

MSTBC 2,5/24-STZFD-5,08 - PCB connector



1809491

<https://www.phoenixcontact.com/us/products/1809491>

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The figure shows an 10-position version

PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 24, number of rows: 1, number of positions: 24, number of connections: 24, product range: MSTBC 2,5/-STZFD, pitch: 5.08 mm, connection method: Crimp connection, mounting: Direct mounting, 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, Corresponding female crimp contacts with current [A] and conductor cross-section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

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

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1809491 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA03 |
| Product key | AACCED |
| GTIN | 4017918047634 |
| Weight per piece (including packing) | 12.87 g |
| Weight per piece (excluding packing) | 12.17 g |
| Customs tariff number | 85389099 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-----------------------|-----------------------|
| Product type | PCB connector |
| Product family | MSTBC 2,5/..-STZFD |
| Product line | COMBICON Connectors M |
| Type | Direct mounting |
| Number of positions | 24 |
| Pitch | 5.08 mm |
| Number of connections | 24 |
| Number of rows | 1 |
| Number of potentials | 24 |
| Mounting type | Screw flange |

Electrical properties

Properties

| | |
|-----------------------------|-------|
| Nominal current I_N | 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

| | |
|-------------------------|---------------------|
| Type | Direct mounting |
| Connector system | COMBICON MSTB 2,5 |
| Nominal cross section | 2.5 mm ² |
| 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 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 20 ... 14 |

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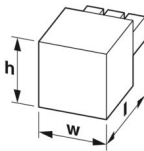
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Material specifications

Material data - housing

| | |
|---|--------------|
| Color (Housing) | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| 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 |  |
| Pitch | 5.08 mm |
| Width [w] | 131.57 mm |
| Height [h] | 10.7 mm |
| Length [l] | 25 mm |

Mounting

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

Electrical tests

Air clearances and creepage distances |

| | |
|---------------|---------------------|
| Specification | IEC 60664-1:2007-04 |
|---------------|---------------------|

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| | |
|--|---------|
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 320 V |
| 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 |
|-------------------|---------------------|

Drawings

Drilling plan/solder pad geometry



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1809491>

|  cULus Recognized Approval ID: E60425-19930525 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 10 A | 20 - 14 | - |
| D | 300 V | 10 A | 20 - 14 | - |

|  CSA Approval ID: 13631 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| 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 10.0 | 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% |
|-------------------------------------|----------------------------|

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.081 kg CO2e |
|---------|---------------|

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