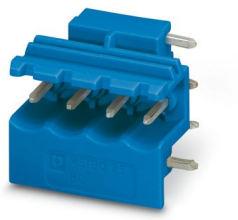
MSTBO 2,5/ 4-G1R BU - PCB header

2907800

https://www.phoenixcontact.com/us/products/2907800

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PCB headers, nominal cross section: 2.5 mm^2, color: blue, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTBO 2,5/..-G1R, pitch: 5 mm, connection method: pluggable, 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, locking: without, type of packaging: packed in cardboard, Product with pin output on right side

Your advantages

- Plug-in direction orthogonal to the PCB

Commercial data

Item number	2907800
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AC08
Product key	ACHADB
GTIN	4017918381783
Weight per piece (including packing)	2.852 g
Weight per piece (excluding packing)	2.5 g
Customs tariff number	85366930
Country of origin	PL

Technical data

Product properties

Product type	PCB headers
Product family	MSTBO 2,5/..-G1R
Product line	COMBICON Connectors M
Type	Header perpendicular to the PCB
Number of positions	4
Pitch	5 mm
Set comprises	2909905 ME 45 OT-MSTBO SET
	2907444 ME 22,5 OT-MSTBO SET
Number of connections	4
Number of rows	1
Number of potentials	4
Mounting flange	no
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	250 V
Degree of pollution	3
Contact resistance	1.6 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)	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

Material data - housing

Color (Housing)	blue (5015)
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

Pitch	5 mm
Width [w]	19.95 mm
Height [h]	16.5 mm
Length [l]	14.65 mm
Solder pin length [P]	3.5 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

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	4

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)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 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)	1.6 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
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

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R_1	1.6 mΩ
Contact resistance R_2	1.6 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

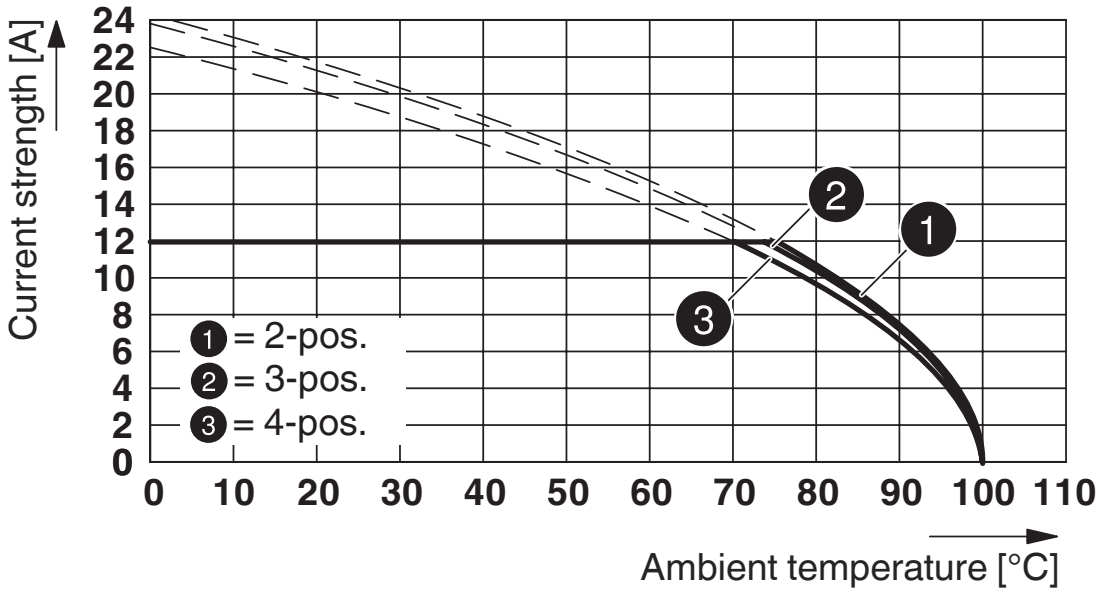
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 55 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard
Outer packaging type	Carton

