

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



2907787

<https://www.phoenixcontact.com/us/products/2907787>

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PCB headers, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 4, product range: MSTBO 2,5/..-G1R, connection method: pluggable, mounting: Wave soldering, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Orthogonal, locking: without, Product with pin output on right side

Your advantages

- Plug-in direction orthogonal to the PCB

Commercial data

Item number	2907787
Packing unit	200 pc
Minimum order quantity	200 pc
Sales key	AC08
Product key	ACHADB
GTIN	4017918367015
Weight per piece (including packing)	2.65 g
Weight per piece (excluding packing)	2.65 g
Customs tariff number	85366930
Country of origin	DE

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2907787

<https://www.phoenixcontact.com/us/products/2907787>

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
Set comprises	2909905 ME 45 OT-MSTBO SET 2907444 ME 22,5 OT-MSTBO SET
Number of rows	1
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	12 A
Nominal voltage U_N	250 V
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
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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 (Sn)

Material data - housing

Color (Housing)	light gray (7035)
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

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



2907787

<https://www.phoenixcontact.com/us/products/2907787>

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
Pin dimensions	1 x 1 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
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MSTBO 2,5/ 4-G1R KMGY - PCB header



2907787

<https://www.phoenixcontact.com/us/products/2907787>

Insulation resistance, neighboring positions	> 5 MΩ
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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
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 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)
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MSTBO 2,5/ 4-G1R KMGY - PCB header

