

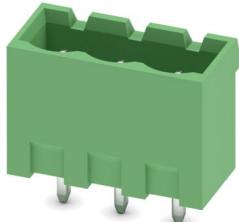
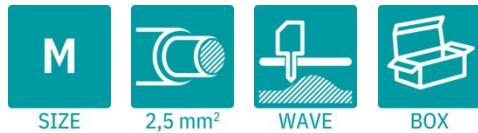
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

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 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBVA 2,5/..-G, 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: without, mounting method: 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	1755749
Packing unit	250 pc
Minimum order quantity	250 pc
Sales key	AA03
Product key	AACSMF
GTIN	4017918029326
Weight per piece (including packing)	1.223 g
Weight per piece (excluding packing)	1.2 g
Customs tariff number	85366930
Country of origin	DE

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

## Technical data

### Product properties

Product family	MSTBVA 2,5/..-G
Product line	COMBICON Connectors M
Type	Standard
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting type	without
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

#### Properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	320 V
Contact resistance	2.4 mΩ
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

### 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/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

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

## 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]	17.24 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

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

## Polarization and coding

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

## Contact holder in insert

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	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
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

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

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
Test directions	X-, Y- and Z-axis

## Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R <sub>1</sub>	2.4 mΩ
Contact resistance R <sub>2</sub>	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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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
-------------------	---------------------

