

# PTS 1,5/ 3-PH-5,0 - PCB connectors



1805520

<https://www.phoenixcontact.com/us/products/1805520>

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PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 400 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTS 1,5/.-PH, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PST 1,3, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive operation due to color-coded actuating push button
- Quick and convenient testing using integrated test option
- Largest possible clamping space in a small component size

## Commercial data

Item number	1805520
Packing unit	250 pc
Minimum order quantity	250 pc
Sales key	AA02
Product key	AABFRA
Catalog page	Page 417 (C-1-2013)
GTIN	4046356679138
Weight per piece (including packing)	1.968 g
Weight per piece (excluding packing)	1.807 g
Customs tariff number	85366990
Country of origin	BG

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## Technical data

### Product properties

Product type	PCB connector
Product family	PTS 1,5/..-PH
Product line	COMBICON Connectors S
Type	Standard
Number of positions	3
Pitch	5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting flange	without

### Electrical properties

Nominal current $I_N$	10 A
Nominal voltage $U_N$	400 V
Degree of pollution	3
Contact resistance	1.8 mΩ
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 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

Type	Standard
Connector system	COMBICON PST 1,3
Nominal cross section	1.5 mm <sup>2</sup>
Contact connection type	Socket

#### Interlock

Locking type	without
Mounting flange	without

#### Conductor connection

Connection method	Push-in spring connection
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	26 ... 14
Conductor cross section flexible, with ferrule without plastic	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

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sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Stripping length	8 mm

## Material 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 (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

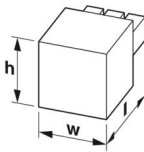
### Material data - housing

Color (Housing)	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

Color (Actuating element)	orange (2003)
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

Dimensional drawing	
Pitch	5 mm
Width [w]	15 mm

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Height [h]	11.7 mm
Length [l]	12.8 mm

## Mechanical tests

### Conductor connection

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

### Test for conductor damage and slackening

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

### Repeated connection and disconnection

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

### Pull-out test

Specification	IEC 60999-1:1999-11
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

### Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	6 N

### Resistance of inscriptions

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

### Visual inspection

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

### Dimension check

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

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min

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Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

## Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R <sub>1</sub>	1.8 mΩ
Contact resistance R <sub>2</sub>	2.1 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

## Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

## 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

### Thermal test | Test group C

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

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### Temperature cycles

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

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
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)	400 V

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Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	2 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

Type of packaging	packed in cardboard
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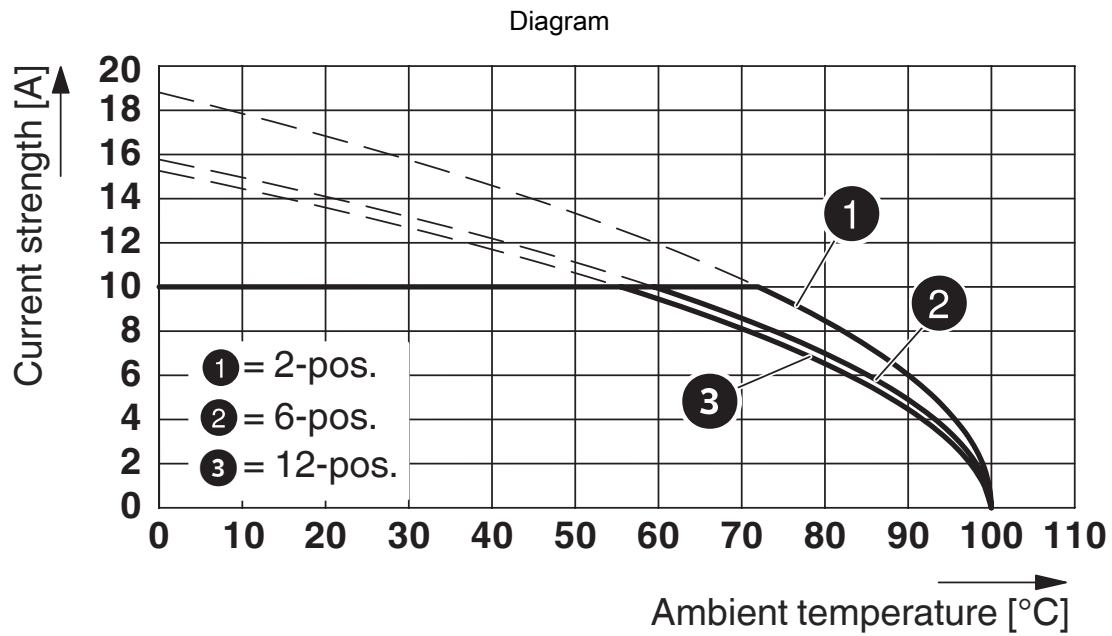
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## Drawings



Type: PTS 1,5/...-PH-5,0 with PST 1,3/...-5,0

# PTS 1,5/ 3-PH-5,0 - PCB connectors





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1805520>

 <b>cULus Recognized</b> Approval ID: E60425-20030211				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	300 V	7 A	26 - 14	-
Use group D				
	300 V	7 A	26 - 14	-

 <b>VDE Gutachten mit Fertigungsüberwachung</b> Approval ID: 40040542				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	320 V	10 A	-	0.2 - 2.5



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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002638
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### UNSPSC

UNSPSC 21.0	39121400
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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%

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## Accessories

### SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/products/1204517>



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

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### CP-PTDA - Coding profile

1731361

<https://www.phoenixcontact.com/us/products/1731361>



Coding profile, inserted into the groove on the plug, made from red insulating material, diameter: 1.35 mm

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## PST 1,3/ 3-5,0 - Pin strip

1933192

<https://www.phoenixcontact.com/us/products/1933192>



Pin strip, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 12 A (depends on the plug used), rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PST 1,3/...-V, pitch: 5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: COMBICON PST 1,3, locking: without, mounting: without, type of packaging: packed in cardboard, The maximum current depends on the plug used. The lower of the two current values apply for plug and pin strip. The pin strip is made of highly temperature resistant plastic and is thus suitable for the reflow process.

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