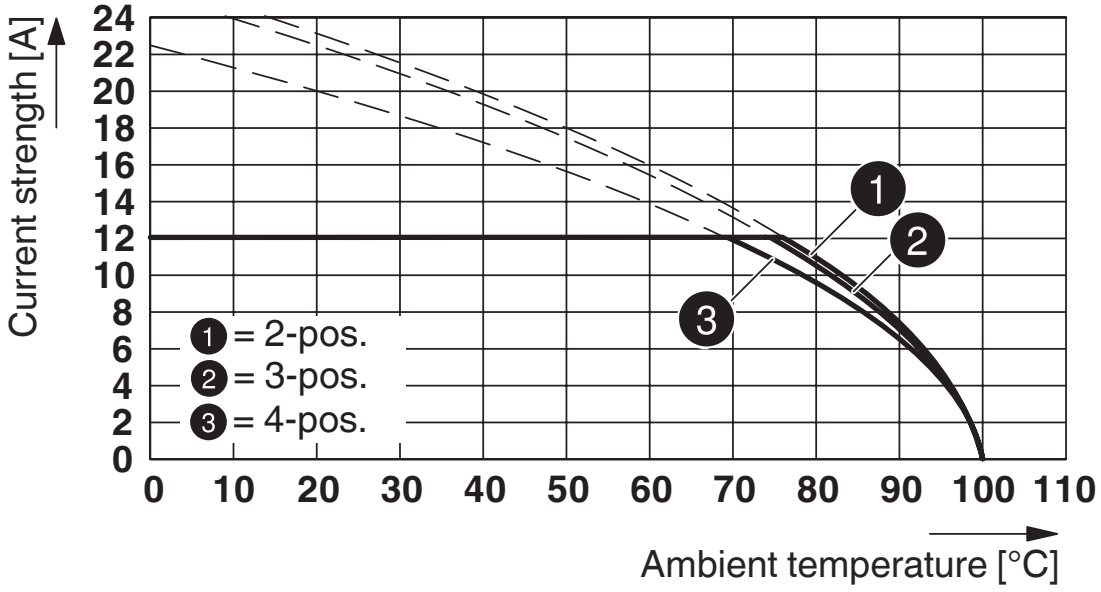
Drawings

Diagram



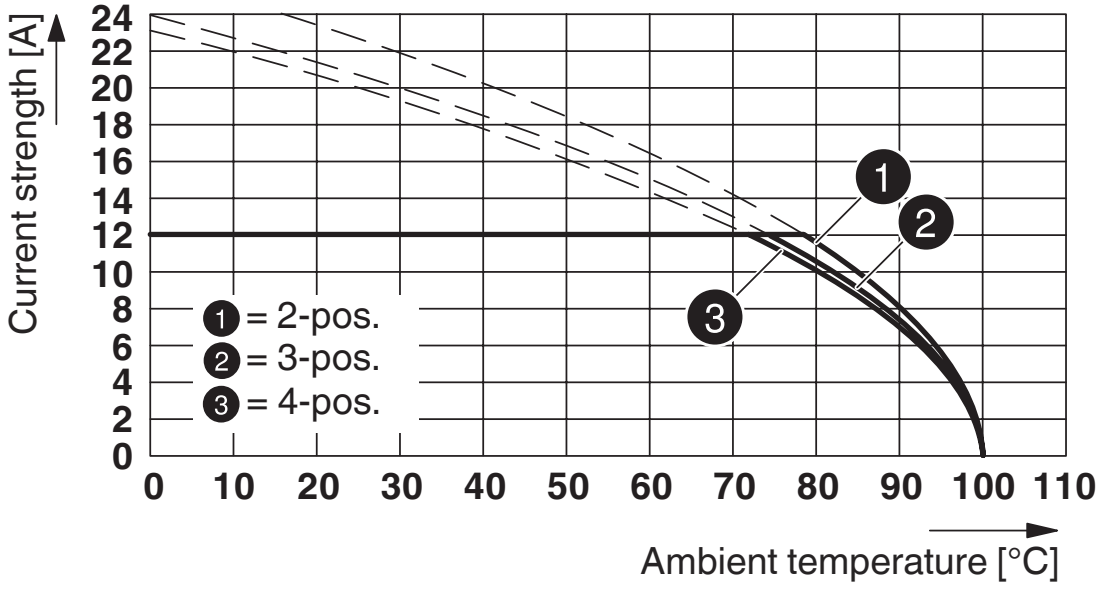
Type: MSTB 2,5/..-ST with MSTBO 2,5/...-G1R