# MSTBVA 2,5/ 3-G-5,08 - PCB header

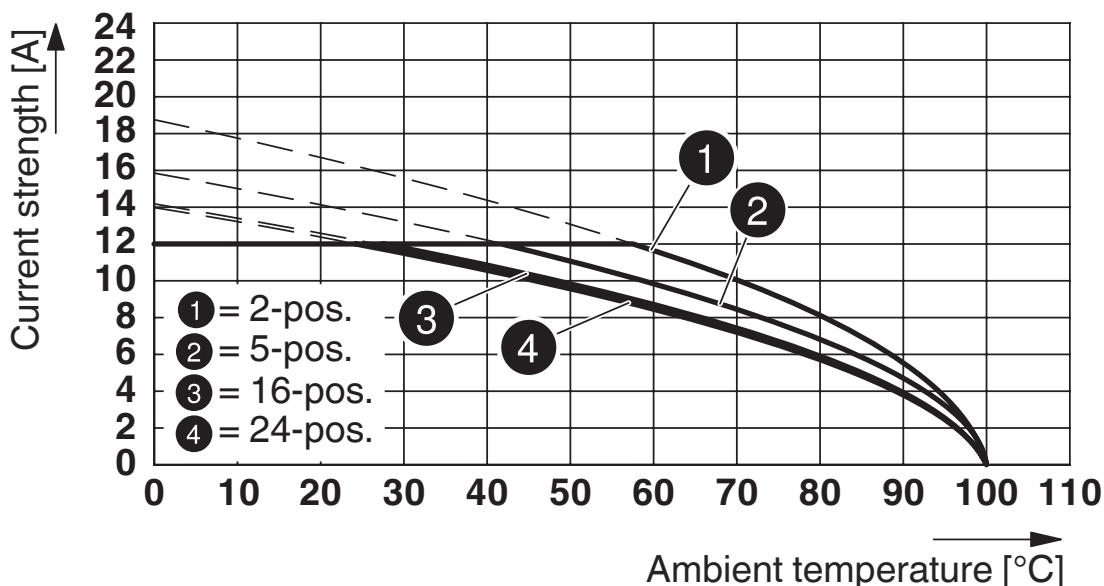


1755749

<https://www.phoenixcontact.com/us/products/1755749>

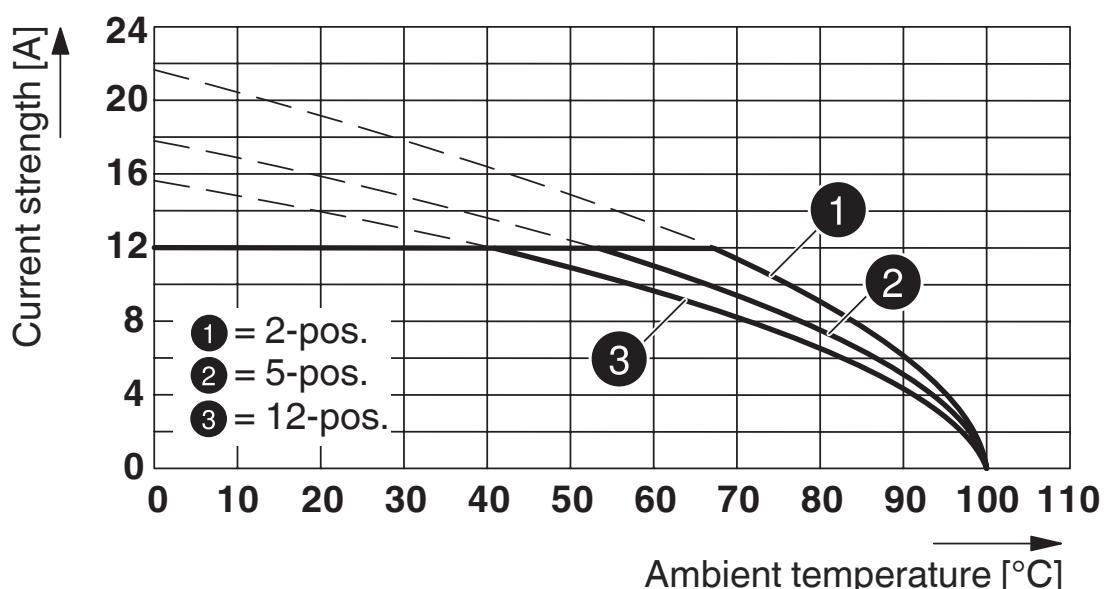
## Drawings

Diagram



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

Diagram



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

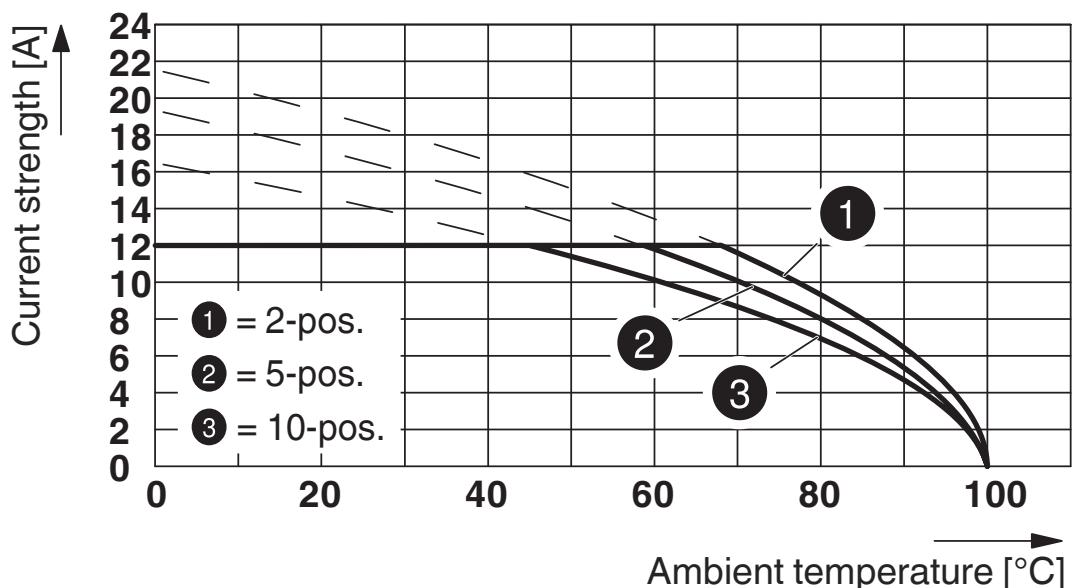
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

