

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTB 2,5/..-STF, 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, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

## Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Screwable flange for superior mechanical stability
- Allows connection of two conductors

## Commercial data

Item number	1876628
Packing unit	100 pc
Minimum order quantity	100 pc
Product key	AACAGD
GTIN	4017918234003
Weight per piece (including packing)	9.427 g
Weight per piece (excluding packing)	9.176 g
Customs tariff number	85366990
Country of origin	DE

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## Technical data

### Product properties

Product type	PCB connector
Product family	MSTB 2,5/..-STF
Product line	COMBICON Connectors M
Type	Components DeviceNet compatible
Number of positions	5
Pitch	5.08 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Mounting flange	Screw flange

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Contact resistance	3 m $\Omega$
Rated voltage (III/3)	250 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

Connector system	COMBICON MSTB 2,5
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	0 °
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>
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

sleeve	
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> ... 1.5 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

## 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	partially gold-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 4 µm Ni)
Metal surface contact area (top layer)	Gold (0.8 - 1.4 µm Au)
Metal surface contact area (middle layer)	Nickel (2 - 4 µm Ni)

### Material data - housing

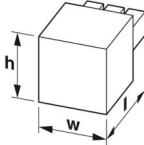
Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

## Dimensions

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

1876628

<https://www.phoenixcontact.com/pc/products/1876628>

Dimensional drawing	
Pitch	5.08 mm
Width [w]	35.41 mm
Height [h]	15 mm
Length [l]	18.3 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.
--------------------	--

## Mechanical tests

### Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

### Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	2.5 mm <sup>2</sup> / solid / > 50 N
	2.5 mm <sup>2</sup> / flexible / > 50 N

### Insertion and withdrawal forces

Result	Test passed
No. of cycles	100
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N

### Torque test

Specification	IEC 60999-1:1999-11
---------------	---------------------

### Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

## Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

## Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 500 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 500 Hz)
Test duration per axis	2 h

### Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	4.8 kV
Contact resistance $R_1$	3 m $\Omega$
Contact resistance $R_2$	3.3 m $\Omega$
Insertion/withdrawal cycles	100

### Climatic test

Specification	DIN 50018-EN:1997-06
Corrosive stress	1.0 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/3 cycles
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

### Shocks

Specification	IEC 61373:2010-05
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

### 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

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## Electrical tests

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	$>10^{12} \Omega$

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 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
-------------------	---------------------

