# QPD P 4PE2,5 9-16 BK - Connector

1403782

https://www.phoenixcontact.com/us/products/1403782

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Connector, connection method: IDC connection, number of positions: 4+PE, 1 $mm^2$ ... 2.5 $mm^2$, 690 V, 20 A, PA, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm

## Your advantages

- Innovative and time saving - QUICKON fast connection for time saving of up to 80 % for on-site connection
- Robust throughout: housing with IP68/IP69K and IK07 protection for a wide range of applications
- Safer connection with mechanical coding to protect against mismatching, and touch-proof protection in accordance with DIN EN 0105
- Easy maintenance – the connectors enable fast device replacement and preassembled cables simplify startup

## Commercial data

| | |
|---|---|
| Item number | 1403782 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | BF50 |
| Product key | AF6BCB |
| GTIN | 4046356667135 |
| Weight per piece (including packing) | 73.1 g |
| Weight per piece (excluding packing) | 72.425 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Installation connector |
| Product family | QPD |
| Type | QPD 5x2,5 |
| Number of positions | 5 |
| Connection profile | 4+PE |
| Position marking | 1, 2, 3, N, PE |
| Number of connections | 10 |
| Number of connections per position | 1 |

### Insulation characteristics

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

## Electrical properties

| | |
|---|---|
| Rated surge voltage (II/2) | 8 kV |
| Rated surge voltage (III/2) | 8 kV |
| Rated surge voltage (III/3) | 6 kV |
| Rated current | 20 A |
| Contact resistance | < 4 mΩ |
| rated voltage (II/2) | 1000 V |
| rated voltage (III/2) | 1000 V |
| Rated voltage (III/3) | 690 V |
| Nominal voltage $U_N$ | 690 V AC |
| | 690 V DC |
| Nominal current $I_N$ | 20 A |

## Connection data

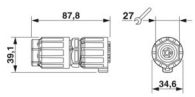
### Connection technology

| | |
|---|---|
| Connection method On the field side | IDC connection |
| Frequency of connections between conductors of the same cross section | max. 10 |

### Conductor connection

| | |
|---|---|
| Conductor cross-section flexibel | 1 mm² ... 2.5 mm² |
| Conductor cross-section solid | 1 mm² ... 2.5 mm² |
| Connection cross section AWG | 16 ... 14 |
| Tightening torque Union nut | 10 Nm |
| Wrench size Union nut | 27 mm |

## Dimensions

| | |
|---|---|
| Dimensional drawing |   |
| Width | 34.6 mm |
| Height | 39.1 mm |
| Length | 87.8 mm |
| Diameter | 39.1 mm |

## Material specifications

| | |
|---|---|
| Color | black (RAL 9005) |
| Material Housing | PA |
| Material Contact | Cu |
| Material Contact surface | silver-plated |
| Material Seal | NBR |
| Flammability rating according to UL 94 | V0 |
| Material wire insulation | PVC/PE/TPE/rubber |

## Cable/line

| | |
|---|---|
| Structure of individual litz in acc. with VDE 0295 / smallest wire diameter | VDE 0295 class 1 to 6/min. 0.15 mm |
| External cable diameter | 9 mm ... 16 mm |
| Wire diameter including insulation | 2 mm ... 3.8 mm |
| Position marking | 1, 2, 3, N, PE |
| Material wire insulation | PVC/PE/TPE/rubber |

