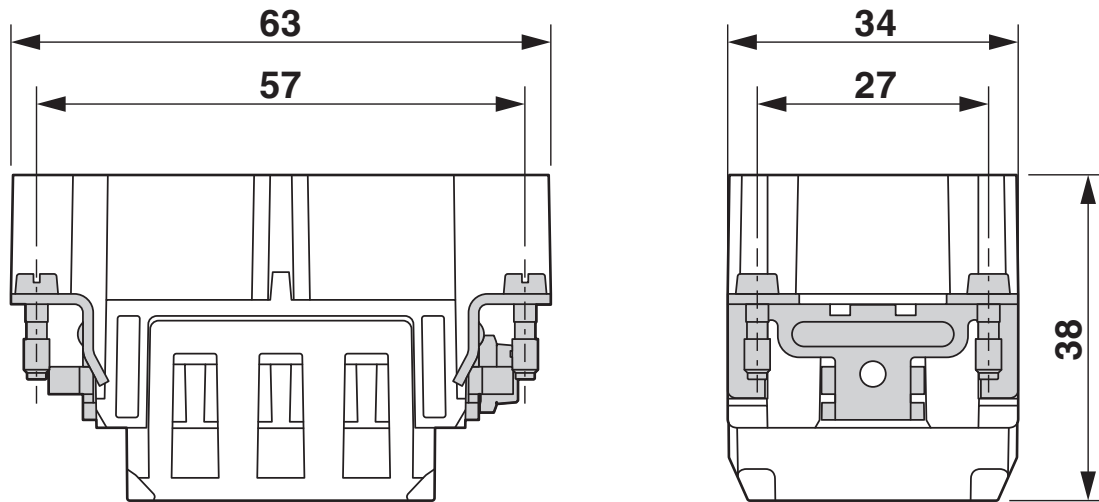


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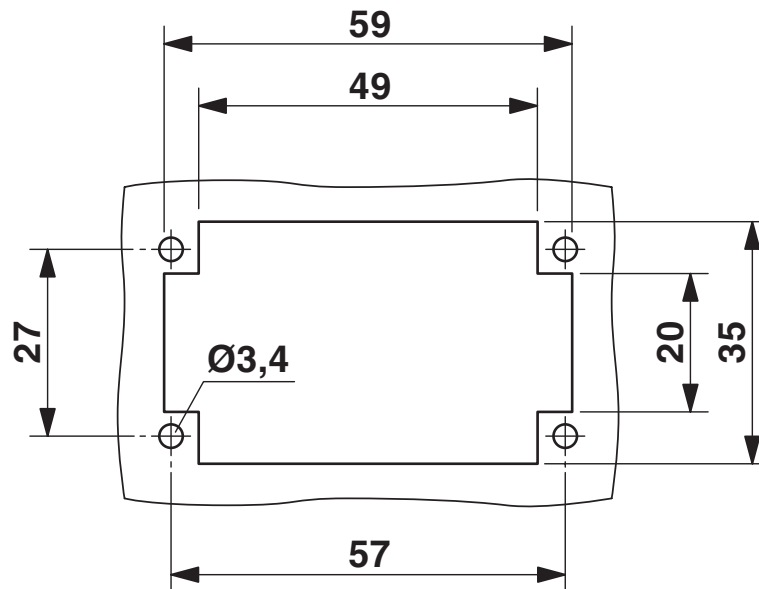
Drawings

Dimensional drawing



Male insert

Dimensional drawing



Mounting cutout when used without housing

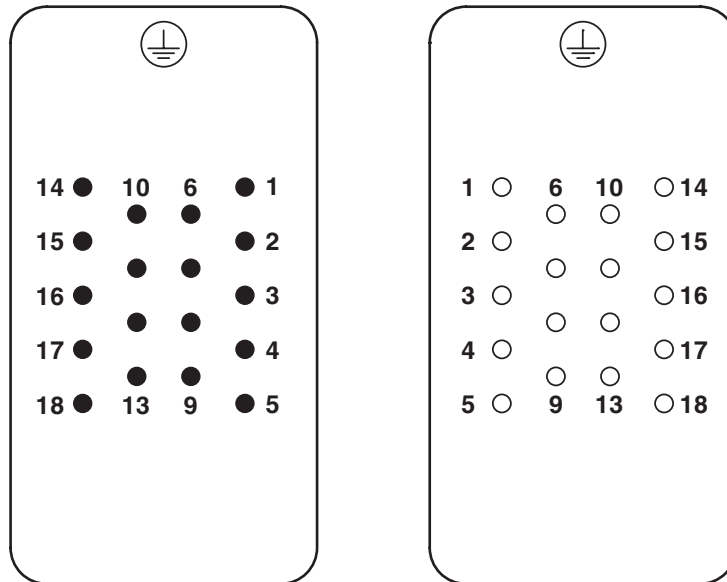
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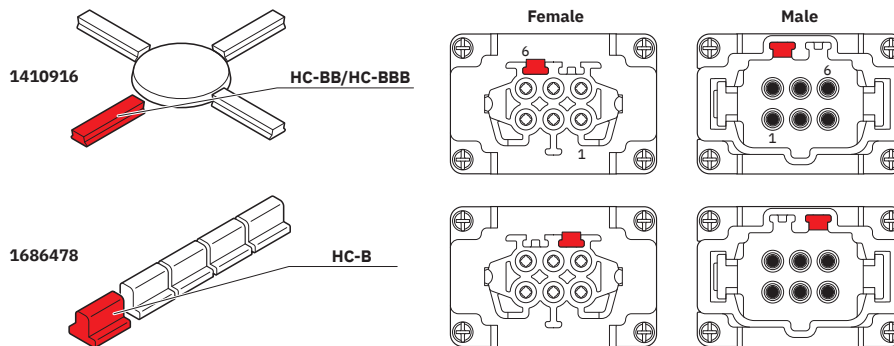


