

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

PCB connector, nominal current: 12 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of positions: 4, pitch: 7.62 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

- ✓ Plug-in direction parallel to the conductor axis
- ✓ Plugs for 630 V applications (III/2)
- ✓ FRONT-GMSTB 2,5 plug with front screw connection
- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Screwable flange for superior mechanical stability
- ✓ Larger pitch for increased voltage requirements
- ✓ Allows connection of two conductors



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 017918 105853
GTIN	4017918105853
Weight per Piece (excluding packing)	8.990 g
Custom tariff number	85366990
Country of origin	Germany

Technical data

Item properties

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

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/..-STF
Pitch	7.62 mm
Number of positions	4
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M3
Locking	Screw flange
Number of levels	1
Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	12 A
Nom. voltage	630 V
Rated voltage	400 V
Rated voltage (III/2)	630 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	6 kV
Rated surge voltage (III/2)	6 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
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, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule 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

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Technical data

Connection capacity

Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

Flange specifications

Type of locking	Screw locking
Mounting flange	Screw flange
Torque	0.3 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

Housing color	green (6021)
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]	40.87 mm
Height [h]	15 mm
Pitch	7.62 mm
Height (without solder pin)	15 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

General product information

Note	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
------	--

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Technical data

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

Test specification	IEC 61984
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.	36 N

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)	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

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Technical data

Air clearances and creepage distances

Minimum creepage distance value (II/2)	5 mm
Note on connection cross section	With connected conductor 2.5 mm ² (stranded).

Current carrying capacity / derating curves

Specification	IEC 61984
---------------	-----------

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	2.4 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	2.5 mΩ
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV
Insulation resistance, neighboring positions	> 50 GΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	12
Conductor cross section	2.5 mm ²
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
Corrosive stress	KFW 0.2 S/1 cycle
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	IP20

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

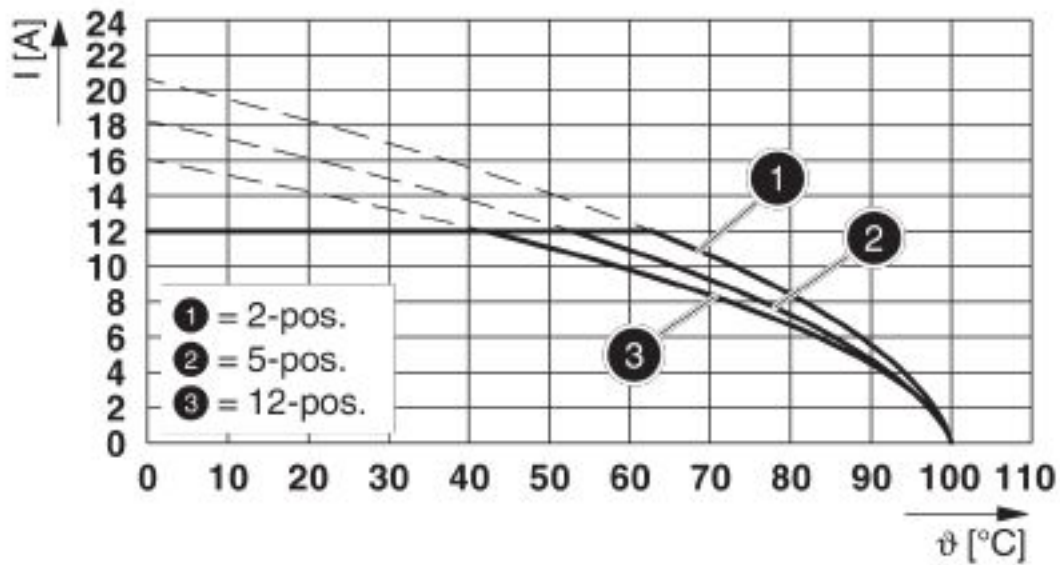
Technical data

Environmental Product Compliance

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

Drawings

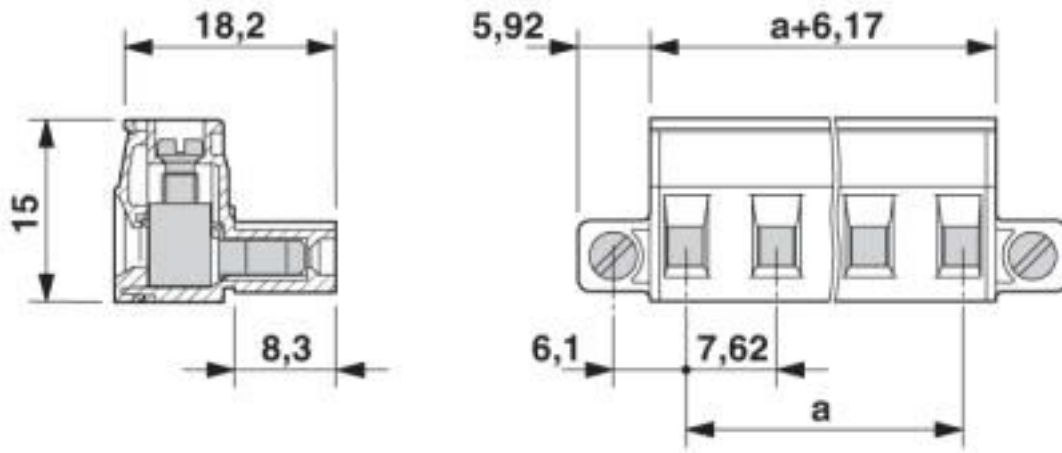
Diagram



Type: GMSTB 2,5/...-STF-7,62 with GMBSTBV 2,5/...-GF-7,62

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440309
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

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Classifications

UNSPSC

UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals


Approvals

Approvals


IECEE CB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals

Approval details

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.01687
-----	---	---------

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	

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40050646
Nominal voltage UN		400 V	
Nominal current IN		12 A	
mm ² /AWG/kcmil		0.2-2.5	

Accessories

Accessories

Cable housing

Cable housing - KGG-MSTB 2,5/ 6 - 1803905



Cable housing, pitch: 0 mm, number of positions: 6, 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

Printed-circuit board connector - GMSTB 2,5/ 4-STF-7,62 - 1858785

Accessories

Marker card - SK 7,62/3,8:FORTL.ZAHLEN - 0804549



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: 7.62 x 3.8 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/ 4-GF-7,62 - 1806245



PCB headers, nominal current: 12 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of positions: 4, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm

Feed-through header - GMSTBV 2,5/ 4-GF-7,62 - 1829170



PCB headers, nominal current: 12 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of positions: 4, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm