Printed-circuit board connector - GMSTB 2,5 HCV/ 2-ST-7,62-LR - 1812759

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The figure shows a 5-pos. version of the product

PCB connector, nominal current: 16 A, rated voltage (III/2): 1000 V, nominal cross section: 2.5 mm², number of positions: 2, pitch: 7.62 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- 600 V UL approval in the smallest of dimensions



Key Commercial Data

Packing unit	50 pc
GTIN	4 046356 728560
GTIN	4046356728560

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 2,5
Type of contact	Female connector
Range of articles	GMSTB 2,5 HCV/..-ST-LR
Pitch	7.62 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	Lock & Release ejector lever
Number of levels	1
Number of connections	2
Number of potentials	2

Electrical parameters

Nominal current	16 A
Nom. voltage	1000 V
Rated voltage	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 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 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, solid	0.2 mm² ... 1 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1 mm²
Cylindrical gauge a x b / diameter	2.8 mm x 2.4 mm / 2.5 mm
Stripping length	8 mm
Torque	0.5 Nm ... 0.6 Nm

Flange specifications

Type of locking	Snap-in locking
Mounting flange	Lock & Release ejector lever

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

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Material data - contact

Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 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

Material data – actuating element

Insulating material	PA
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Length [l]	29.1 mm
Width [w]	22.84 mm
Height [h]	17.5 mm
Pitch	7.62 mm
Height (without solder pin)	17.5 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.

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

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Technical data

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / 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	50
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	5 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.	28 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)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

Current carrying capacity / derating curves

Specification	IEC 61984

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	5 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

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Technical data

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	0.6 mΩ
Insertion/withdrawal cycles	50
Contact resistance R_2	0.8 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	> 9 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	12
Conductor cross section	2.5 mm²
Test current	16 A DC
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	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV

Environmental and durability tests (E)

