

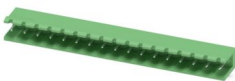
MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



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 headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MSTB 2,5/...-G, 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: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Easy PCB replacement thanks to plug-in modules
- Well-known mounting principle allows worldwide use
- Plug-in direction parallel to the PCB
- Items that can be aligned in various pitches support flexible and space-saving PCB assembly

Commercial data

Item number	1759169
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AACSHB
Catalog page	Page 166 (CC-2005)
GTIN	4017918030636
Weight per piece (including packing)	7.38 g
Weight per piece (excluding packing)	6.5 g
Customs tariff number	85366930
Country of origin	DE

MSTB 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

Technical data

Product properties

Product type	PCB headers
Product family	MSTB 2,5/..-G
Product line	COMBICON Connectors M
Type	Standard
Number of positions	17
Pitch	5.08 mm
Number of connections	17
Number of rows	1
Number of potentials	17
Mounting flange	without
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	320 V
Degree of pollution	3
Contact resistance	1.4 mΩ
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)	400 V
Rated surge voltage (II/2)	4 kV

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

Material data - housing

MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Color (Housing)	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

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.
--------------------	--

Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	86.36 mm
Height [h]	11.8 mm
Length [l]	12 mm
Installed height	8.57 mm
Solder pin length [P]	3.23 mm
Pin dimensions	1 x 1 mm

PCB design

Hole diameter	1.4 mm
---------------	--------

Mechanical tests

Visual inspection

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

Dimension check

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

Resistance of inscriptions

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

Polarization and coding

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

Contact holder in insert

MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	24

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
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)	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)	3.2 mm
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	4 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

MSTB 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R_1	1.4 mΩ
Contact resistance R_2	1.4 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

