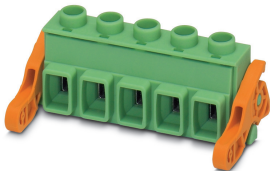


# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

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


PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 16 A, rated voltage (III/2): 1000 V, contact surface: Tin, type of contact: Female connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: GMSTB 2,5 HCV/...-ST-LR, pitch: 7.62 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: POWER COMBICON 2,5, Locking: Snap-in locking, mounting: Lock & Release ejector lever, type of packaging: packed in cardboard

## 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 728645
GTIN	4046356728645

## Technical data

### Item properties

Brief article description	PCB connector
Connector 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	10
Drive form screw head	Slotted (L)

# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

## Technical data

### Item properties

Screw thread	M3
Locking	Lock & Release ejector lever
Number of levels	1
Number of connections	10
Number of potentials	10

### Electrical parameters

Nominal current	16 A
Nom. voltage	1000 V
Rated voltage (III/3)	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 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>
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

# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

## Technical data

### 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

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	29.1 mm
Width [ w ]	83.8 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

Type of note	Notes on operation
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

# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

## Technical data

### 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
Conductor cross section / conductor type / tensile force	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	2.5 mm <sup>2</sup> / solid / > 50 N
	2.5 mm <sup>2</sup> / flexible / > 50 N

### Mechanical tests according to standard

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	50
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	5 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	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

Caption	Type: GMSTB 2,5 HCV/...-ST-7,62-LR with GMSTBA 2,5 HC/...-G-7,62-LR
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### 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

# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

## Technical data

### Mechanical tests (A)

Contact holder in insert requirements >20 N	Test passed
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### Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R <sub>1</sub>	0.6 mΩ
Insertion/withdrawal cycles	50
Contact resistance R <sub>2</sub>	0.8 mΩ
Impulse withstand voltage at sea level	9.8 kV

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	12
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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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

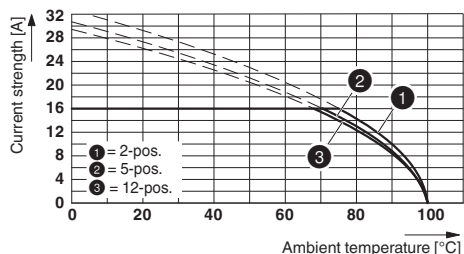
### Environmental Product Compliance

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

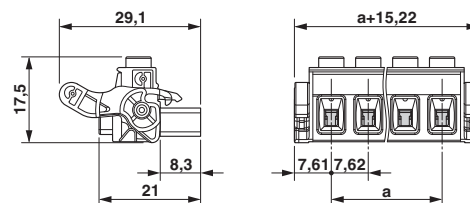
## Drawings

# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

Diagram

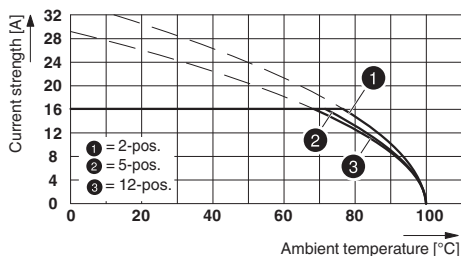


Dimensional drawing



Type: GMSTB 2,5 HCV/...-ST-7,62-LR with GMSTBA 2,5 HC/...-G-7,62-LR

Diagram



Type: GMSTB 2,5 HCV/...-ST-7,62-LR with GMSTBVA 2,5 HC/...-G-7,62-LR

## Classifications

### eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202
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 9.0	27440309

### ETIM

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

### UNSPSC

UNSPSC 6.01	30211810
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# Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

## Classifications

### UNSPSC

UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

## Approvals


### Approvals


#### Approvals

EAC / cULus Recognized

#### Ex Approvals

### Approval details

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-19931013
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	20 A	20 A	
mm <sup>2</sup> /AWG/kcmil	30-12	30-12	

## Accessories

### Accessories

### Coding element

## Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

### Accessories

Coding profile - CP-MSTB - 1734634

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



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### Labeled terminal marker

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



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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



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### 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



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### 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



## Printed-circuit board connector - GMSTB 2,5 HCV/10-ST-7,62-LR - 1812830

### Accessories

#### 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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### Additional products

Feed-through header - GMSTBA 2,5 HC/10-G-7,62-LR - 1812940



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 16 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: GMSTBA 2,5 HC/..-G-LR, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: POWER COMBICON 2,5, Pin connector pattern alignment: Standard, Locking: Snap-in locking, mounting: Lock & Release, type of packaging: packed in cardboard

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Printed-circuit board connector - GMSTBVA 2,5 HC/10-G-7,62-LR - 1813059



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 16 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Male connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: GMSTBVA 2,5 HC/..-G-LR, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, plug-in system: POWER COMBICON 2,5, Pin connector pattern alignment: Standard, Locking: Snap-in locking, mounting: Lock & Release, type of packaging: packed in cardboard

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