# HC-COM-Q4/2-I-AT/PT-M - Contact insert

1079558

https://www.phoenixcontact.com/us/products/1079558

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Contact insert, number of positions: 4+2+PE, size: COM, power contacts: 4, control contacts: 2, number of connections per position: 1, Pin, Axial screw connection, 400 V, 40 A, 2.5 mm$^2$ ... 6 mm$^2$, application: Power/signal

## Product description

Contact insert, incl. 4 mounting screws

## 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

## Commercial data

| | |
|---|---|
| Item number | 1079558 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF61 |
| Product key | BF7ABH |
| Catalog page | Page 649 (C-2-2019) |
| GTIN | 4055626800363 |
| Weight per piece (including packing) | 64.5 g |
| Weight per piece (excluding packing) | 22.22 g |
| Customs tariff number | 85366990 |
| Country of origin | CN |

## Technical data

### Notes

| | |
|---|---|
| General | Connectors may be operated only when there is no load/voltage. |

### Mounting

| | |
|---|---|
| Assembly instructions | To ensure correct use, installation in housing with IP54 protection or better is required |
| | **Note regarding axial connection technology:**<br>Only for stranded wires. The specified conductor cross sections refer to the geometric cross section of the cable used.<br>Cables with a geometric cross section which deviates significantly from the nominal cable cross section must be checked before use.<br>The axial connection technology connection space is designed for fine strand cables according to VDE 0295 Class 5. Deviating cable structures (e.g., Class 6 cables) must be checked before use.<br>**Assembly instructions**<br>Before assembly, ensure that the tapered screw is fully loosened (chamber is open). Cables must not be twisted. The wires must be pushed into the contact chamber as far as they will go (until the insulation touches the contact). Hold the wires in position and tighten using an Allen key. The used wire end must be cut off before reconnection. The terminal screw must only be retightened once to prevent the litz wires from breaking. To prevent damage to the contact, the wire/cable must be mechanically held at an appropriate distance from the connection point (e.g., when used in a plate cut out). For notes on correct execution, see DIN VDE 0100-520:2003-06. Unused connections must be tightened with maximum torque. |
| Hexagonal socket | WAF 2 |

### Product properties

| | |
|---|---|
| Type | COM |
| Product type | Contact insert with a fixed no. of positions |
| Number of positions | 6 |
| Connection profile | 4+2+PE |
| Contact numbering | 1 - 4 (power contacts) |
| | 11 - 12 (control contacts) |
| Application | Power/signal |
| Number of connections per position | 1 |
| No. of power contacts | 4 |
| No. of control contacts | 2 |
| Contact material type | turned |
| Series | HC-COM |

Insulation characteristics

| | |
|---|---|
| Overvoltage category | III |

| Degree of pollution | 3 |
|---|---|

## Dimensions

| Dimensional drawing | |
|---|---|
| |  |
| Width | 22.5 mm |
| Height | 48 mm |
| Length | 42 mm |

### Mechanical characteristics

| Contact diameter | 4 mm |
|---|---|

## Connection data

### Connection technology

| Connection technology | Axial screw connection (power contacts) |
|---|---|
| | Push-in connection (control contacts) |
| Number of connections per position | 1 |
| Connection in acc. with standard | IEC / EN |

### Conductor connection

| Conductor cross section | 2.5 mm² ... 6 mm² (power contacts) |
|---|---|
| | 0.34 mm² ... 1.5 mm² (Control contacts, applies to flexible conductors with ferrules) |
| Connection cross section AWG | 14 ... 10 (power contacts) |
| | 22 ... 16 (Control contacts, applies to flexible conductors with ferrules) |
| Tightening torque | 1.5 Nm ... 1.8 Nm (2,5 mm² ... 6,0 mm²) |
| Stripping length of the individual wire | 9 mm +1 mm (Power) |
| | 8 mm (Signal) |

## Electrical properties

| Rated voltage (III/3) | 400 V (Phase-ground power contacts) |
|---|---|
| | 250 V (control contacts) |
| | 690 V (Phase-phase power contacts) |
| Rated voltage for power contacts | 400/690 V |
| | 250 |
| Rated surge voltage | 6 kV (Phase-phase power contacts) |
| | 4 kV (control contacts) |
| Rated current | 40 A (power contacts) |
| | 10 A (control contacts) |

## Mechanical properties

Mechanical data

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

## Material specifications

| | |
|---|---|
| Flammability rating according to UL 94 | V0 |
| Seal material | NBR |
| Contact material | Copper alloy |
| Contact surface material | Ag (alternatively Au) |
| Contact carrier material | PC |
| Material of contact surface, power contact | Ag |
| Material of contact surface, control contact | Ag (alternatively Au) |
| Standards/regulations | PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

