

Printed-circuit board connector - SMSTB 2,5/ 2-ST - 1768765

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PCB connector, nominal current: 12 A, number of positions: 2, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin




The figure shows a 10-position version of the product

Your advantages

- Well-known connection principle allows worldwide use
- Optimized for tight installation situations: operation and conductor connection from one direction
- Angled conductor connection enables operation and conductor connection from one direction
- Low temperature rise, thanks to maximum contact force



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 034122
GTIN	4017918034122
Weight per Piece (excluding packing)	4.090 g
Custom tariff number	85366990
Country of origin	Germany

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	SMSTB 2,5/..-ST
Pitch	5 mm

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Technical data

Item properties

Number of positions	2
Connection method	Screw connection with tension sleeve
Screw thread	M3
Locking	without
Number of levels	1
Number of connections	2
Number of potentials	2

Electrical parameters

Rated current	12 A
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

Connection capacity

Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 1 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)

Material data - housing

Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600

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Material data - housing

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]	25.6 mm
Width [w]	10 mm
Height [h]	15.5 mm
Pitch	5 mm
Height (without solder pin)	15.5 mm
Dimension a	5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	100
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)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N
	2.5 mm ² / flexible / > 50 N

Mechanical tests according to standard

Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02

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Mechanical tests according to standard

No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	25 N

Air clearances and creepage distances

Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)	250 V
Rated insulation voltage (III/2)	320 V
Rated insulation 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
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)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Mechanical tests (A)

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	2.3 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	2.3 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 0.2 TΩ

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Technical data

Climatic tests (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

Environmental and durability tests (E)

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

Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

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	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409

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Classifications

UNSPSC

UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409

Approvals


Approvals

Approvals


CSA / EAC / cULus Recognized

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	15 A	10 A	
mm ² /AWG/kcmil	28-12	28-12	

EAC			B.01742
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cULus Recognized		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	
mm ² /AWG/kcmil	30-12	30-12	

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Accessories

Accessories

Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Additional products

Feed-through header - MSTBW 2,5/ 2-G - 1736111



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Feed-through header - MSTBV 2,5/ 2-G - 1753437



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Feed-through header - MSTB 2,5/ 2-G - 1754436



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

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Accessories

Printed-circuit board connector - MSTBVA 2,5/ 2-G - 1755516



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Printed-circuit board connector - MSTBA 2,5/ 2-G - 1757475



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Feed-through header - MDSTB 2,5/ 2-G - 1762046



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Can be aligned! Mounting flange: Order no. 1736771, 1736768. In combination with MVSTB or FKCV plugs, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plugs is not possible!

Feed-through header - MDSTBV 2,5/ 2-G - 1763032



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Can be aligned! Mounting flange: Order No. 1836477, 1836480. In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - MSTB 2,5/ 2-G-LA - 1768189



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering

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Accessories

Printed-circuit board connector - SMSTB 2,5/ 2-G - 1769230

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Feed-through header - SMSTBA 2,5/ 2-G - 1769803

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Feed-through header - MSTBA 2,5/ 2-G-LA - 1770481

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Feed-through header - MDSTBW 2,5/ 2-G - 1802443

PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!



Feed-through header - MDSTBVA 2,5/ 2-G - 1845785

PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!



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Accessories

Feed-through header - MDSTBA 2,5/ 2-G - 1846519



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - MSTBO 2,5/ 2-G1R - 1861044



PCB headers, number of positions: 2, pitch: 5 mm, color: green, Article with lateral pin exit

Feed-through header - MSTBO 2,5/ 2-G1L - 1861057



PCB headers, number of positions: 2, pitch: 5 mm, color: green, Article with lateral pin exit

Feed-through header - MDSTBA 2,5/ 2-GL - 1877708



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - MDSTBA 2,5/ 2-GR - 1877711



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

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Accessories

Feed-through header - MDSTBVA 2,5/ 2-GL - 1877724



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - MDSTBVA 2,5/ 2-GR - 1877737



PCB headers, nominal current: 10 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

Feed-through header - EMSTBA 2,5/ 2-G - 1899841



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Press-in technology

Feed-through header - EMSTBVA 2,5/ 2-G - 1914852



PCB headers, nominal current: 12 A, number of positions: 2, pitch: 5 mm, color: green, contact surface: Tin, mounting: Press-in technology

Feed-through header - MSTBA 2,5/ 2-G THT - 1927496



PCB headers, number of positions: 2, pitch: 5 mm, color: black, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Accessories

Printed-circuit board connector - MSTBVA 2,5/ 2-G THT - 1941003



PCB headers, number of positions: 2, pitch: 5 mm, color: black, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Feed-through header - MSTBV 2,5/ 2-G THT - 1963942



PCB headers, number of positions: 2, pitch: 5 mm, color: black, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Feed-through header - MSTBO 2,5/ 2-G1L THRR32 BK - 2200251



PCB headers, number of positions: 2, pitch: 5 mm, color: black

Feed-through header - MSTBO 2,5/ 2-G1R THRR32 BK - 2200252



PCB headers, number of positions: 2, pitch: 5 mm, color: black, Article with lateral pin exit

Feed-through header - MSTBO 2,5/ 2-G1L KMGY - 2854788



PCB headers, number of positions: 2, pitch: 5 mm, color: light gray

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Accessories

Feed-through header - MSTBO 2,5/ 2-G1R KMGY - 2854791



PCB headers, number of positions: 2, pitch: 5 mm, color: light gray, Article with lateral pin exit