

MSTBVA 2,5/17-G - PCB header

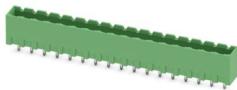
1755655

<https://www.phoenixcontact.com/us/products/1755655>



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: MSTBVA 2,5/..-G, pitch: 5 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



Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Vertical connection enables multi-row arrangement on the PCB
- Closed contour for optimum stability of the plug-in connection
- Easy PCB replacement thanks to plug-in modules

Commercial data

Item number	1755655
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACSLE
Catalog page	Page 168 (CC-2005)
GTIN	4017918029234
Weight per piece (including packing)	7.42 g
Weight per piece (excluding packing)	6.43 g
Customs tariff number	85366930
Country of origin	DE

MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



Technical data

Product properties

Product type	PCB headers
Product family	MSTBVA 2,5/..-G
Product line	COMBICON Connectors M
Type	Standard
Number of positions	17
Pitch	5 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	2.5 m Ω
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

MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

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 mm
Width [w]	87 mm
Height [h]	15.9 mm
Length [l]	8.6 mm
Installed height	12 mm
Solder pin length [P]	3.9 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	
--------------------------	--

MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



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

MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R_1	2.5 mΩ
Contact resistance R_2	2.5 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

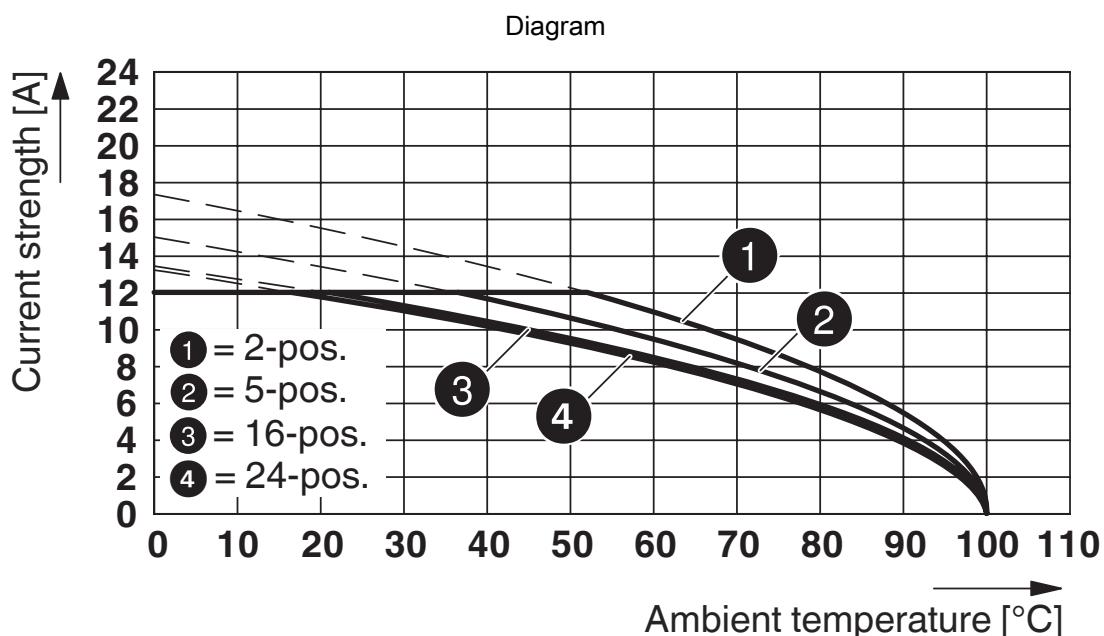
Ambient conditions

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

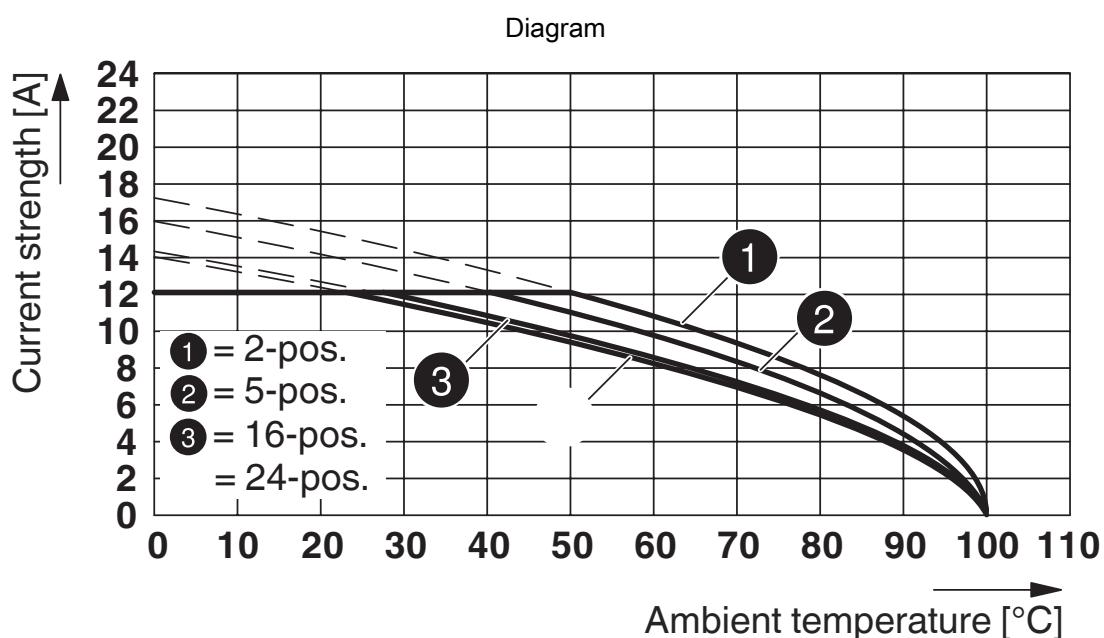
Packaging specifications

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

Drawings



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



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

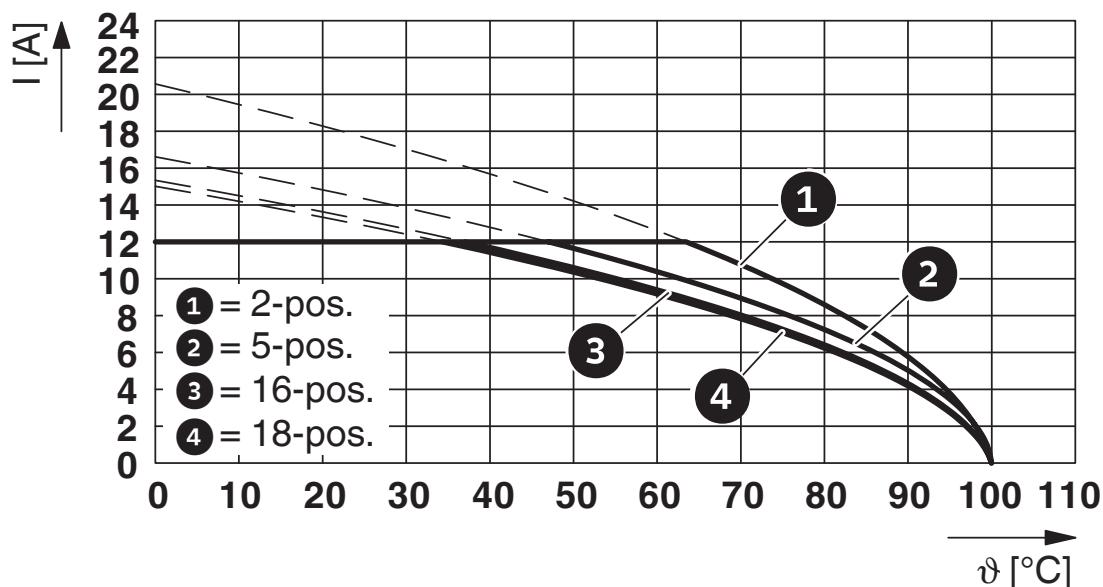
MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>

