

# PCB plug - MSTB 2,5/ 2-ST-5,08 - 1757019

<https://www.phoenixcontact.com/in/products/1757019>

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: MSTB 2,5/..-ST, pitch: 5.08 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: CLASSIC COMBICON, Locking: without, Assembly: without, 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

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## Commercial Data

Order Key	1757019
Packing unit	100 pc
Minimum order quantity	100 pc
Sales Key	AAA
Catalog Page	Page 262 (C-1-2013)
GTIN	4017918029548
Weight per Piece (including packing)	3.5 GRM
Weight per Piece (excluding packing)	3.5 GRM
Customs tariff number	85366990
Country of origin	IN

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## Technical Data

### Mounting

Drive form screw head	Slotted (L)
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### Electrical tests

#### Thermal test | Test group C

Tested number of positions	12
Specification	IEC 60512-5-1:2002-02

#### Electrical properties

Rated surge voltage (III/2)	4 kV
Pollution degree	2
Contact resistance	1.3 mΩ
Rated voltage (III/2)	320 V

#### Air clearances and creepage distances |

minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (III/3)	3.2 mm
minimum clearance value - non-homogenous field (III/3)	3 mm
Insulating material group	I
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Comparative tracking index (IEC 60112:2003-01)	CTI 600
minimum creepage distance (II/2)	3.2 mm
Rated surge voltage (II/2)	4 kV
Rated insulation voltage (III/3)	250 V
Rated insulation voltage (III/2)	320 V
Specification	IEC 60664-1:2007-04
Rated insulation voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV

### Electrical properties

Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Nominal current $I_N$	12 A
	12 A
Maximum load current	12 A (with a 2.5 mm <sup>2</sup> conductor cross section)
Rated surge voltage (II/2)	4 kV
Nominal voltage $U_N$	250 V
Rated voltage (III/2)	320 V

### Packaging specifications

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Type of packaging	packed in cardboard
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## Environmental and real-life conditions

### Durability test

Contact resistance $R_2$	1.4 m $\Omega$
Contact resistance $R_1$	1.3 m $\Omega$
Impulse withstand voltage at sea level	4.8 kV
Specification	IEC 60512-9-1:2010-03
Insertion/withdrawal cycles	25

### Climatic test

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
Power-frequency withstand voltage	2.21 kV
Specification	ISO 6988:1985-02

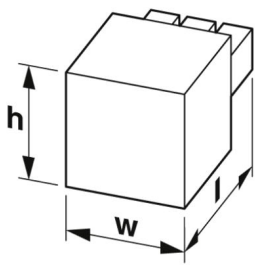
### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C

### Vibration test

Amplitude	0.35 mm (10 - 60.1 Hz)
Test duration per axis	2.5 h
Frequency	10 - 150 - 10 Hz
Specification	IEC 60068-2-6:2007-12
Sweep speed	1 octave/min
	5 g (60.1 - 150 Hz)

## Dimensions

Dimensional drawing	
Installed height	15 mm
Length	18.3 mm
Pitch	5.08 mm
Height	15 mm
Width	10.16 mm

## Mechanical tests

Contact holder in insert

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Test force per pos.	27 N
Specification	IEC 60512-15-1:2008-05
Result	Test passed

## Torque test

Specification	IEC 60999-1:1999-11
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## Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

## Insertion and withdrawal forces

No. of cycles	25
Withdraw strength per pos. approx.	6 N
Insertion strength per pos. approx.	8 N
Result	Test passed

## Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

## Pull-out test

Conductor cross section/conductor type/tractive force setpoint/actual value	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
Specification	IEC 60999-1:1999-11

## Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

## Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

## Connection data

### Connection technology

Type	Standard
Type of contact	Female connector
Nominal cross section	2.5 mm <sup>2</sup>
Connector system	CLASSIC COMBICON

### Conductor connection

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2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>
Torque	0.5 Nm ... 0.6 Nm
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 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>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Stripping length	7 mm
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Connection method	Screw connection with tension sleeve
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 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>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.4 mm / 2.5 mm

## Interlock

Mounting flange	without
Locking type	without

## Material specifications

### Material data - housing

Insulating material group	I
Temperature for the ball pressure test according to EN 60695-10-2	125 °C
Glow wire flammability index GWFI according to EN 60695-2-12	850
CTI according to IEC 60112	600
Housing color	green (6021)
Insulating material	PA
Flammability rating according to UL 94	V0
Glow wire ignition temperature GWIT according to EN 60695-2-13	775

