

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



1403831

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

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QUICKON cable connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / 690 V / 20 A, for 9 mm ... 16 mm cable diameter.

## 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 and safe - with the cable connector, you can repair or extend cables quickly, in combination with the connector as well as the coupling connection

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1403831             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF50                |
| Product key                          | BF6CCB              |
| Catalog page                         | Page 483 (C-2-2019) |
| GTIN                                 | 4046356670289       |
| Weight per piece (including packing) | 68.4 g              |
| Weight per piece (excluding packing) | 68.4 g              |
| Customs tariff number                | 85366990            |
| Country of origin                    | PL                  |

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## Technical data

### Mounting

|                   |                         |
|-------------------|-------------------------|
| Wrench size       | 27 mm                   |
| Connection method | QUICKON fast connection |

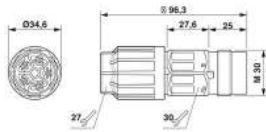
### Product properties

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

### Insulation characteristics

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

### Dimensions

|                          |  |
|--------------------------|--|
| Dimensional drawing      |  |
| Width                    | 34.6 mm  |
| Height                   | 34.6 mm  |
| Length                   | 96.3 mm  |
| Diameter                 | 34.6 mm  |
| Wrench size, union nut   | 27 mm  |
| Wrench size for mounting | 27 mm  |

### Connection data

#### Connection technology

|   |                         |
|---|-------------------------|
| Connection method   | QUICKON fast connection |
| Connection system, internal   | IDC connection          |
| Connection technology   | QUICKON connection      |
| Frequency of connections between conductors of the same cross section | max. 10                 |

#### Conductor connection

|                               |   |
|-------------------------------|---|
| Conductor cross section rigid | 1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
|-------------------------------|---|

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|                                  |   |
|----------------------------------|---|
| Conductor cross section flexible | 1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 16 ... 14                                 |
| Wrench size, union nut           | 27 mm                                     |
| Tightening torque, union nut     | 10 Nm                                     |
| Tightening torque, counter nut   | 5 Nm                                      |

## 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             | < 3 mΩ               |
| rated voltage (II/2)           | 1000 V               |
| rated voltage (III/2)          | 1000 V               |
| Rated voltage (III/3)          | 690 V                |
| Nominal voltage U <sub>N</sub> | 690 V AC<br>690 V DC |
| Nominal current I <sub>N</sub> | 20 A                 |

## Mechanical properties

### Mechanical data

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

## Material specifications

|  |               |
|--|---------------|
| Material                               | PA            |
| Flammability rating according to UL 94 | V0            |
| Contact material                       | Cu            |
| Contact surface material               | silver-plated |
| Contact carrier material               | PA            |

## 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                  |
| Halogen-free  | yes                                |

## Environmental and real-life conditions

### Ambient conditions

|                      |                   |
|----------------------|-------------------|
| Degree of protection | IP66              |
|                      | IP68 (2 m / 24 h) |
|                      | IP69K             |

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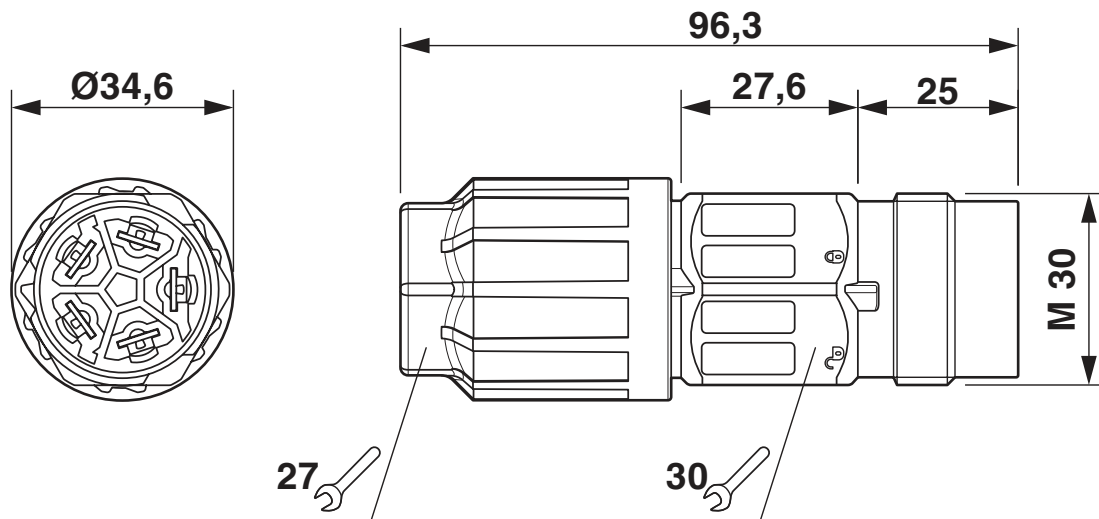
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|   |                   |
|---|-------------------|
| Ambient temperature (operation)         | -40 °C ... 100 °C |
| Temperature when conductor connected    | -5 °C ... 50 °C   |
| Ambient temperature (storage/transport) | -40 °C ... 100 °C |