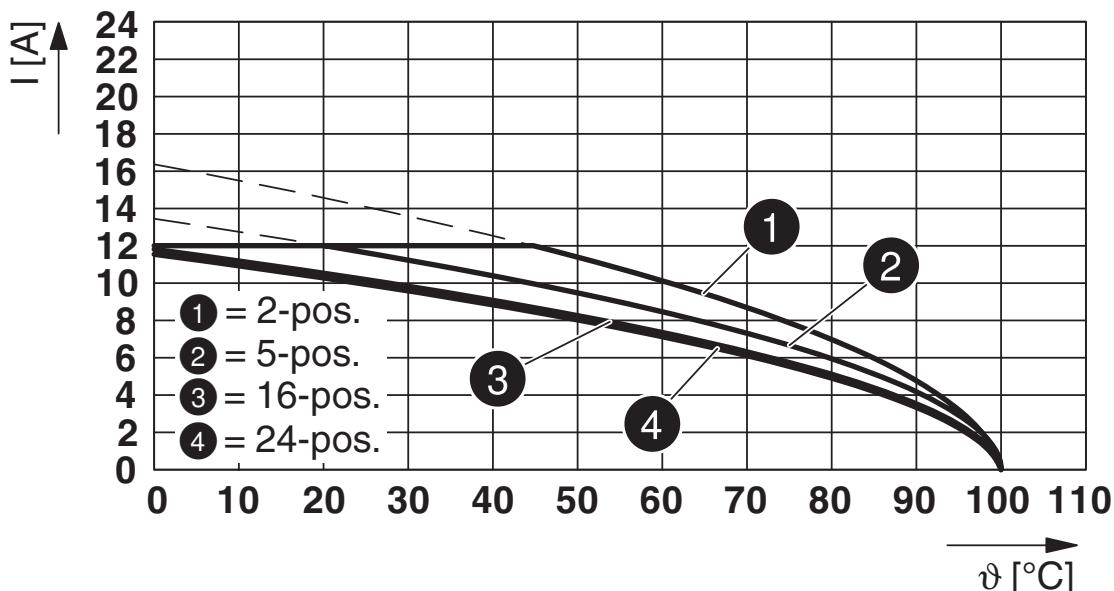
<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

Diagram



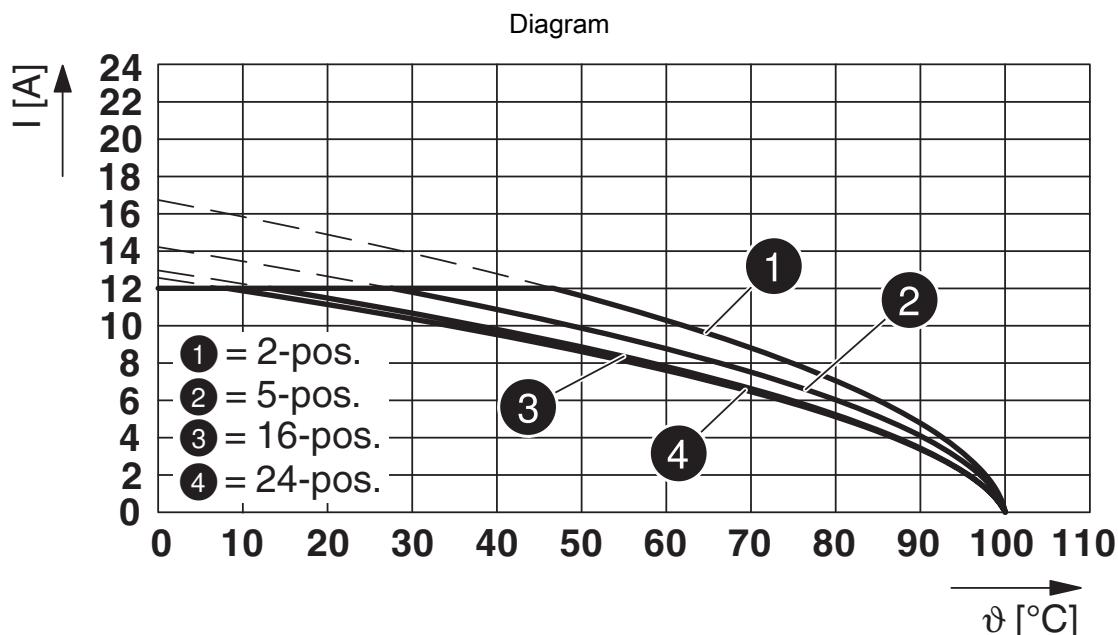
Type: MVSTB(R/W) 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08