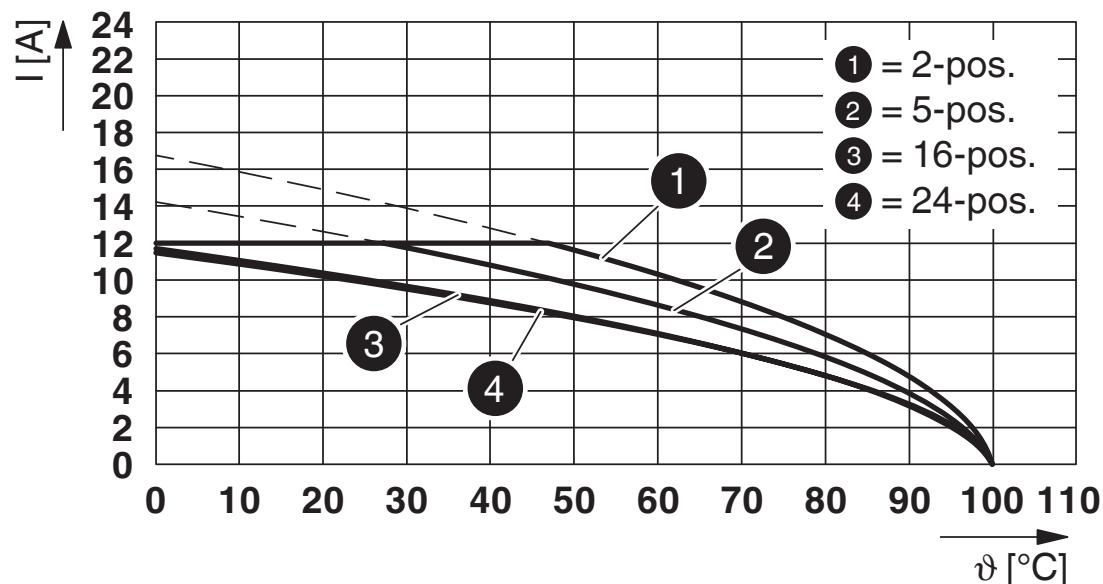


Diagram



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

Diagram



Type: MVSTBR 2,5/...-ST with MSTBVA 2,5/...-G

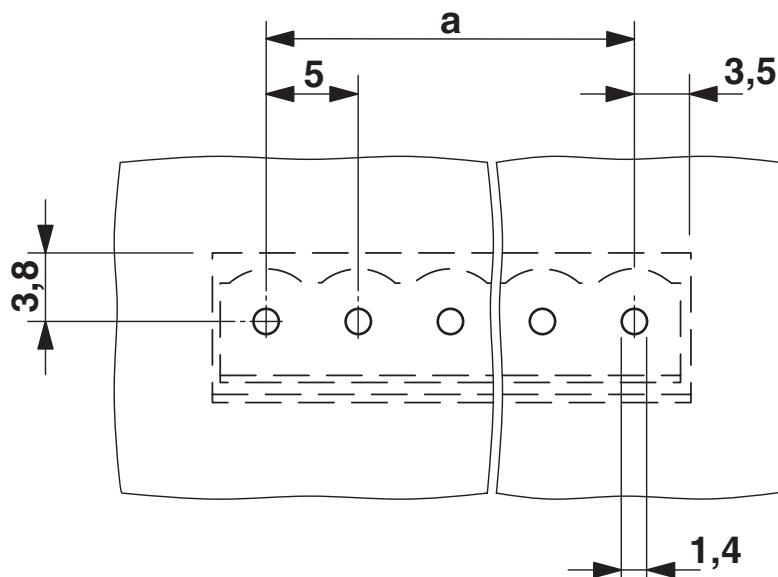
