Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

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PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm



The figure shows a 10-position version of the product

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

Key Commercial Data

Packing unit	50 pc
GTIN	4 017918 030704
GTIN	4017918030704

Technical data

Item properties

Brief article description	Feed-through header
Plug-in system	CLASSIC COMBICON
Type of contact	Male connector
Range of articles	MSTB 2,5/..-G
Pitch	5.08 mm
Number of positions	24
Mounting type	Wave soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1

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Technical data

Item properties

Number of connections	24
Number of potentials	24

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage	250 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	400 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

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

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

Dimensions for the product

Length [l]	12 mm
Width [w]	121.92 mm
Height [h]	12.1 mm
Pitch	5.08 mm
Height (without solder pin)	8.6 mm
Solder pin [P]	3.5 mm

Dimensions for PCB design

Hole diameter	1.4 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50

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Technical data

Packaging information

Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	4 mm

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	1.4 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	1.4 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 0.3 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	24
Conductor cross section	2.5 mm²
Test current	12 A
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h

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Technical data

Climatic tests (D)

Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Vibration test

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

Standards and Regulations

Connection in acc. with standard	EN-VDE
	CSA
Flammability rating according to UL 94	V0

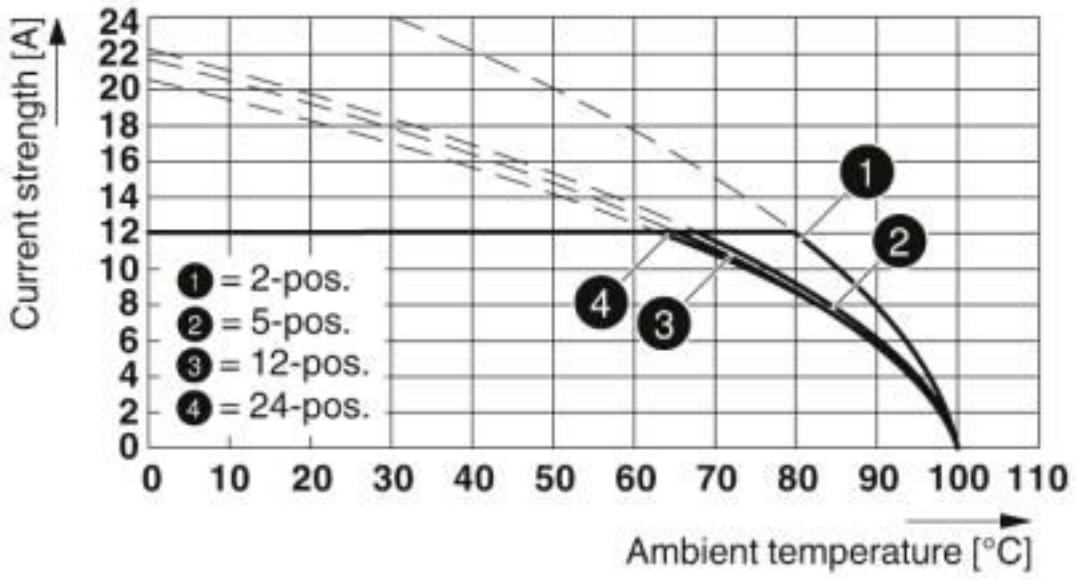
Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