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

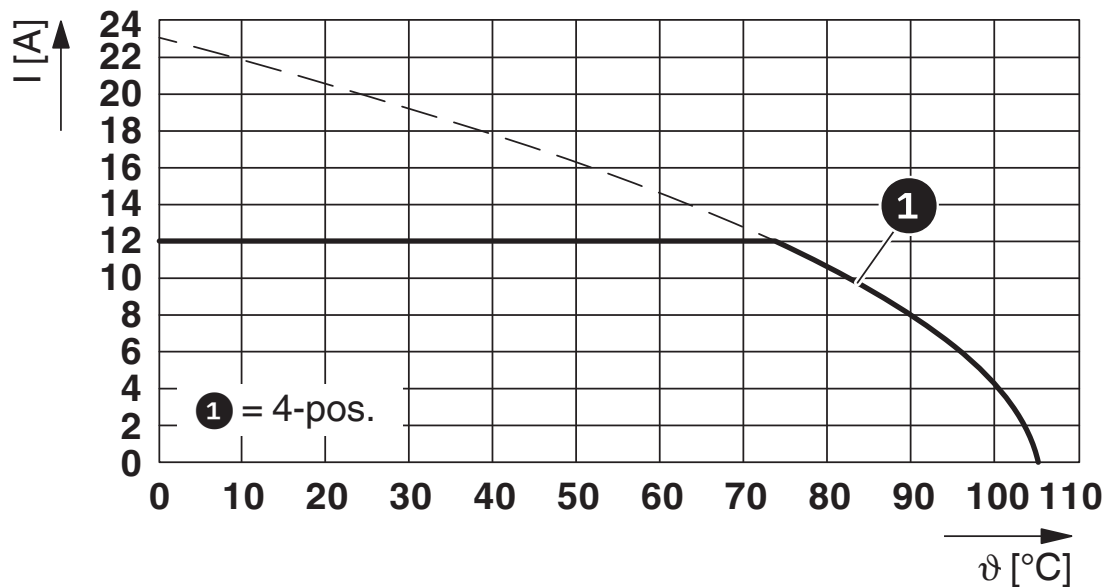


1876628

<https://www.phoenixcontact.com/pc/products/1876628>

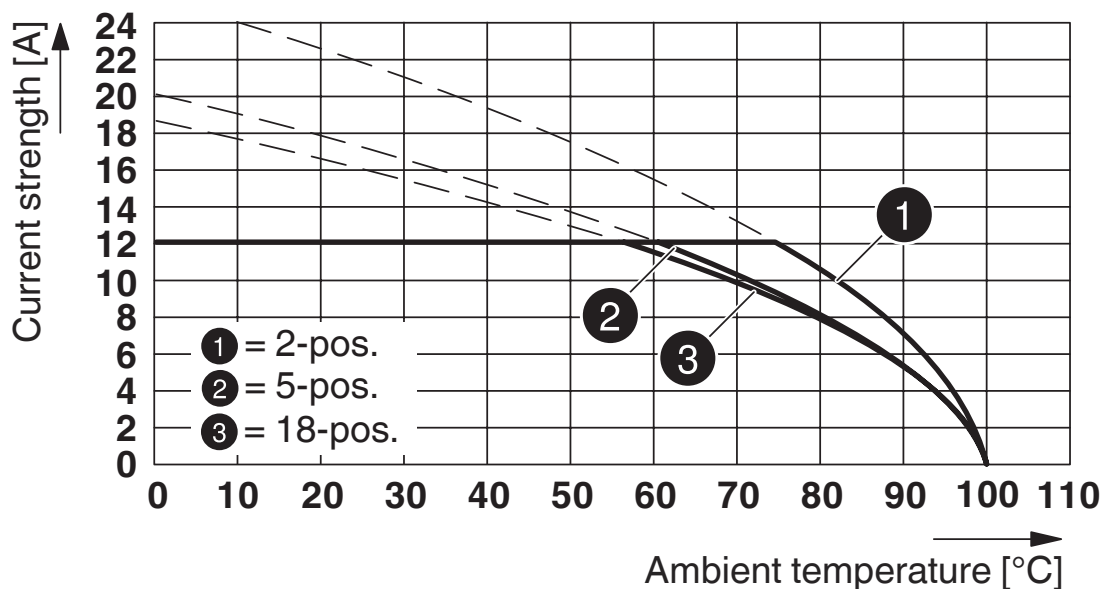
## Drawings

Diagram

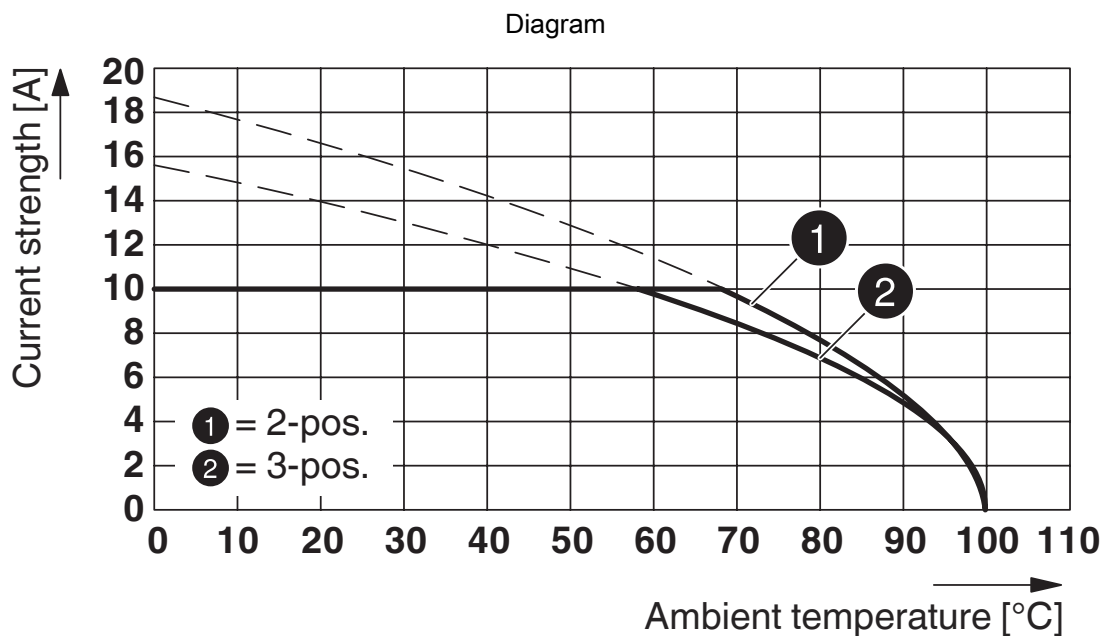


Type: MSTB 2,5/...-STF-5,08 AU with UMSTBVK 2,5/...-GF-5,08 AU

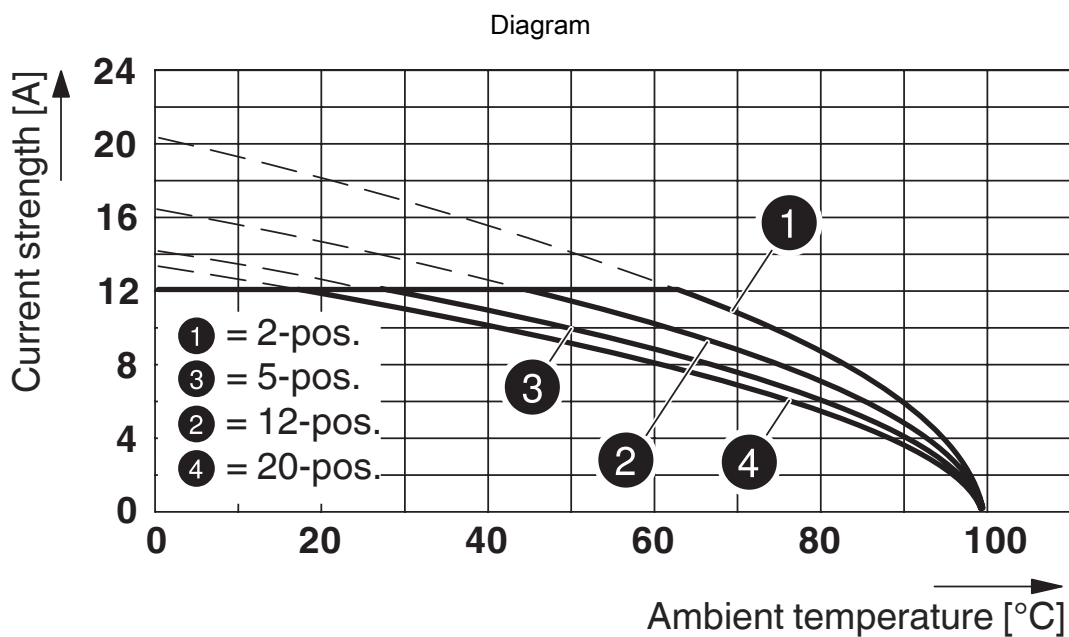
Diagram



Type: MSTB 2,5/...-STF-5,08 AU with MSTB 2,5/...-GF-5,08 AU



Type: MSTB 2,5/...-STF-5,08 AU with MDSTBV 2,5/...-GF-5,08 AU



Type: MSTB 2,5/...-STF(-5,08) AU with MSTBV 2,5/...-GF(-5,08) AU



# MSTB 2,5/ 5-STF-5,08 AU - PCB connector





1876628


<https://www.phoenixcontact.com/pc/products/1876628>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1876628>

 <b>cULus Recognized</b> 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	30 - 12	-
Use group D	300 V	10 A	30 - 12	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40050694				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	12 A	-	0.2 - 2.5

 <b>CSA</b> 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	28 - 12	-
Use group D	300 V	10 A	28 - 12	-