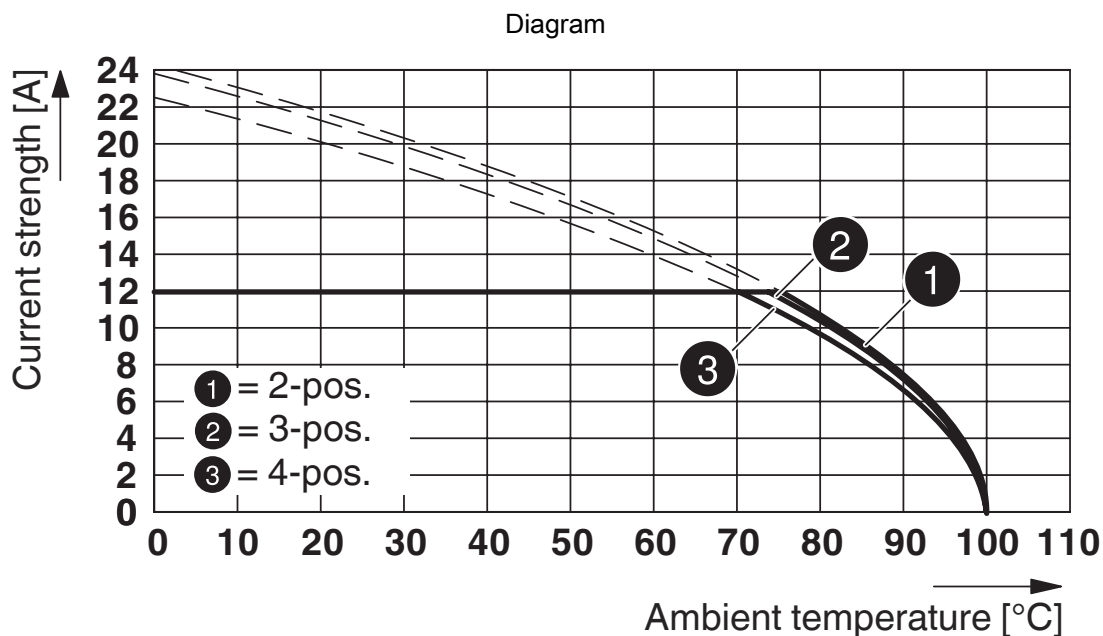


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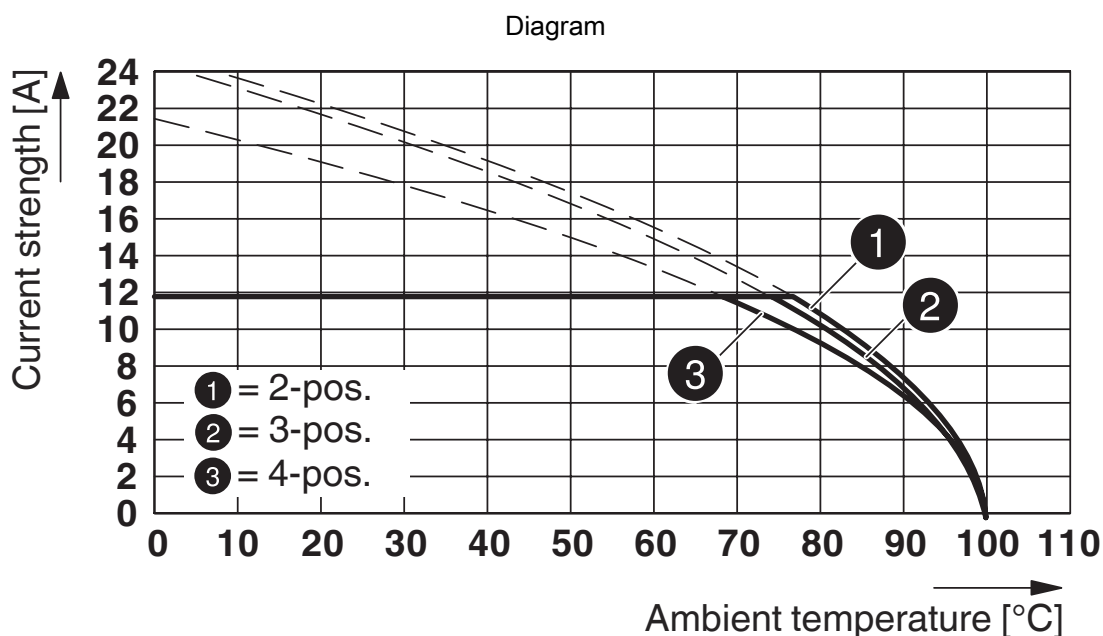
<https://www.phoenixcontact.com/us/products/2907787>

Ambient temperature (storage/transport)	-40 °C ... 55 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