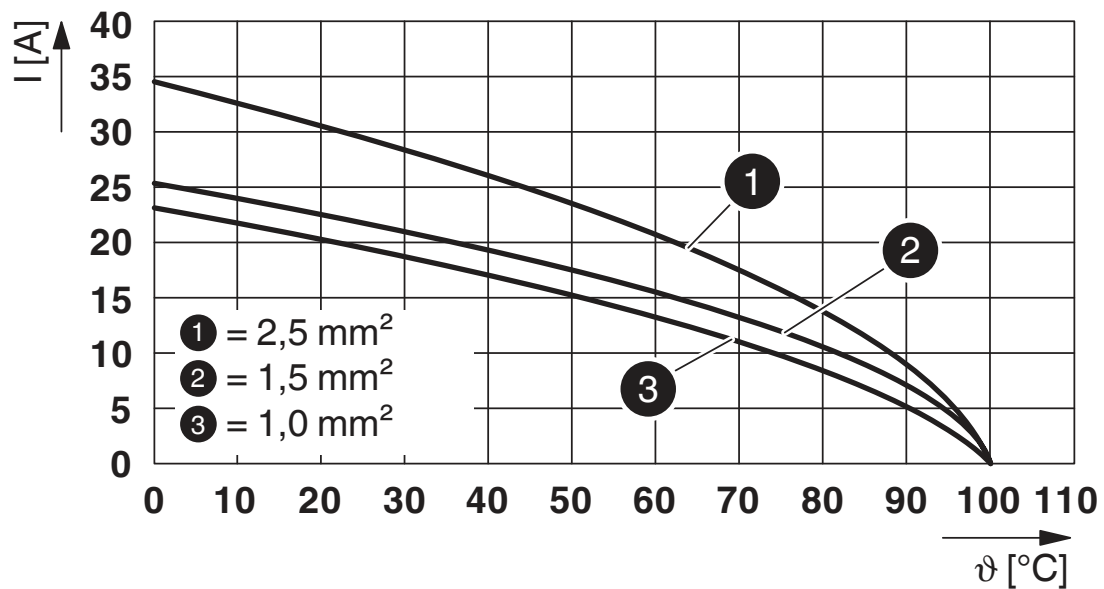
Drawings

Dimensional drawing



QPD C 5x2.5 dimensional drawing

Diagram



Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1403831>



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



**EAC**  
Approval ID: RU C-DE.AI30.B.01102



**DNV GL**  
Approval ID: TAE00003J5



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



**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-12.0 | 27440605 |
| ECLASS-13.0 | 27440605 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC002560 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |



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### Mandatory accessories

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

1403782

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



QUICKON connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/690 V/20 A, with QUICKON nut, for cables with 9 mm ... 16 mm diameter.

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

1039561

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



QUICKON connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/690 V/20 A, with QUICKON nut, for cables with 9 mm ... 16 mm diameter.

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

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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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/690 V/20 A, for cables with 9 mm ... 16 mm diameter.

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## 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 C 4PE2,5 1X9-16 BK - Conductor connectors

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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 mm<sup>2</sup> QPD QUICKON connection, IP50.

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### QPD QSK BK 5X2,5 FS - Protective cap

1404525

<https://www.phoenixcontact.com/us/products/1404525>



Protective cap, plastic, for QUICKON connection, black, with retaining cord, IP68

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

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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

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

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Panel feed-through, QUICKON connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm, assembly thread: M20, Single wires (welded-on), 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 0.5 m

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

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

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Panel feed-through, QUICKON connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm, assembly thread: M20, Single wires (welded-on), 2.5 mm<sup>2</sup>, 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

1403735

<https://www.phoenixcontact.com/us/products/1403735>



Panel feed-through, QUICKON connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 15 A, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm, assembly thread: M20, Spade connection (For slip-on sleeves according to DIN 46247-2)

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

1582561

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



Panel feed-through, QUICKON connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm, assembly thread: M25, Single wires (welded-on), 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 0.5 m

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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, QUICKON connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, black, with QUICKON nut, external cable diameter: 9 mm ... 16 mm, assembly thread: M25, Single wires (welded-on), 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 1 m

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

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## 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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/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 connectors

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

1403836

<https://www.phoenixcontact.com/us/products/1403836>



QUICKON cable connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / 690 V / 20 A, for 9 mm ... 16 mm cable diameter.

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## 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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/690 V/20 A, for cable diameter of 9 mm ... 16 mm, with two QUICKON nuts



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

1403831

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



## 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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>/690 V/20 A, for cable diameter of 9 mm ... 16 mm, with three QUICKON nuts

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## 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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / 690 V / 20 A, for cable diameters of 9 mm ... 16 mm, with a sealing bolt.

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



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## 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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