

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



1809116

<https://www.phoenixcontact.com/us/products/1809116>

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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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MSTBC 2,5/-STZ-RF, 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: Snap-in locking, mounting: Self-locking 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
- Intuitive locking mechanism prevents accidental disconnection

## Commercial data

Item number	1809116
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AACCEE
Catalog page	Page 295 (C-1-2013)
GTIN	4017918115005
Weight per piece (including packing)	5.52 g
Weight per piece (excluding packing)	5.06 g
Country of origin	PL

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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## Technical data

### Product properties

Product type	PCB connector
Product family	MSTBC 2,5/...-STZ-RF
Product line	COMBICON Connectors M
Type	Standard
Number of positions	9
Pitch	5.08 mm
Number of connections	9
Number of rows	1
Number of potentials	9
Mounting flange	Self-locking flange

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	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

Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm <sup>2</sup>
Contact connection type	Socket

#### Interlock

Locking type	Snap-in locking
Mounting flange	Self-locking flange

#### 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

#### Material data - housing

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector

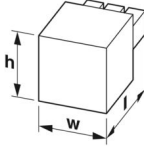


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Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature 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	
Pitch	5.08 mm
Width [w]	56.15 mm
Height [h]	10.5 mm
Length [l]	25 mm

## 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.
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## 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	I
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

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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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# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector

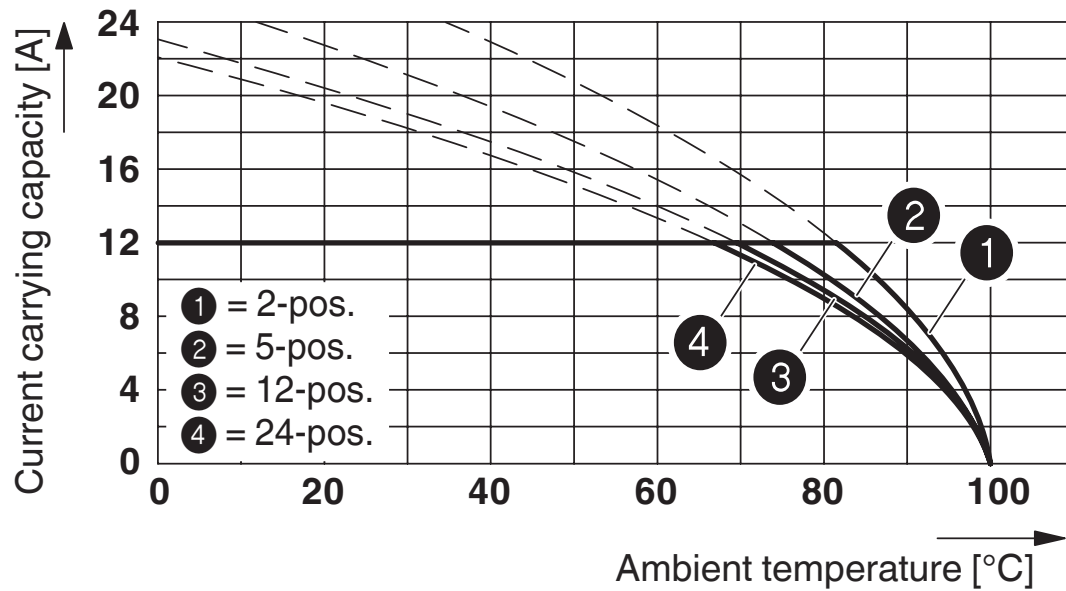


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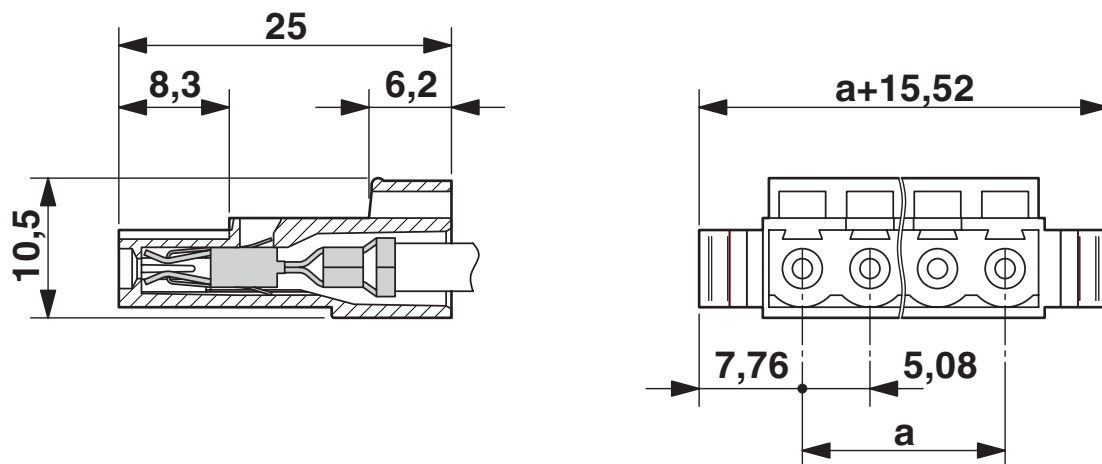
## Drawings