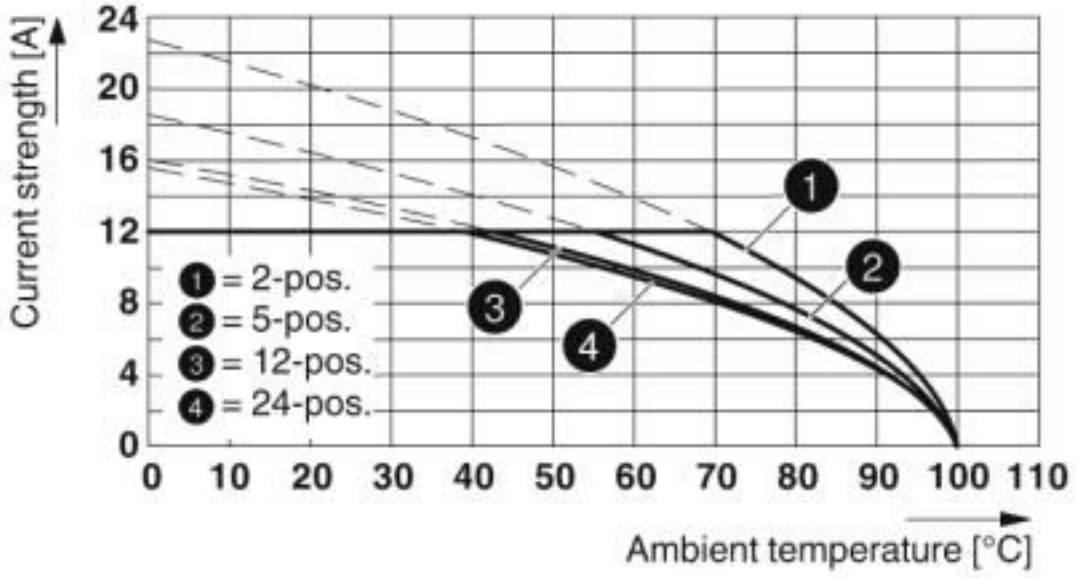
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