Diagram



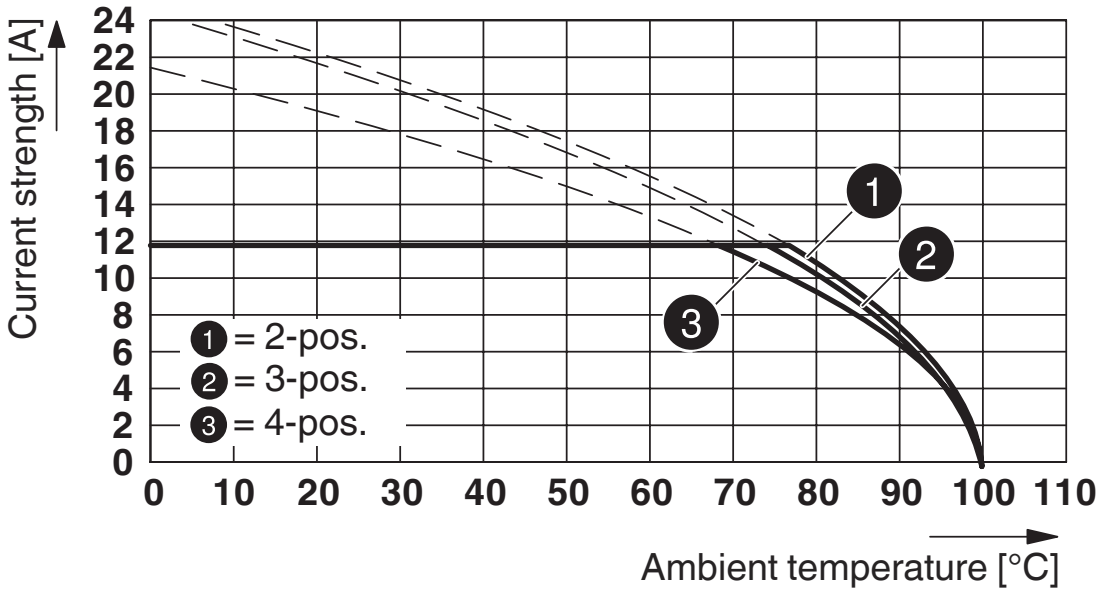
Type: FRONT-MSTB 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