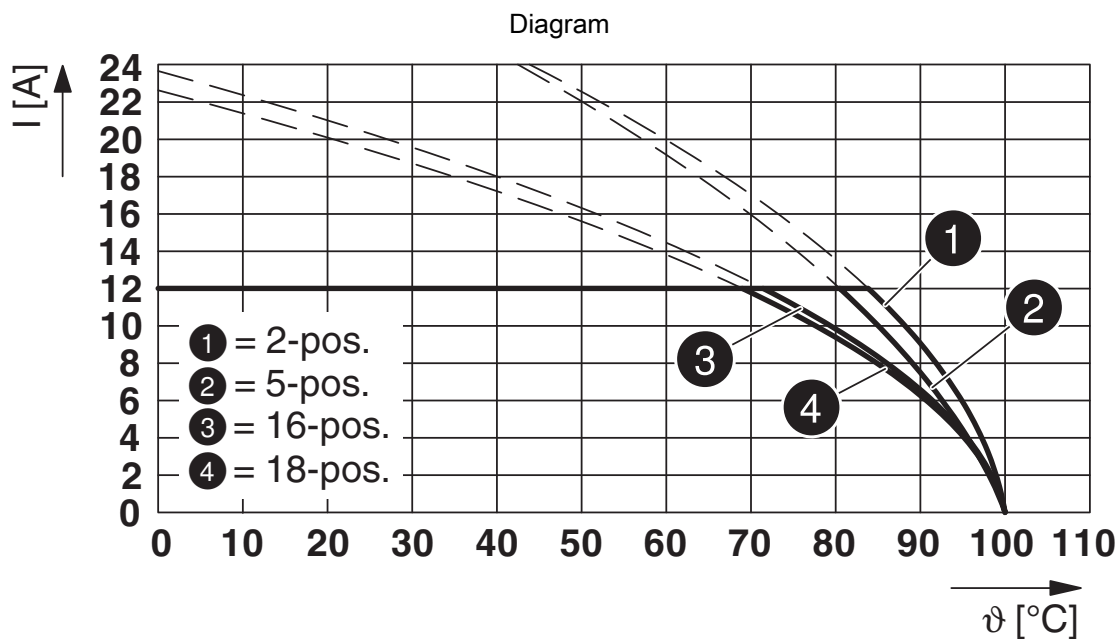
Ambient conditions

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

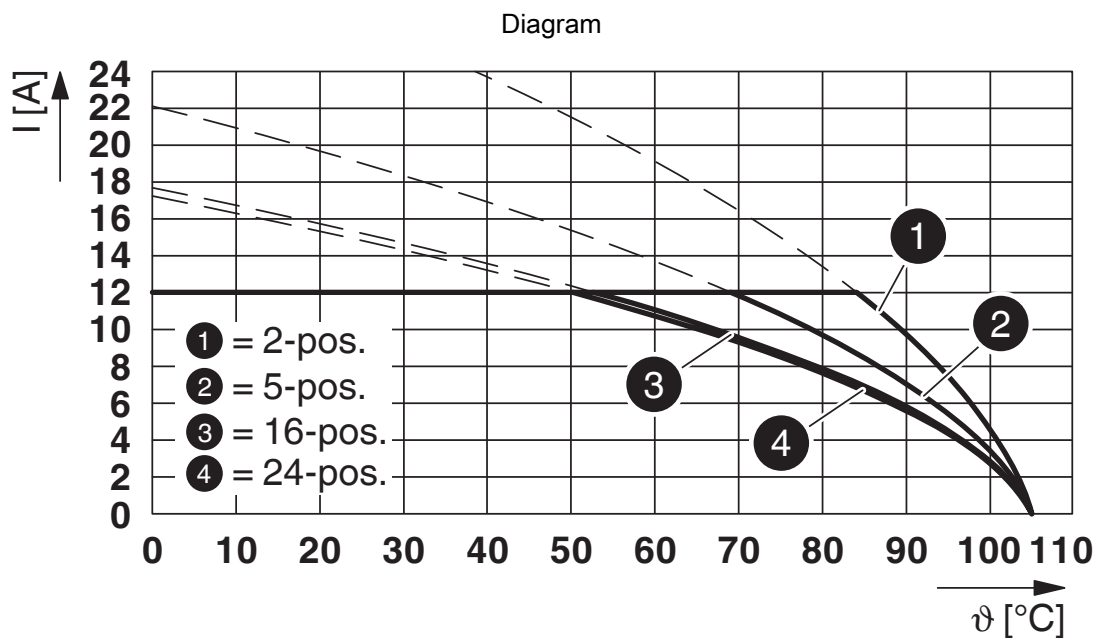
Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

Drawings



Type: FKCN 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08



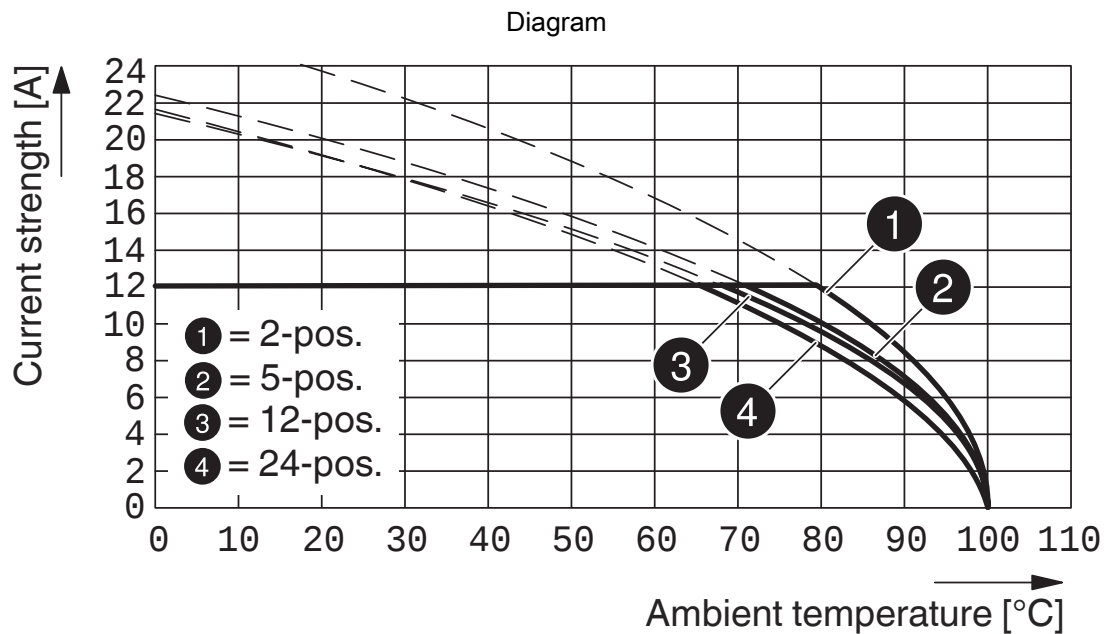
Type: ICV 2,5/...-G-5,08 with MSTB 2,5/...-G-5,08