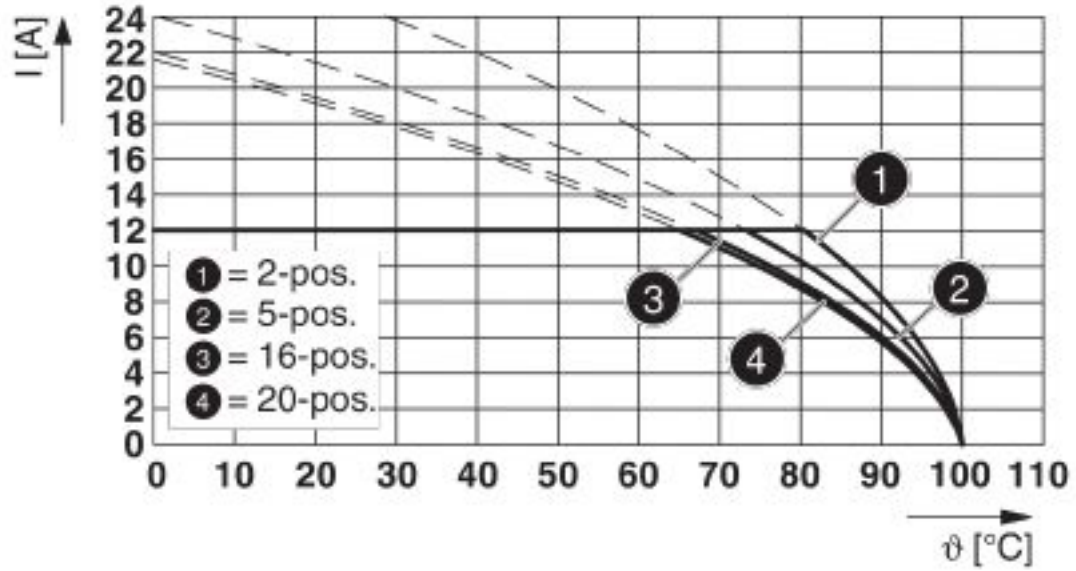
Diagram



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

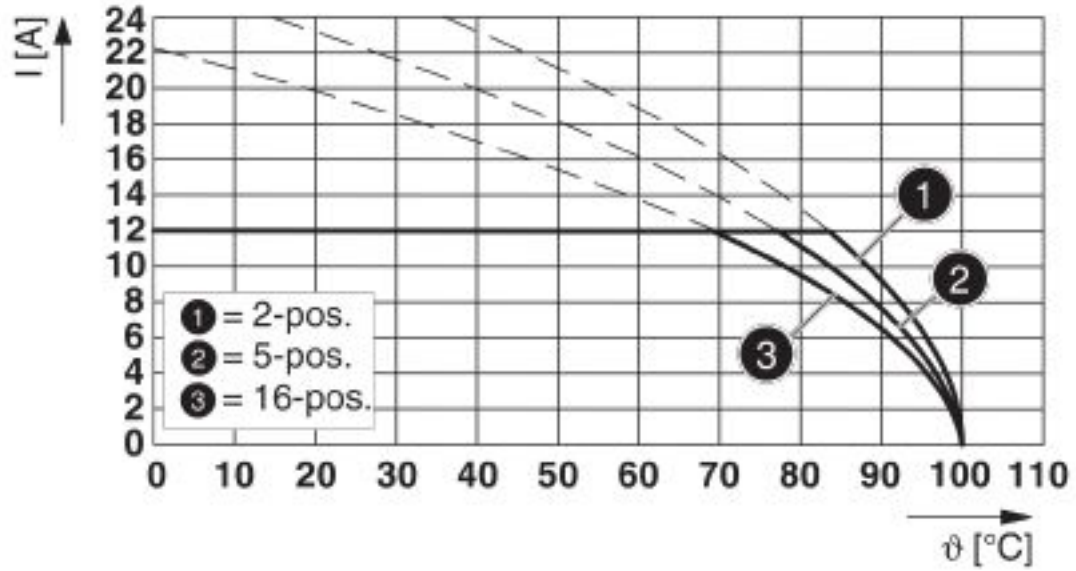
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

