

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



1403782

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

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Connector, product family: QPD, connection method: IDC connection, number of positions: 4+PE, 1 mm² ... 2.5 mm², 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 | BF6BCB |
| Catalog page | Page 481 (C-2-2017) |
| GTIN | 4046356667135 |
| Weight per piece (including packing) | 73.2 g |
| Weight per piece (excluding packing) | 72.425 g |
| Customs tariff number | 85366990 |
| Country of origin | PL |

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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

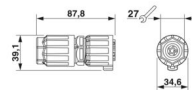
| | |
|----------------------------------|---|
| Conductor cross section flexibel | 1 mm ² ... 2.5 mm ² |
| Conductor cross section solid | 1 mm ² ... 2.5 mm ² |
| Connection cross section AWG | 16 ... 14 |
| Tightening torque Union nut | 10 Nm |
| Wrench size Union nut | 27 mm |

Dimensions

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| | |
|---------------------|--|
| 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 |
| 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 |
| Ambient temperature (operation) | -40 °C ... 100 °C |
| Temperature when conductor connected | -5 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 100 °C |

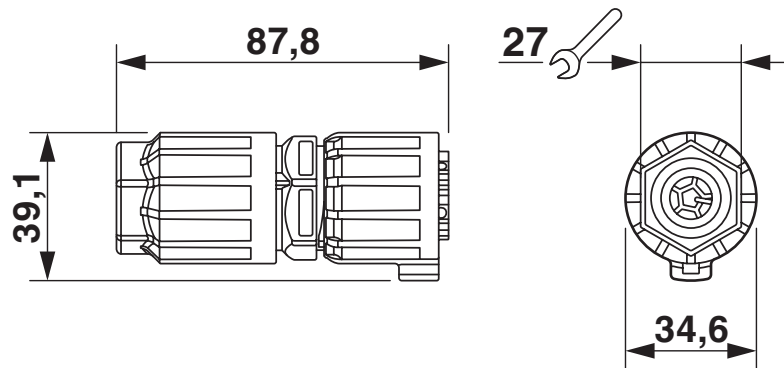
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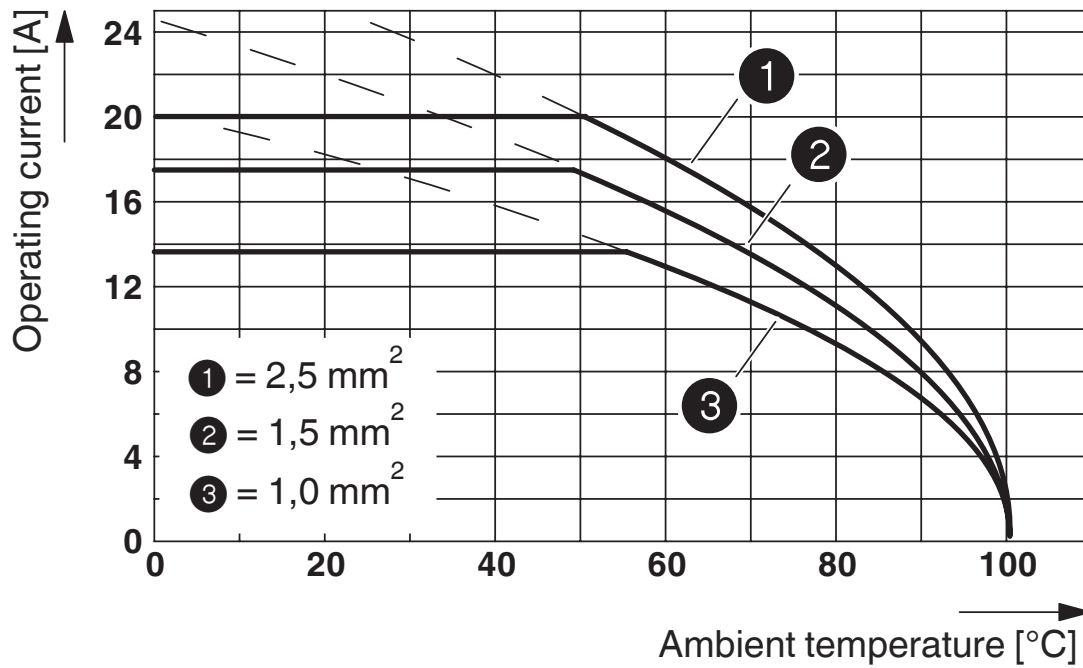
Drawings

