

# PCB connector - GMVSTBR 2,5/ 2-STF-7,62 EX



1809898

<https://www.phoenixcontact.com/us/products/1809898>

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: GMVSTBR 2,5/..-STF-EX, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5 EX, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Larger pitch for increased voltage requirements
- Satisfies the more stringent safety requirements of "Ex eb" protection according to IEC 60079-7 for potentially explosive areas
- Screwable flange for superior mechanical stability

## Commercial Data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1809898                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to Order (non-returnable) |
| Sales Key                            | A01                            |
| Product Key                          | AACAMJ                         |
| Catalog Page                         | Page 379 (C-1-2013)            |
| GTIN                                 | 4046356704229                  |
| Weight per Piece (including packing) | 5.96 g                         |
| Weight per Piece (excluding packing) | 5.96 g                         |
| Customs tariff number                | 85366990                       |
| Country of origin                    | DE                             |

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## Technical Data

### Product properties

|                       |                       |
|-----------------------|-----------------------|
| Type                  | Standard              |
| Product line          | COMBICON Connectors M |
| Product type          | PCB plug              |
| Number of positions   | 2                     |
| Pitch                 | 7.62 mm               |
| Number of connections | 2                     |
| Number of rows        | 1                     |
| Mounting flange       | Screw flange          |
| Number of potentials  | 2                     |

### Electrical properties

|   |                          |
|---|--------------------------|
| Nominal current $I_N$                   | 12 A                     |
| Nominal voltage $U_N$                   | 352 V                    |
| Rated current / conductor cross section | 12 A/2.5 mm <sup>2</sup> |
| Degree of pollution                     | 3                        |

### Ex data

#### Ex approval

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

### Connection data

#### Connection technology

|                       |                      |
|-----------------------|----------------------|
| Type                  | Standard             |
| Connector system      | COMBICON MSTB 2,5 EX |
| Nominal cross section | 2.5 mm <sup>2</sup>  |
| Type of contact       | Female connector     |

#### Interlock

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

#### Conductor connection

|                                    |   |
|------------------------------------|---|
| Connection method                  | Screw connection with tension sleeve        |
| Conductor/PCB connection direction | 90 °  |
| Conductor cross section solid      | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible   | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG        | 24 ... 12                                   |

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|   |  |
|---|--|
| Conductor cross section flexible, with ferrule without plastic sleeve                     | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                      | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 2 conductors with same cross section, solid   | 0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>    |
| 2 conductors with same cross section, flexible  | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, flexible, with ferrule without plastic sleeve       | 0.25 mm <sup>2</sup> ... 1 mm <sup>2</sup>   |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>    |
| Cylindrical gauge a x b / diameter  | 2.8 mm x 2.4 mm / 2.5 mm                     |
| Stripping length  | 7 mm   |
| Tightening torque   | 0.5 Nm ... 0.6 Nm                            |

## Material specifications

### Material data - contact

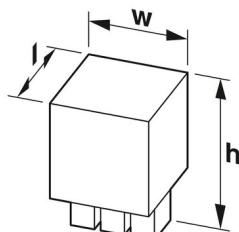
|  |  |
|--|--|
| Note                                     | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material                         | Cu alloy   |
| Surface characteristics                  | hot-dip tin-plated   |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn)  |
| Metal surface contact area (top layer)   | Tin (4 - 8 µm Sn)  |

### Material data - housing

|   |              |
|---|--------------|
| Housing color   | 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      | 7.62 mm |
| Width [w]  | 13.2 mm |
| Height [h] | 26 mm   |

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|                  |         |
|------------------|---------|
| Length [l]       | 12.5 mm |
| Installed height | 26 mm   |

## Mounting

|                       |             |
|-----------------------|-------------|
| Drive form screw head | Slotted (L) |
|-----------------------|-------------|

