

1945782

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PCB connector, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MSTBC 2,5/..-STZF, pitch: 5. 08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting method: Screw flange, type of packaging: packed in cardboard

### Your advantages

- · Inexpensive connection of large quantities of preassembled conductors
- · Pull-out aid facilitates handling and allows the tensile force to be reduced at the contact point
- · Screwable flange for superior mechanical stability

#### Commercial data

| Item number                          | 1945782                        |
|--------------------------------------|--------------------------------|
| Packing unit                         | 50 pc                          |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA03                           |
| Product key                          | AACCEC                         |
| GTIN                                 | 4017918864118                  |
| Weight per piece (including packing) | 4.37 g                         |
| Weight per piece (excluding packing) | 3.879 g                        |
| Customs tariff number                | 85472000                       |
| Country of origin                    | PL                             |



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## Technical data

## Product properties

| Product type          | PCB connector         |
|-----------------------|-----------------------|
| Product family        | MSTBC 2,5/STZF        |
| Product line          | COMBICON Connectors M |
| Number of positions   | 6                     |
| Pitch                 | 5.08 mm               |
| Number of connections | 6                     |
| Number of rows        | 1                     |
| Number of potentials  | 6                     |
| Mounting type         | Screw flange          |

### Electrical properties

#### **Properties**

| ·                              |       |
|--------------------------------|-------|
| Nominal current I <sub>N</sub> | 12 A  |
| Nominal voltage $U_N$          | 320 V |
| Rated voltage (III/3)          | 320 V |
| Rated surge voltage (III/3)    | 4 kV  |
| Rated voltage (III/2)          | 320 V |
| Rated surge voltage (III/2)    | 4 kV  |
| Rated voltage (II/2)           | 630 V |
| Rated surge voltage (II/2)     | 4 kV  |
|                                |       |

#### Connection data

### Connection technology

| Туре                    | Standard          |
|-------------------------|-------------------|
| Connector system        | COMBICON MSTB 2,5 |
| Nominal cross section   | 2.5 mm²           |
| Contact connection type | Socket            |

### Interlock

| Locking type      | Screw locking mechanism |
|-------------------|-------------------------|
| Mounting type     | Screw flange            |
| Tightening torque | 0.3 Nm                  |

#### Conductor connection

| Connection method                  | Crimp connection |
|------------------------------------|------------------|
| Conductor/PCB connection direction | 0 °              |
| Conductor cross-section flexible   | 0.5 mm² 2.5 mm²  |
| Conductor cross-section AWG        | 20 14            |

### Material specifications



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#### Material data - housing

| Color (Housing)   | black (9005) |
|---|--------------|
| Insulating material   | PA           |
| Insulating material group   | 1            |
| CTI according to IEC 60112  | 600          |
| Flammability rating according to UL 94                            | V0           |
| Glow wire flammability index GWFI according to EN 60695-2-12      | 850          |
| Glow wire ignition temperature GWIT according to EN 60695-2-13    | 775          |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C       |

#### **Dimensions**

| Dimensional drawing | h        |
|---------------------|----------|
| Pitch               | 5.08 mm  |
| Width [w]           | 40.46 mm |
| Height [h]          | 10.5 mm  |
| Length [I]          | 25 mm    |

### Mounting

| Tightening torque | 0.3 Nm |
|-------------------|--------|
|-------------------|--------|

### Notes

| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no       |
|--------------------|---|
|                    | switching power (COC). During designated use, they must not be  |
|                    | plugged in or disconnected when carrying voltage or under load. |

### Environmental and real-life conditions

#### Ambient conditions

| Ambient temperature (operation)         | -40 °C 100 °C (dependent on the derating curve) |
|---|---|
| Ambient temperature (storage/transport) | -40 °C 70 °C                                    |
| Relative humidity (storage/transport)   | 30 % 70 %                                       |
| Ambient temperature (assembly)          | -5 °C 100 °C                                    |

### Electrical tests

#### Air clearances and creepage distances |

| Specification                          | IEC 60664-1:2007-04 |
|--|---------------------|
| Insulating material group              | I                   |
| Comparative tracking index (IEC 60112) | CTI 600             |
| Rated insulation voltage (III/3)       | 320 V               |



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| Rated surge voltage (III/3)                            | 4 kV   |
|--|--------|
| minimum clearance value - non-homogenous field (III/3) | 3 mm   |
| minimum creepage distance (III/3)                      | 4 mm   |
| Rated insulation voltage (III/2)                       | 320 V  |
| Rated surge voltage (III/2)                            | 4 kV   |
| minimum clearance value - non-homogenous field (III/2) | 3 mm   |
| minimum creepage distance (III/2)                      | 3 mm   |
| Rated insulation voltage (II/2)                        | 630 V  |
| Rated surge voltage (II/2)                             | 4 kV   |
| minimum clearance value - non-homogenous field (II/2)  | 3 mm   |
| minimum creepage distance (II/2)                       | 3.2 mm |

## Packaging specifications

| Type of packaging | packed in cardboard |  |
|-------------------|---------------------|--|



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## **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1945782

| CULus Recognized Approval ID: E60425-19930525 |                       |                                |                   |                               |
|---|-----------------------|--------------------------------|-------------------|-------------------------------|
|   | Nominal voltage $U_N$ | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| В   |                       |                                |                   |                               |
|   | 300 V                 | 10 A                           | 20 - 14           | -                             |
| D   |                       |                                |                   |                               |
|   | 300 V                 | 10 A                           | 20 - 14           | -                             |

| •     | CSA<br>Approval ID: 13631 |                                |                                |                   |                               |
|-------|---------------------------|--------------------------------|--------------------------------|-------------------|-------------------------------|
|       |                           | Nominal voltage U <sub>N</sub> | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
| keine |                           |                                |                                |                   |                               |
|       |                           | 300 V                          | 10 A                           | 20 - 14           | -                             |

| VDE approval of drawings Approval ID: 40050648 |
|--|



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## Classifications

### **ECLASS**

|        | ECLASS-13.0 | 27460202 |  |  |
|--------|-------------|----------|--|--|
|        | ECLASS-15.0 | 27460202 |  |  |
| ETIM   |             |          |  |  |
|        | ETIM 9.0    | EC002638 |  |  |
| 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%               |
| EF3.0 Climate Change                    |  |
| CO2e kg                                 | 0.036 kg CO2e                            |

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com