

# QPD P 4PE2,5 6-11 BK - Connector



1403784

<https://www.phoenixcontact.com/us/products/1403784>

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Connector, product family: QPD, connection method: IDC connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, external cable diameter: 6 mm ... 11 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	1403784
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF50
Product key	BF6BCB
Catalog page	Page 481 (C-2-2017)
GTIN	4046356667159
Weight per piece (including packing)	74.7 g
Weight per piece (excluding packing)	75 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	5
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

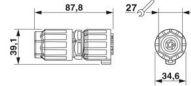
Conductor cross section flexibel	1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection cross section AWG	16 ... 14
Tightening torque Union nut	10 Nm
Wrench size Union nut	27 mm

### 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	6 mm ... 11 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
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## 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 ... 80 °C

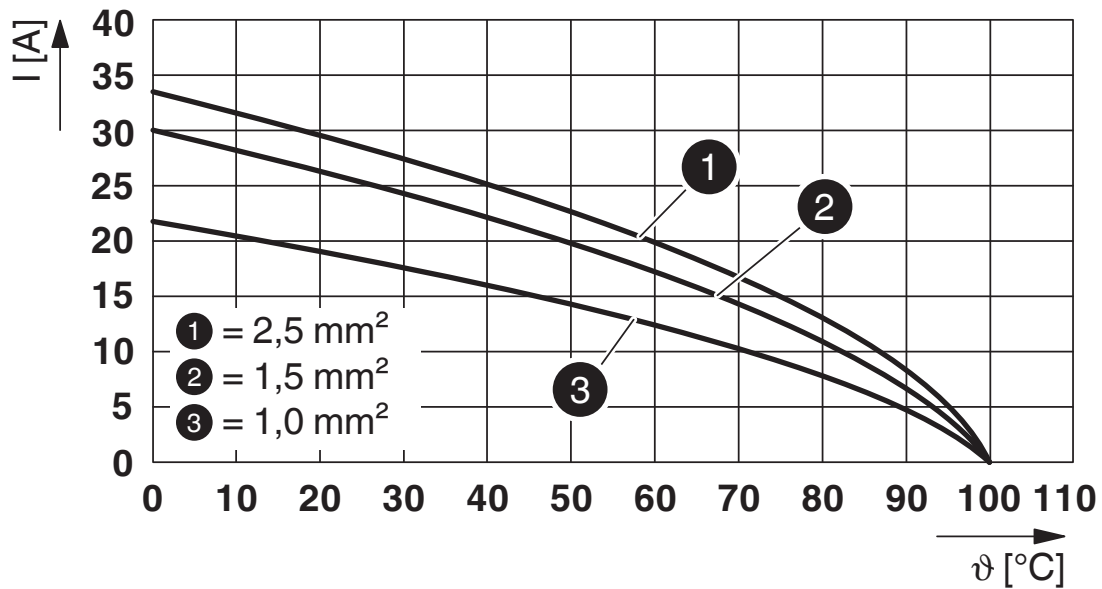
# QPD P 4PE2,5 6-11 BK - Connector

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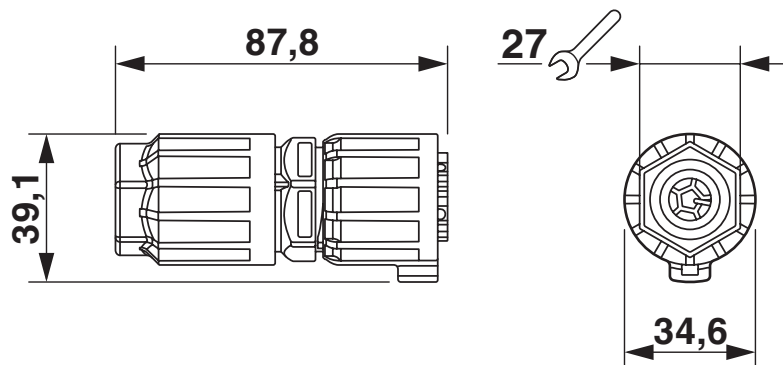
## Drawings

Diagram



Derating diagram

Dimensional drawing



Dimensional drawing: connector, 2.5 mm<sup>2</sup>

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1403784>



**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 $\text{mm}^2$
600 V	10 A	-	- 14



**cUL Listed**  
Approval ID: E468743

Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
600 V	10 A	- 14	-

**cULus Listed**

# QPD P 4PE2,5 6-11 BK - Connector



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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002560
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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 6-11 M20 0,5 BK - Panel feed-through

1403725

<https://www.phoenixcontact.com/us/products/1403725>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on)/ IDC connection, number of positions: 4+PE, M20, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 6 mm ... 11 mm, 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 6-11 M20 1,0 BK - Panel feed-through