# MSTBVA 2,5/ 3-G-5,08 - PCB header

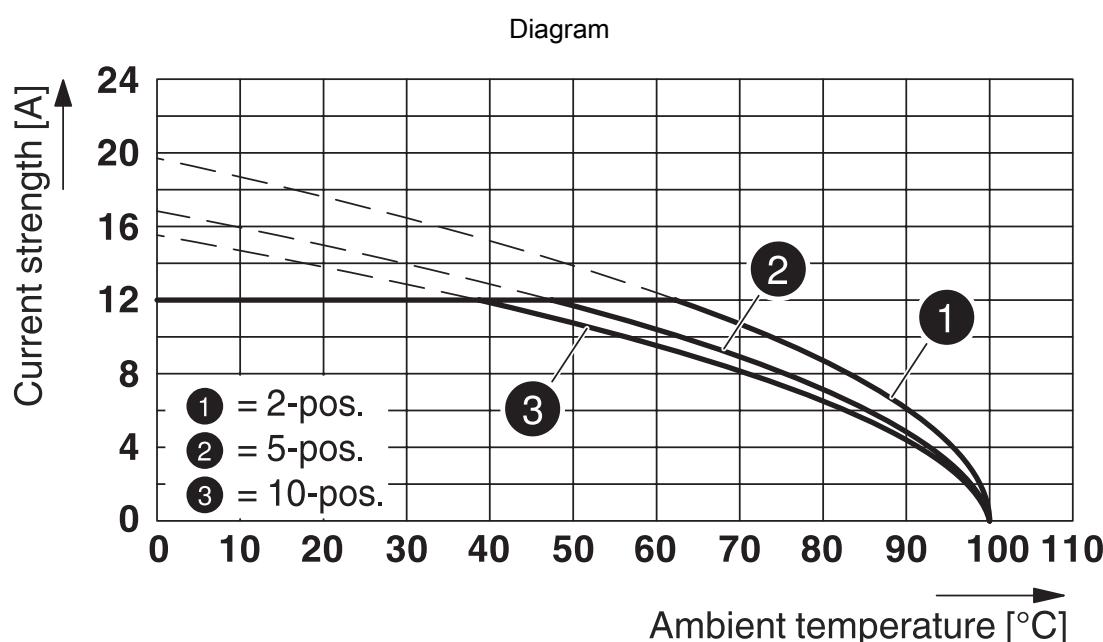


1755749

<https://www.phoenixcontact.com/us/products/1755749>



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



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

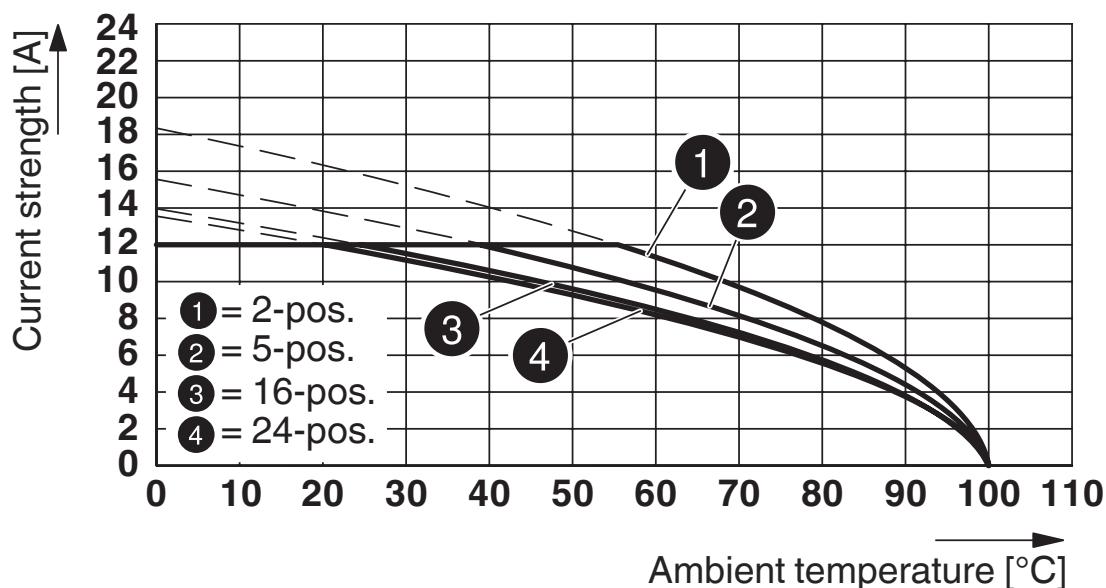
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