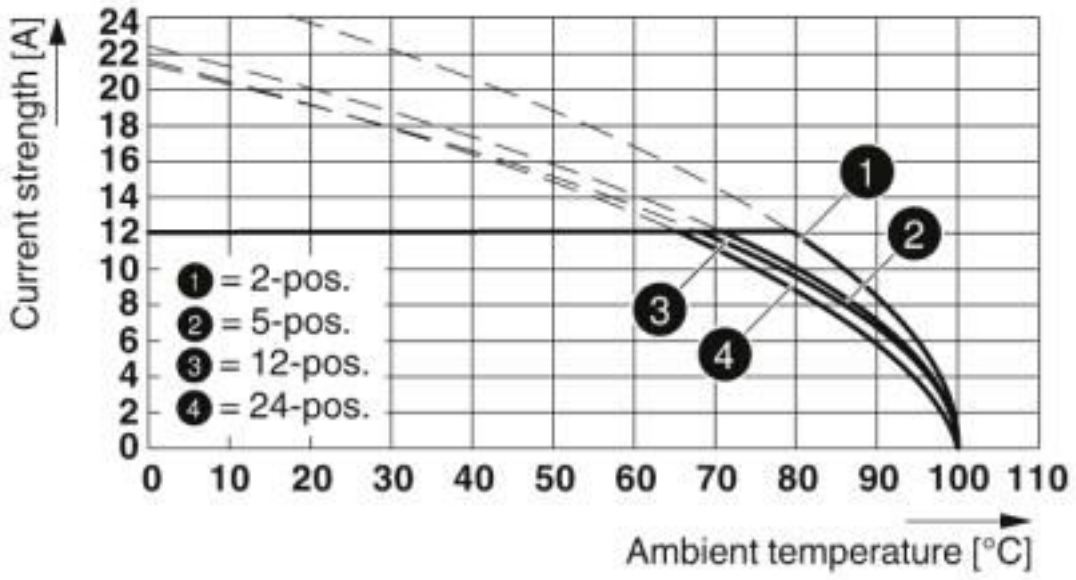
Diagram



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

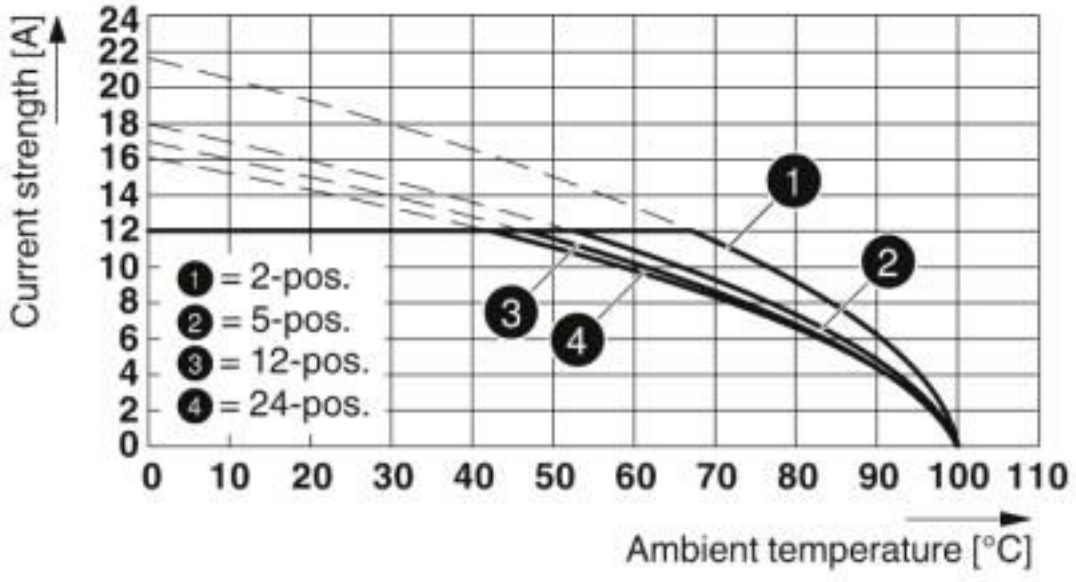
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

