

# PT 1,5/12-PVH-5,0 BDWH:1-12 - PCB connector



1706831

<https://www.phoenixcontact.com/us/products/1706831>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 400 V, contact surface: Sn, contact connection type: Socket, number of potentials: 12, number of rows: 1, number of positions: 12, number of connections: 12, product range: PT 1,5/..-PVH, pitch: 5 mm, connection method: Screw connection with wire protector, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PST 1,3, locking: without, mounting method: without



The figure shows a 10-position version of the product

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- High terminal block capacity thanks to rectangular terminal block space
- Allows connection of two conductors
- Horizontal and vertical connection option for optimum conductor routing
- The latching on the side enables various numbers of positions to be combined

## Commercial data

Item number	1706831
Packing unit	250 pc
Minimum order quantity	250 pc
Note	Made to order (non-returnable)
Sales key	AA32
Product key	AABAJB
GTIN	4046356960519
Weight per piece (including packing)	14.29 g
Weight per piece (excluding packing)	13.375 g
Customs tariff number	85366990
Country of origin	DE

1706831

<https://www.phoenixcontact.com/us/products/1706831>

## Technical data

### Product properties

Product type	PCB connector
Product family	PT 1,5/...-PVH
Product line	COMBICON Connectors S
Number of positions	12
Pitch	5 mm
Number of connections	12
Number of rows	1
Number of potentials	12
Mounting type	without

### Electrical properties

#### Properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	400 V
Contact resistance	1.3 m $\Omega$
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	Plug for pin strip
Connector system	COMBICON PST 1,3
Nominal cross section	1.5 mm <sup>2</sup>
Contact connection type	Socket

#### Interlock

Locking type	without
Mounting type	without

#### Conductor connection

Connection method	Screw connection with wire protector
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 sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>

# PT 1,5/12-PVH-5,0 BDWH:1-12 - PCB connector



1706831

<https://www.phoenixcontact.com/us/products/1706831>

Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, rigid	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	5 mm
Tightening torque	0.35 Nm ... 0.4 Nm

## Material specifications

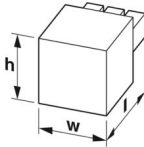
### Material data - contact

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

## Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	60 mm
Height [h]	11.4 mm
Length [l]	15 mm

## Mechanical tests

1706831

<https://www.phoenixcontact.com/us/products/1706831>

## Test for conductor damage and slackening

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

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	10
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N

## Torque test

Specification	IEC 60999-1:1999-11
---------------	---------------------

## Resistance of inscriptions

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

## Polarization and coding

Specification	IEC 60512-7:1993-08 (Polarization)
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

## Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	4.9 kV
Contact resistance R <sub>1</sub>	1.3 mΩ
Contact resistance R <sub>2</sub>	1.4 mΩ
Insertion/withdrawal cycles	10

## Climatic test

Specification	ISO 6988:1985-02
---------------	------------------

1706831

<https://www.phoenixcontact.com/us/products/1706831>

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	2.5 kV

## Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

## Ambient conditions

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

## Electrical tests

## Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	16

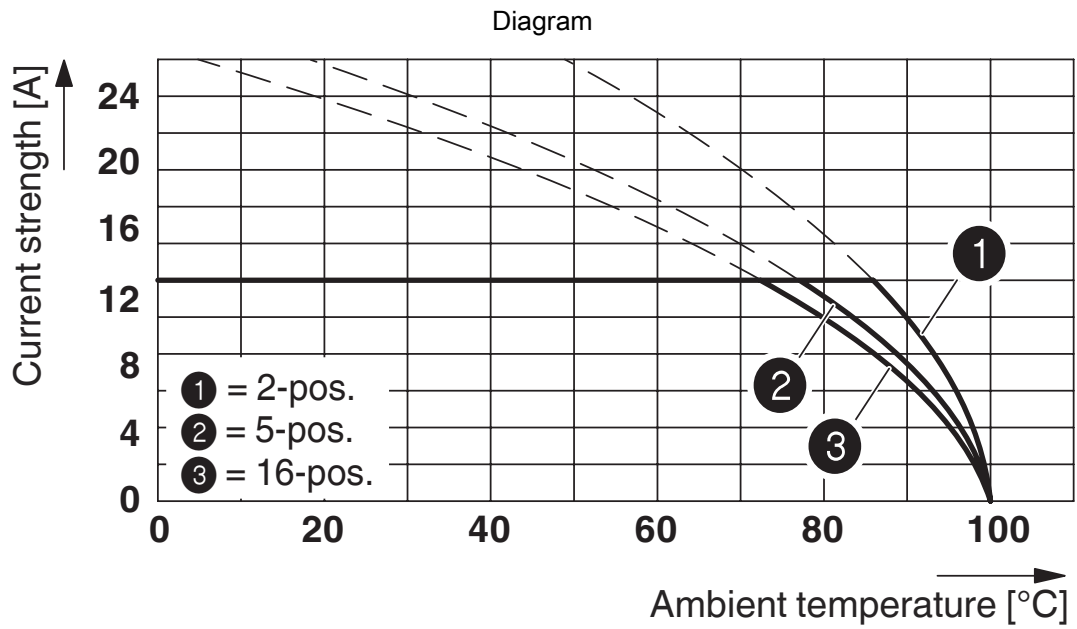
## Insulation resistance

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

## 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
Note on connection cross section	With connected conductor 2.5 mm <sup>2</sup> (solid).
Rated insulation voltage (III/2)	400 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

Drawings



Type: PT 1,5/...-PVH-5,0 with PST 1,3/...-5,0

# PT 1,5/12-PVH-5,0 BDWH:1-12 - PCB connector



1706831

<https://www.phoenixcontact.com/us/products/1706831>

## Classifications

### ECLASS

ECLASS-13.0	27460202
ECLASS-15.0	27460202

# PT 1,5/12-PVH-5,0 BDWH:1-12 - PCB connector



1706831

<https://www.phoenixcontact.com/us/products/1706831>

## 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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)