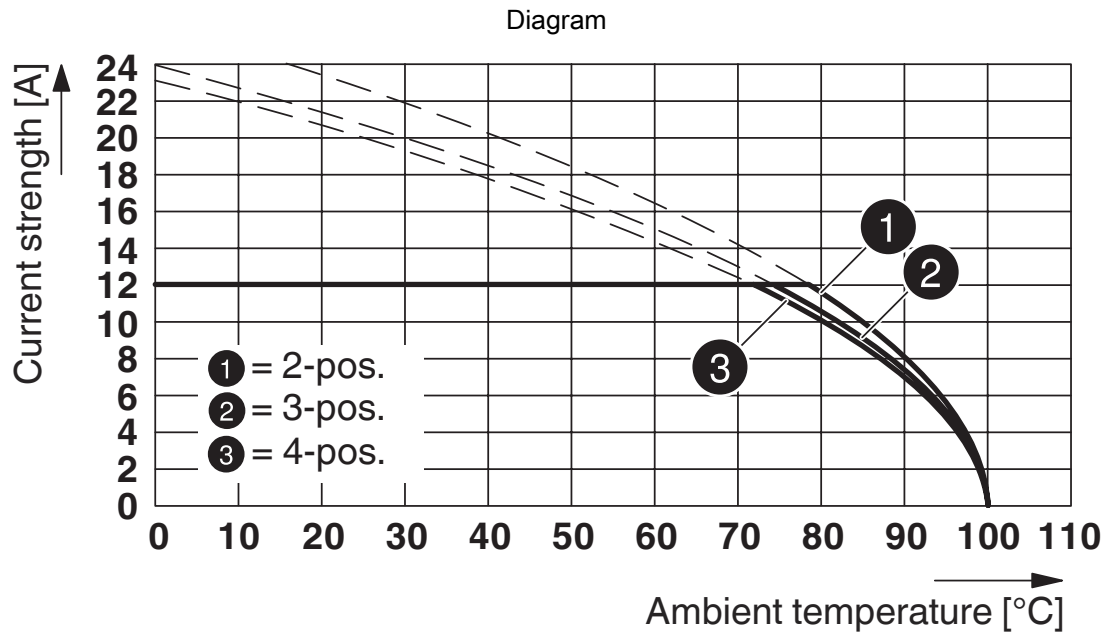
Drawings



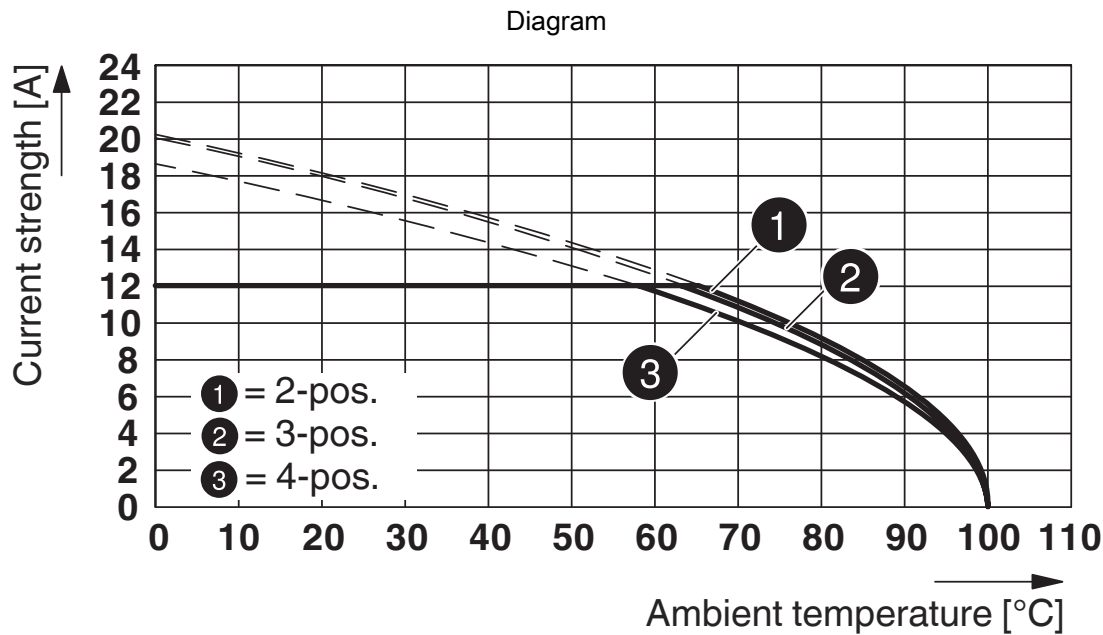
Type: MSTB 2,5/...-ST with MSTBO 2,5/...-G1R



