

# QPD P 4PE6,0 12-20 BK - Connector



1410387

<https://www.phoenixcontact.com/us/products/1410387>

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Connector, connection method: IDC connection, number of positions: 4+PE, 2.5 mm<sup>2</sup> ... 6 mm<sup>2</sup>, 690 V, 40 A, PA, black, with QUICKON nut, external cable diameter: 12 mm ... 20 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                          | 1410387       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF50          |
| Product key                          | AF6BCC        |
| GTIN                                 | 4046356929608 |
| Weight per piece (including packing) | 101.7 g       |
| Weight per piece (excluding packing) | 101.5 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | PL            |

## Technical data

### Product properties

|                                    |                        |
|------------------------------------|------------------------|
| Product type                       | Installation connector |
| Product family                     | QPD                    |
| Type                               | QPD 5x6,0              |
| 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               | 40 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 $I_N$       | 40 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 | 2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| Conductor cross-section solid    | 2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup> |
| Connection cross section AWG     | 14 ... 10                                 |
| Tightening torque Union nut      | 15 Nm                                     |

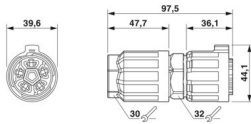
### Dimensions

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|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 39.6 mm                                                                            |
| Height              | 44.1 mm                                                                            |
| Length              | 97.5 mm                                                                            |
| Diameter            | 44.1 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                                                     | 12 mm ... 20 mm                    |
| Wire diameter including insulation                                          | 2.95 mm ... 5 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             |
| 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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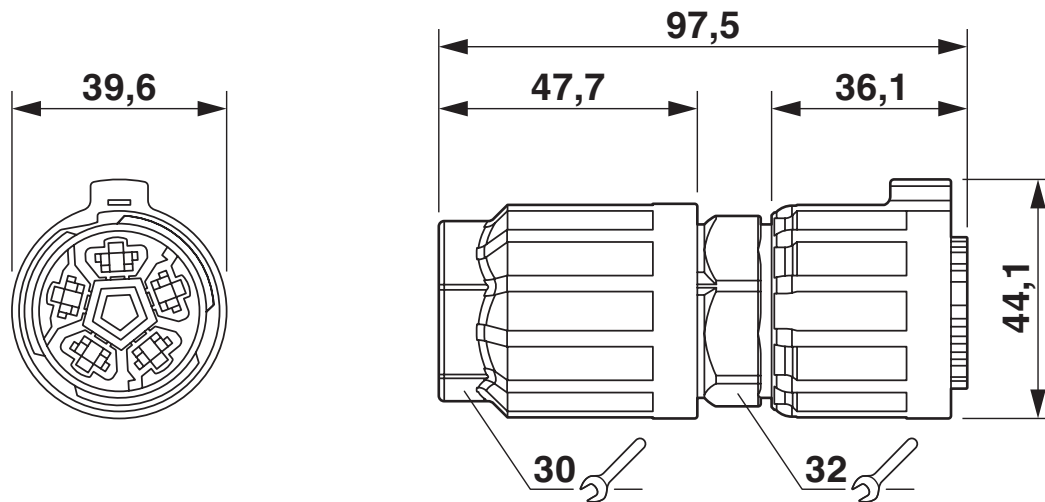
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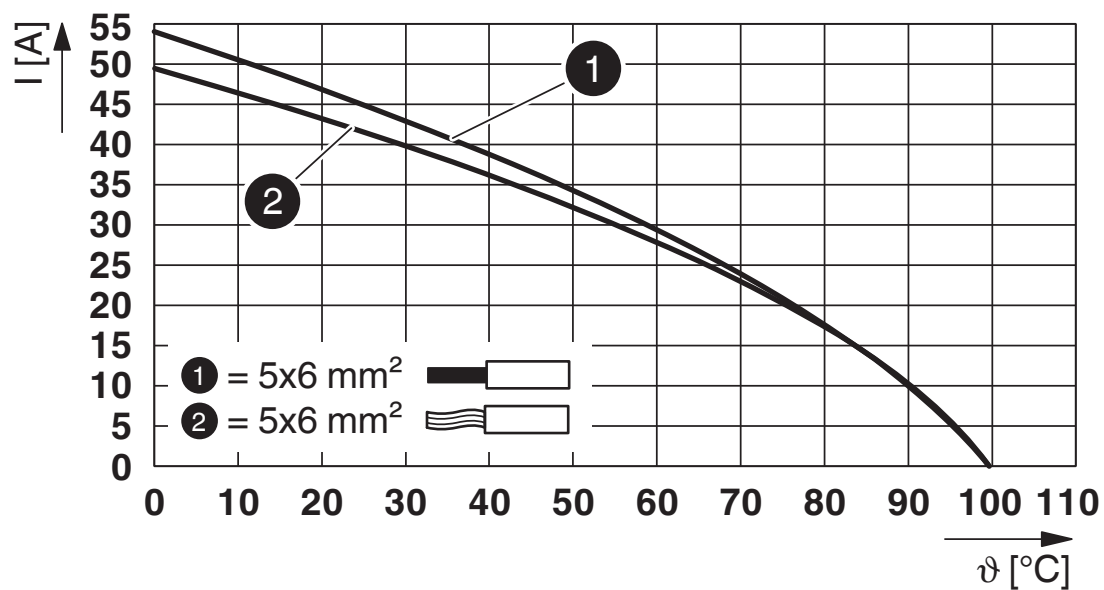


## Drawings

Dimensional drawing



Diagram



Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1410387>



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



**DNV GL**  
Approval ID: TAE00003J5



**VDE Zeichengenehmigung**  
Approval ID: 40029149

|  <b>UL Listed</b><br>Approval ID: E468743 | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                            | keine                 |                       |                   |                             |
|                                                                                                                            | 600 V                 | 20 A                  | - 12              | -                           |

|  <b>cUL Listed</b><br>Approval ID: E468743 | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                               | keine                 |                       |                   |                             |
|                                                                                                                               | 600 V                 | 20 A                  | - 12              | -                           |

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## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | 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% |
|-------------------------------------|----------------------------|

### EF3.1 Climate Change

|         |              |
|---------|--------------|
| CO2e kg | 0.93 kg CO2e |
|---------|--------------|

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