

IC 2,5/10-STF-5,08 EX - PCB connector

1810191

<https://www.phoenixcontact.com/pc/products/1810191>



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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: IC 2,5/..-STF-EX, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5 EX, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Screwable flange for superior mechanical stability
- Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas
- Easy PCB replacement thanks to plug-in modules

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1810191 |
| Packing unit | 50 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Product key | AACADD |
| Catalog page | Page 373 (C-1-2013) |
| GTIN | 4046356706520 |
| Weight per piece (including packing) | 17.698 g |
| Weight per piece (excluding packing) | 17.152 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|------------------------|-----------------------|
| Product type | PCB connector |
| Product family | IC 2,5/..-STF-EX |
| Product line | COMBICON Connectors M |
| Type | Inverted |
| Number of positions | 10 |
| Pitch | 5.08 mm |
| Number of connections | 10 |
| Number of rows | 1 |
| Number of potentials | 10 |
| Mounting flange | Screw flange |
| | |
| Data management status | |
| Article revision | 05 |

Electrical properties

| | |
|---|--------------------------|
| Nominal current I_N | 12 A |
| Nominal voltage U_N | 176 V |
| Rated current / conductor cross section | 12 A/2.5 mm ² |

Ex data

| | |
|---------------------------------|--------------------------------------|
| Ex approval | |
| Identification | 0344 \otimes II 2GD / Ex eb IIC Gb |
| EU-type examination certificate | KEMA 10ATEX0196 U |
| IECEx certificate | IECEx KEM 10.0093U |

Connection data

| | |
|-------------------------|----------------------|
| Connection technology | |
| Type | Inverted |
| Connector system | COMBICON MSTB 2,5 EX |
| Nominal cross section | 2.5 mm ² |
| Contact connection type | Pin |

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

| | |
|------------------------------------|---|
| Conductor connection | |
| Connection method | Screw connection with tension sleeve |
| Conductor/PCB connection direction | 0 ° |
| Conductor cross section rigid | 0.2 mm ² ... 2.5 mm ² |

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| | |
|---|--|
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 24 ... 12 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 2.5 mm ² |
| 2 conductors with same cross section, solid | 0.2 mm ² ... 1 mm ² |
| 2 conductors with same cross section, flexible | 0.2 mm ² ... 1.5 mm ² |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 1 mm ² |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm ² ... 1.5 mm ² |
| Stripping length | 7 mm |
| Drive form screw head | Slotted (L) |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

Specifications for ferrules without insulating collar

| | |
|---------------------------|--------------------|
| recommended crimping tool | 1212034 CRIMPFOX 6 |
|---------------------------|--------------------|

Specifications for ferrules with insulating collar

| | |
|---------------------------|--------------------|
| recommended crimping tool | 1212034 CRIMPFOX 6 |
|---------------------------|--------------------|

Material specifications

Material data - contact

| | |
|---|--|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface terminal point (middle layer) | Nickel (2 - 3 µm Ni) |
| Metal surface contact area (top layer) | Tin (5 - 7 µm Sn) |
| Metal surface contact area (middle layer) | Nickel (2 - 3 µm Ni) |

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

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Dimensional drawing



| | |
|------------|---------|
| Pitch | 5.08 mm |
| Width [w] | 52.3 mm |
| Height [h] | 15 mm |
| Length [l] | 19 mm |

Mounting

Flange

| | |
|-------------------|--------|
| 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) | -60 °C ... 110 °C |
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

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/pc/products/1810191>

|  cULus Recognized Approval ID: E60425-19931014 | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | | | | |
| | 250 V | 12 A | 30 - 12 | - |
| Use group D | | | | |
| | 300 V | 10 A | 30 - 12 | - |

|  ATEX Approval ID: KEMA 10ATEX0196 U | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 176 V | 12 A | - | 0.2 - 2.5 |

|  IECEx Approval ID: IECEx KEM 10.0093U | | | | |
|---|-----------------------|-----------------------|-------------------|----------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 176 V | 12 A | - | 0.2 - 2.5 |

|  CCC Approval ID: 2021122313114375 | | | | |
|---|--|--|--|--|
|---|--|--|--|--|

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27460202 |
| ECLASS-12.0 | 27460202 |
| ECLASS-13.0 | 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% |
|-------------------------------------|----------------------------|

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