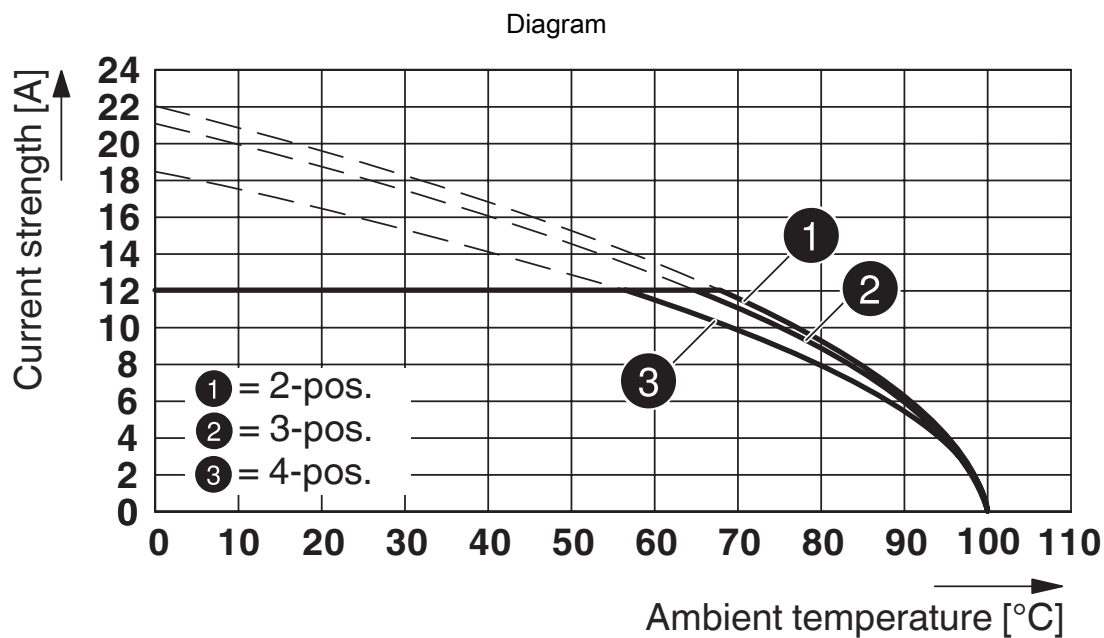
Type: MSTBP 2,5/...-ST with MSTBO 2,5/...-G1R



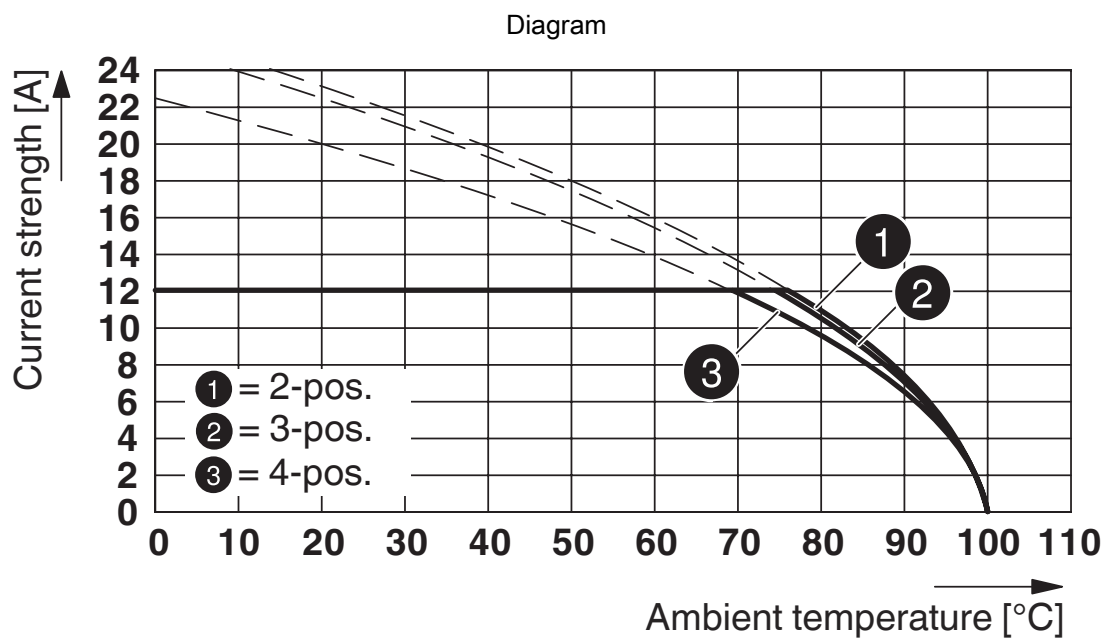
Type: MSTBT 2,5/...-ST with MSTBO 2,5/...-G1R



