

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

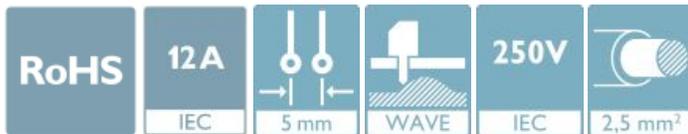
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PCB header, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MSTBO 2,5/..-G1R, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Locking: without, type of packaging: packed in cardboard, Product with pin output on right side

Your advantages

- ✓ Headers for ME/ME MAX electronics housing
- ✓ 5 mm pitch
- ✓ Plug-in direction orthogonal to the PCB



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	200 pc
GTIN	 4 017918 367015
GTIN	4017918367015
Weight per Piece (excluding packing)	2.830 g
Custom tariff number	85366930
Country of origin	Germany

Technical data

Item properties

Brief article description	Feed-through header
Type of contact	Male connector
Range of articles	MSTBO 2,5/ -G1R
Pitch	5 mm
Number of positions	4

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Technical data

Item properties

Mounting type	Wave soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1
Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	12 A
Nom. voltage	250 V
Rated voltage (III/3)	250 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	630 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

Material data - housing

Housing color	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
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 for the product

Length [l]	14.65 mm
Width [w]	19.95 mm
Height [h]	16.5 mm
Pitch	5 mm
Solder pin [P]	3.5 mm
Pin dimensions	1 x 1 mm

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Technical data

Dimensions for PCB design

Hole diameter	1.4 mm
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Packaging information

Type of packaging	packed in cardboard
Pieces per package	200
Denomination packing units	Pcs.
Outer packaging type	Carton

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 55 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)
Relative humidity (storage/transport)	80 %

Air clearances and creepage distances

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)	3.2 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Caption	Type: MSTBT 2,5/...-ST with MSTBO 2,5/...-G1L
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Mechanical test group (A)

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	13 N
Withdraw strength per pos. approx.	7 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	20 N

Life cycle test group (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	1.5 mΩ

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Technical data

Life cycle test group (B)

Insertion/withdrawal cycles	25
Contact resistance R ₂	1.5 mΩ
Impulse withstand voltage at sea level	4.8 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	4
Upper limiting temperature requirements <100 °C	Test passed

Climatic test group (D)

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

Degree of protection test group (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	No contact safety (IP00) in acc. with IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08

Vibration test

Specification	IEC 60068-2-6:2007-12
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
Test directions	X-, Y- and Z-axis

Standards and Regulations

Connection in acc. with standard	EN-VDE
	CSA

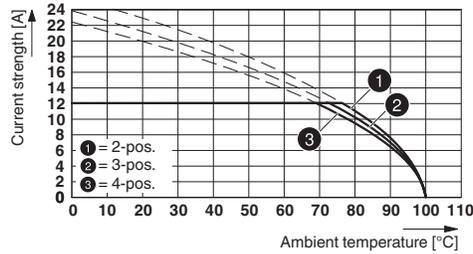
Environmental Product Compliance

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

Drawings

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

Diagram



Type: MSTBT 2,5/...-ST with MSTBO 2,5/...-G1L

Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 2.0	EC001031
ETIM 3.0	EC001031
ETIM 4.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	34131203
UNSPSC 12.01	39121432
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

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Approvals

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CSA / IECCEB 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

IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2
Nominal voltage UN		250 V	
Nominal current IN		8 A	

EAC			B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20050718
		B	D
Nominal voltage UN		300 V	300 V
Nominal current IN		16 A	10 A

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Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40050648
Nominal voltage UN		250 V	
Nominal current IN		8 A	

Accessories

Accessories

Coding element

Coding section - CR MSTBO-G1 - 2199618



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

Filler plug

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.

Necessary add-on products

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

Accessories

Printed-circuit board connector - MSTBT 2,5/ 4-ST KMGY - 1878037



PCB connector, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MSTBT 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, Screw head form: L Slotted, conductor/PCB connection direction: 0 °, pin layout: Linear pinning, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCT 2,5/ 4-ST KMGY - 1921900



PCB connector, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

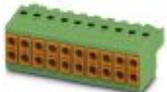
Printed-circuit board connector - PSPT 2,5/ 4-ST KMGY - 2202344



PCB connector, nominal cross section: 2.5 mm², color: light gray, nominal current: 16 A, rated voltage (III/2): 300 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: PSPT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Locking: without, Assembly: without, type of packaging: packed in cardboard, Color of the spring lever: orange

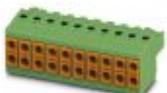
Additional products

Printed-circuit board connector - TVFKC 1,5/ 4-ST - 1713855



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 8, product range: TVFKC 1,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - TVFKCL 1,5/ 4-ST - 1715947

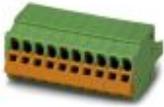


PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 8, product range: TVFKCL 1,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

Accessories

Plug - QC 1,5/ 4-ST - 1717987



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: QC 1,5/..-ST, pitch: 5 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCN 2,5/ 4-ST - 1732768



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTB 2,5/ 4-ST - 1754481



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBP 2,5/ 4-ST - 1765797



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - SMSTB 2,5/ 4-ST - 1768781



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

Accessories

Printed-circuit board connector - FRONT-MSTB 2,5/ 4-ST - 1779437



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: FRONT-MSTB 2,5/..-ST, pitch: 5 mm, connection method: Front screw connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBT 2,5/ 4-ST - 1779851



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MSTBT 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBW 2,5/ 4-STEH - 1784299



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MVSTBW 2,5/..-STEH, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBR 2,5/ 4-ST - 1792032



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBW 2,5/ 4-ST - 1792540



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

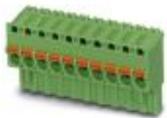
Accessories

Printed-circuit board connector - FKCT 2,5/ 4-ST - 1909236



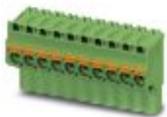
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Printed-circuit board connector - FKCVR 2,5/ 4-ST - 1909731



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCVW 2,5/ 4-ST - 1910050



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - FK 2,5/ 4-ST - 1910377



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: FK 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard

Printed-circuit board connector - QC 1/ 4-ST-BUS - 1921696



PCB connector, nominal cross section: 1 mm², color: green, nominal current: 10 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: QC 1/..-ST-BUS, pitch: 5 mm, connection method: Displacement connection, conductor/PCB connection direction: 90 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard, The plug allows conductors to be looped through from module to module, without interruption

Feed-through header - MSTBO 2,5/ 4-G1R KMGY - 2907787

Accessories

Printed-circuit board connector - FKCS 2,5/ 4-ST - 1974753



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, 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: CLASSIC COMBICON, Locking: without, Assembly: without, type of packaging: packed in cardboard