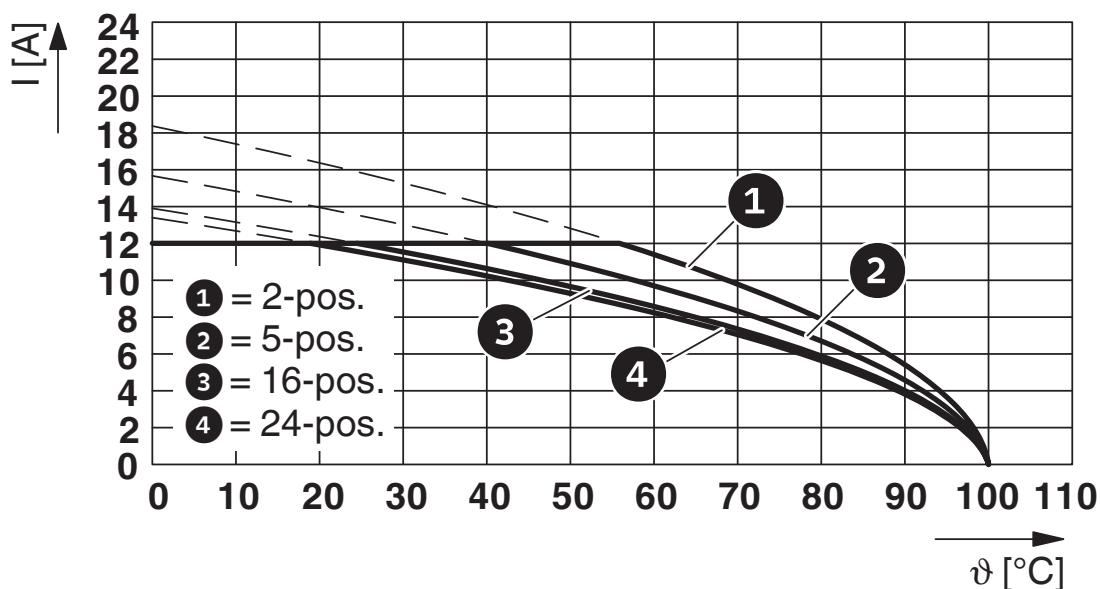
<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

Diagram



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

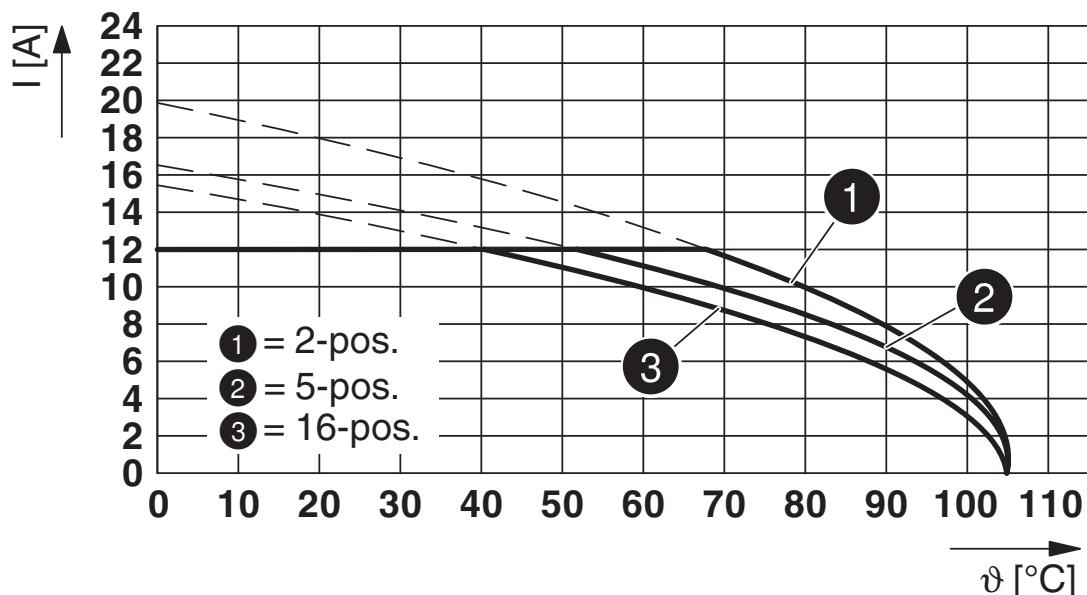
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