## 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) |

## Drawings

Diagram



1 = 6 mm²
2 = 4 mm²
3 = 2,5 mm²
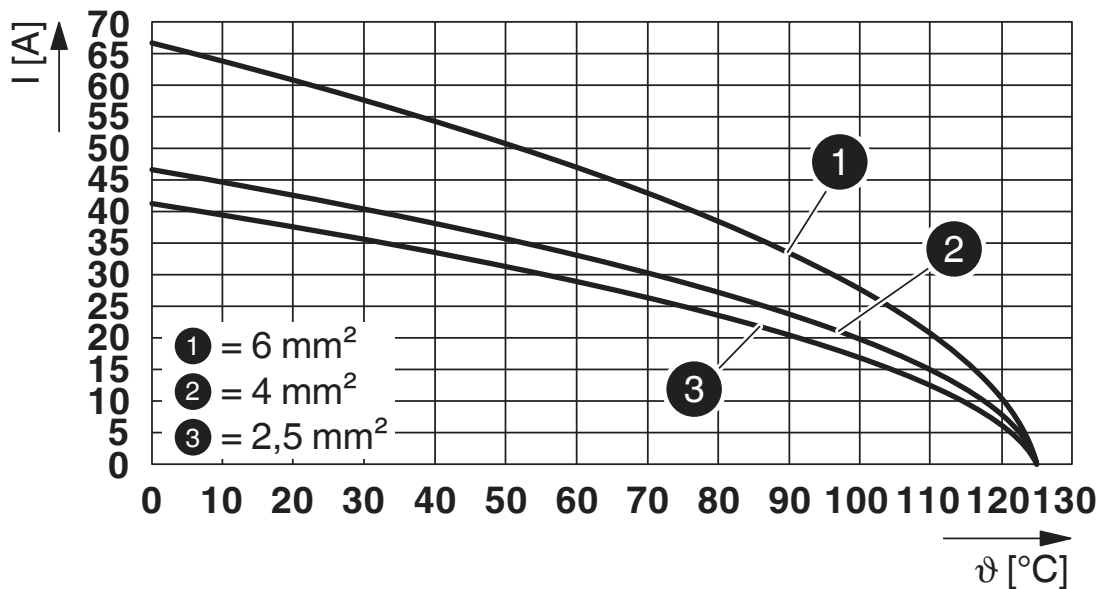
Derating diagram