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## Classifications

### ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

### ETIM

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

### UNSPSC

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

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## 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%
-------------------------------------	----------------------------

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## Accessories

**i** Note: Applying some accessories below might limit this product.

### EBP 2- 5 - Insertion bridge

1733169

<https://www.phoenixcontact.com/pc/products/1733169>

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



**i** Max. current carrying capacity: 12 A

---

### EBP 4- 5 - Insertion bridge

1733185

<https://www.phoenixcontact.com/pc/products/1733185>

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



**i** Max. current carrying capacity: 12 A

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

1876628

<https://www.phoenixcontact.com/pc/products/1876628>


## EBP 5- 5 - Insertion bridge

1733198

<https://www.phoenixcontact.com/pc/products/1733198>



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

 Max. current carrying capacity: 12 A

---


## EBP 3- 5 - Insertion bridge

1733172

<https://www.phoenixcontact.com/pc/products/1733172>



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

 Max. current carrying capacity: 12 A

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/pc/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

---

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

0804293

<https://www.phoenixcontact.com/pc/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

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

1876628

<https://www.phoenixcontact.com/pc/products/1876628>



## SK U/3,8 WH:UNBEDRUCKT - Marker card

0803906

<https://www.phoenixcontact.com/pc/products/0803906>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

---

## B-STIFT - Marker pen

1051993

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



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

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector

1876628

<https://www.phoenixcontact.com/pc/products/1876628>



## X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/pc/products/0811228>



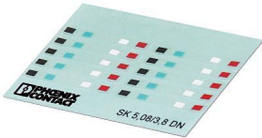
Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

---

## SK 5,08/3,8 DN - Marker card

1965458

<https://www.phoenixcontact.com/pc/products/1965458>



Marker card, Card, white, labeled: without print, mounting type: adhesive, for terminal block width: 5.08 mm



# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



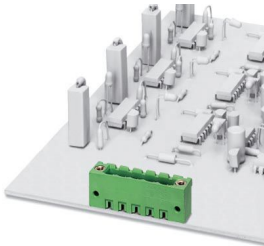
1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## MSTBV 2,5/ 5-GF-5,08 AU - PCB header

1806737

<https://www.phoenixcontact.com/pc/products/1806737>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTBV 2,5/...-GF, pitch: 5.08 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, Gold-plated contact surface / color: Green RAL 6021

## MSTBW 2,5/ 5-GF-5,08 6,03 ABAU - PCB header

1845109

<https://www.phoenixcontact.com/pc/products/1845109>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: agate grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTBW 2,5/...-GF(6,03), pitch: 5.08 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard, Gold-plated contact surface / color: Gray RAL 7038

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## MSTBW 2,5/ 5-GF-5,08 4,45 ABAU - PCB header

1845112

<https://www.phoenixcontact.com/pc/products/1845112>

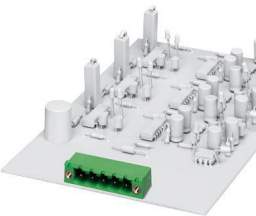


PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: agate grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTBW 2,5/..-GF(4,45), pitch: 5.08 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard, Gold-plated contact surface / color: Gray RAL 7038

## MSTB 2,5/ 5-GF-5,08 ABGY AU - PCB header

1853308

<https://www.phoenixcontact.com/pc/products/1853308>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: agate grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTB 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 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, Gold-plated contact surface / color: Gray RAL 7038

# MSTB 2,5/ 5-STF-5,08 AU - PCB connector



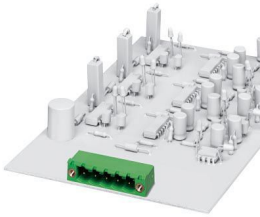
1876628

<https://www.phoenixcontact.com/pc/products/1876628>

## MSTB 2,5/ 5-GF-5,08 AU - PCB header

1876631

<https://www.phoenixcontact.com/pc/products/1876631>



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Gold, contact connection type: Pin, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: MSTB 2,5/..-GF, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 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, Gold-plated contact surface / color: Green RAL 6021

---

Phoenix Contact 2024 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)