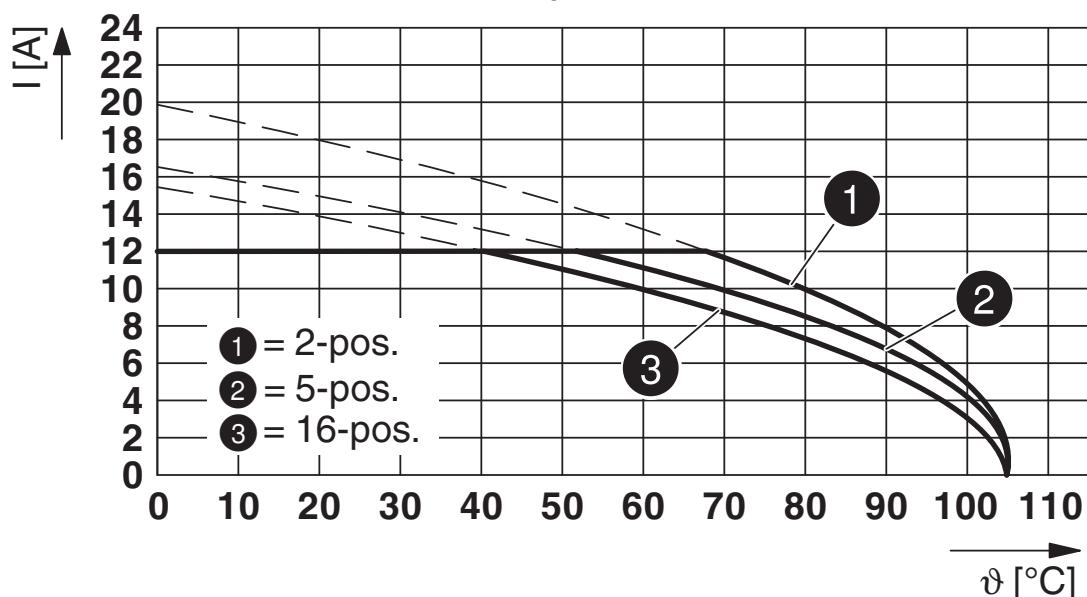
<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

Diagram



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

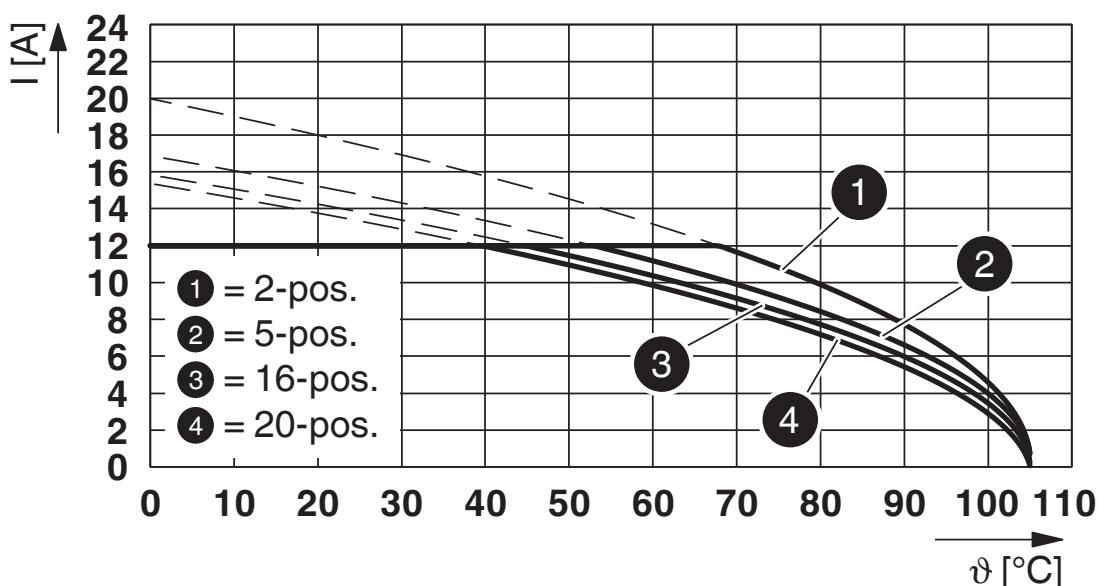
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