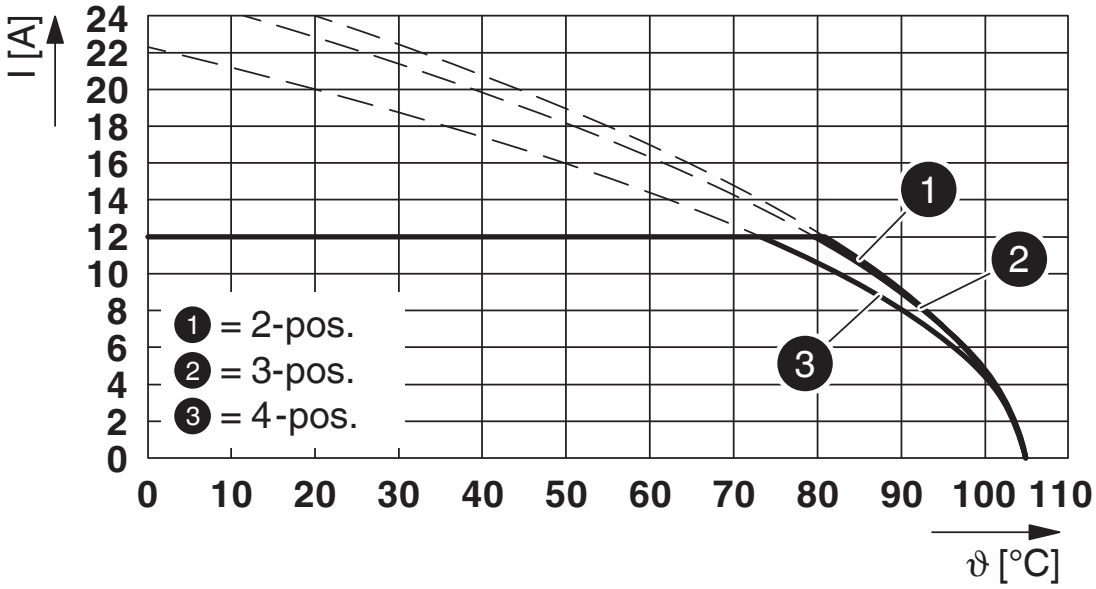
Type: MSTBT 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



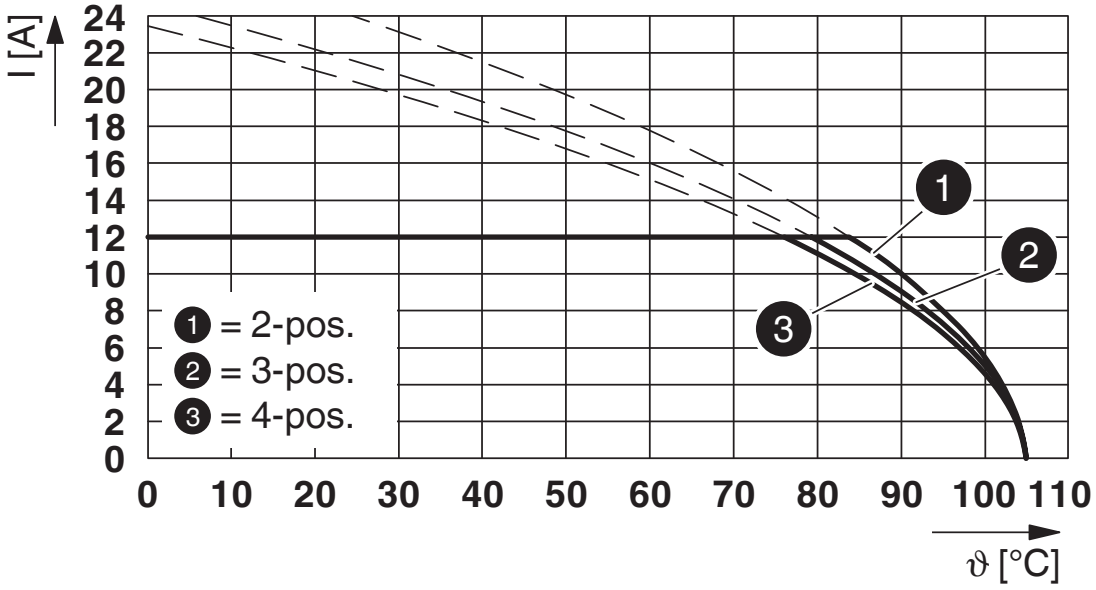
Type: MSTBP 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



