

# GMVSTBW 2,5/ 4-STF-7,62 EX - PCB connector



1810023

<https://www.phoenixcontact.com/us/products/1810023>

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Socket, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: GMVSTBW 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 mechanism, mounting: Screw flange, type of packaging: packed in cardboard

## Your advantages

- Well-known connection principle allows worldwide use
- 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
- Low temperature rise, thanks to maximum contact force

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1810023                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 50 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | AA03                           |
| Product key                          | AACAMK                         |
| Catalog page                         | Page 379 (C-1-2013)            |
| GTIN                                 | 4046356705950                  |
| Weight per piece (including packing) | 10.946 g                       |
| Weight per piece (excluding packing) | 10.946 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 connector         |
| Product family        | GMVSTBW 2,5/..-STF-EX |
| Number of positions   | 4                     |
| Pitch                 | 7.62 mm               |
| Number of connections | 4                     |
| Number of rows        | 1                     |
| Mounting flange       | Screw flange          |
| Number of potentials  | 4                     |

### 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>  |
| Contact connection type | Socket               |

#### 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 | -90 °                                       |
| Conductor cross section rigid      | 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> |

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|   |  |
|---|--|
| Conductor cross section AWG   | 24 ... 12                                    |
| 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 2.0 mm / 2.4 mm                     |
| Stripping length  | 7 mm   |
| Tightening torque   | 0.5 Nm ... 0.6 Nm                            |

## Material specifications

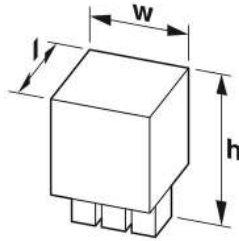
### Material data - contact

|  |  |
|--|--|
| 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

|   |              |
|---|--------------|
| 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               | 7.62 mm  |
| Width [w]           | 28.44 mm   |

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|            |          |
|------------|----------|
| Height [h] | 26 mm    |
| Length [l] | 12.52 mm |

## Mounting

|                       |                                      |
|-----------------------|--------------------------------------|
| Drive form screw head | Slotted (L)                          |
| Connection method     | Screw connection with tension sleeve |
| 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 |
|-------------------|---------------------|

# GMVSTBW 2,5/ 4-STF-7,62 EX - PCB connector

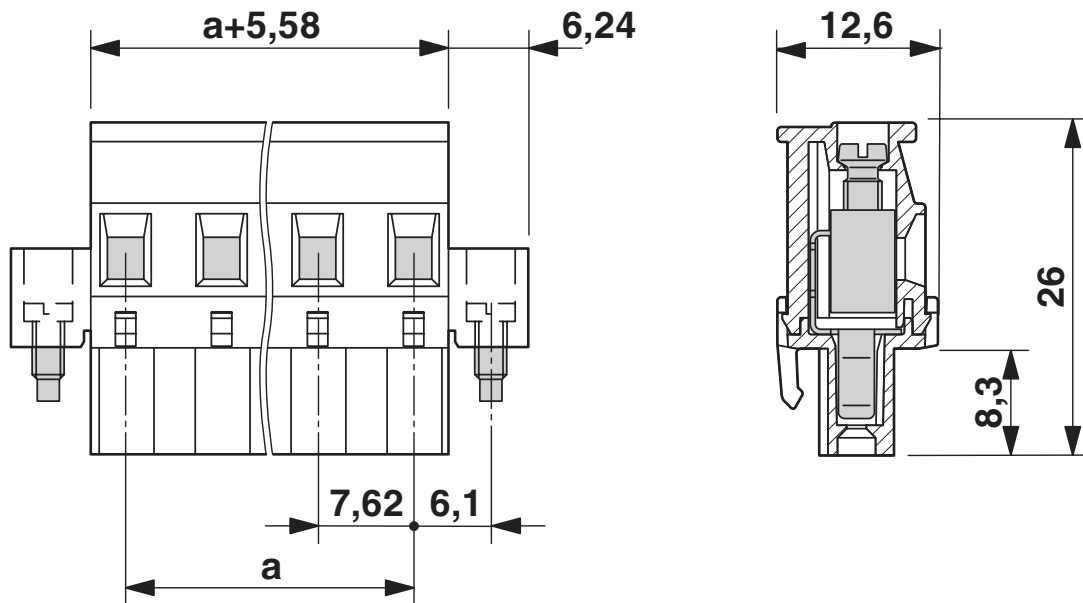


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## Drawings

Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1810023>

|  <b>ATEX</b><br>Approval ID: KEMA 10ATEX0196 U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|   | 352 V                 | 12 A                  | -                 | 0.2 - 2.5                   |

|  <b>IECEX</b><br>Approval ID: IECEX KEM 10.0093U |                       |                       |                   |                             |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
|   | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|   | 352 V                 | 12 A                  | -                 | 0.2 - 2.5                   |

|  <b>EAC Ex</b><br>Approval ID: B.00065/19 |  |  |  |  |
|---|--|--|--|--|
|---|--|--|--|--|

|  <b>CCC</b><br>Approval ID: 2021122313114375 |  |  |  |  |
|---|--|--|--|--|
|---|--|--|--|--|

# GMVSTBW 2,5/ 4-STF-7,62 EX - PCB connector



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460202 |
| ECLASS-12.0 | 27460202 |
| ECLASS-13.0 | 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 |
|            | No hazardous substances above threshold values          |



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## Accessories

### CP-MSTB - Coding profile

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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### MPS-MT - Test plugs

0201744

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

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



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## RPS - Reducing plug

0201647

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



Reducing plug, number of positions: 1, color: gray

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## SZS 0,6X3,5 - Screwdriver

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

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

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

0805412

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



Marker card, Din A4, white, unlabeled, can be labeled with: Marker pen: without print, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm, Number of individual labels: 1

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## B-STIFT - Marker pen

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

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## GMSTB 2,5/ 4-GF-7,62 EX - PCB header

1795909

<https://www.phoenixcontact.com/us/products/1795909>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

# GMVSTBW 2,5/ 4-STF-7,62 EX - PCB connector



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## GMSTBV 2,5/ 4-GF-7,62 EX - PCB header

1796681

<https://www.phoenixcontact.com/us/products/1796681>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, contact surface: Tin, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

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