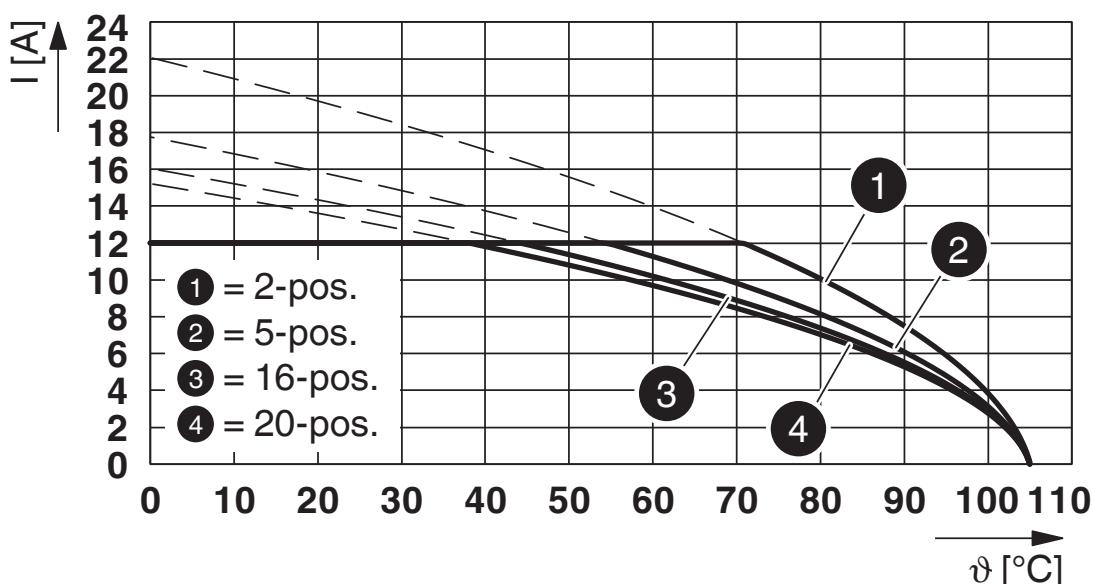
<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

Diagram



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

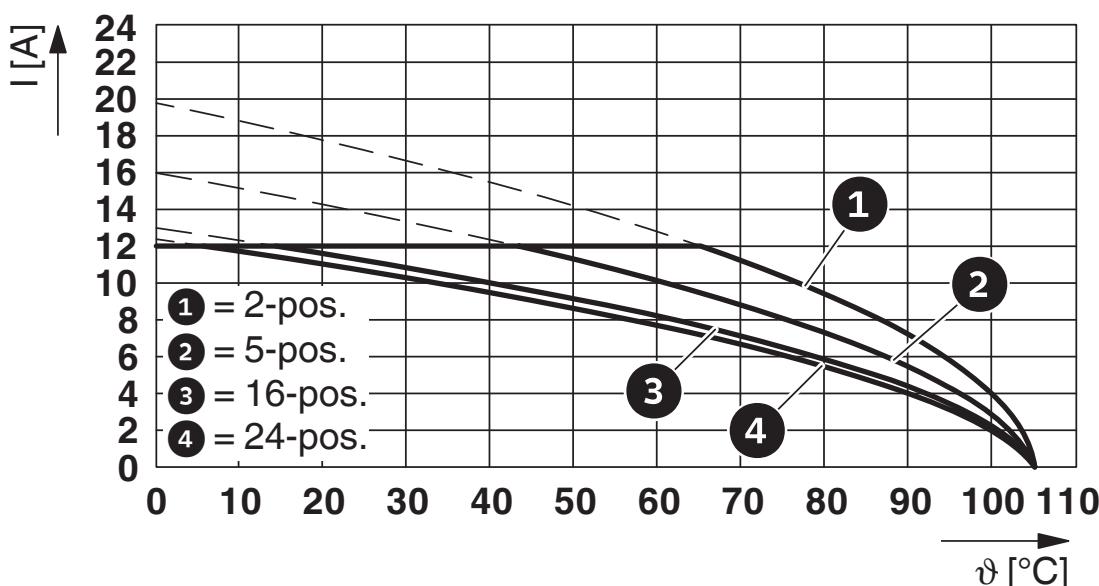
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