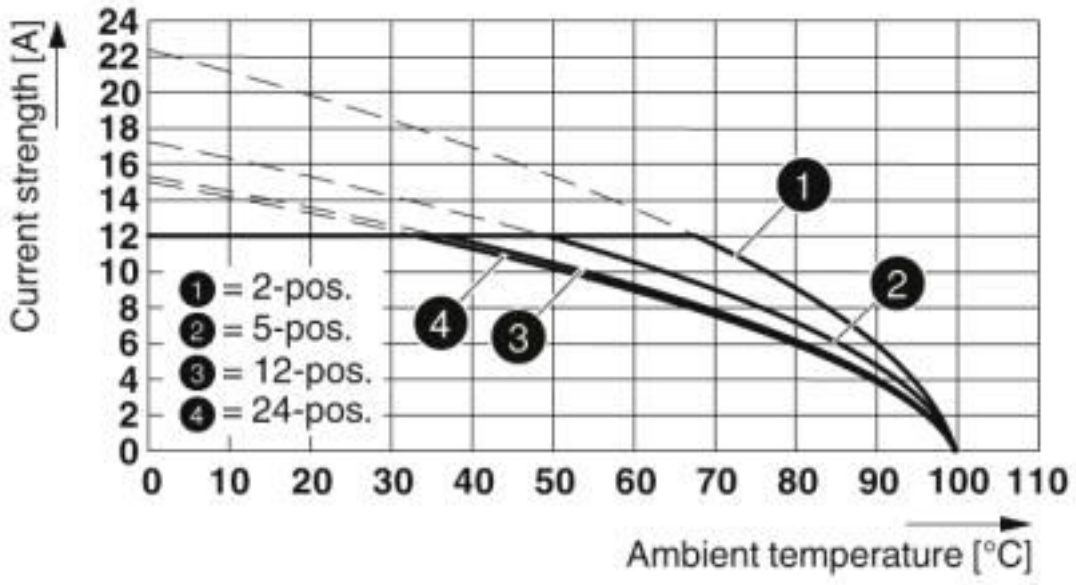
Diagram



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

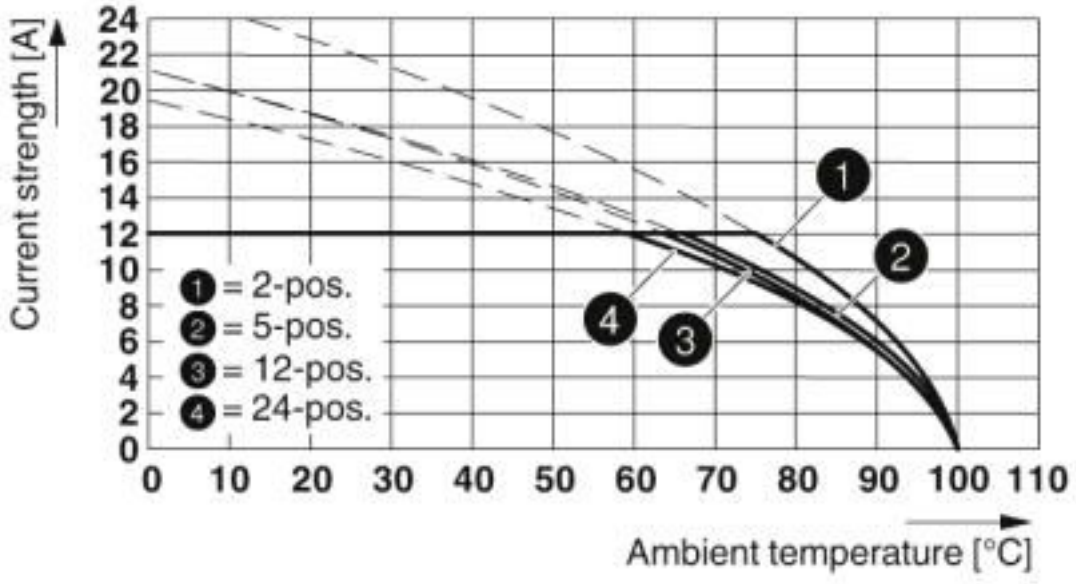
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

