

Printed-circuit board connector - GMSTB 2,5/ 2-ST - 1766880

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PCB connector, nominal current: 12 A, number of positions: 2, pitch: 7.5 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
- Low temperature rise, thanks to maximum contact force
- Larger pitch for increased voltage requirements



Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	
GTIN	4017918032906
Weight per Piece (excluding packing)	3.700 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	GMSTB 2,5/...-ST
Pitch	7.5 mm
Number of positions	2
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)

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Technical data

Item properties

Screw thread	M3
Locking	without
Number of levels	1
Number of connections	2
Number of potentials	2

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 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.4 mm / 2.5 mm
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
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]	18.2 mm
Width [w]	13 mm
Height [h]	15 mm
Pitch	7.5 mm

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Technical data

Dimensions for the product

Height (without solder pin)	15 mm
Dimension a	7.5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
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	0.14 mm ² / solid / > 10 N
	0.14 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
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.	34 N

Air clearances and creepage distances

Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)	400 V
Rated insulation voltage (III/2)	630 V
Rated insulation voltage (II/2)	1000 V

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Technical data

Air clearances and creepage distances

Rated surge voltage (III/3)	6 kV
Rated surge voltage (III/2)	6 kV
Rated surge voltage (II/2)	6 kV
Minimum clearance - inhomogeneous field (III/3)	5.5 mm
Minimum clearance - inhomogeneous field (III/2)	5.5 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	5 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	5 mm
Note on connection cross section	With connected conductor 2.5 mm ² (stranded).

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	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	> 0.2 TΩ

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

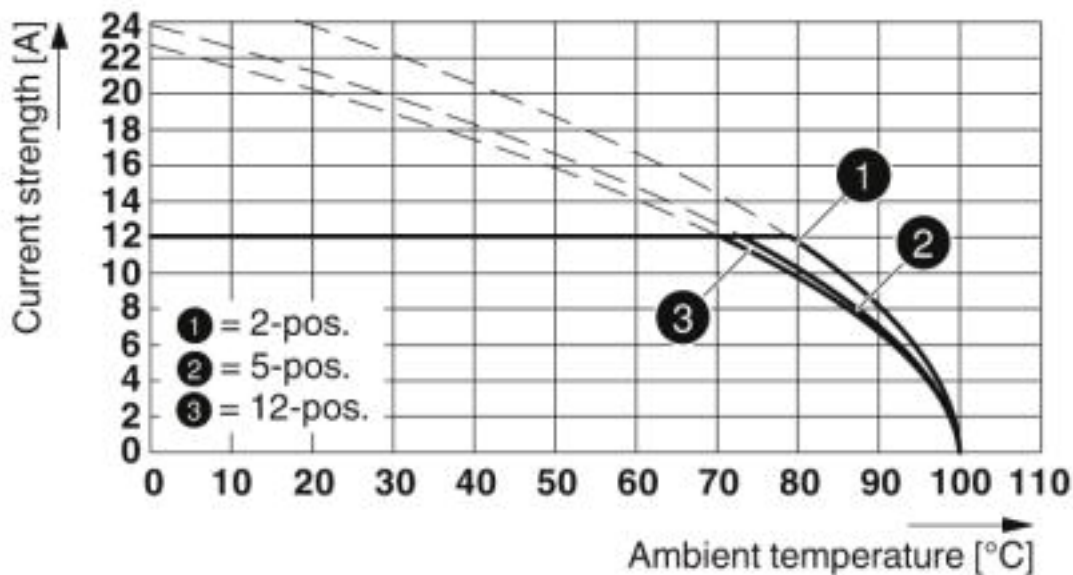
Environmental Product Compliance

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

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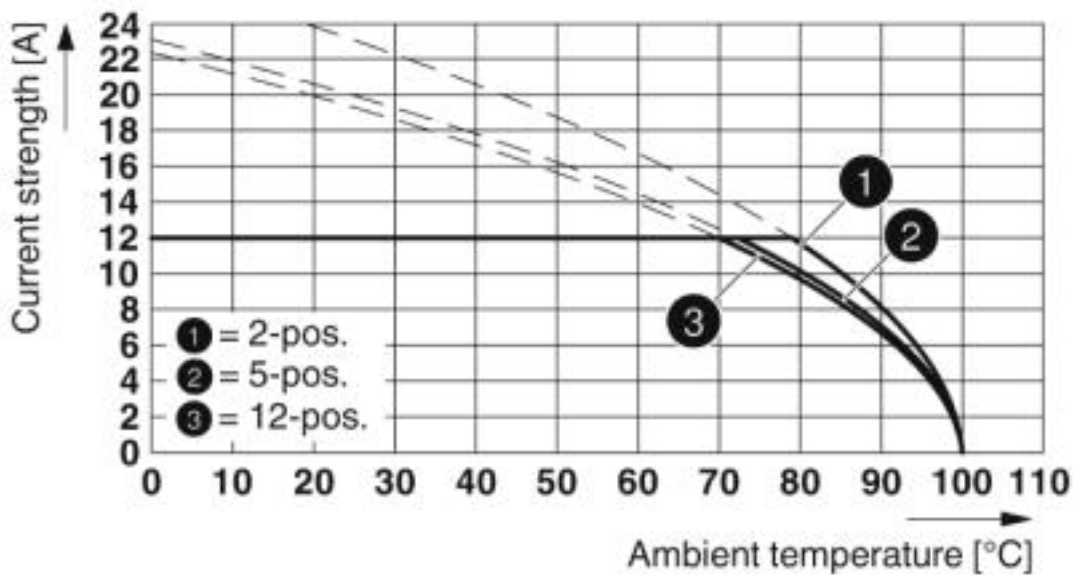
Drawings

