

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

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 terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm<sup>2</sup>, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: SPT 16/..-V, pitch: 10 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 4.1 mm, number of solder pins per potential: 6, type of packaging: packed in cardboard. The rated data refers to the corresponding component only. The air clearances and creepage distances from neighboring components must satisfy the corresponding application standards.

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Vertical connection enables multi-row arrangement on the PCB

## Commercial data

Item number	1735862
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AAOBCB
Catalog page	Page 469 (C-1-2013)
GTIN	4046356179508
Weight per piece (including packing)	9.514 g
Weight per piece (excluding packing)	9.514 g
Customs tariff number	85369010
Country of origin	BG

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Technical data

### Product properties

Type	PC terminal block can be aligned
Product line	COMBICON Terminals XL
Product type	Printed circuit board terminal
Product family	SPT 16/...-V
Number of positions	1
Pitch	10 mm
Number of connections	1
Number of rows	1
Number of potentials	1
Pin layout	Linear pinning
Solder pins per potential	6

### Electrical properties

Nominal current $I_N$	76 A
Nominal voltage $U_N$	1000 V
Degree of pollution	3
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Type	PC terminal block can be aligned
Nominal cross section	16 mm <sup>2</sup>

#### Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup> (Conductor connection with open terminal point)
	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup> (Push-in connection)
Conductor cross section flexible	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	20 ... 4
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm <sup>2</sup> ... 10 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.75 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Stripping length	18 mm

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

## 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	Tin-plated
Metal surface terminal point (top layer)	Tin (10 - 16 $\mu\text{m}$ Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 $\mu\text{m}$ 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

## Notes

General	The single-position PCB terminal block can be used for voltages up to 1500 V (DC) and 1000 V (AC). The relevant device standard and the appropriate required air clearances and creepage distances should be observed following installation
---------	--

## Dimensions

Dimensional drawing	
Pitch	10 mm
Width [w]	11.8 mm
Height [h]	35.4 mm
Length [l]	24.7 mm
Installed height	31.3 mm
Solder pin length [P]	4.1 mm
Pin dimensions	1.2 x 1 mm

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## PCB design

Pin spacing	15 mm
Hole diameter	1.7 mm

## Mechanical tests

### 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	0.75 mm <sup>2</sup> / solid / > 30 N
	0.75 mm <sup>2</sup> / flexible / > 30 N
	16 mm <sup>2</sup> / solid / > 100 N
	16 mm <sup>2</sup> / flexible / > 100 N

## Electrical tests

### Temperature-rise test

Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

### Short-time withstand current

Specification	IEC 60947-7-4:2019-01
---------------	-----------------------

### Insulation resistance

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

### Air clearances and creepage distances |

Specification	IEC 60947-7-4:2019-01
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

minimum creepage distance (II/2)	5.5 mm
----------------------------------	--------