### Material data - contact

Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)

## Product properties

Number of positions	2
Type	Standard
Number of potentials	2
Number of levels	1

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Number of connections	2
Connector system	CLASSIC COMBICON
Mounting flange	without

# PCB plug - MSTB 2,5/ 2-ST-5,08 - 1757019



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## Approvals

### VDE Zeichengenehmigung

Nominal voltage $U_N$	250 V
Nominal current $I_N$	12 A
AWG/kcmil	0.2-2.5
Min. cross section	0.2 mm <sup>2</sup>
Max. cross section	2.5 mm <sup>2</sup>

### CSA

Usegroup	B	D
Nominal voltage $U_N$	300 V	300 V
Nominal current $I_N$	15 A	10 A
AWG/kcmil	0.2-2.5	0.2-2.5
Min. cross section	28 mm <sup>2</sup>	28 mm <sup>2</sup>
Max. cross section	12 mm <sup>2</sup>	12 mm <sup>2</sup>

### IECEE CB Scheme

Nominal voltage $U_N$	250 V
Nominal current $I_N$	12 A
AWG/kcmil	0.2-2.5
Min. cross section	0.2 mm <sup>2</sup>
Max. cross section	2.5 mm <sup>2</sup>

### EAC

### cULus Recognized

Usegroup	B	D
Nominal voltage $U_N$	300 V	300 V



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Nominal current $I_N$	15 A	10 A
AWG/kcmil	0.2-2.5	0.2-2.5
Min. cross section	30 mm <sup>2</sup>	30 mm <sup>2</sup>
Max. cross section	12 mm <sup>2</sup>	12 mm <sup>2</sup>

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## Environmental Product Compliance

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

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## Accessories

### Marker pen

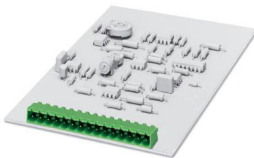
Marker pen - B-STIFT - 1051993



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

### PCB header

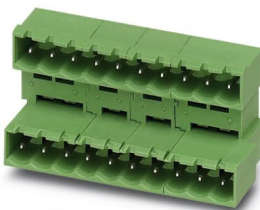
PCB header - MSTBA 2,5/ 2-G-5,08-LA - 1770944



PCB header, color: green, contact surface: Tin, Number of positions per row: 2, product range: MSTBA 2,5/...-G -LA, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.5 mm, type of packaging: packed in cardboard

### PCB header

PCB header - MDSTBA 2,5/ 2-GL-5,08 - 1877601



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 2, Number of positions per row: 2, number of connections: 4, product range: MDSTBA 2,5/...-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard, 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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## PCB header

PCB header - CC 2,5/ 2-G-5,08 P26THRR32 - 1954582



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of rows: 1, Number of positions per row: 2, product range: CC 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

## PCB header

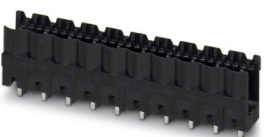
PCB header - CCA 2,5/ 2-G-5,08 P26THRR32 - 1955031



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: CCA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

## PCB header

PCB header - CCV 2,5/ 2-G-5,08 P26THRR32 - 1955523



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: CCV 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

# PCB plug - MSTB 2,5/ 2-ST-5,08 - 1757019

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## PCB header

PCB header - CCVA 2,5/ 2-G-5,08 P26THRR32 - 1955963



PCB header, nominal cross section: 2.5 mm<sup>2</sup>, color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, number of connections: 2, product range: CCVA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

## Screwdriver tools

Screwdriver tools - 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

## Labeled terminal marker

Labeled terminal marker - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

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## Terminal marking

Terminal marking - SK U/2,8 WH:UNBEDRUCKT - 0803883

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 2.8 mm, Number of individual labels: 3600

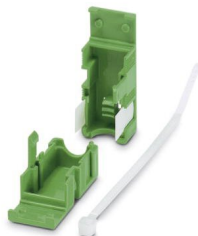


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## Cable housing

Cable housing - KGG-MSTB 2,5/ 2 - 1803934

Cable housing, pitch: 0 mm, number of positions: 2, color: green



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## Coding element

Coding element - CP-MSTB - 1734634

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



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## Bridge

Bridge - EBP 2- 5 - 1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



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