MSTBVA 2,5/17-G - PCB header



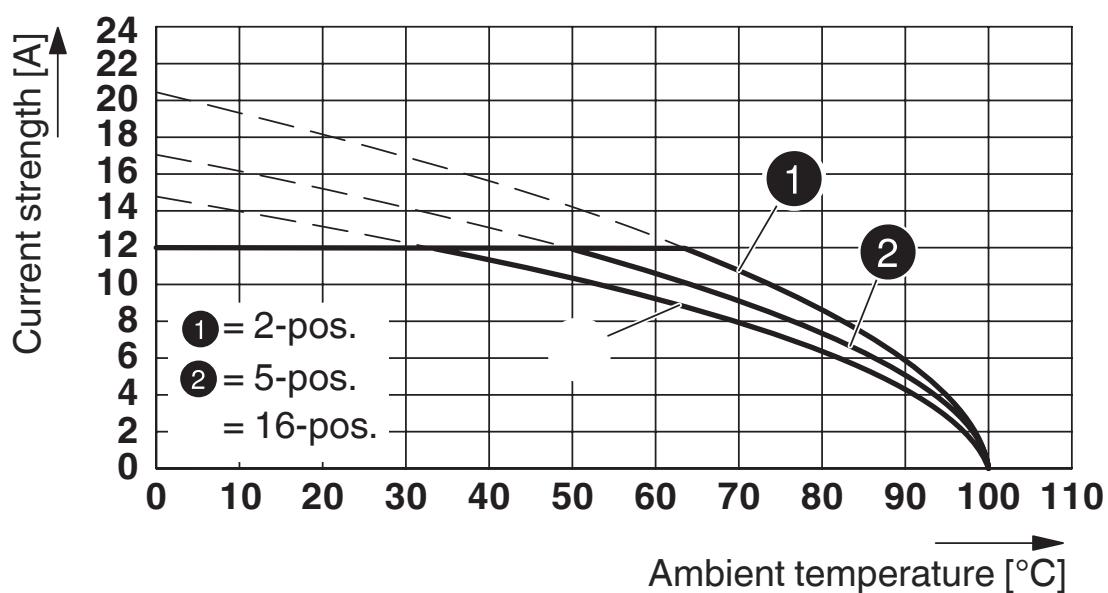
1755655

<https://www.phoenixcontact.com/us/products/1755655>

Drilling plan/solder pad geometry