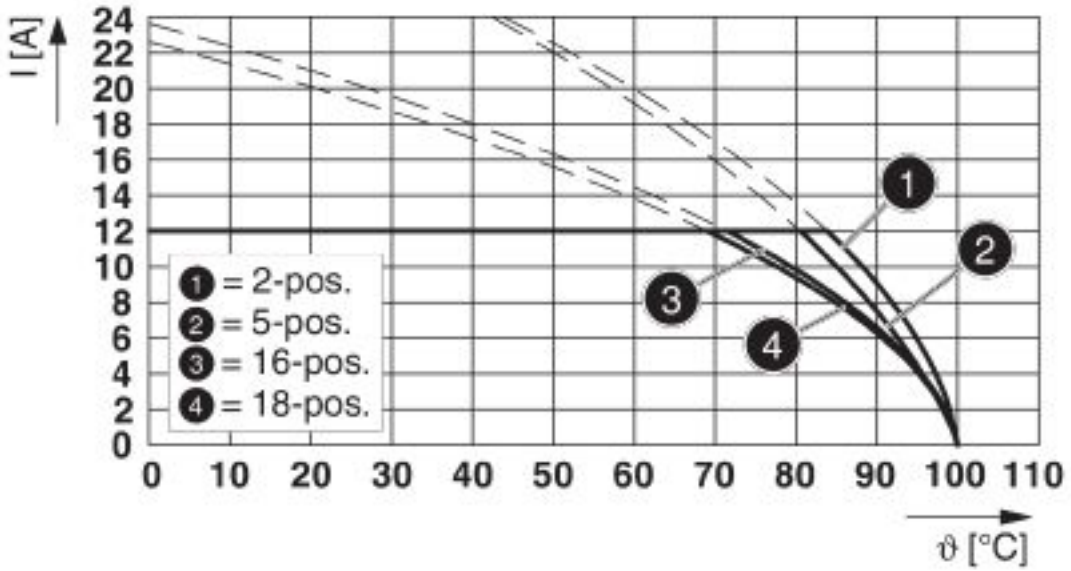
Diagram



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

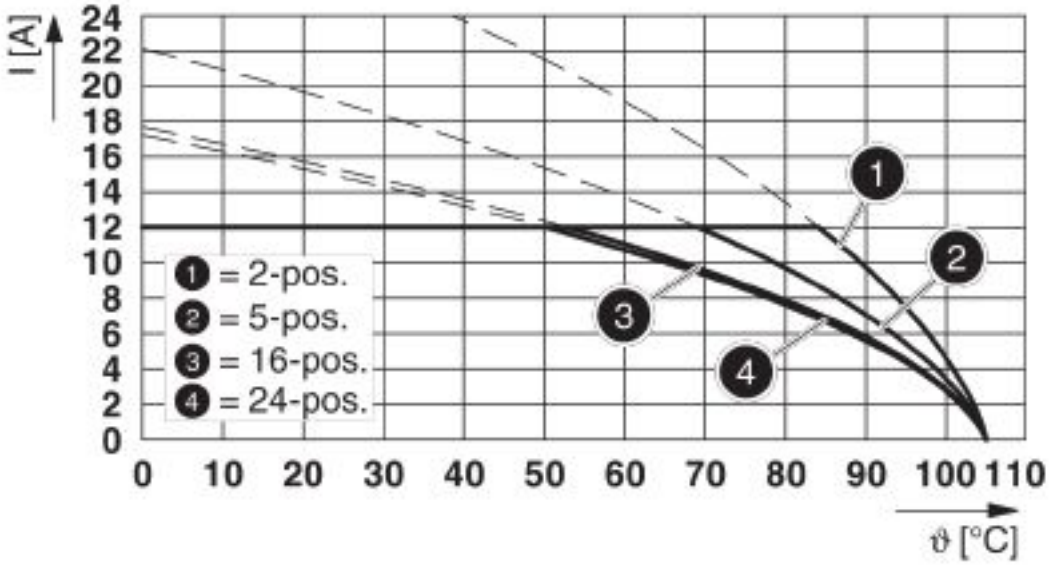
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