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

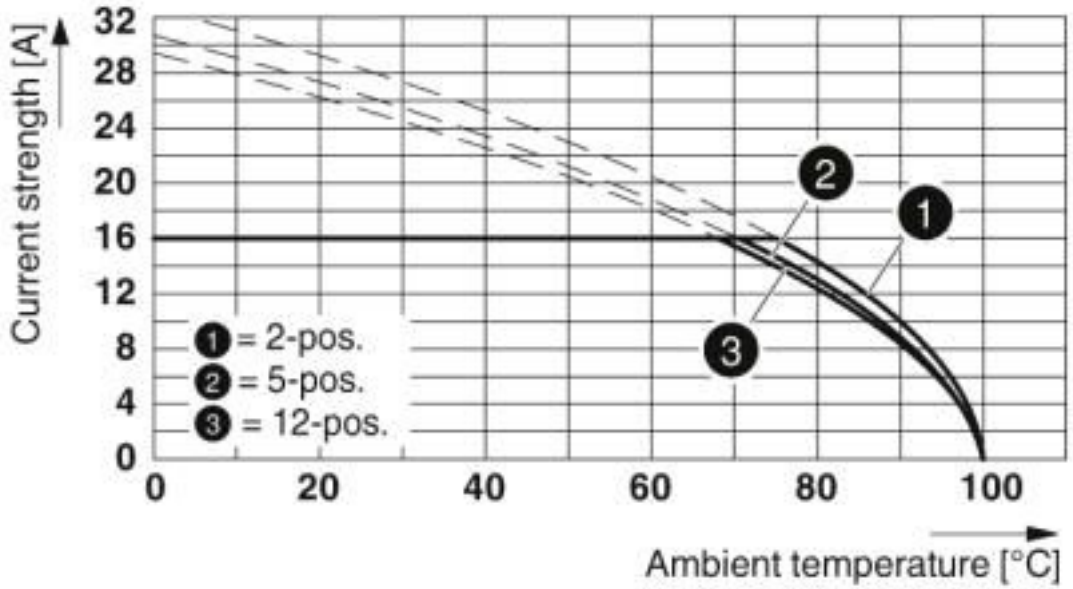
Environmental Product Compliance

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

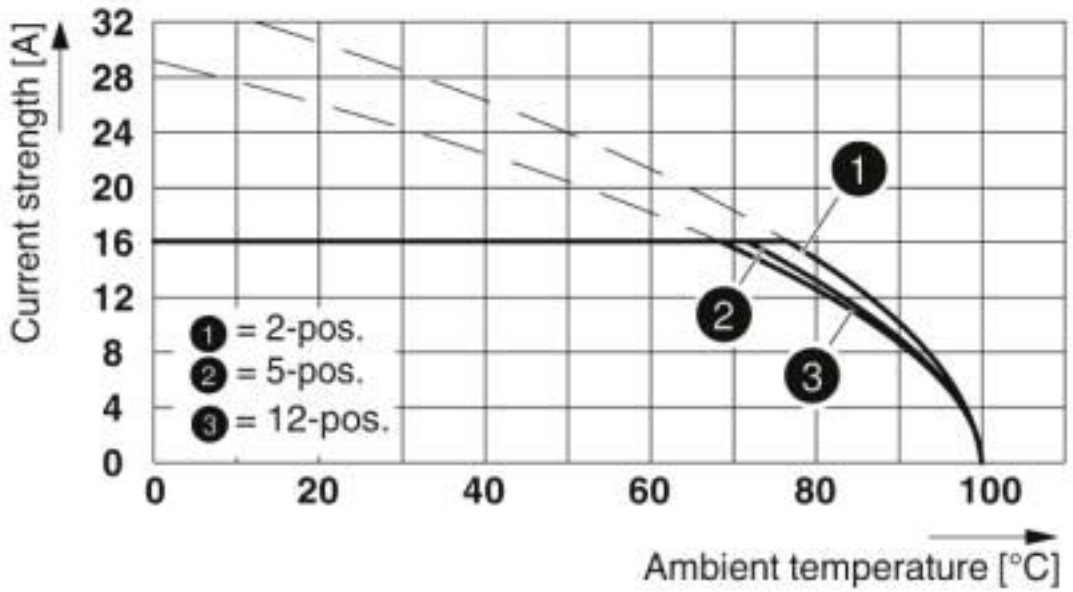
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Diagram



Derating curve for: GMSTB 2,5 HCV/...-ST-7,62 with GMSTBA 2,5 HC/...-G-7,62

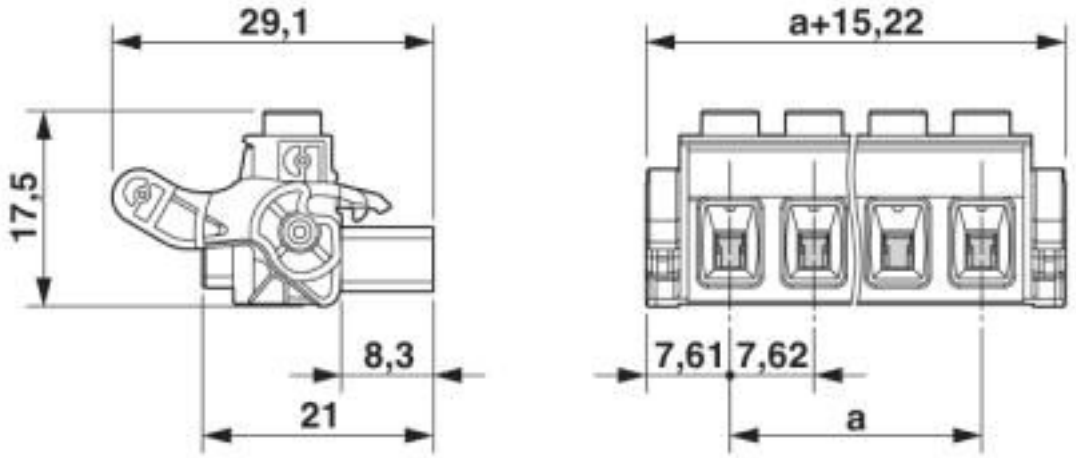
Diagram



Type: GMSTB 2.5 HCV/...-ST-7.62(-LR) with GMSTBVA 2.5 HC/...-G-7.62(-LR)

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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
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409

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Classifications

UNSPSC

UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

Approval details

EAC	EAC	B.01687

cULus Recognized	c UL us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931013

	B	C
Nominal voltage UN	600 V	600 V
Nominal current IN	20 A	20 A
mm²/AWG/kcmil	30-12	30-12

Accessories

Accessories

Coding element

Coding profile - CP-MSTB - 1734634



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

Labeled terminal marker

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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

Marker card - SK 3,8 REEL P7,62 WH CUS - 0825128



Marker card, Card, can be ordered: By card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.62 mm, lettering field size: continuous 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

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

Terminal marking

Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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Accessories

Additional products

Feed-through header - GMSTBA 2,5 HC/ 2-G-7,62-LR - 1812869



PCB headers, nominal current: 16 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of positions: 2, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm

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Printed-circuit board connector - GMSTBVA 2,5 HC/ 2-G-7,62-LR - 1812979



PCB headers, nominal current: 16 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of positions: 2, pitch: 7.62 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm

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