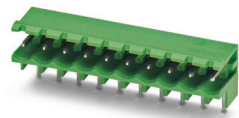


# MSTBW 2,5/ 4-G GYBN - PCB header



1965856  
<https://www.phoenixcontact.com/us/products/1965856>

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: grey brown, nominal current: 12 A, contact surface: Sn, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTBW 2,5/-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Stand-offs enable the PCB to be cleaned or sealed

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1965856       |
| Packing unit                         | 50 pc         |
| Minimum order quantity               | 50 pc         |
| Sales key                            | AA03          |
| Product key                          | AACSGL        |
| GTIN                                 | 4017918910808 |
| Weight per piece (including packing) | 1.833 g       |
| Weight per piece (excluding packing) | 1.556 g       |
| Customs tariff number                | 85366930      |
| Country of origin                    | DE            |

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## Technical data

### Product properties

|                           |                       |
|---------------------------|-----------------------|
| Product type              | PCB headers           |
| Product family            | MSTBW 2,5/...-G       |
| Product line              | COMBICON Connectors M |
| Number of positions       | 4                     |
| Pitch                     | 5 mm                  |
| Number of connections     | 4                     |
| Number of rows            | 1                     |
| Number of potentials      | 4                     |
| Mounting flange           | without               |
| Pin layout                | Linear pinning        |
| Solder pins per potential | 1                     |

### Data management status

|                  |    |
|------------------|----|
| Article revision | 00 |
|------------------|----|

### Electrical properties

|                       |      |
|-----------------------|------|
| Nominal current $I_N$ | 12 A |
|-----------------------|------|

### Mounting

|               |                |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout    | Linear pinning |

### 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 contact area (top layer)      | Tin (5 - 7 $\mu\text{m}$ Sn)                                                     |
| Metal surface contact area (middle layer)   | Nickel (2 - 3 $\mu\text{m}$ Ni)                                                  |
| Metal surface soldering area (top layer)    | Tin (5 - 7 $\mu\text{m}$ Sn)                                                     |
| Metal surface soldering area (middle layer) | Nickel (2 - 3 $\mu\text{m}$ Ni)                                                  |

#### Material data - housing

|                                                              |                   |
|--------------------------------------------------------------|-------------------|
| Color (Housing)                                              | grey brown (8019) |
| 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               |

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|                                                                   |        |
|-------------------------------------------------------------------|--------|
| 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 |

## 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. |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Dimensions

|                       |                                                                                    |
|-----------------------|------------------------------------------------------------------------------------|
| Dimensional drawing   |  |
| Pitch                 | 5 mm                                                                               |
| Width [w]             | 20 mm                                                                              |
| Height [h]            | 15.95 mm                                                                           |
| Length [l]            | 12 mm                                                                              |
| Installed height      | 12.45 mm                                                                           |
| Solder pin length [P] | 3.5 mm                                                                             |
| Pin dimensions        | 11 mm                                                                              |

## PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.4 mm |
|---------------|--------|

## 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                                    |

## 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/1965856>

|  <b>CSA</b><br>Approval ID: 13631-2585951 |                       |                       |                   |                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                |                       |                       |                   |                             |
|                                                                                                                            | 300 V                 | 15 A                  | -                 | -                           |
| Use group D                                                                                                                |                       |                       |                   |                             |
|                                                                                                                            | 300 V                 | 10 A                  | -                 | -                           |

|  <b>cULus Recognized</b><br>Approval ID: E60425-19931011 |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                           | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                               |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 15 A                  | -                 | -                           |
| Use group D                                                                                                                               |                       |                       |                   |                             |
|                                                                                                                                           | 300 V                 | 10 A                  | -                 | -                           |

|  <b>VDE Zeichengenehmigung</b><br>Approval ID: 40050648 |                       |                       |                   |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
|                                                                                                                                            | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                            | 250 V                 | 12 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27460201 |
| ECLASS-12.0 | 27460201 |
| ECLASS-13.0 | 27460201 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002637 |
|----------|----------|

### 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                                 | 0.038 kg CO2e                            |

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