Dimensional drawing



Dimensional drawing: connector, 2.5 mm²

Diagram



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Approvals

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



IECEE CB Scheme
Approval ID: DE1-65875



EAC
Approval ID: RU C-DE.BL08.B.00511



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 |
|-----------------------|-----------------------|-------------------|-----------------------------|
| 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 |
|-----------------------|-----------------------|-------------------|-----------------------------|
| 600 V | 10 A | - 14 | - |

cULus Listed

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27440605 |
| ECLASS-13.0 | 27440605 |
| ECLASS-12.0 | 27440605 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002560 |
|----------|----------|

UNSPSC

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

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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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Mandatory accessories

QPD W 4PE2,5 9-16 M20 0,5 BK - Panel feed-through

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Panel feed-through, product family: QPD, connection method: Single wires (Welded-on)/ IDC connection, number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 9 mm ... 16 mm, 2.5 mm², wires cut flat at the end, cable length: 0.5 m

QPD W 4PE2,5 9-16 M20 1,0 BK - Panel feed-through

1403733

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Panel feed-through, product family: QPD, connection method: Single wires (Welded-on)/ IDC connection, number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 9 mm ... 16 mm, 2.5 mm², wires cut flat at the end, cable length: 1 m

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QPD W 4PE2,5 9-16 M20 FC BK - Panel feed-through

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Panel feed-through, product family: QPD, connection method: Spade connection (For slip-on sleeves according to DIN 46247-2)/ IDC connection, number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 15 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 9 mm ... 16 mm

QPD W 4PE2,5 9-16 M25 0,5 BK - Panel feed-through

1582561

<https://www.phoenixcontact.com/us/products/1582561>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 9 mm . .. 16 mm, 2.5 mm², wires cut flat at the end, cable length: 0.5 m

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

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QPD W 4PE2,5 9-16 M25 1,0 BK - Panel feed-through

1582562

<https://www.phoenixcontact.com/us/products/1582562>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 9 mm . . . 16 mm, 2.5 mm², wires cut flat at the end, cable length: 1 m

QPD W 4PE2,5 9-16 M25 FC BK - Panel feed-through

1582563

<https://www.phoenixcontact.com/us/products/1582563>



QUICKON panel feed-through, black, 4+PE-pos. 1.0 mm² ... 2.5 mm²/690 V/20 A, with QUICKON nut, for 9 mm ... 16 mm cable diameter, M25 connection thread with 5 slip-on contacts for slip-on sleeves according to DIN 46247-2

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QPD W 4PE2,5 9-16 M25 DT BK - Panel feed-through

1411433

<https://www.phoenixcontact.com/us/products/1411433>



QUICKON panel feed-through, black, 4+PE-pos., 1.0 mm² ... 2.5 mm²/690 V/20 A, with QUICKON nut, for cable diameter of 9 mm ... 16 mm, with push-in spring-cage connection.

QPD C 4PE2,5 1X9-16 BK - Conductor connector

1403831

<https://www.phoenixcontact.com/us/products/1403831>



QUICKON cable connector, black, 4+PE-pos., 1.0 mm² ... 2.5 mm² / 690 V / 20 A, for 9 mm ... 16 mm cable diameter.

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

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QPD C 4PE2,5 2X9-16 BK - Conductor connector

1403836

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QUICKON cable connector, black, 4+PE-pos., 1.0 mm² ... 2.5 mm² / 690 V / 20 A, for 9 mm ... 16 mm cable diameter.