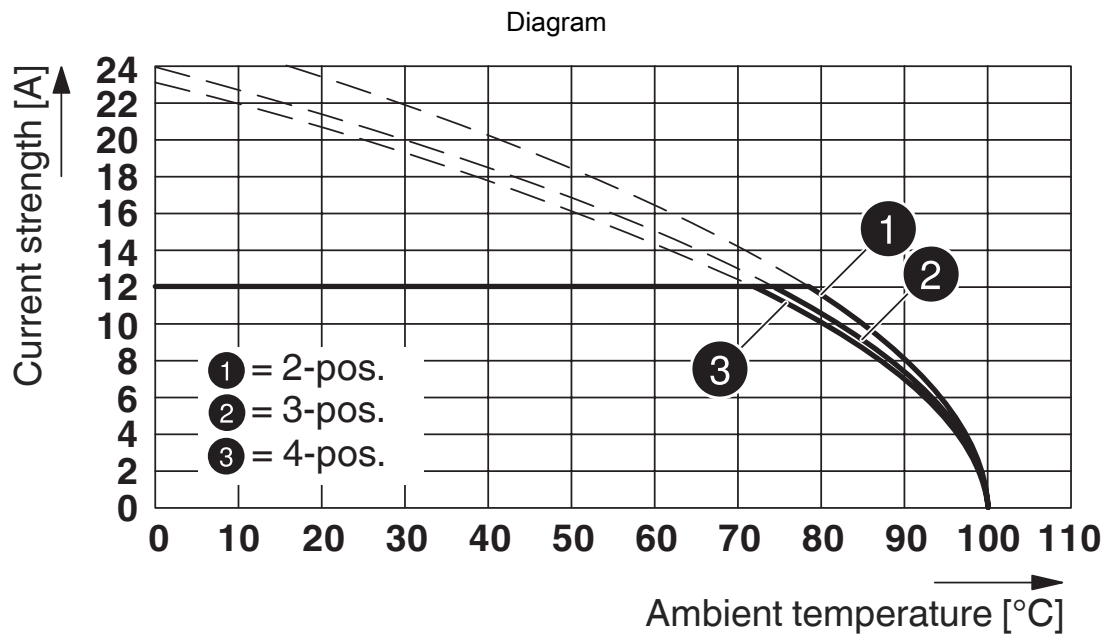
Type: SMSTB 2,5/...-ST with MSTBO 2,5/...-G1R



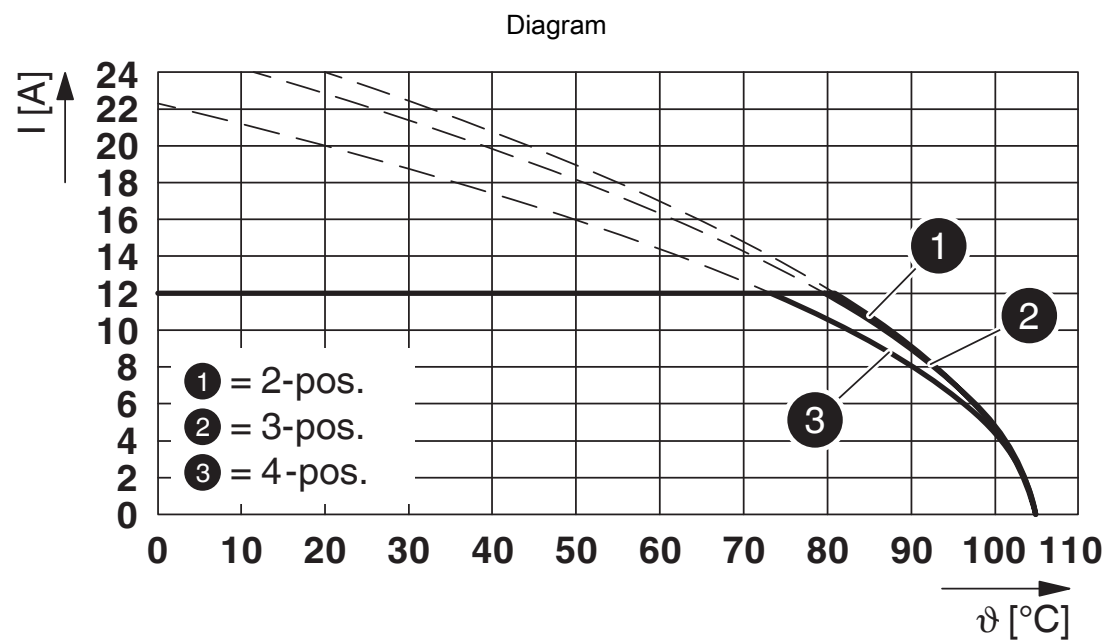
Type: MVSTB(R/W) 2,5/...-ST with MSTBO 2,5/...-G1R