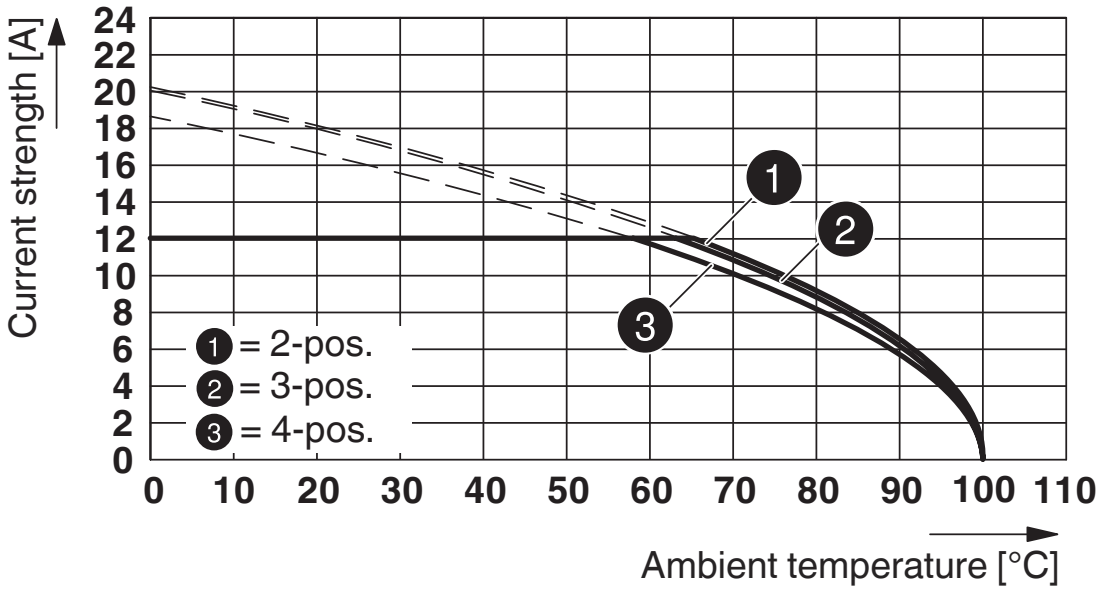
Type: FKCN 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



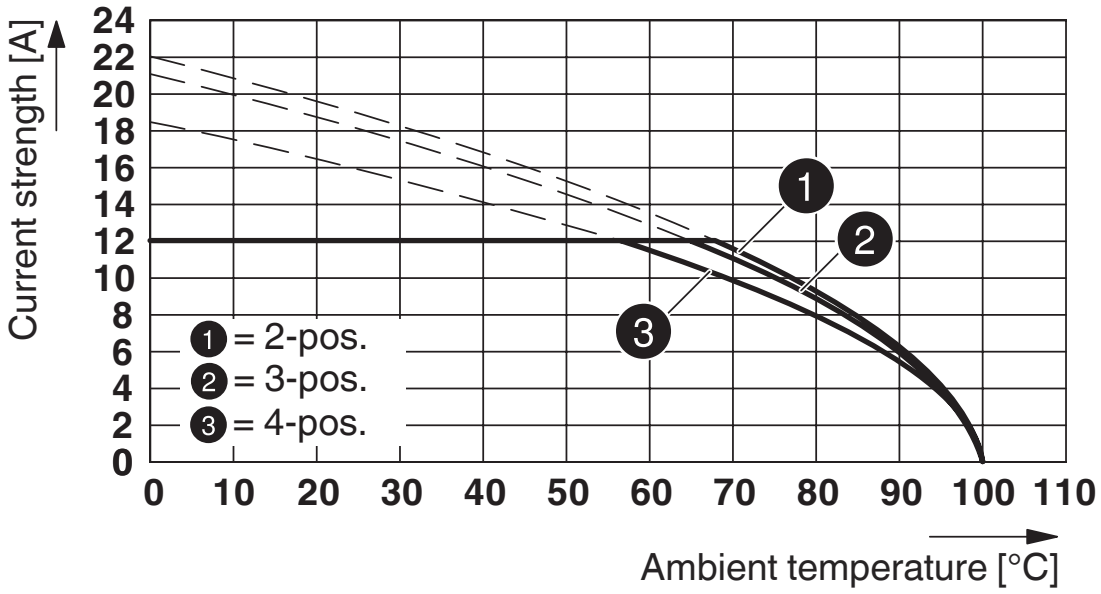
Type: FKCT 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