Dimensional drawing
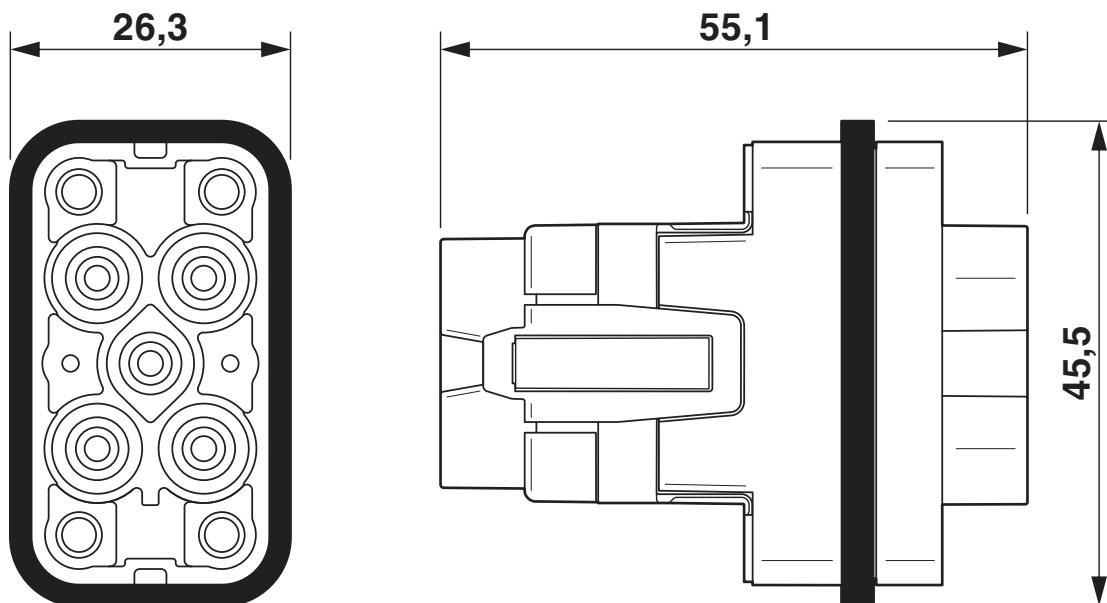


Dimensional drawing

Schematic diagram
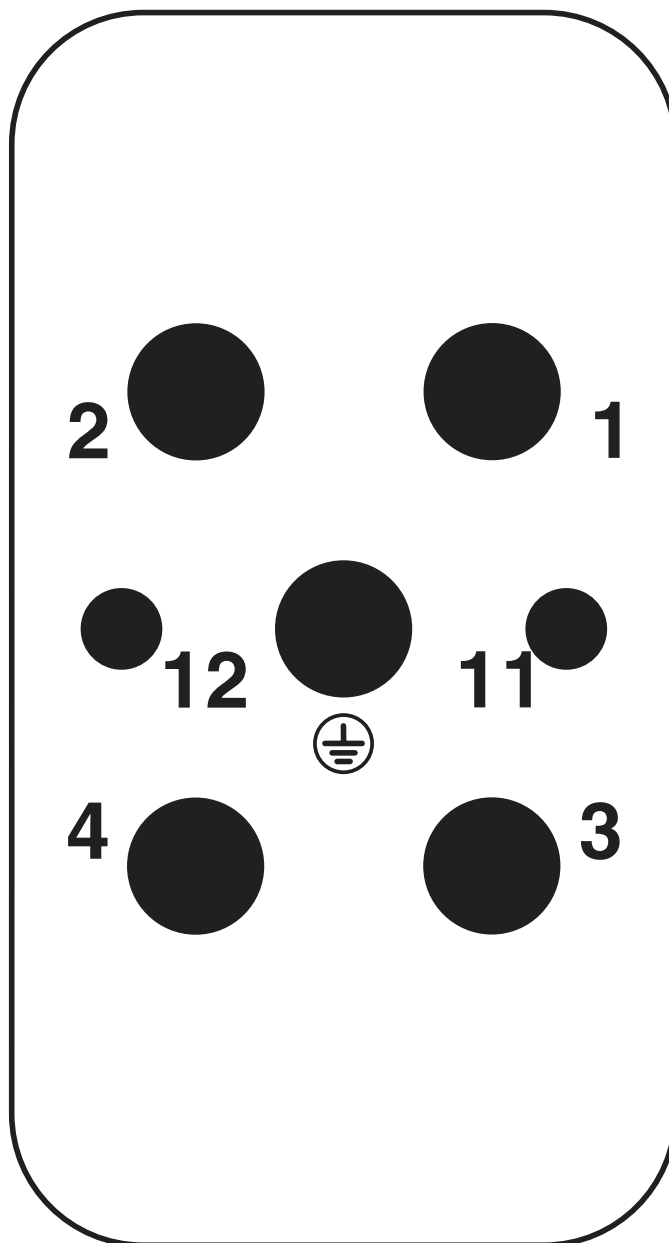


Connector pin assignment, connection side

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## Classifications

### ECLASS

| ECLASS-11.0 | 27440205 |
|---|---|
| ECLASS-12.0 | 27440205 |
| ECLASS-13.0 | 27440205 |

### ETIM

| ETIM 8.0 | EC000438 |
|---|---|

### UNSPSC

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

## Environmental product compliance

| | |
|---|---|
| REACh SVHC | Lead 7439-92-1 |

| | |
|---|---|
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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## Accessories

### CP-HC-S - Coding profile

1410916

https://www.phoenixcontact.com/us/products/1410916

Coding profile, for contact inserts HC-BB... / HC-A10... / HC-A16...

### CRIMPFOX CENTRUS 6S - Crimping pliers

1213144

https://www.phoenixcontact.com/us/products/1213144

Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm$^2$ … 6 mm$^2$, also for TWIN ferrules up to 2 x 4 mm$^2$, automatic cross section adjustment, lateral insertion, equipped with fall protection

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## CRIMPFOX 6 - Crimping pliers

1212034

https://www.phoenixcontact.com/us/products/1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm$^2$ ... 6.0 mm$^2$, lateral entry, trapezoidal crimp

## CF CRIMPHANDY 0,5 - Electrical crimping tool

1212463

https://www.phoenixcontact.com/us/products/1212463

Mobile handheld device, battery-powered, for processing on-tape ferrules 0.5 mm$^2$ with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 0.5 mm$^2$, packed in a robust case.

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## CF CRIMPHANDY 0,75 - Electrical crimping tool

1212464

https://www.phoenixcontact.com/us/products/1212464

Mobile handheld device, battery-powered, for processing on-tape ferrules 0.75 mm$^2$ with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 0.75 mm$^2$, packed in a robust case.

## CF CRIMPHANDY 1,0 - Electrical crimping tool

1212465

https://www.phoenixcontact.com/us/products/1212465

Mobile handheld device, battery-powered, for processing on-tape ferrules 1.0 mm$^2$ with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 1.0 mm$^2$, packed in a robust case.

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## CF CRIMPHANDY 1,5 - Electrical crimping tool

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Mobile handheld device, battery-powered, for processing on-tape ferrules 1.5 mm$^2$ with functional end, suitable for PVC insulated conductors (H07V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 1.5 mm$^2$, packed in a robust case.

## HC-COM-Q4/2-I-AT/PT-F - Contact insert

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