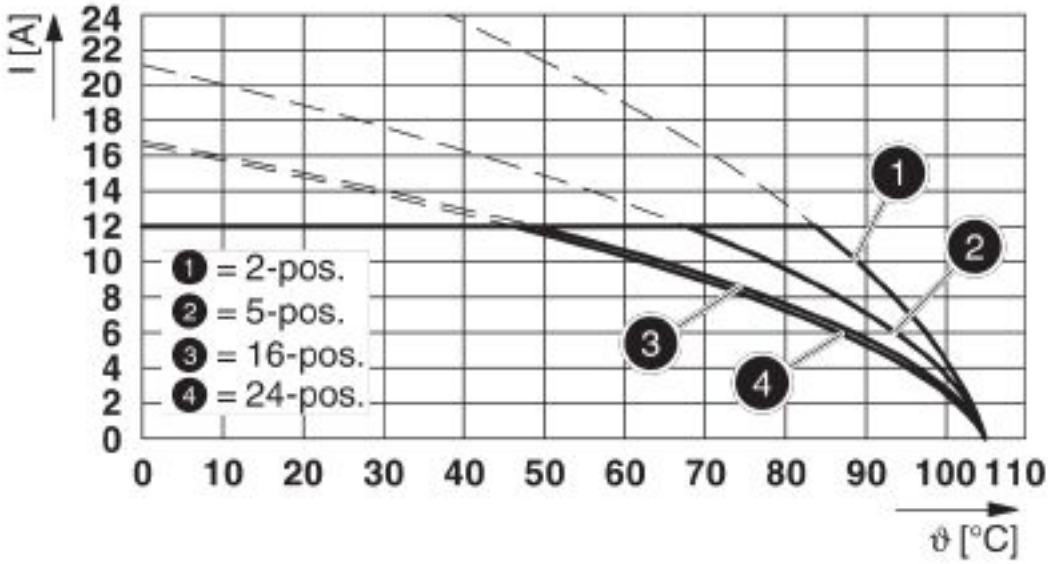
Diagram



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

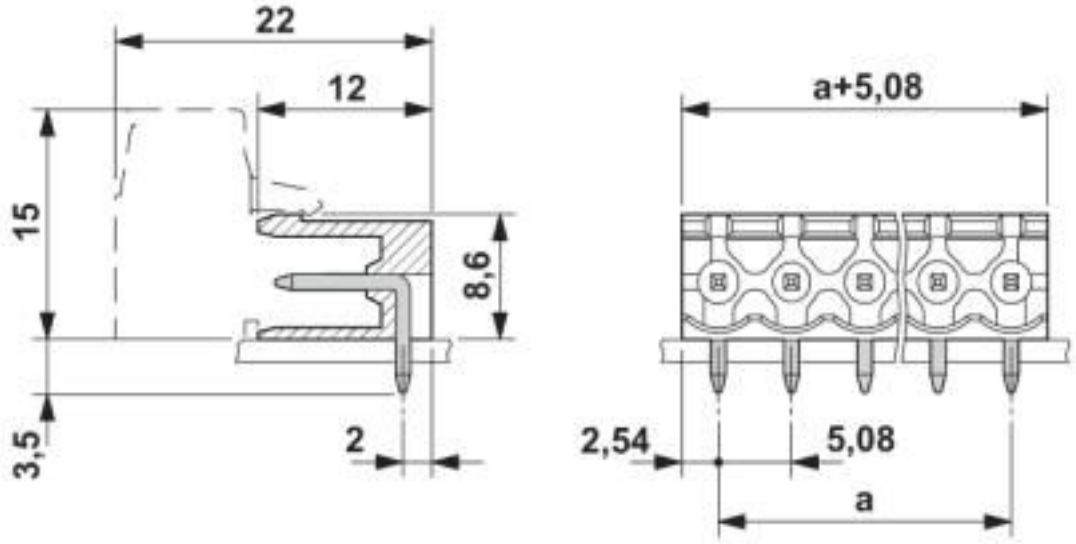
Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Diagram



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

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700

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Classifications

eCl@ss

eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

CSA / IECEE CB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A

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Approvals

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-60988-B1B2

Nominal voltage UN	250 V
Nominal current IN	12 A

EAC	EAC	B.01687

cULus Recognized	c UL us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931011

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	15 A	10 A

VDE Zeichengenehmigung	VDE	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40050648

Nominal voltage UN	250 V
Nominal current IN	12 A

Accessories

Accessories

Coding element

Coding section - CR-MSTB - 1734401



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

Filler plug

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Accessories

Accessories - MSTB-BL - 1755477



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

Flange

Accessories - MSTB-BF - 1759981



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

Labeled terminal marker

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



Marker card, 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

Marker pen

Marker pen - B-STIFT - 1051993



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

Terminal marking

Marker card - SK 5,08/3,8:UNBEDRUCKT - 0805412



Marker card, Card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Accessories

Additional products

Printed-circuit board connector - MSTB 2,5/24-ST-5,08 - 1757239



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MSTBP 2,5/24-ST-5,08 - 1769696



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Plug - FRONT-MSTB 2,5/24-ST-5,08 - 1777507



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Front screw connection, color: green, contact surface: Tin

Printed-circuit board connector - MVSTBR 2,5/24-ST-5,08 - 1792469



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MVSTBW 2,5/24-ST-5,08 - 1792977



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Feed-through header - MSTB 2,5/24-G-5,08 - 1759237

Accessories

Printed-circuit board connector - MSTBC 2,5/24-ST-5,08 - 1809035



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Crimp connection, color: green, 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

Printed-circuit board connector - MSTBC 2,5/24-STZ-5,08 - 1809721



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Crimp connection, color: green, 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

Printed-circuit board connector - MSTBU 2,5/24-STD-5,08 - 1824340



Direct plug-in block, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin, mounting: Direct mounting

Plug - MSTBU 2,5/24-ST-5,08-FL - 1824573



Direct plug-in block, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin, mounting: Direct mounting

Printed-circuit board connector - SMSTB 2,5/24-ST-5,08 - 1850631



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 24, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

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