MSTB 2,5/17-G-5,08 - PCB header

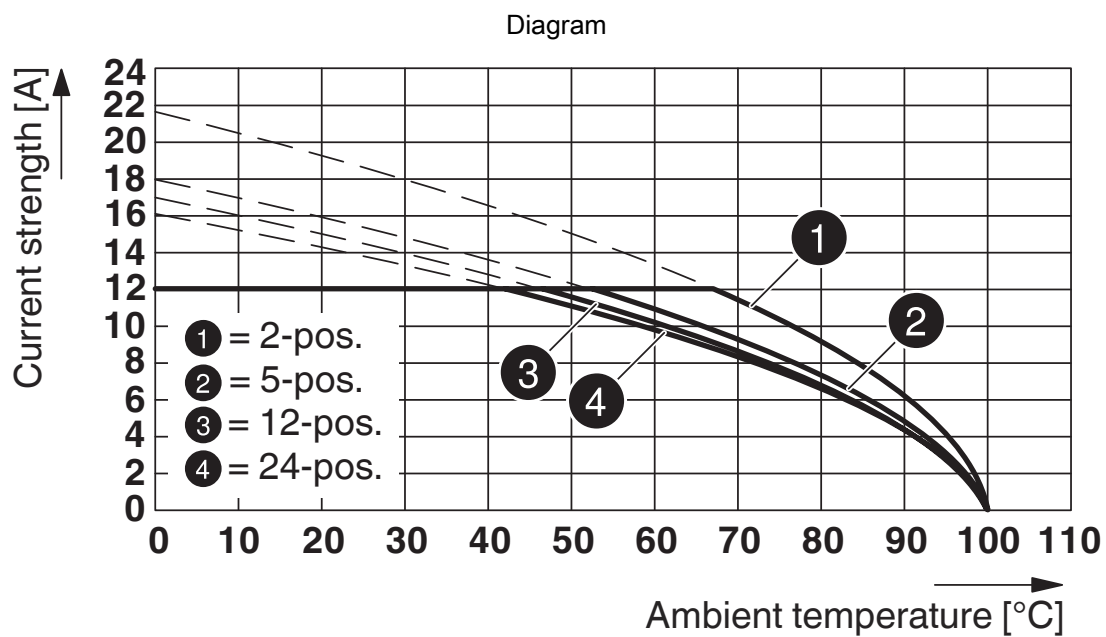


1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Type: MSTBP 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

