1809750

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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, type of contact: Socket, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTBC 2,5/..-STZF, pitch: 5.08 mm, connection method: Crimp connection, 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, 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 pre-assembled 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	1809750		
Packing unit	50 pc		
Minimum order quantity	50 pc		
Sales Key	AAC		
Product Key	AACCEC		
Catalog Page	Page 295 (C-1-2013)		
GTIN	4017918047894		
Weight per Piece (including packing)	3.23 g		
Weight per Piece (excluding packing)	3.23 g		
Customs tariff number	85389099		
Country of origin	PL		

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## **Technical Data**

#### **Product properties**

Туре	Standard	
Product line	COMBICON Connectors M	
Product type	PCB plug	
Product family	MSTBC 2,5/STZF	
Number of positions	4	
Pitch	5.08 mm	
Number of connections	4	
Number of rows	1	
Mounting flange	Screw flange	
Number of potentials	4	

#### **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

Туре	Standard
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm <sup>2</sup>
Type of contact	Socket
Interlock	
Locking type	Screw locking
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	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	
Pitch	5.08 mm
Width [w]	30.3 mm
Height [h]	10.5 mm
Length [I]	25 mm

#### Mounting

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



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pecification	IEC 60664-1:2007-04	
nsulating material group	1	
Comparative tracking index (IEC 60112)	CTI 600	
Rated insulation voltage (III/3)	320 V	
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	

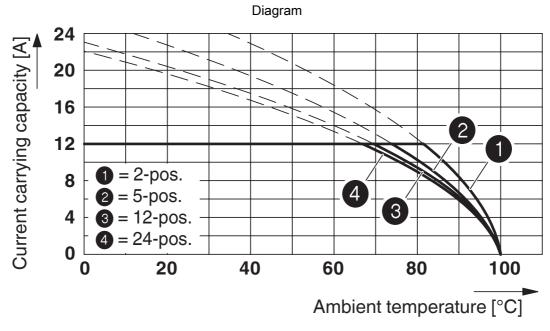
## Packaging specifications



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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

CULus Recogn Approval ID: E6042	<b>ized</b> 5-19930525			
	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	-
	300 V	10 A	20 - 14	-
CSA Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	300 V	10 A	20 - 14	-
CB IECEE CB Scher Approval ID: DE1-609				
EAC Approval ID: B.01687				
VDE Zeichengen	ehmigung			

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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

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

3190564 https://www.phoenixcontact.com/in/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/in/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/in/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/in/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/in/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/in/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

https://www.phoenixcontact.com/in/products/1810529



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

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

1810532 https://www.phoenixcontact.com/in/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/in/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/in/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/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

#### **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



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

#### 1879531

https://www.phoenixcontact.com/in/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/in/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/ 4-GF-5,08 - PCB header

1776524

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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, type of contact: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTB 2,5/..-GF, 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, mounting: Threaded flange, type of packaging: packed in cardboard

#### MSTBV 2,5/ 4-GF-5,08 - PCB header

1777099 https://www.phoenixcontact.com/in/products/1777099



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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, mounting: Threaded flange, type of packaging: packed in cardboard

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#### CC 2,5/ 4-GF-5,08 P26THR - PCB header

1954715

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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, type of contact: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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, mounting: Threaded flange, type of packaging: packed in cardboard, For user information and design recommendations for through-hole reflow technology, go to: Downloads

#### CC 2,5/ 4-GF-5,08 P26THRR56 - PCB header

1954825 https://www.phoenixcontact.com/in/products/1954825



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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, 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/ 4-GF-5,08 P26THR - PCB header

1955659

https://www.phoenixcontact.com/in/products/1955659



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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, 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/ 4-GF-5,08 P26THRR56 - PCB header

1955769 https://www.phoenixcontact.com/in/products/1955769



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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, 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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