1759004

https://www.phoenixcontact.com/us/products/1759004



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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, contact connection type: Socket, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: MSTB 2,5/..-ST, pitch: 5 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: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Standard plug-in system for 320 V (III/2)
- Individual position coding by inserting coding profiles

## Commercial data

Item number	1759004
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACAFC
Catalog page	Page 263 (C-1-2013)
GTIN	4017918030476
Weight per piece (including packing)	20.61 g
Weight per piece (excluding packing)	17.629 g
Customs tariff number	85366990
Country of origin	DE



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## Technical data

### Product properties

Product type	PCB connector
Product family	MSTB 2,5/ST
Product line	COMBICON Connectors M
Туре	Standard
Number of positions	10
Pitch	5 mm
Number of connections	10
Number of rows	1
Number of potentials	10
Mounting flange	without

### **Electrical properties**

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	320 V
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

### Connection data

Connection technology

Туре	Standard	
Connector system	COMBICON MSTB 2,5	
Nominal cross section	2.5 mm²	
Contact connection type	Socket	
nterlock		
Locking type	without	
Mounting flange	without	
Conductor connection		
Connection method	Screw connection with tension sleeve	
Conductor/PCB connection direction	0 °	
Conductor cross section rigid	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	24 12	
Conductor cross section flexible, with ferrule without plastic	0.25 mm² 2.5 mm²	
sleeve		



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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 mm² 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1.5 mm²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm 0.6 Nm
Specifications for ferrules without insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
Specifications for ferrules with insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
Iterial specifications 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	
Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	1

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

Dimensional drawing
Image: Constraint of the second se

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Height [h]	15.5 mm
Length [I]	63.9 mm

#### Notes

switching	dance with IEC 61984, COMBICON connectors have no g power (COC). During designated use, they must not be I in or disconnected when carrying voltage or under load.

### Environmental and real-life conditions

Ambient conditions	
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C 70 °C
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

### Electrical tests

Air clearances and creepage distances |

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

### Packaging specifications



1759004

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## Approvals

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CSA Approval ID: 13631				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
Use group B				
	300 V	15 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

CULus Recogni Approval ID: E60425	CULus Recognized Approval ID: E60425-19931011				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
Use group B					
	250 V	12 A	30 - 12	-	
Use group D					
	300 V	10 A	30 - 12	-	

VDE Zeichengenehmigung Approval ID: 40004701					
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
	250 V	12 A	-	0.2 - 2.5	

1759004

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# Classifications

### ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

### ETIM

	ETIM 9.0	EC002638		
UN	UNSPSC			
	UNSPSC 21.0	39121400		

1759004

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# Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions		
China RoHS			
Environment friendly use period (EFUP)	EFUP-E		
	No hazardous substances above the limits		
EU REACH SVHC			
REACH candidate substance (CAS No.)	No substance above 0.1 wt%		

1759004

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## Accessories

SZS 0,6X3,5 - Screwdriver

1205053 https://www.phoenixcontact.com/us/products/1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip

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

0804183

https://www.phoenixcontact.com/us/products/0804183



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size:  $5 \times 3.8$  mm

1759004

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CP-MSTB - Coding profile

#### 1734634

https://www.phoenixcontact.com/us/products/1734634

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



### EBP 2-5 - Insertion bridge

1733169 https://www.phoenixcontact.com/us/products/1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



1759004

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#### MSTBW 2,5/10-G - PCB header

1736030

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: MSTBW 2,5/..-G, pitch: 5 mm, nounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

#### MSTBV 2,5/10-G - PCB header

1753592 https://www.phoenixcontact.com/us/products/1753592



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 10, number of rows: 1, number of positions: 10, number of connections: 10, product range: MSTBV 2,5/..-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

1759004

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### MDSTBV 2,5/10-G - PCB header

1846014

https://www.phoenixcontact.com/us/products/1846014



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 20, number of rows: 2, number of positions: 10, number of connections: 20, product range: MDSTBV 2,5/..-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Item No. 1836477, 1836480. 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!

#### MDSTB 2,5/10-G - PCB header

#### 1846441

https://www.phoenixcontact.com/us/products/1846441



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 20, number of rows: 2, number of positions: 10, number of connections: 20, product range: MDSTB 2,5/.-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, Can be aligned! Mounting flange: Item No. 1736771, 1736768. 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!

1759004

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#### MDSTBA 2,5/10-G - PCB header

1846593

https://www.phoenixcontact.com/us/products/1846593



PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 20, number of rows: 2, number of positions: 10, number of connections: 20, product range: MDSTBA 2,5/..-G, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: 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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