Diagram

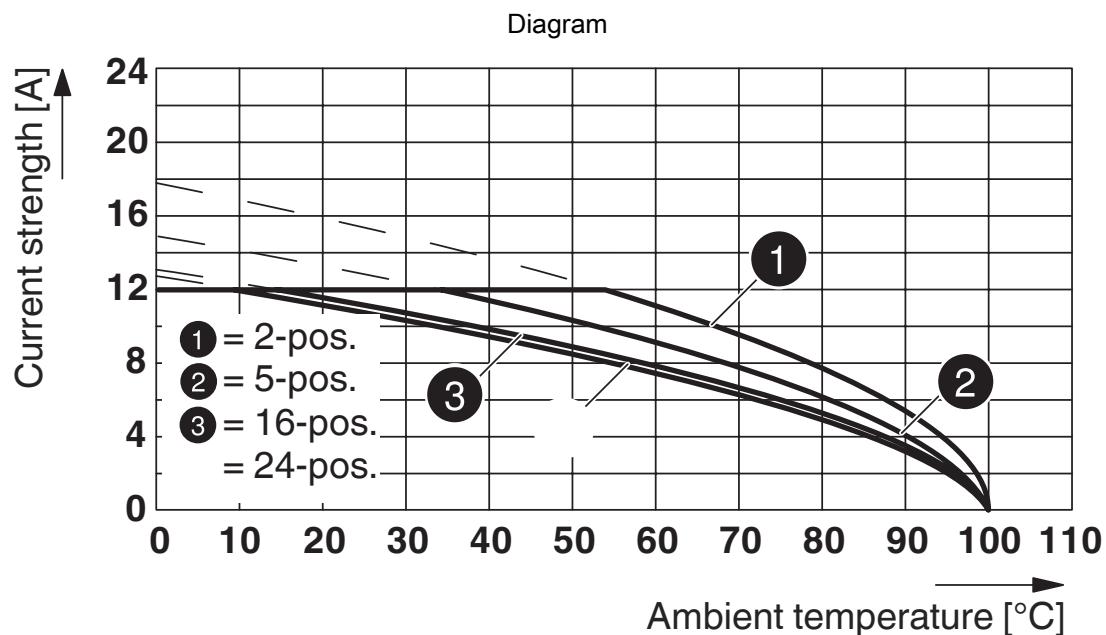


Type: MSTBT 2,5/...-ST with MSTBVA 2,5/...-G

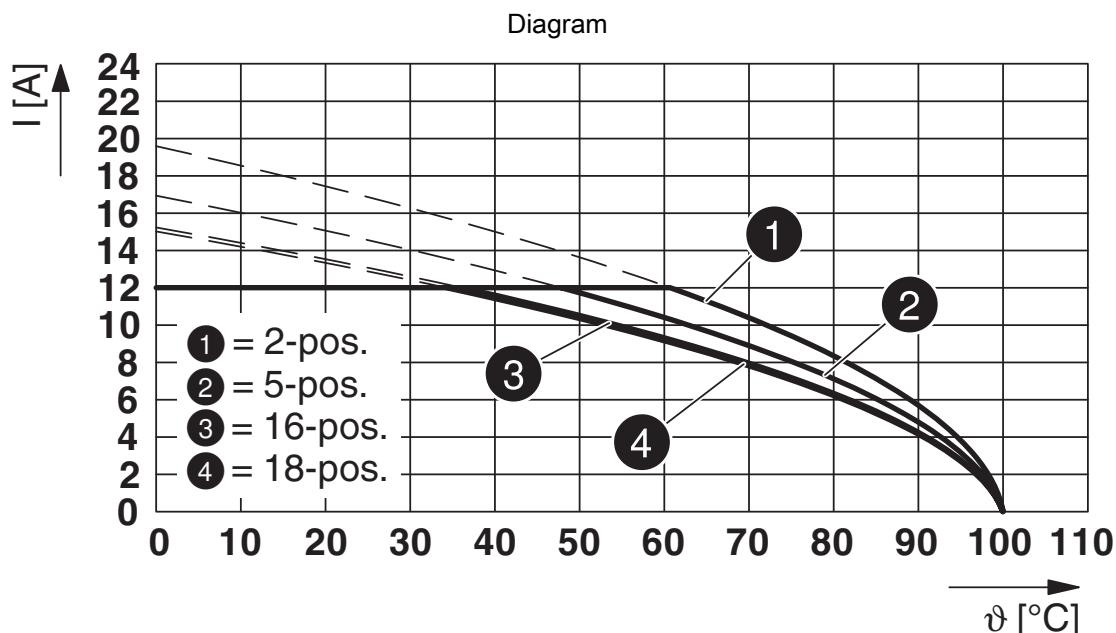
MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>