Diagram



Type: GMSTB 2,5/...-ST with GMSTB 2,5/...-G

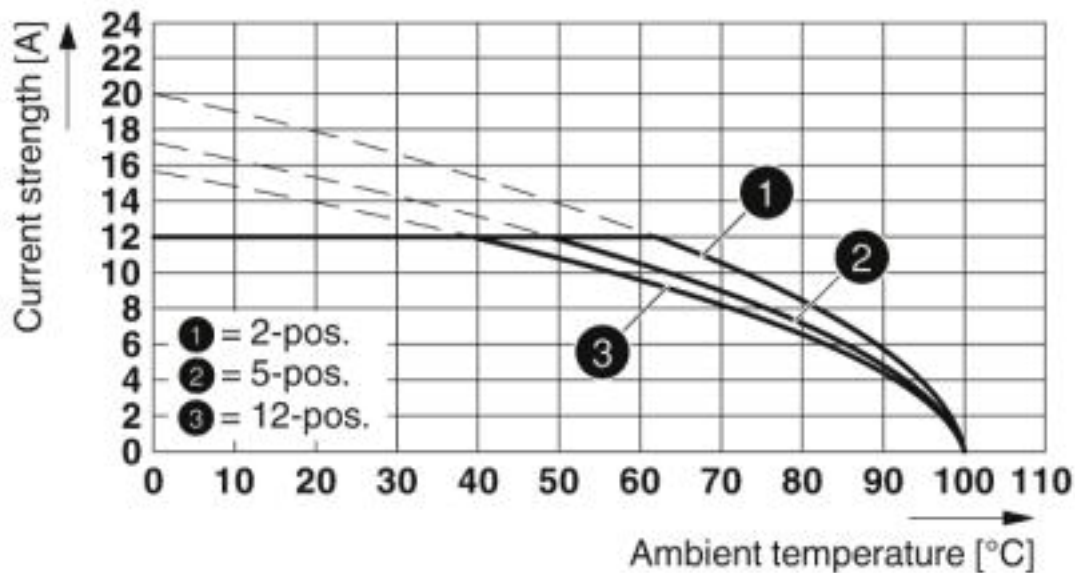
Diagram



Type: GMSTB 2,5/...-ST with GMSTBA 2,5/...-G

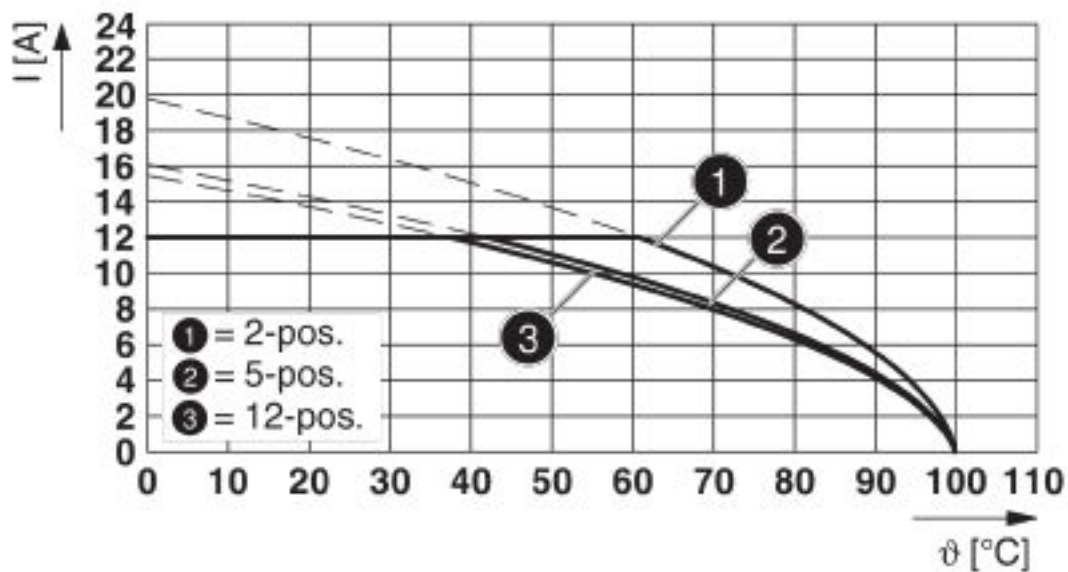
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Diagram