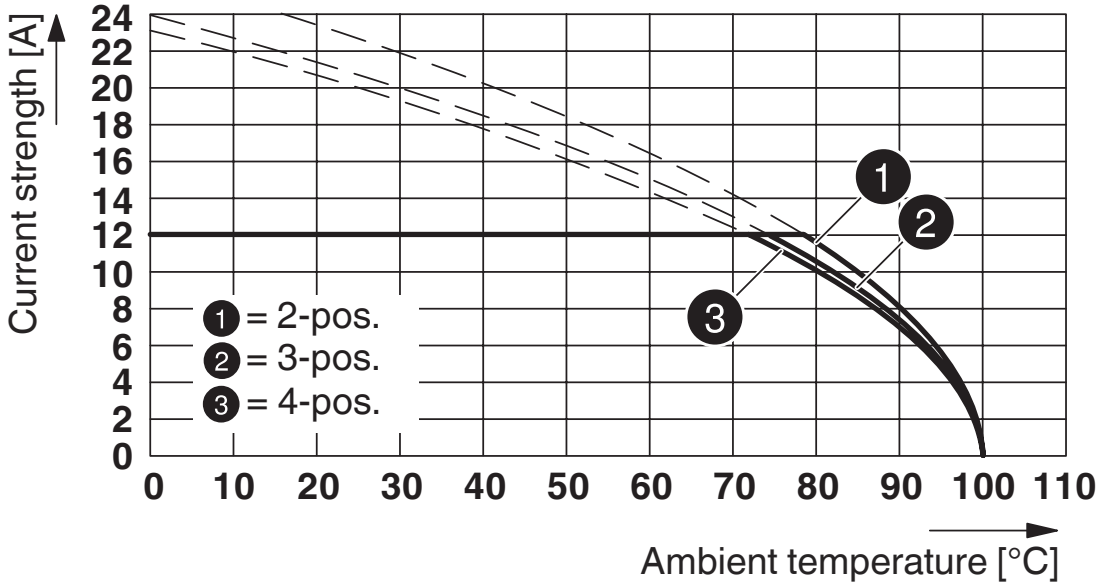
Type: SMSTB 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



Type: MVSTB(R/W) 2,5/...-ST with MSTBO 2,5/...-G1R

Diagram



Type: MSTBTP 2,5/...-ST with MSTBO 2,5/...-G1R

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2907800

CSA
Approval ID: 13631

	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: E60425-20050718

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	16 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	8 A	-	-

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002637

UNSPSC

UNSPSC 21.0	39121400

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%

EF3.0 Climate Change

CO2e kg	0.024 kg CO2e

Accessories

CR MSTBO-G1 - Coding section

2199618

https://www.phoenixcontact.com/us/products/2199618



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

MSTB-BF - Accessories

1759981

https://www.phoenixcontact.com/us/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-BL - Accessories

1755477

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

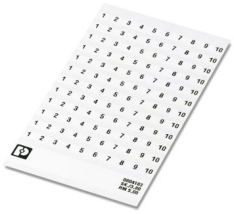


Keying cap, for forming sections, plugs onto header pin, green insulating material

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

SK 5/3,8:UNBEDRUCKT - Marker card

0805409

https://www.phoenixcontact.com/us/products/0805409



Marker card, Sheet, white, unlabeled, can be labeled with: Marker pen: without print, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm, Number of individual labels: 120

B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/us/products/1051993



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

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