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



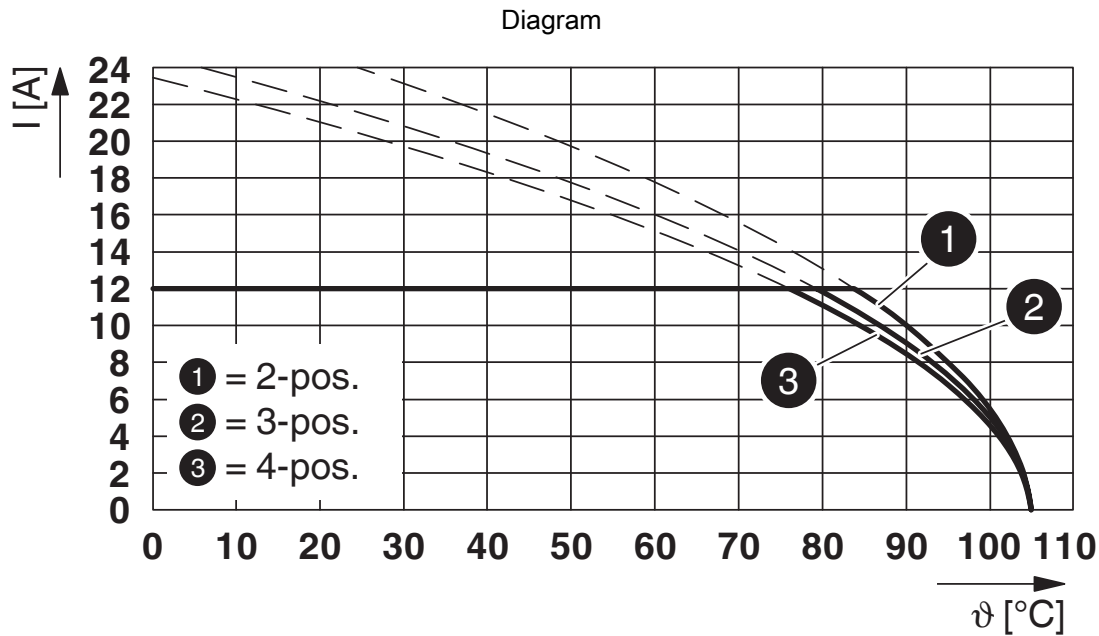
Type: MSTBTP 2,5/...-ST with MSTBO 2,5/...-G1R