Type: GMSTB 2,5/...-ST with GMSTBV 2,5/...-G

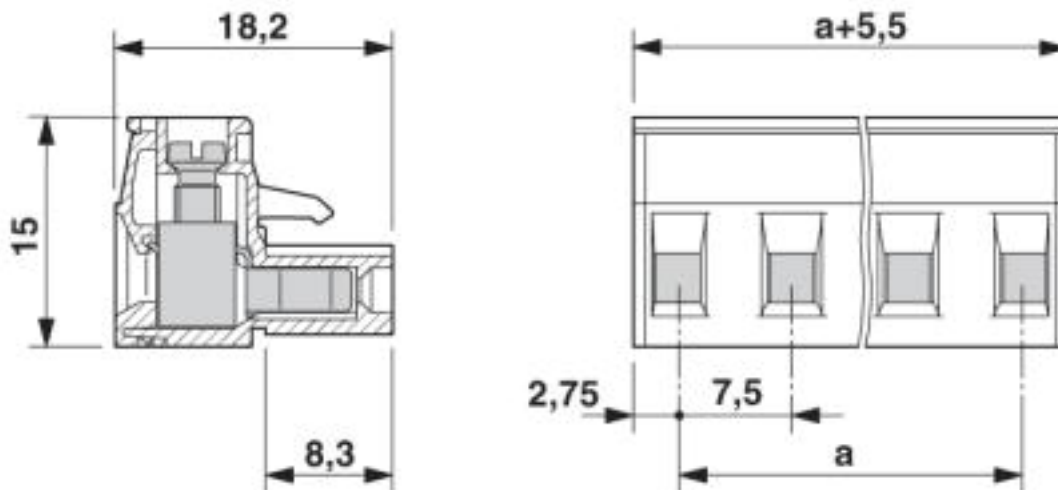
Diagram



Type: GMSTB 2,5/...-ST with GMSTBVA 2,5/...-G

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Dimensional drawing



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
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409

Approvals

Approvals

Printed-circuit board connector - GMSTB 2,5/ 2-ST - 1766880


Approvals


Approvals

CSA / IECCEB CB Scheme / EAC / cULus Recognized / VDE Gutachten mit Fertigungsüberwachung


Ex Approvals


Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	LR13631-2585950
		B	D
Nominal voltage UN		300 V	300 V
Nominal current IN		10 A	10 A
mm ² /AWG/kcmil		28-12	28-12

IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2
Nominal voltage UN		400 V	
Nominal current IN		12 A	
mm ² /AWG/kcmil		0.2-2.5	

EAC			B.01742
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931013
		B	D
Nominal voltage UN		300 V	300 V
Nominal current IN		15 A	10 A
mm ² /AWG/kcmil		30-12	30-12

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40004701
Nominal voltage UN		400 V	

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Approvals

Nominal current IN	12 A
mm ² /AWG/kcmil	0.2-2.5

Accessories

Accessories

Cable housing

Cable housing - KGG-MSTB 2,5/ 3 - 1803947



Cable housing, pitch: 0 mm, number of positions: 3, dimension a: 15 mm, color: green

Coding element

Coding profile - CP-MSTB - 1734634



Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

Insertion bridge

Insertion bridge - EB 2-CC 7,5 - 1948048



Insertion bridge, pitch: 7.5 mm, length: 16.5 mm, width: 11.7 mm, number of positions: 2, color: gray

Labeled terminal marker

Marker card - SK 7,5/3,8:FORTL.ZAHLEN - 0804455



Marker card, Card, white, labeled, Horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.5 mm, lettering field size: 7.5 x 3.8 mm

Marker pen

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Accessories

Marker pen - B-STIFT - 1051993



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

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 - GMSTB 2,5/ 2-G - 1766013

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 7.5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Feed-through header - GMSTBA 2,5/ 2-G - 1766343

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 7.5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Feed-through header - GMSTBV 2,5/ 2-G - 1766453

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 7.5 mm, color: green, contact surface: Tin, mounting: Wave soldering



Printed-circuit board connector - GMSTB 2,5/ 2-ST - 1766880

Accessories

Feed-through header - GMSTBVA 2,5/ 2-G - 1766660

PCB headers, nominal current: 12 A, number of positions: 2, pitch: 7.5 mm, color: green, contact surface: Tin, mounting: Wave soldering



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