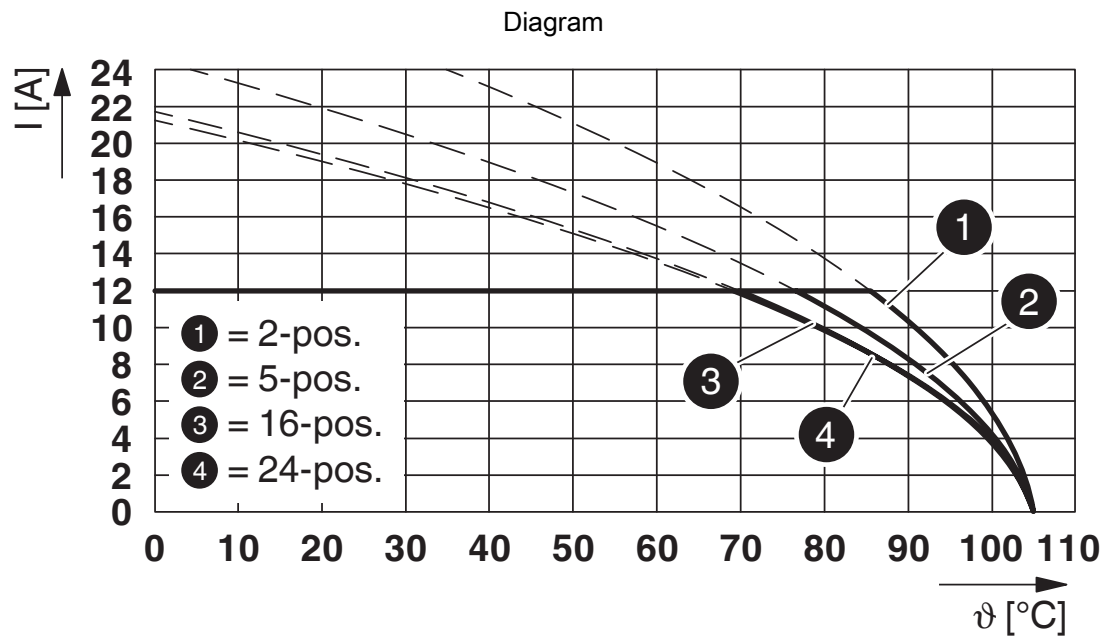


Type: SMSTB 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

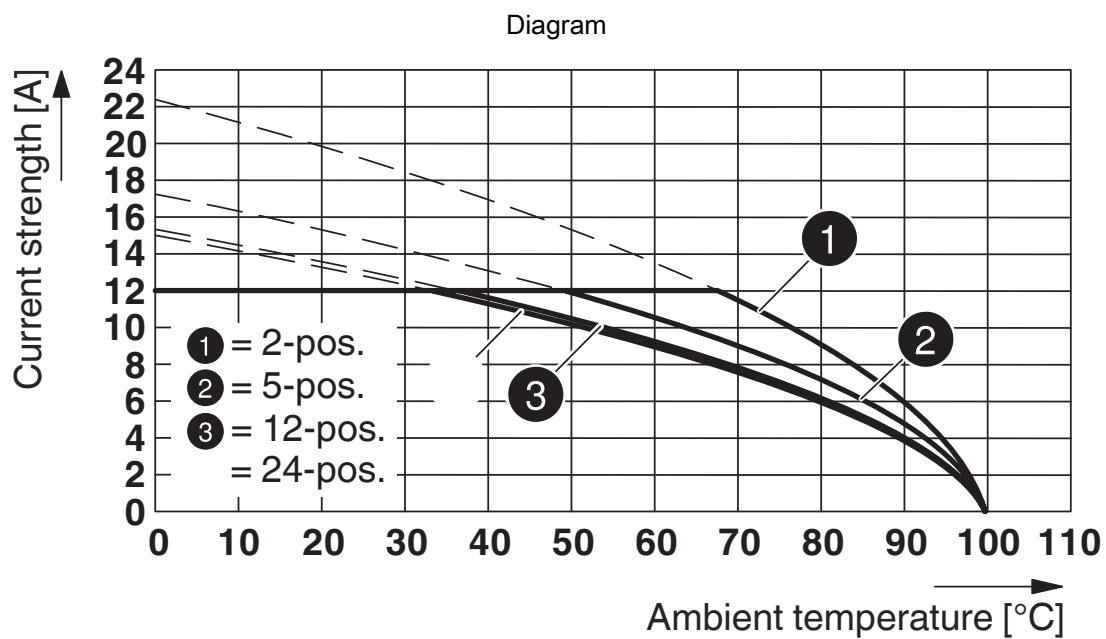
MSTB 2,5/17-G-5,08 - PCB header

1759169

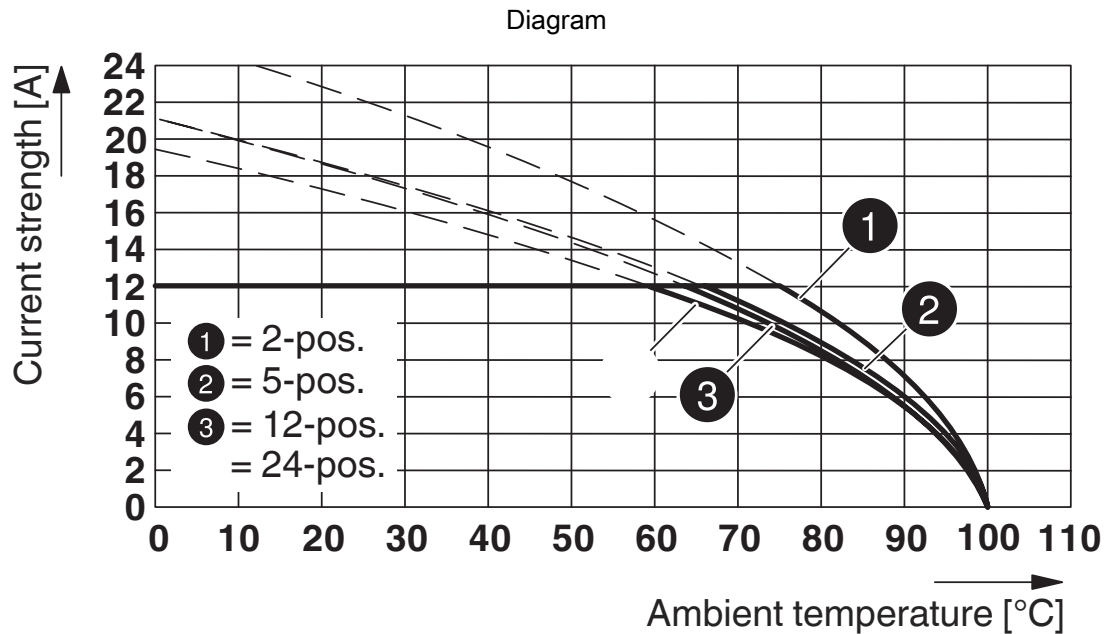
<https://www.phoenixcontact.com/pc/products/1759169>



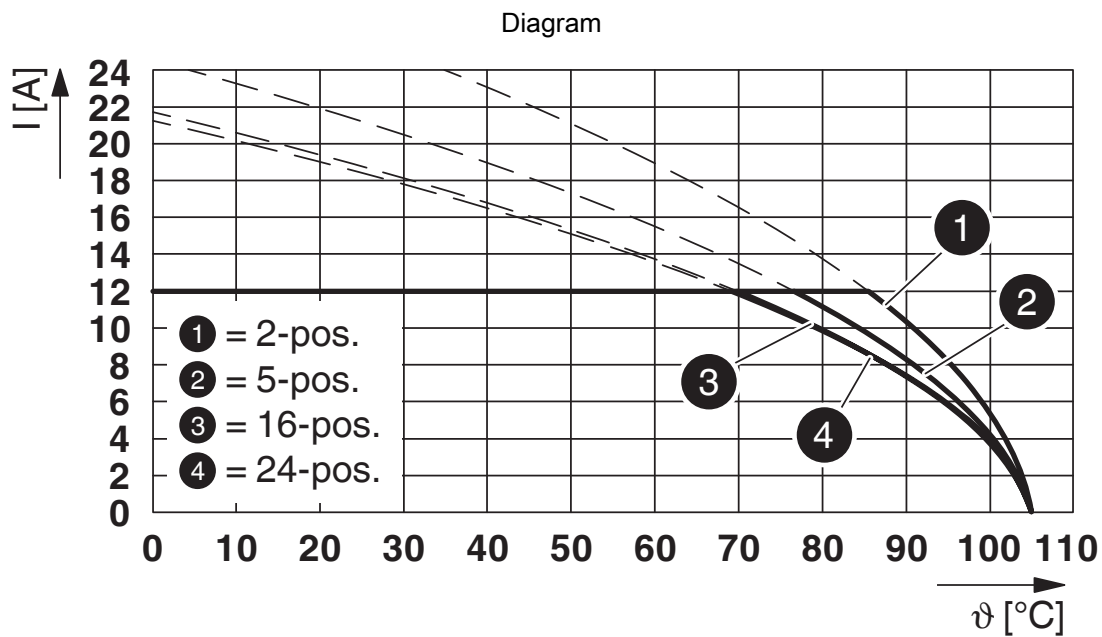
Type: FKCOR 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08