## 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 |
|-------------------|---------------------|

# PCB connector - GMVSTBR 2,5/ 2-STF-7,62 EX

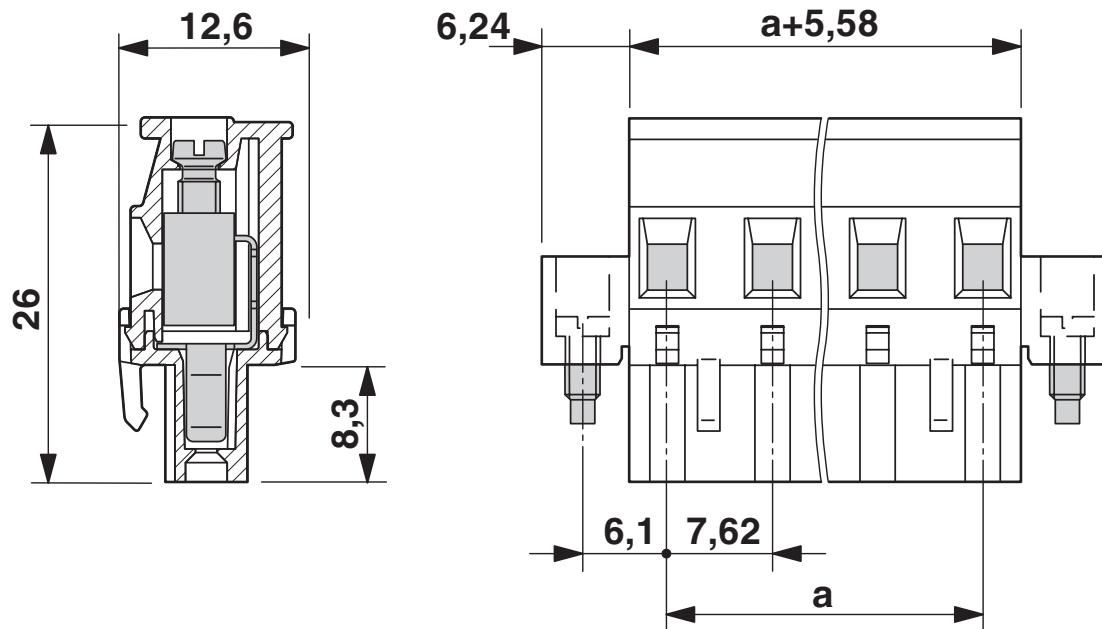


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## Drawings

Dimensional drawing



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## Approvals



**ATEX**

Approval ID: KEMA 10ATEX0196 U

| Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $mm^2$ |
|-----------------------|-----------------------|-------------------|----------------------|
| 352 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 $mm^2$ |
|-----------------------|-----------------------|-------------------|----------------------|
| 352 V                 | 12 A                  | -                 | 0.2 - 2.5            |



**CCC**

Approval ID: 2021122313114375

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## Classifications

### ECLASS

|               |          |
|---------------|----------|
| ECLASS-9.0    | 27440309 |
| ECLASS-10.0.1 | 27440309 |
| ECLASS-11.0   | 27460202 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC002638 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e<br>No hazardous substances above threshold values |
|------------|---|

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## Accessories

### Coding profile

Coding profile - CP-MSTB - 1734634

<https://www.phoenixcontact.com/us/products/1734634>

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



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### Test plugs

Test plugs - MPS-MT - 0201744

<https://www.phoenixcontact.com/us/products/0201744>

Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray



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## Reducing plug

Reducing plug - RPS - 0201647

<https://www.phoenixcontact.com/us/products/0201647>

Reducing plug, color: gray



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## Screwdriver

Screwdriver - SZS 0,6X3,5 - 1205053

<https://www.phoenixcontact.com/us/products/1205053>

Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip



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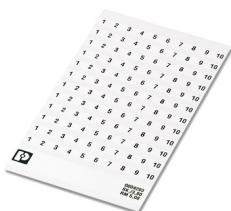
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## Marker card

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293

<https://www.phoenixcontact.com/us/products/0804293>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

## Marker card

Marker card - SK 5,08/3,8:UNBEDRUCKT - 0805412

<https://www.phoenixcontact.com/us/products/0805412>

Marker card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm



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## Marker pen

Marker pen - B-STIFT - 1051993

<https://www.phoenixcontact.com/us/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

## PCB header

PCB header - GMSTB 2,5/ 2-GF-7,62 EX - 1795886

<https://www.phoenixcontact.com/us/products/1795886>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: GMSTB 2,5/..-GF-EX, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5 EX, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

# PCB connector - GMVSTBR 2,5/ 2-STF-7,62 EX



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## PCB header

PCB header - GMSTBV 2,5/ 2-GF-7,62 EX - 1796665

<https://www.phoenixcontact.com/us/products/1796665>

PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: GMSTBV 2,5/..-GF-EX, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard



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