## Mechanical properties

Mechanical data

| | |
|---|---|
| Insertion/withdrawal cycles | max. 50 |

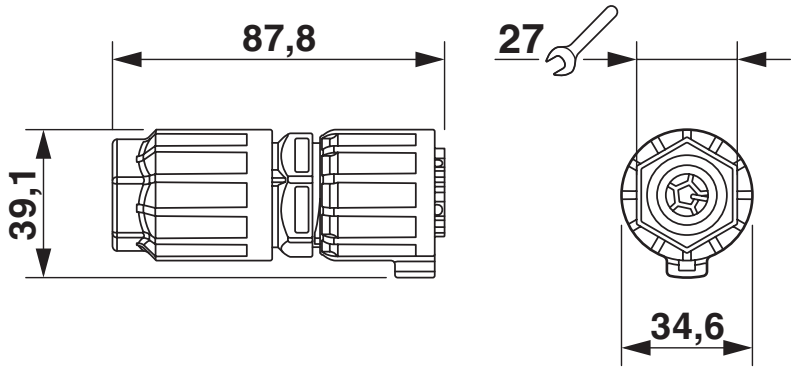
## Environmental and real-life conditions

Ambient conditions

| | |
|---|---|
| Degree of protection | IP66 |
| | IP68 (2 m / 24 h) |
| | IP69K |
| | Touch-proof when not plugged in (IP2X) |
| Impact strength | IK07 |
| Ambient temperature (operation) | -40 °C ... 100 °C |
| Temperature when conductor connected | -5 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 100 °C |

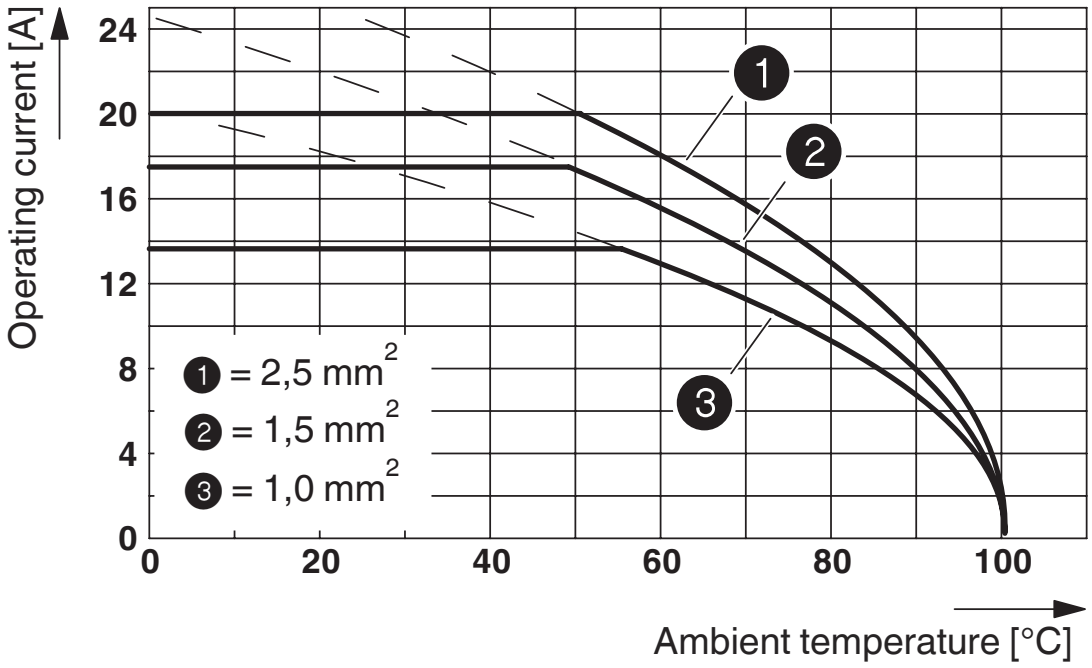
## Drawings

Dimensional drawing




Dimensional drawing: connector, 2.5 mm$^2$

Diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1403782

**IECEE CB Scheme**
Approval ID: DE1-65875

**DNV GL**
Approval ID: TAE00003J5

**VDE Zeichengenehmigung**
Approval ID: 40029149

**UL Listed**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 10 A | - 14 | - |

**cUL Listed**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 10 A | - 14 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440605 |
| ECLASS-15.0 | 27440605 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002560 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## 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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