Type: MVSTB(R/W) 2,5/...-ST with MDSTBVA 2,5/...-G-5,08



Type: FRONT-MSTB 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

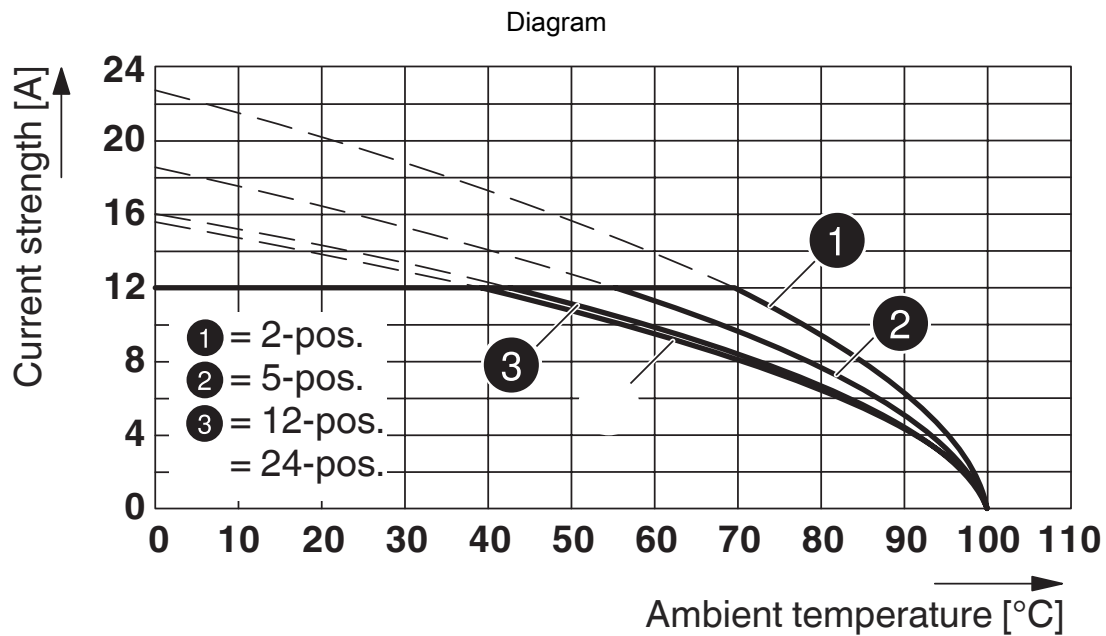


Type: FKOW 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

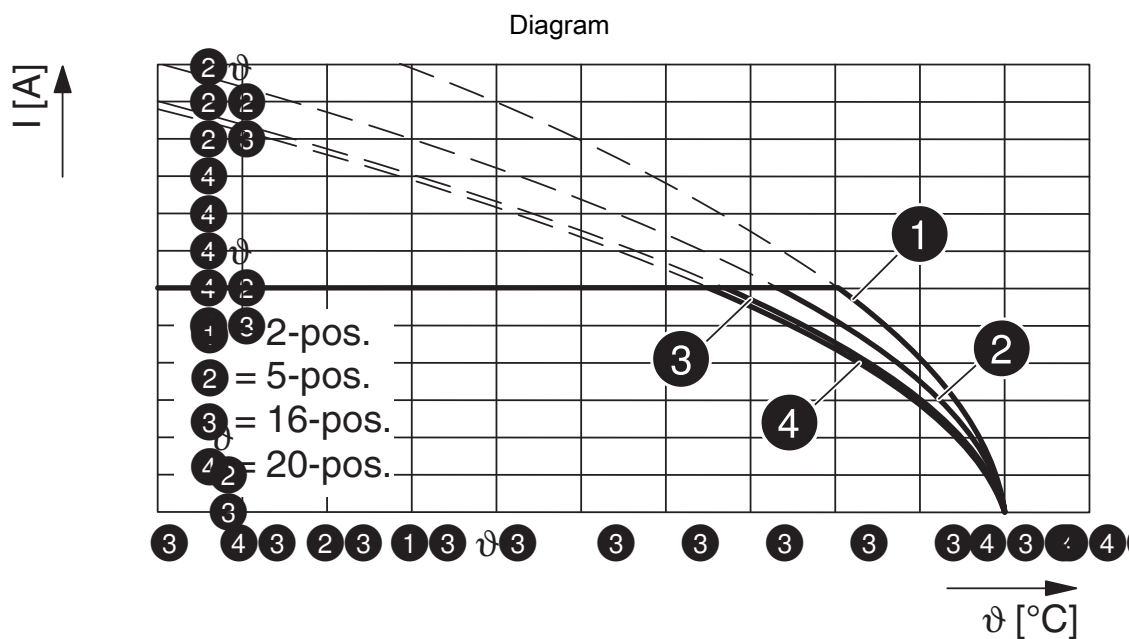
MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Type: MSTBU 2,5/...-STD-5,08 with MSTB 2,5/...-G-5,08