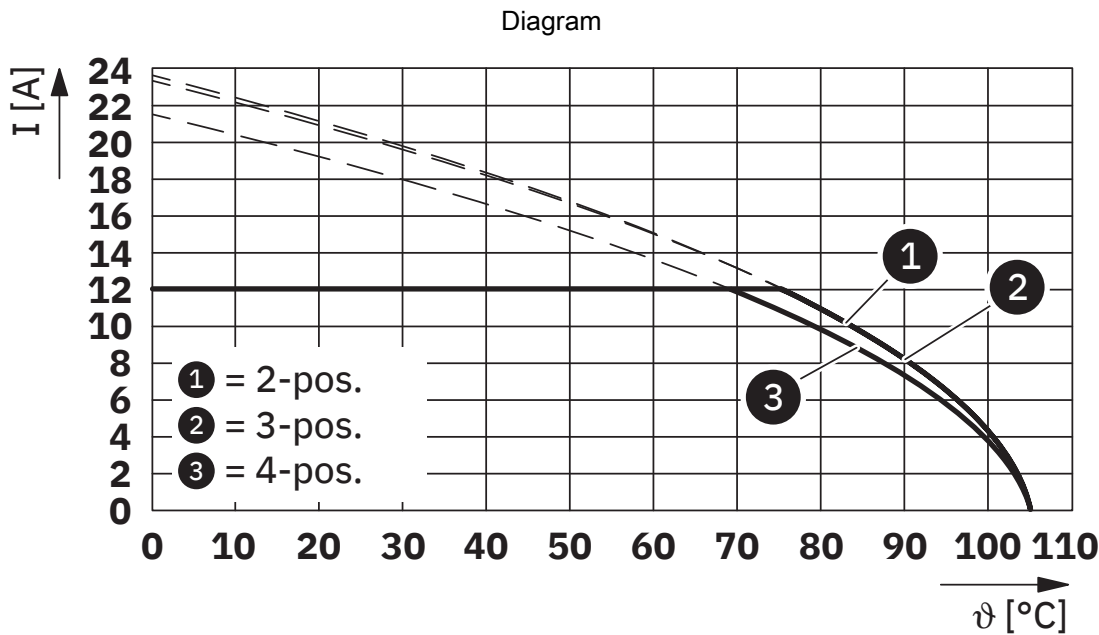
Type: FKCN 2,5/...-ST with MSTBO 2,5/...-G1R

2907787

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



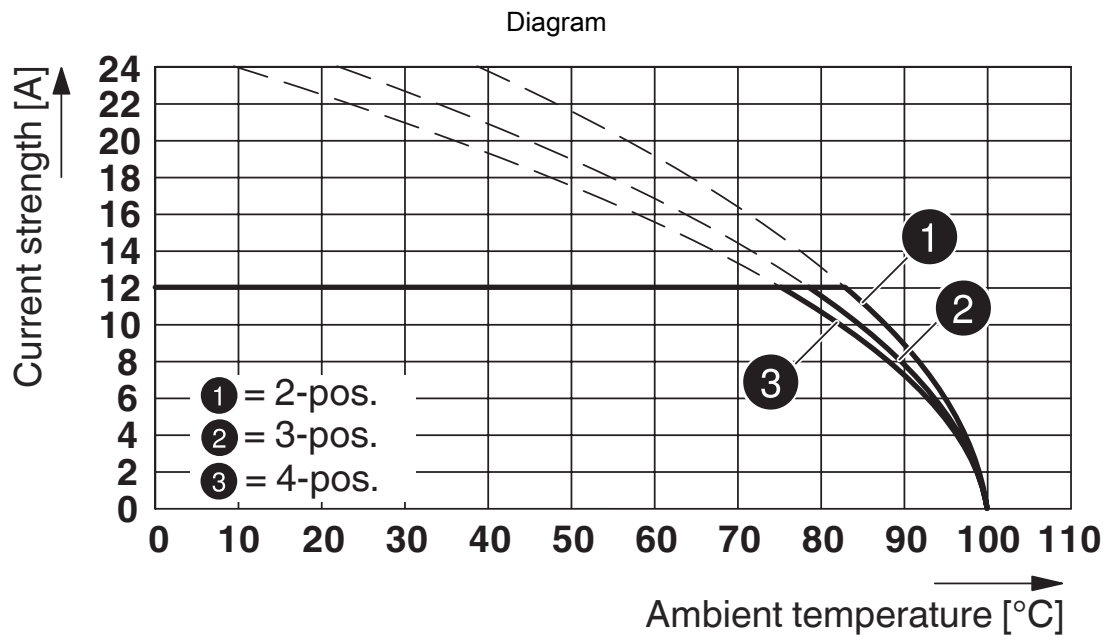
Type: FKCVR 2,5/...-ST with MSTBO 2,5/...-G1R

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



2907787

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

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



2907787

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907787>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	10 A	-	-
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
B				
	300 V	16 A	-	-
D				
	300 V	10 A	-	-

 VDE approval of drawings Approval ID: 40050648				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	250 V	8 A	-	-

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Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 9.0	EC002637
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UNSPSC

UNSPSC 21.0	39121400
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2907787
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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%

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