Schematic diagram



Connector pin assignment: Left pin - right socket

Schematic diagram

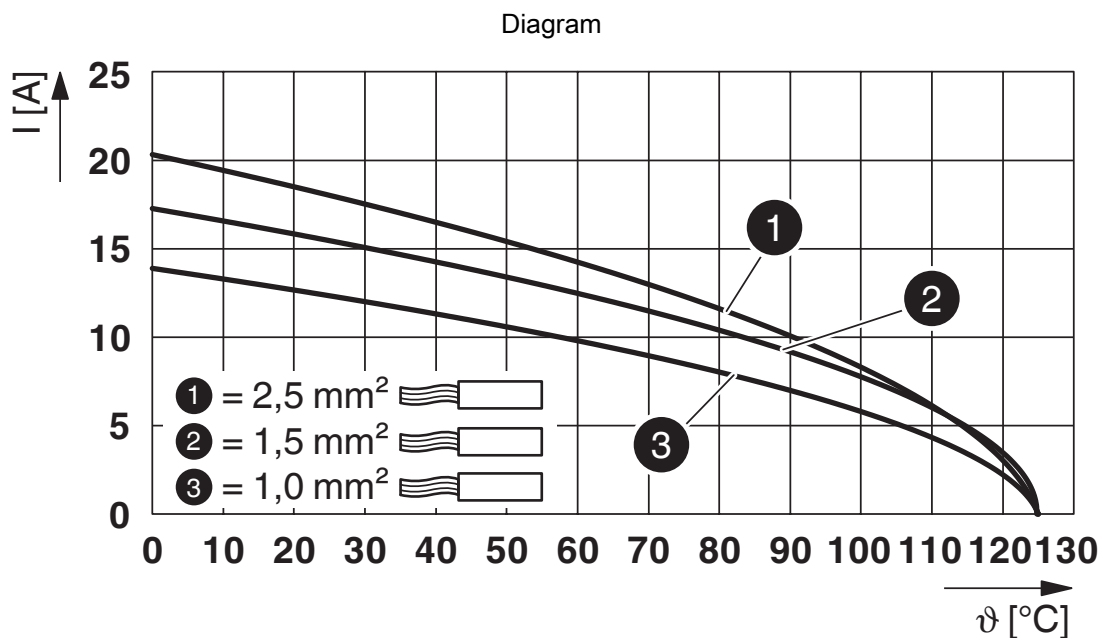


Coding options

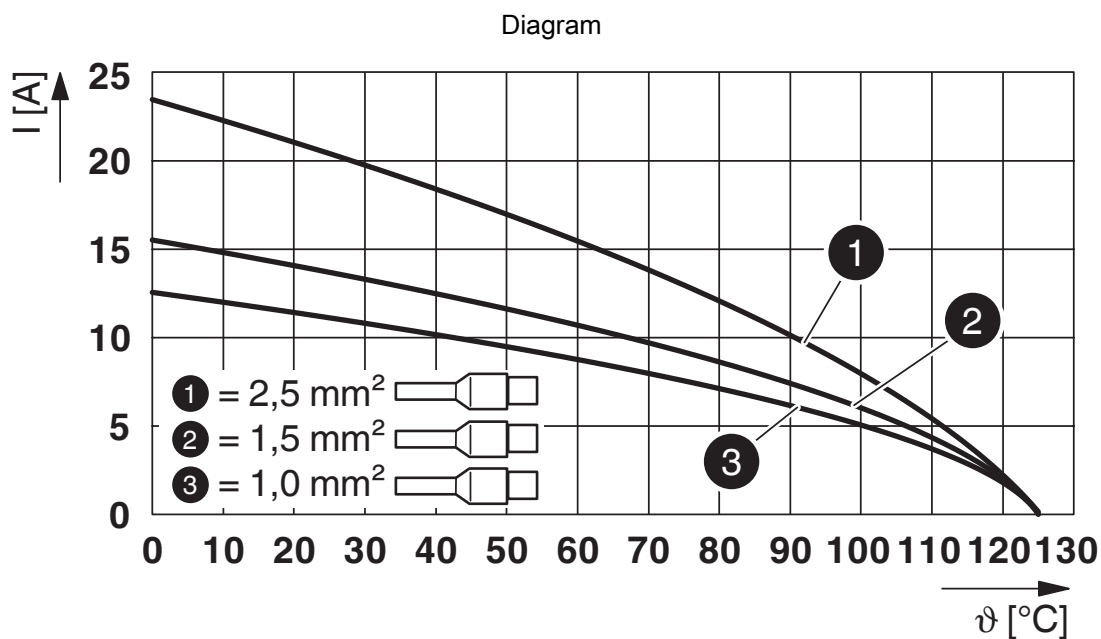
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Derating diagram for flexible conductors



Derating diagram for flexible conductors with ferrule

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Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1014420>

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 | - |

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Classifications

ECLASS

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

ETIM

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

UNSPSC

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

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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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