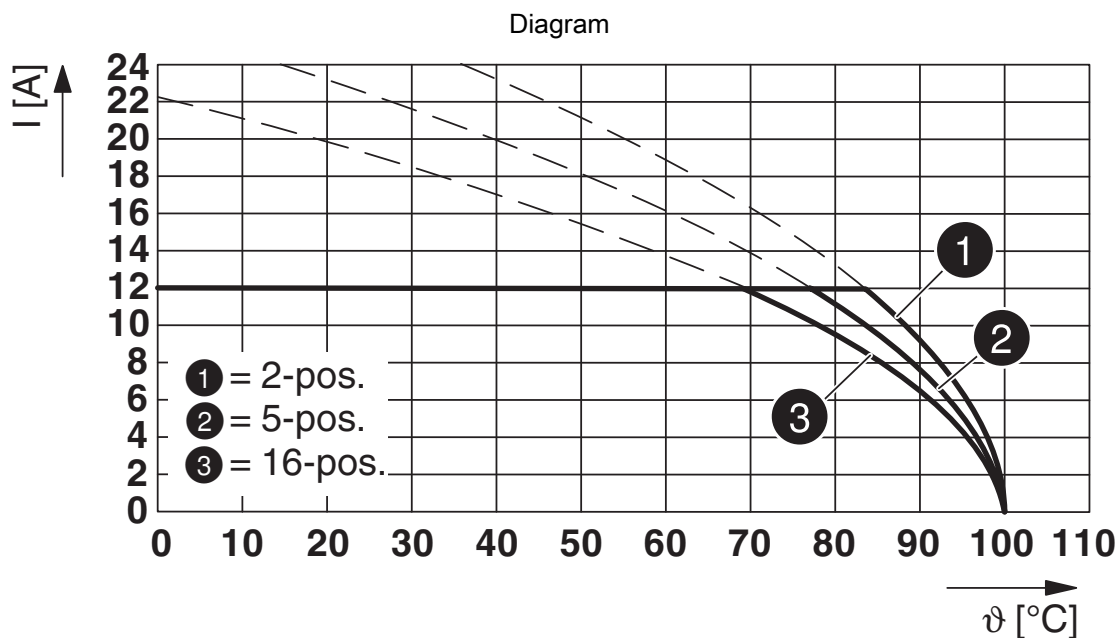


Type: FKCT 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

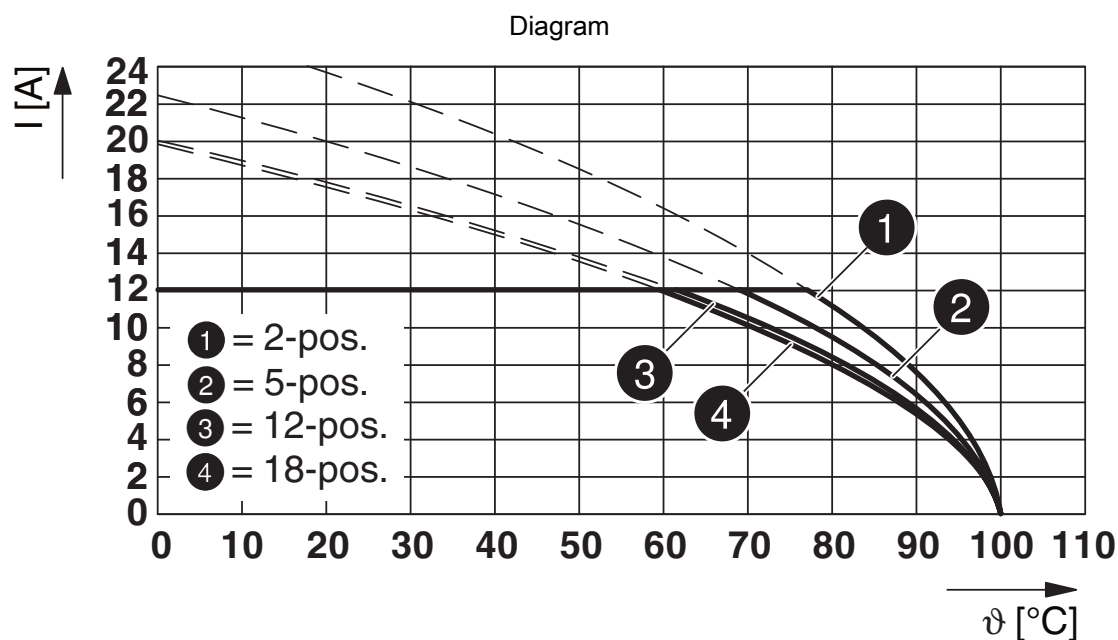
MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Type: FKCV(W/R) 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