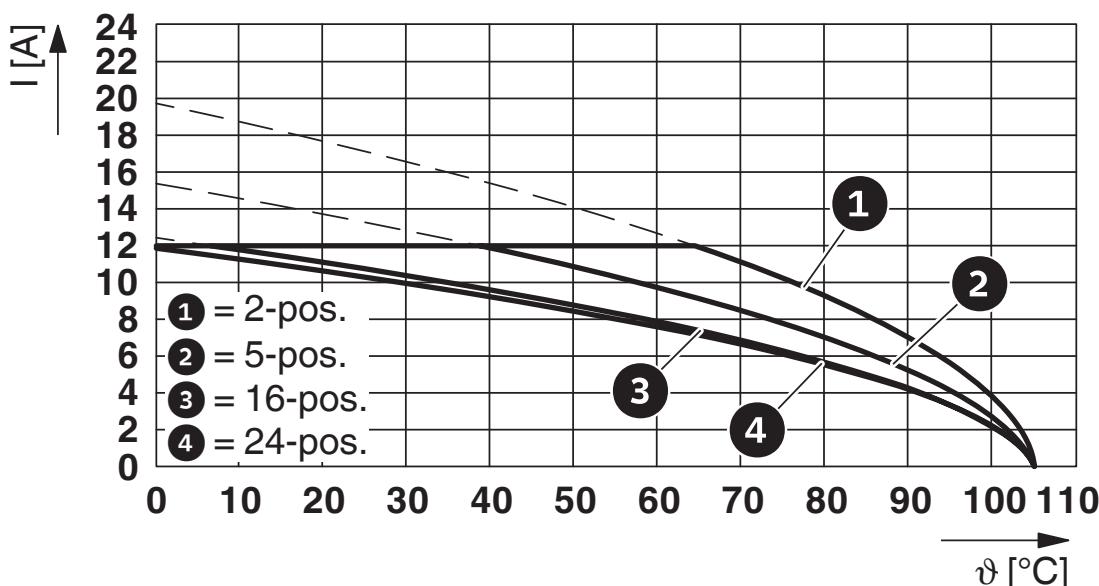
<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

Diagram



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

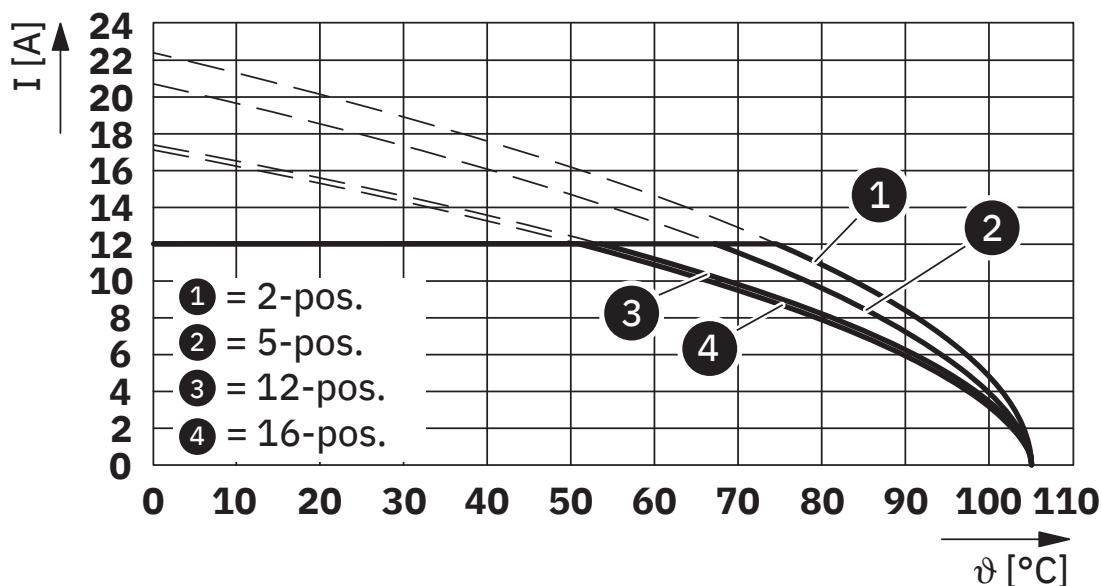
# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

Diagram



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

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1755749>

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B		300 V	12 A	-	-
D		300 V	10 A	-	-

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B		300 V	12 A	-	-
D		300 V	10 A	-	-

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine		250 V	12 A	-	-

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

## Classifications

### ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

### ETIM

ETIM 10.0	EC002637
-----------	----------

### UNSPSC

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

# MSTBVA 2,5/ 3-G-5,08 - PCB header



1755749

<https://www.phoenixcontact.com/us/products/1755749>

## 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%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	0.012 kg CO2e
---------	---------------

Phoenix Contact 2026 © - 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](mailto:info@phoenixcon.com)