#### 1776168

https://www.phoenixcontact.com/in/products/1776168



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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: Tin, type of contact: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTB 2,5/. -STZ, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- · Well-known connection principle allows worldwide use
- · Pull-out aid facilitates handling and allows the tensile force to be reduced at the contact point
- Allows connection of two conductors

## **Commercial Data**

Item number	1776168	
Packing unit	50 pc	
Minimum order quantity	50 pc	
Sales Key	AAC	
Product Key	AACAGE	
Catalog Page	Page 263 (C-1-2013)	
GTIN	4017918038540	
Weight per Piece (including packing)	6.53 g	
Weight per Piece (excluding packing)	5.84 g	
Customs tariff number	85366990	
Country of origin	DE	



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# **Technical Data**

### **Product properties**

Туре	Standard
Product line	COMBICON Connectors M
Product type	PCB plug
Product family	MSTB 2,5/STZ
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Mounting flange	without
Number of potentials	3

## **Electrical properties**

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	320 V
Degree of pollution	3
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

Standard	
Standard	
COMBICON MSTB 2,5	
2.5 mm²	
Socket	
without	
without	
Screw connection with tension sleeve	
0 °	
0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>	
0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>	
24 12	
0.25 mm <sup>2</sup> 2.5 mm <sup>2</sup>	

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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 mm² 1 mm²
2 conductors with same cross section, flexible	0.2 mm² 1.5 mm²
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 mm² 1.5 mm²
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 (5 - 7 μm Sn)		
Metal surface contact area (top layer)	Tin (5 - 7 μm Sn)		
aterial data - housing			
Color (Housing)	green (6021)		
Insulating material	PA		
Insulating material group	1		
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		

Material data - actuating element

Color ()

()

## Dimensions

Dimensional drawing	h w
Pitch	5.08 mm
Width [w]	15.24 mm
Height [h]	15.5 mm
Length [I]	54.3 mm

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## Mounting

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

### 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)-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		

### Electrical tests

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	1
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



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## Approvals

6	<b>CSA</b> Approval ID: 13631				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		300 V	15 A	28 - 12	-
		300 V	10 A	28 - 12	-

Approval ID: DE1-60988-B1B2				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	250 V	12 A	-	0.2 - 2.5

# ERE EAC

Approval ID: B.01687

c <b>911</b> us	CULus Recognized Approval ID: E60425-19931011				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		250 V	12 A	30 - 12	-
		300 V	10 A	30 - 12	-

VDE Zeichengenehmigung Approval ID: 40050694				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	250 V	12 A	-	0.2 - 2.5



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# Classifications

### ECLASS

	02
ECLASS-12.0 2746020	02
ECLASS-13.0 2746020	02

### ETIM

	ETIM 8.0	EC002638
UN	NSPSC	
	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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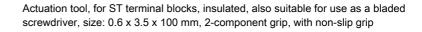
https://www.phoenixcontact.com/in/products/1776168



## Accessories

SZS 0,6X3,5 - Screwdriver

1205053 https://www.phoenixcontact.com/in/products/1205053



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

0804293

https://www.phoenixcontact.com/in/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:  $5.08 \times 3.8$  mm

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**CP-MSTB** - Coding profile

#### 1734634

https://www.phoenixcontact.com/in/products/1734634

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



### EBP 2-5 - Insertion bridge

1733169 https://www.phoenixcontact.com/in/products/1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



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https://www.phoenixcontact.com/in/products/1776168



#### MSTBW 2,5/ 3-G-5,08 - PCB header

1735879

https://www.phoenixcontact.com/in/products/1735879



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: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBW 2,5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard

### MDSTBV 2,5/ 3-G1-5,08 - PCB header

1736742 https://www.phoenixcontact.com/in/products/1736742



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBV 2,5/..-G1, 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: without, mounting: without, type of packaging: packed in cardboard, In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

1776168

https://www.phoenixcontact.com/in/products/1776168



#### MSTBO 2,5/ 3-GL-5,08 - PCB header

1850440

https://www.phoenixcontact.com/in/products/1850440



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBO 2,5/..-GL, pitch: 5.08 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, locking: without, mounting: without, type of packaging: packed in cardboard

#### MDSTBA 2,5/ 3-GR-5,08 - PCB header

1874727 https://www.phoenixcontact.com/in/products/1874727



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBA 2,5/..-G, pitch: 5.08 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, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

1776168

https://www.phoenixcontact.com/in/products/1776168



#### MDSTBVA 2,5/ 3-GL-5,08 - PCB header

#### 1874756

https://www.phoenixcontact.com/in/products/1874756



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBVA 2,5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

### MDSTBVA 2,5/ 3-GR-5,08 - PCB header

#### 1874769

https://www.phoenixcontact.com/in/products/1874769



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBVA 2,5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

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https://www.phoenixcontact.com/in/products/1776168



### DFK-MSTBVA 2,5/ 3-G-5,08 - Feed-through header

#### 1899142

https://www.phoenixcontact.com/in/products/1899142



Feed-through header, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: DFK-MSTBVA 2,5/..-G, 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: without, mounting: without, type of packaging: packed in cardboard

### CC 2,5/ 3-G-5,08 P26THR - PCB header

1954391 https://www.phoenixcontact.com/in/products/1954391



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CC 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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https://www.phoenixcontact.com/in/products/1776168



#### CC 2,5/ 3-G-5,08 P26THRR32 - PCB header

1954595

https://www.phoenixcontact.com/in/products/1954595



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CC 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

#### CCA 2,5/ 3-G-5,08 P26THR - PCB header

1954922 https://www.phoenixcontact.com/in/products/1954922



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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#### CCA 2,5/ 3-G-5,08 P26THRR32 - PCB header

1955044

https://www.phoenixcontact.com/in/products/1955044



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

#### CCV 2,5/ 3-G-5,08 P26THR - PCB header

1955390 https://www.phoenixcontact.com/in/products/1955390



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCV 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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#### CCV 2,5/ 3-G-5,08 P26THRR32 - PCB header

1955536

https://www.phoenixcontact.com/in/products/1955536



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCV 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

#### CCVA 2,5/ 3-G-5,08 P26THR - PCB header

1955866 https://www.phoenixcontact.com/in/products/1955866



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCVA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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