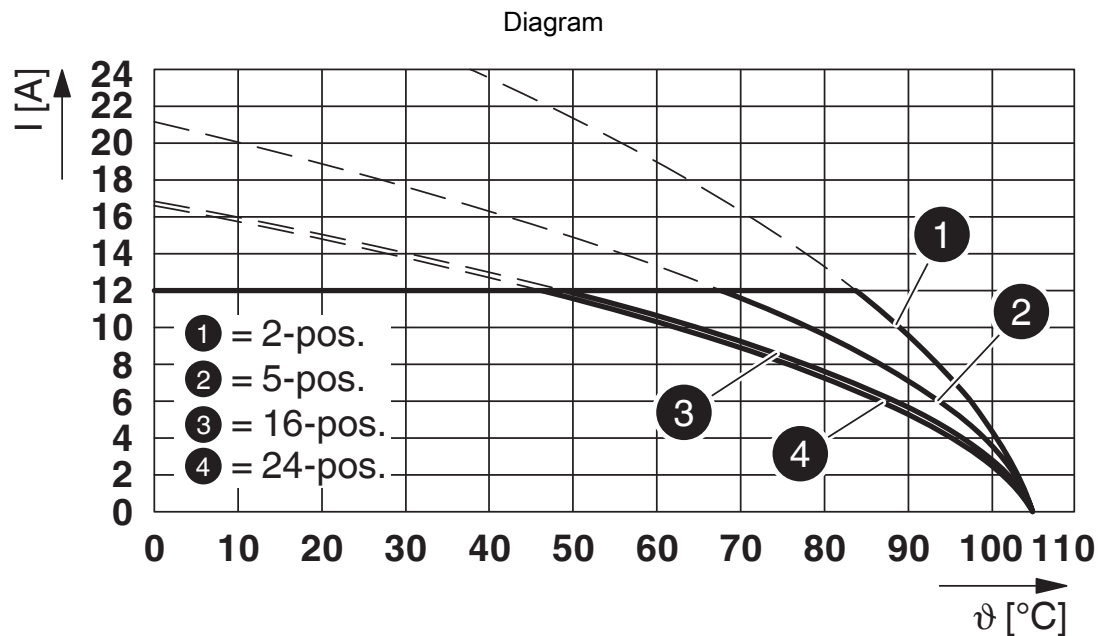


Type: MSTBT 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

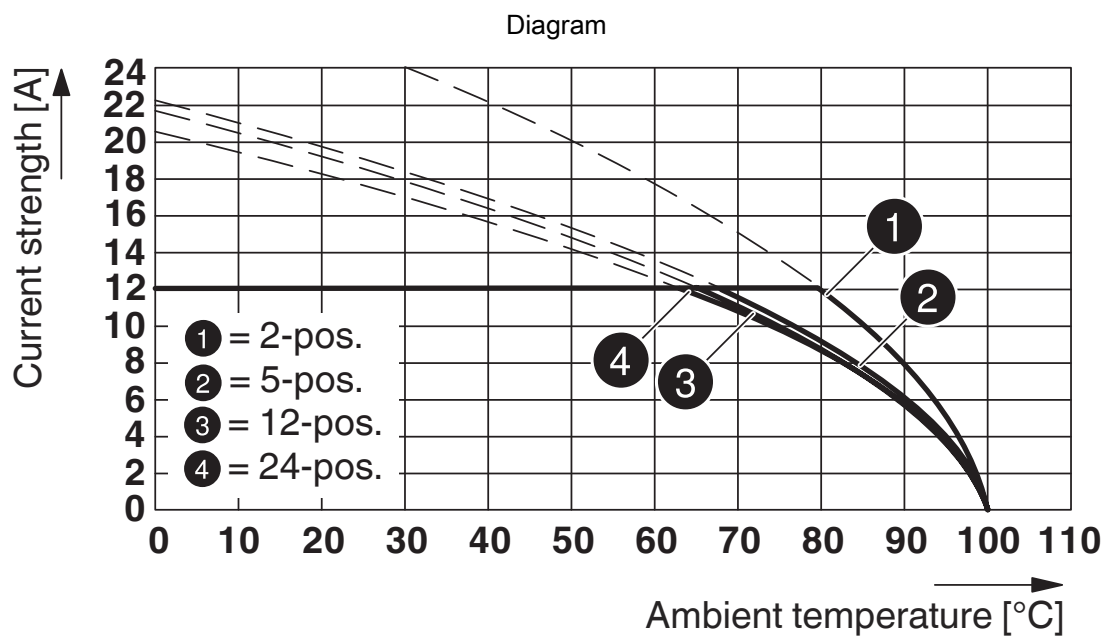
MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



Type: IC 2,5/...-G-5,08 with MSTB 2,5/...-G-5,08



Type: MSTB 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08

MSTB 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1759169>

 CSA Approval ID: 13631-2585951				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	10 A	-	-
Use group D				
	300 V	10 A	-	-

 cULus Recognized Approval ID: E60425-19931011				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	15 A	-	-
Use group D				
	300 V	10 A	-	-