1403727

<https://www.phoenixcontact.com/us/products/1403727>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on)/ IDC connection, number of positions: 4+PE, M20, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 6 mm ... 11 mm, 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 1 m



## QPD P 4PE2,5 6-11 BK - Connector

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## QPD W 4PE2,5 6-11 M20 FC BK - Panel feed-through

1403729

<https://www.phoenixcontact.com/us/products/1403729>



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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 15 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 6 mm ... 11 mm

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## QPD W 4PE2,5 6-11 M25 0,5 BK - Panel feed-through

1582557

<https://www.phoenixcontact.com/us/products/1582557>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 6 mm . .. 11 mm, 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 0.5 m

## QPD P 4PE2,5 6-11 BK - Connector

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## QPD W 4PE2,5 6-11 M25 FC BK - Panel feed-through

1582559

<https://www.phoenixcontact.com/us/products/1582559>



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 6 mm ... 11 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 6-11 M25 DT BK - Panel feed-through

1411432

<https://www.phoenixcontact.com/us/products/1411432>



Panel feed-through, product family: QPD, connection method: Push-in connection/ IDC connection, number of positions: 4+PE, M25, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, with QUICKON nut, coding: coded, external cable diameter: 6 mm ... 11 mm

# QPD P 4PE2,5 6-11 BK - Connector

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## QPD C 4PE2,5 1X6-11 BK - Conductor connector

1403834

<https://www.phoenixcontact.com/us/products/1403834>



QUICKON cable connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / 690 V / 20 A, for 6 mm ... 11 mm cable diameter.

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## QPD C 4PE2,5 2X6-11 BK - Conductor connector

1403838

<https://www.phoenixcontact.com/us/products/1403838>



QUICKON cable connector, black, 4+PE-pos., 1.0 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> / 690 V / 20 A, for 6 mm ... 11 mm cable diameter.

# QPD P 4PE2,5 6-11 BK - Connector

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## QPD T 4PE 2X6-11 BK - T distributor

1405403

<https://www.phoenixcontact.com/us/products/1405403>



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 6 mm ... 11 mm, with two QUICKON nuts

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## QPD T 4PE 3X6-11 BK - T distributor

1405401

<https://www.phoenixcontact.com/us/products/1405401>



T distributor, product family: QPD, connection method: IDC connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, With three QUICKON nuts, coding: Coding profile, external cable diameter: 6 mm ... 11 mm

## QPD P 4PE2,5 6-11 BK - Connector

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## QPD H 4PE2,5 4X6-11 BK - H distributor

1406368

<https://www.phoenixcontact.com/us/products/1406368>



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 6 mm ... 11 mm, with a sealing bolt.

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

1403737

<https://www.phoenixcontact.com/us/products/1403737>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M20, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 0.5 m

# QPD P 4PE2,5 6-11 BK - Connector

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

1403739

<https://www.phoenixcontact.com/us/products/1403739>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M20, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 1 m

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

1403741

<https://www.phoenixcontact.com/us/products/1403741>



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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 15 A, PA, black, without QUICKON nut, coding: coded

# QPD P 4PE2,5 6-11 BK - Connector

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## 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 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 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 M25 1,0 BK - Panel feed-through

1582566

<https://www.phoenixcontact.com/us/products/1582566>



Panel feed-through, product family: QPD, connection method: Single wires (Welded-on), number of positions: 4+PE, M25, Pin, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, without QUICKON nut, coding: coded, 2.5 mm<sup>2</sup>, wires cut flat at the end, cable length: 1 m

## QPD P 4PE2,5 6-11 BK - Connector

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<https://www.phoenixcontact.com/us/products/1403784>



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

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## Accessories



# QPD P 4PE2,5 6-11 BK - Connector

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## 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.

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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.

## QPD P 4PE2,5 6-11 BK - Connector

1403784

<https://www.phoenixcontact.com/us/products/1403784>



## QPD PSK 5X2,5 - Protective cap

1404529

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



Protective cap, transparent plastic, for 5 x 2.5 mm<sup>2</sup> QPD connector, IP50.

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## QPD P 4PE2,5 6-11 TL BK - Connector

1039563

<https://www.phoenixcontact.com/us/products/1039563>



Connector, product family: QPD, connection method: IDC connection, number of positions: 4+PE, 1 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, 690 V, 20 A, PA, black, with QUICKON nut, external cable diameter: 6 mm ... 11 mm

## QPD P 4PE2,5 6-11 BK - Connector

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## QPD N 4PE2,5 6-11 BK - Nut

1459663

<https://www.phoenixcontact.com/us/products/1459663>



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 6 mm ... 11 mm diameter.

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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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