Diagram



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

Dimensional drawing



# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1809116>

<div> <b>cULus Recognized</b> Approval ID: E60425-19930525</div>				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	10 A	20 - 14	-
Use group D	300 V	10 A	20 - 14	-

<div> <b>VDE Zeichengenehmigung</b> Approval ID: 40050648</div>				
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# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002638
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### UNSPSC

UNSPSC 21.0	39121400
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# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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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%



# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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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 mm<sup>2</sup>

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### 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 mm<sup>2</sup>, ribbon contact

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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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 mm<sup>2</sup>

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## 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 mm<sup>2</sup>, ribbon contact

## MSTBC 2,5/ 9-STZ-5,08-R - PCB connector

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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 mm<sup>2</sup>, AWG: 20-14

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## 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

<https://www.phoenixcontact.com/us/products/1810529>



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

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## 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

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



1809116

<https://www.phoenixcontact.com/us/products/1809116>

## 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 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 x 3.8 mm

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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## 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 mm<sup>2</sup>



## MSTBC 2,5/ 9-STZ-5,08-R - PCB connector

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### 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 mm<sup>2</sup>

## ICC 2,5/ 9-STZ-5,08 - PCB connector

1823914

<https://www.phoenixcontact.com/us/products/1823914>



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: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: ICC 2,5/...-STZ, 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: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Corresponding male crimp contacts with current [A] and conductor cross section range [mm<sup>2</sup>] data: 10A/ICC-MT 0,5-1,0 (3190577); 10A/ICC-MT 0,5-1,0 BA (3190603); 12A/ICC-MT 1,5-2,5 (3190580); 12A/ICC-MT 1,5-2,5 BA (3190593). BA = Bandkontakte

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



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## CCVA 2,5/ 9-G-5,08 RNP26THR - PCB header

1956153

<https://www.phoenixcontact.com/us/products/1956153>



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: CCVA 2,5/...-G-RN, 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: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Article with self-locking flange; user information and design recommendations on through-hole reflow technology can be found at: "Downloads"

## CCVA 2,5/ 9-G-5,08RNP26THRR88 - PCB header

1956263

<https://www.phoenixcontact.com/us/products/1956263>



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: CCVA 2,5/...-G-RN, 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: Snap-in locking, mounting: Engagement nose, type of packaging: 88 mm wide tape, Article with self-locking flange; user information and design recommendations on through-hole reflow technology can be found at: "Downloads"



# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



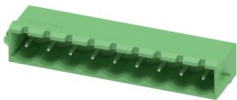
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## MSTBA 2,5/ 9-G-5,08-RN - PCB header

1926086

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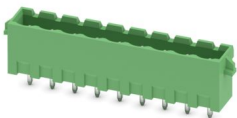


PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MSTBA 2,5/...-G-RN, 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: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Article with engagement nose

## MSTBVA 2,5/ 9-G-5,08-RN - PCB header

1936089

<https://www.phoenixcontact.com/us/products/1936089>



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MSTBVA 2,5/...-G-RN, 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: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Article with engagement nose

# MSTBC 2,5/ 9-STZ-5,08-R - PCB connector



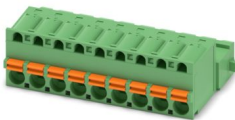
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## FKIC 2,5/ 9-ST-5,08-RN - PCB connector

1925935

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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, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: FKIC 2,5/...-ST-RN, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard, Article with engagement nose

## FKICS 2,5/ 9-STD-5,08-RN - PCB connector

1808792

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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, contact connection type: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: FKICS 2,5/...-STD-RN, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard

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