 VDE Zeichengenehmigung Approval ID: 40050648				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	12 A	-	-

MSTB 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637
----------	----------

UNSPSC

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

MSTB 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

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 2,5/17-G-5,08 - PCB header



1759169

<https://www.phoenixcontact.com/pc/products/1759169>

Accessories

CR-MSTB - Coding section

1734401

<https://www.phoenixcontact.com/pc/products/1734401>

Coding section, inserted into the recess in the header or the inverted plug, red insulating material



MSTB-BF - Accessories

1759981

<https://www.phoenixcontact.com/pc/products/1759981>

Mounting flange, for fixing both ends of the header onto the PCB, green insulating material, with M 2 x 14 screws and nuts.



MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



MSTB-BL - Accessories

1755477

<https://www.phoenixcontact.com/pc/products/1755477>



Keying cap, for forming sections, plugs onto header pin, green insulating material

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 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



B-STIFT - Marker pen

1051993

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

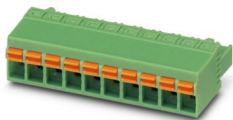


Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

FKCN 2,5/17-ST-5,08 - PCB connector

1754717

<https://www.phoenixcontact.com/pc/products/1754717>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: FKCN 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, 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

MSTB 2,5/17-G-5,08 - PCB header

1759169

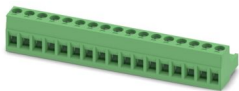
<https://www.phoenixcontact.com/pc/products/1759169>



MSTB 2,5/17-ST-5,08 - PCB connector

1757161

<https://www.phoenixcontact.com/pc/products/1757161>

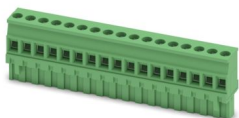


PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MSTB 2,5/..-ST, pitch: 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

MVSTBR 2,5/17-ST-5,08 - PCB connector

1792391

<https://www.phoenixcontact.com/pc/products/1792391>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MVSTBR 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTB 2,5/17-G-5,08 - PCB header

1759169

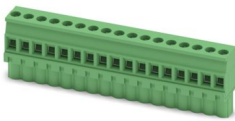
<https://www.phoenixcontact.com/pc/products/1759169>



MVSTBW 2,5/17-ST-5,08 - PCB connector

1792906

<https://www.phoenixcontact.com/pc/products/1792906>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MVSTBW 2,5/...-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTBC 2,5/17-ST-5,08 - PCB connector

1808968

<https://www.phoenixcontact.com/pc/products/1808968>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MSTBC 2,5/...-ST, pitch: 5.08 mm, connection method: Crimp connection, 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] 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

MSTB 2,5/17-G-5,08 - PCB header

1759169

<https://www.phoenixcontact.com/pc/products/1759169>



MSTBC 2,5/17-STZ-5,08 - PCB connector

1809653

<https://www.phoenixcontact.com/pc/products/1809653>

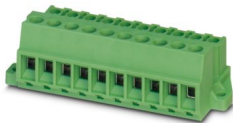


PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MSTBC 2,5/...-STZ, pitch: 5.08 mm, connection method: Crimp connection, 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] 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

MSTBU 2,5/17-STD-5,08 - PCB connectors

1824272

<https://www.phoenixcontact.com/pc/products/1824272>



Direct plug-in block, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: MSTBU 2,5/...-STD, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Direct mounting, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

MSTB 2,5/17-G-5,08 - PCB header

1759169

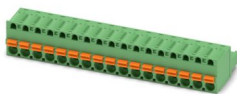
<https://www.phoenixcontact.com/pc/products/1759169>



FKC 2,5/17-ST-5,08 - PCB connector

1875904

<https://www.phoenixcontact.com/pc/products/1875904>

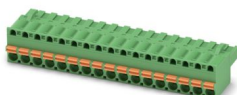


PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: FKC 2,5/...-ST, pitch: 5.08 mm, connection method: Push-in spring connection, 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

FKCT 2,5/17-ST-5,08 - PCB connector

1902262

<https://www.phoenixcontact.com/pc/products/1902262>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: FKCT 2,5/...-ST, pitch: 5.08 mm, connection method: Push-in spring connection, 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

MSTB 2,5/17-G-5,08 - PCB header

1759169

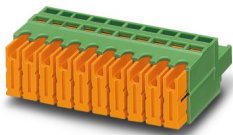
<https://www.phoenixcontact.com/pc/products/1759169>



QC 1/17-ST-5,08 - PCB connector

1915974

<https://www.phoenixcontact.com/pc/products/1915974>



PCB connector, nominal cross section: 1 mm², color: green, nominal current: 10 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: QC 1/..-ST, pitch: 5.08 mm, connection method: Displacement connection, 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

FKCS 2,5/17-ST-5,08 - PCB connector

1975228

<https://www.phoenixcontact.com/pc/products/1975228>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 17, number of rows: 1, number of positions: 17, number of connections: 17, product range: FKCS 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, 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

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

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