## Environmental and real-life conditions

### 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)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

### Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

### Aging

Specification	IEC 60947-7-4:2019-01
---------------	-----------------------

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

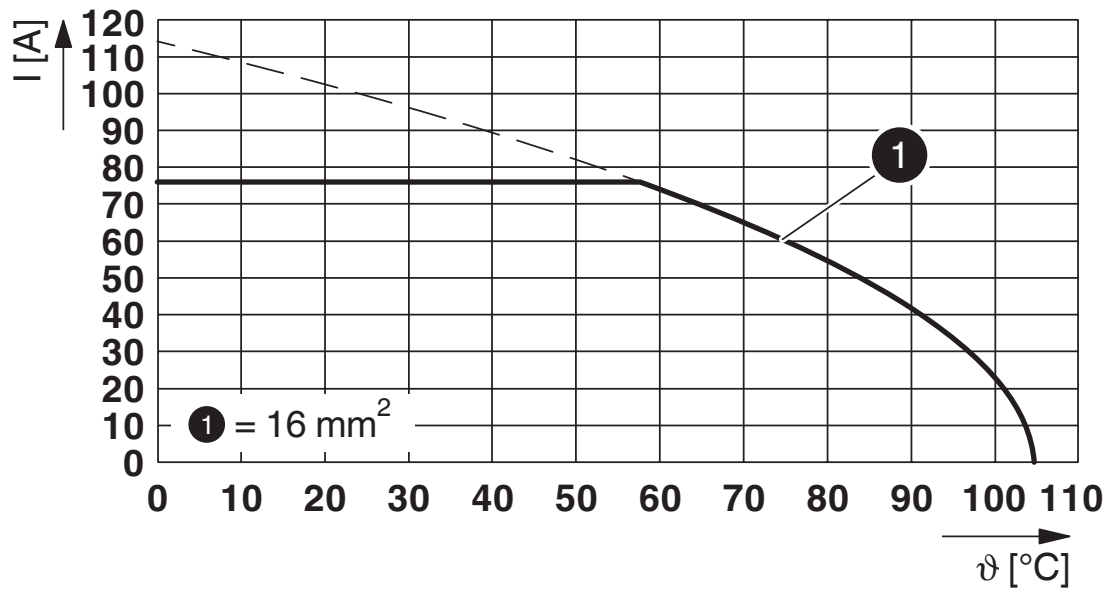
# SPT 16/ 1-V-10,0 - PCB terminal block

1735862

<https://www.phoenixcontact.com/pc/products/1735862>

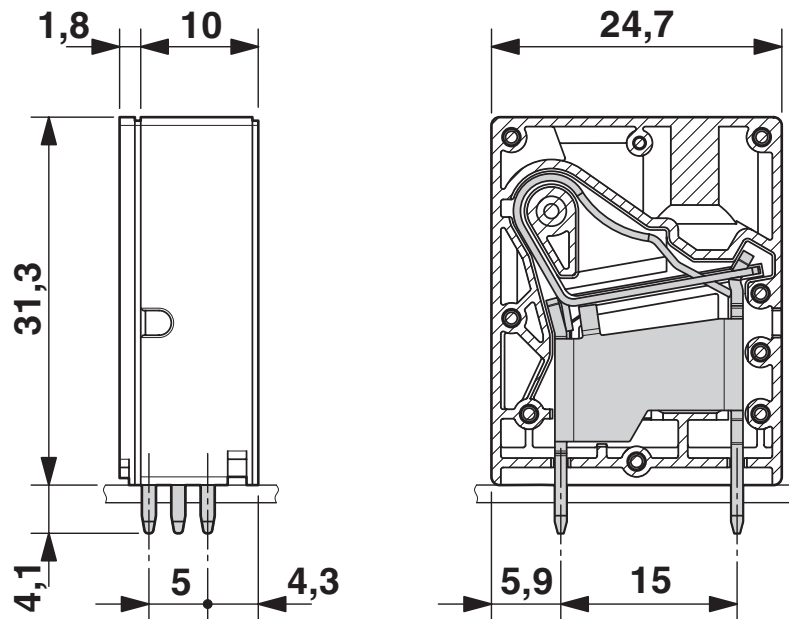
## Drawings

Diagram



Type: SPT 16/...-V-10,0-ZB

Dimensional drawing



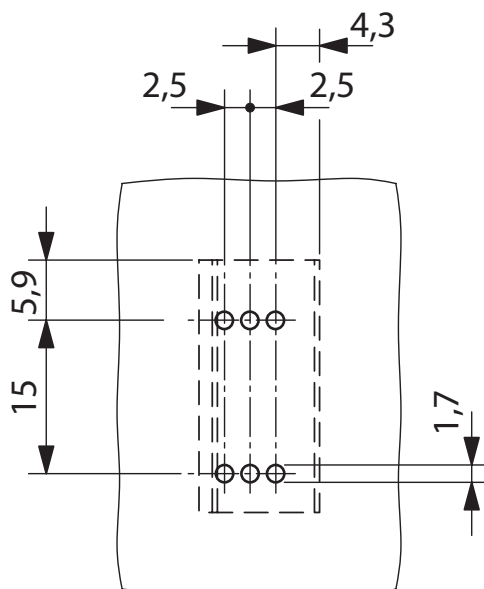
# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

Drilling plan/solder pad geometry



# SPT 16/ 1-V-10,0 - PCB terminal block





1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1735862>

 <b>VDE Zeichengenehmigung</b> Approval ID: 40042909				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	1000 V	76 A	-	0.75 - 16

 <b>cULus Recognized</b> Approval ID: E60425-20061129				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	66 A	20 - 4	-
Use group C	150 V	66 A	20 - 4	-
Use group D	300 V	10 A	20 - 4	-



# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Classifications

### ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

### ETIM

ETIM 9.0	EC002643
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

# SPT 16/ 1-V-10,0 - PCB terminal block



1735862

<https://www.phoenixcontact.com/pc/products/1735862>

## Accessories

### SZF 2-0,8X4,0 - Screwdriver

1204520

<https://www.phoenixcontact.com/pc/products/1204520>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

---

### CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/pc/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

---

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

[info@phoenixcontact.com](mailto:info@phoenixcontact.com)