1809747

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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 connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBC 2,5/..-STZF, pitch: 5. 08 mm, connection method: Crimp connection, 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm<sup>2</sup>] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

## Your advantages

- · Inexpensive connection of large quantities of preassembled conductors
- · Pull-out aid facilitates handling and allows the tensile force to be reduced at the contact point
- · Screwable flange for superior mechanical stability

## Commercial data

Item number	1809747
Packing unit	50 рс
Minimum order quantity	50 рс
Sales key	AA03
Product key	AACCEC
Catalog page	Page 295 (C-1-2013)
GTIN	4017918047887
Weight per piece (including packing)	2.668 g
Weight per piece (excluding packing)	2.3 g
Customs tariff number	85389099
Country of origin	PL



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## Technical data

### Product properties

Product type	PCB connector
Product family	MSTBC 2,5/STZF
Product line	COMBICON Connectors M
Туре	Standard
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting flange	Screw flange

### **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)	320 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	
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Туре	Standard
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	Crimp connection
Conductor/PCB connection direction	0 °
Conductor cross section flexible	0.5 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Conductor cross section AWG	20 14

Material specifications

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#### 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	h w
Pitch	5.08 mm
Width [w]	25.22 mm
Height [h]	10.5 mm
Length [I]	25 mm
Width [w] Height [h]	25.22 mm 10.5 mm

### Mounting

Tightening torque 0.3 Nm
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### 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)	320 V



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Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 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

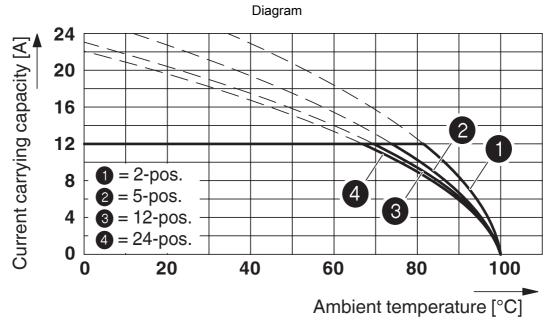
packed in cardboard



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## Drawings



Type: MSTBC 2,5/...-ST-5,08 with MSTBA 2,5/...-G-5,08; contact: MSTBC-MT 1,5 - 2,5



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### Approvals

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CULus Recogni Approval ID: E60425	Approval ID: E60425-19930525				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Use group B					
	300 V	10 A	20 - 14	-	
Use group D					
	300 V	10 A	20 - 14	-	

CSA 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	10 A	20 - 14	-



VDE Zeichengenehmigung Approval ID: 40050648

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## Classifications

### ECLASS

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

### ETIM

	ETIM 9.0	EC002638		
UN	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%		

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Accessories

MSTBC-MT 0,5-1,0 - Crimp contact

3190564 https://www.phoenixcontact.com/us/products/3190564



Module female contact, is inserted into the plug housing MSTBC after crimping the conductor, for conductors from 0.5 to 1.0  $\rm mm^2$ 

#### MSTBC-MT 0,5-1,0 BA - Crimp contact

3190645 https://www.phoenixcontact.com/us/products/3190645



Module female contact, is inserted into the MSTBC connector shell after the conductor has been crimped, for conductors from  $0.5 - 1.0 \text{ mm}^2$ , ribbon contact

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### MSTBC-MT 1,5-2,5 - Crimp contact

3190551

https://www.phoenixcontact.com/us/products/3190551



Module female contact, is inserted into the plug housing MSTBC after crimping the conductor, for conductors from 1.5 to 2.5  $\rm mm^2$ 

### MSTBC-MT 1,5-2,5 BA - Crimp contact

3190658 https://www.phoenixcontact.com/us/products/3190658



Module female contact, is inserted into the MSTBC connector shell after the conductor has been crimped, for conductors from  $1.5 - 2.5 \text{ mm}^2$ , ribbon contact

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#### CRIMPFOX MT 2,5 - Crimping pliers

#### 1204038

https://www.phoenixcontact.com/us/products/1204038



Crimping pliers, for crimping conductors to the module female contacts STG-MTN, crimp range: 0.5-2.5  $\rm mm^2,\,AWG:$  20-14

#### SZS 0,4X2,5 VDE - Screwdriver

1205037 https://www.phoenixcontact.com/us/products/1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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#### STZ 2-MSTBC-5,08 - Strain relief

#### 1810529

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Strain relief for snapping into the latching chambers of the plug components, 2-  $\ensuremath{\mathsf{pos}}$  , labeling with ZB 6

### STZ 4-MSTBC-5,08 - Strain relief

1810532 https://www.phoenixcontact.com/us/products/1810532



Strain relief for snapping into the latching chambers of the plug components, 4-pos., labeling with ZB 6

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#### STZ 8-MSTBC-5,08 - Strain relief

#### 1810516

https://www.phoenixcontact.com/us/products/1810516



Strain relief for snapping into the latching chambers of the plug components, 8-pos., labeling with ZB  ${\rm 6}$ 

### STZ 12-MSTBC-5,08 - Strain relief

1810503 https://www.phoenixcontact.com/us/products/1810503



Strain relief for snapping into the latching chambers of the plug components, 12-pos., labeling with ZB  ${\rm 6}$ 

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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:  $5.08 \times 3.8$  mm

#### **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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#### MSTBC-MT 0,2-0,5 - Crimp contact

#### 1879531

https://www.phoenixcontact.com/us/products/1879531



Module socket contact, is inserted into the plug housing MSTBC after crimping the conductor, for conductors from 0.2 to 0.5  $\rm mm^2$ 

### MSTBC-MT 0,2-0,5 BAND - Crimp contact

1879544 https://www.phoenixcontact.com/us/products/1879544



Module socket contact, is inserted into the plug housing MSTBC after crimping the conductor, for conductors from 0.2 to 0.5  $\rm mm^2$ 

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#### MSTB 2,5/ 3-GF-5,08 - PCB header

1776511

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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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, 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

#### MSTBV 2,5/ 3-GF-5,08 - PCB header

1777086 https://www.phoenixcontact.com/us/products/1777086



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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, 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

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

1899294

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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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: DFK-MSTBVA 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

#### CC 2,5/ 3-GF-5,08 P26THRR56 - PCB header

1954812 https://www.phoenixcontact.com/us/products/1954812



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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CC 2,5/..-GF, 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: 56 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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

1955646

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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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCV 2,5/..-GF, 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard, For user information and design recommendations for through-hole reflow technology, go to: Downloads

### CCV 2,5/ 3-GF-5,08 P26THRR56 - PCB header

1955756

https://www.phoenixcontact.com/us/products/1955756



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, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: CCV 2,5/..-GF, 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: Screw locking mechanism, mounting: Threaded flange, type of packaging: 56 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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