QPD T 4PE 2X9-16 BK - T distributor

1405404

<https://www.phoenixcontact.com/us/products/1405404>



QUICKON T-distributor, black, 4+PE-pos., 1.0 mm² ... 2.5 mm²/690 V/20 A, for cable diameter of 9 mm ... 16 mm, with two QUICKON nuts

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

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QPD T 4PE 3X9-16 BK - T distributor

1405402

<https://www.phoenixcontact.com/us/products/1405402>



QUICKON T-distributor, black, 4+PE-pos., 1.0 mm² ... 2.5 mm²/690 V/20 A, for cable diameter of 9 mm ... 16 mm, with three QUICKON nuts

QPD H 4PE2,5 4X9-16 BK - H distributor

1406369

<https://www.phoenixcontact.com/us/products/1406369>



QUICKON H-distributor, black, 4 pos. +PE, 1.0 mm² ... 2.5 mm² / 690 V / 20 A, for cable diameters of 9 mm ... 16 mm, with a sealing bolt.

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

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QPD W 4PE2,5 M20 0,5 BK - Panel feed-through

1403737

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Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm², wires cut flat at the end, cable length: 0.5 m

QPD W 4PE2,5 M20 1,0 BK - Panel feed-through

1403739

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Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm², wires cut flat at the end, cable length: 1 m

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

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QPD W 4PE2,5 M20 FC BK - Panel feed-through

1403741

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Panel feed-through, product family: QPD, connection method: Spade connection (For slip-on sleeves according to DIN 46247-2), number of positions: 4+PE, M20, Pin, 1 mm² ... 2.5 mm², 690 V, 15 A, PA, black, without QUICKON nut, coding: coded

QPD W 4PE2,5 M25 0,5 BK - Panel feed-through

1582565

<https://www.phoenixcontact.com/us/products/1582565>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm², wires cut flat at the end, cable length: 0.5 m

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QPD W 4PE2,5 M25 1,0 BK - Panel feed-through

1582566

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Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm², wires cut flat at the end, cable length: 1 m

QPD W 4PE2,5 M25 FC BK - Panel feed-through

1582567

<https://www.phoenixcontact.com/us/products/1582567>



Panel feed-through, product family: QPD, connection method: Spade connection (For slip-on sleeves according to DIN 46247-2), number of positions: 4+PE, M25, Pin, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, without QUICKON nut, coding: coded

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QPD H 4PE2,5 BK - H distributor

1406370

<https://www.phoenixcontact.com/us/products/1406370>



QUICKON H-distributor, black, 4+PE pos., 690 V/20 A, without QUICKON nut

Accessories

CP-QPD 5X2,5 - Coding profile

1404530

<https://www.phoenixcontact.com/us/products/1404530>



Coding profile, red, for insertion into the 5-pos. QUICKON dome and connector, can be positioned in 72° increments.

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

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QPD QSK 5X2,5 - Protective cap

1404528

<https://www.phoenixcontact.com/us/products/1404528>



Protective cap, transparent plastic, for 5x 2.5 mm² QPD QUICKON connection, IP50.

QPD PSK 5X2,5 - Protective cap

1404529

<https://www.phoenixcontact.com/us/products/1404529>



Protective cap, transparent plastic, for 5 x 2.5 mm² QPD connector, IP50.

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

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SEALING PLUG 14X22 RD - Closing cap

1400270

<https://www.phoenixcontact.com/us/products/1400270>

Closing cap, for threads pluggable, color: red



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

1039561

<https://www.phoenixcontact.com/us/products/1039561>

Connector, product family: QPD, connection method: IDC connection, number of positions: 4+PE, 1 mm² ... 2.5 mm², 690 V, 20 A, PA, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm



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

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QPD N 4PE2,5 9-16 BK - Nut

1459647

<https://www.phoenixcontact.com/us/products/1459647>



QUICKON nut, black, 4+PE-pos., 1.0 mm² ... 2.5 mm²/690 V/20 A, for cables with 9 mm ... 16 mm diameter.

QSS 27 - Socket wrench

1670646

<https://www.phoenixcontact.com/us/products/1670646>



Allen wrench, for loosening and fastening the QUICKON union nut, WAF 27 mm

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