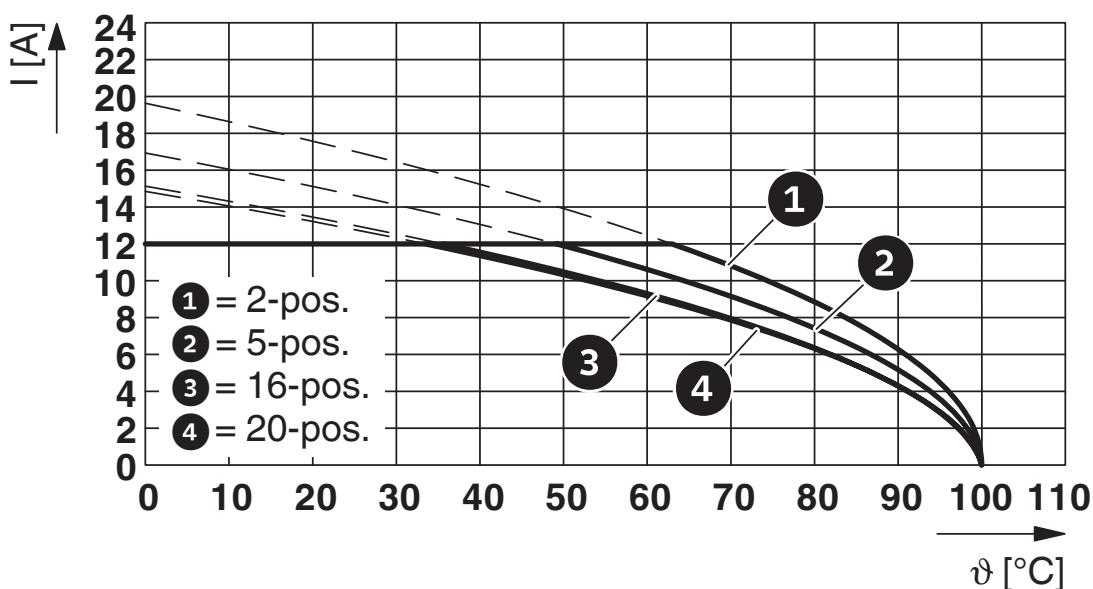


Type: SMSTB 2,5/...-ST with MSTBVA 2,5/...-G



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

Diagram



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

MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1755655>

		Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B		300 V	12 A	-	-
Use group D		300 V	10 A	-	-

		Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B		300 V	12 A	-	-
Use group D		300 V	10 A	-	-

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

MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



Classifications

ECLASS

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

ETIM

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

UNSPSC

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

MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



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%
-------------------------------------	----------------------------

MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

Accessories

CR-MSTB - Coding section

1734401

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

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

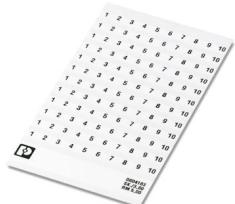


SK 5/3,8:FORTL.ZAHLEN - Marker card

0804183

<https://www.phoenixcontact.com/us/products/0804183>

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 mm, lettering field size: 5 x 3.8 mm



MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

MSTB-BL - Accessories

1755477

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

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

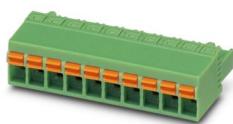


FKCN 2,5/17-ST - PCB connector

1732881

<https://www.phoenixcontact.com/us/products/1732881>

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 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



MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

MSTB 2,5/17-ST - PCB connector

1754740

<https://www.phoenixcontact.com/us/products/1754740>

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 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



MSTBP 2,5/17-ST - PCB connector

1765920

<https://www.phoenixcontact.com/us/products/1765920>

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: MSTBP 2,5/..-ST, pitch: 5 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



MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

SMSTB 2,5/17-ST - PCB connector

1768901

<https://www.phoenixcontact.com/us/products/1768901>



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: SMSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -45 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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

1779563

<https://www.phoenixcontact.com/us/products/1779563>



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: FRONT-MSTB 2,5/..-ST, pitch: 5 mm, connection method: Front screw connection, 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

MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

MVSTBR 2,5/17-ST - PCB connector

1792168

<https://www.phoenixcontact.com/us/products/1792168>

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 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



MVSTBW 2,5/17-ST - PCB connector

1792676

<https://www.phoenixcontact.com/us/products/1792676>

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 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



MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

FKCT 2,5/17-ST - PCB connector

1909362

<https://www.phoenixcontact.com/us/products/1909362>

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 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



FKCVR 2,5/17-ST - PCB connector

1909867

<https://www.phoenixcontact.com/us/products/1909867>

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: FKCVR 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, 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



MSTBVA 2,5/17-G - PCB header



1755655

<https://www.phoenixcontact.com/us/products/1755655>

FKCVW 2,5/17-ST - PCB connector

1910186

<https://www.phoenixcontact.com/us/products/1910186>

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: FKCVW 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, 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



FKC 2,5/17-ST - PCB connector

1910500

<https://www.phoenixcontact.com/us/products/1910500>

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 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



MSTBVA 2,5/17-G - PCB header

1755655

<https://www.phoenixcontact.com/us/products/1755655>



FKCS 2,5/17-ST - PCB connector

1974889

<https://www.phoenixcontact.com/us/products/1974889>

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 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 USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com