

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



1403784

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

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Connector, 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	AF6BCB
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

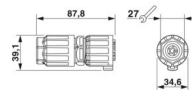
Conductor cross-section flexibel	1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section solid	1 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection cross section AWG	16 ... 14
Tightening torque Union nut	10 Nm
Wrench size Union nut	27 mm

### 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
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	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
	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 ... 80 °C

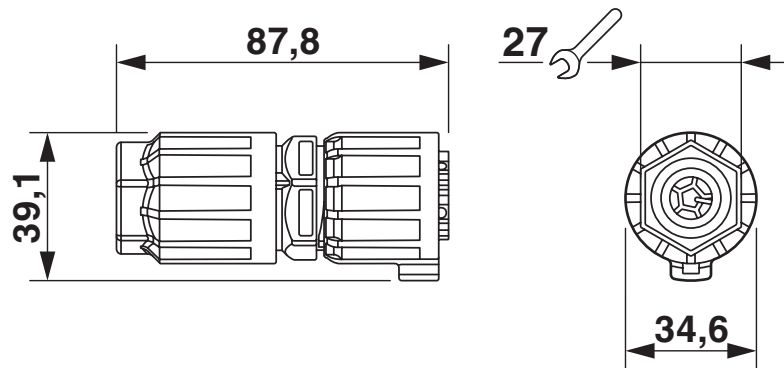
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1403784

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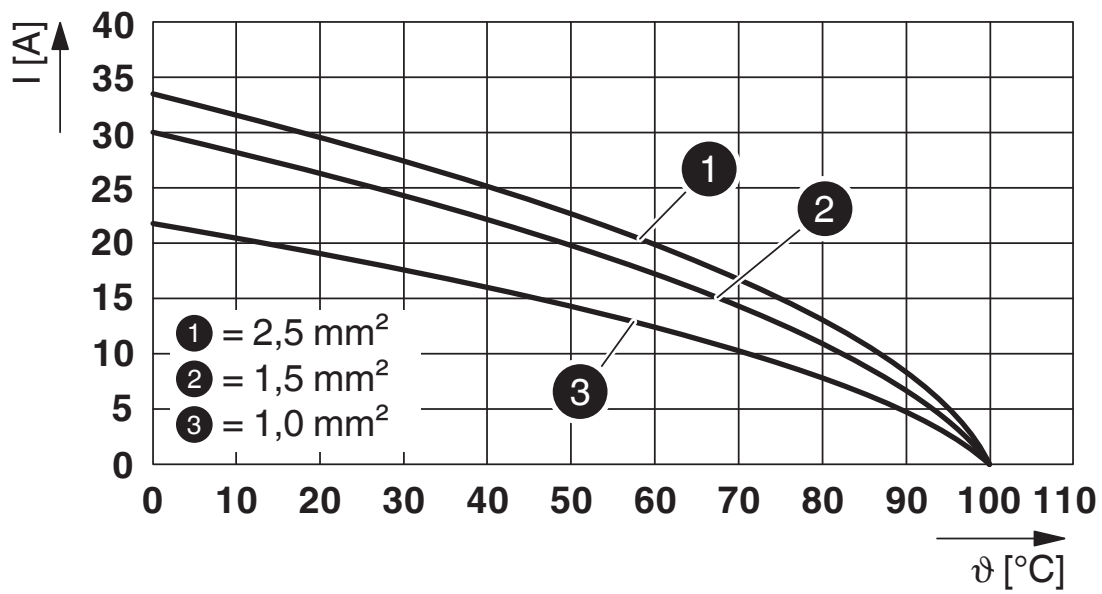
## Drawings

Dimensional drawing



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

Diagram



Derating diagram

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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



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



**cUL Listed**  
Approval ID: E468743

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

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## Classifications

### ECLASS

ECLASS-13.0	27440605
ECLASS-15.0	27440605

### ETIM

ETIM 10.0	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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### EF3.1 Climate Change

CO2e kg	1.198 kg CO2e
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