

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

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: 8, number of rows: 1, number of positions per row: 8, 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: Zigzag pinning W, Solder pin [P]: 4.1 mm, number of solder pins per potential: 3, 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
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- Vertical connection enables multi-row arrangement on the PCB

## Commercial Data

Item number	1735930
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	AAOBCB
Catalog Page	Page 469 (C-1-2013)
GTIN	4046356179577
Weight per Piece (including packing)	61.88 g
Weight per Piece (excluding packing)	61.22 g
Customs tariff number	85369010
Country of origin	BG

1735930

<https://www.phoenixcontact.com/pc/products/1735930>

## Technical Data

### Product properties

Type	PC terminal block can be aligned
Product line	COMBICON Terminals XL
Product type	Printed circuit board terminal
Number of positions	8
Pitch	10 mm
Number of connections	8
Number of rows	1
Number of potentials	8
Pin layout	Zigzag pinning W
Solder pins per potential	3

### 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

### 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 solid	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

### Mounting

Mounting type	Wave soldering
---------------	----------------

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

Pin layout	Zigzag pinning W
------------	------------------

## 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 µm Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 µm Sn)

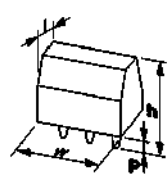
### Material data - housing

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 ()	()
----------	----

## Dimensions

Dimensional drawing	
Pitch	10 mm
Width [w]	81.8 mm
Height [h]	35.4 mm
Length [l]	24.7 mm
Installed height	31.3 mm
Solder pin length [P]	4.1 mm

### PCB design

Pin spacing	15 mm
-------------	-------

## Mechanical tests

### Test for conductor damage and slackening

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

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

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
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)

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

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

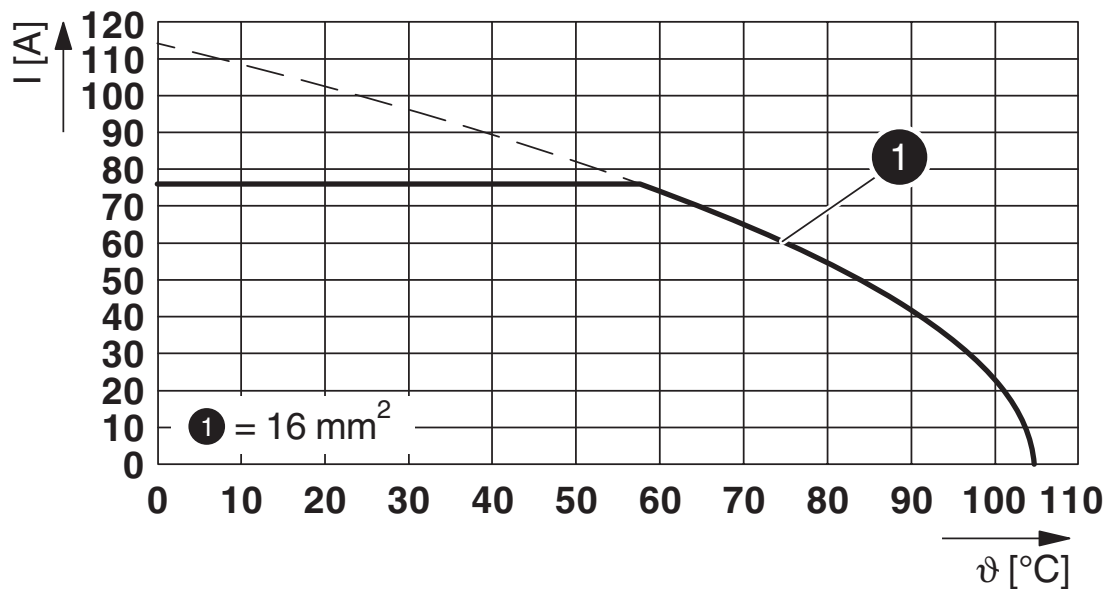
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

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

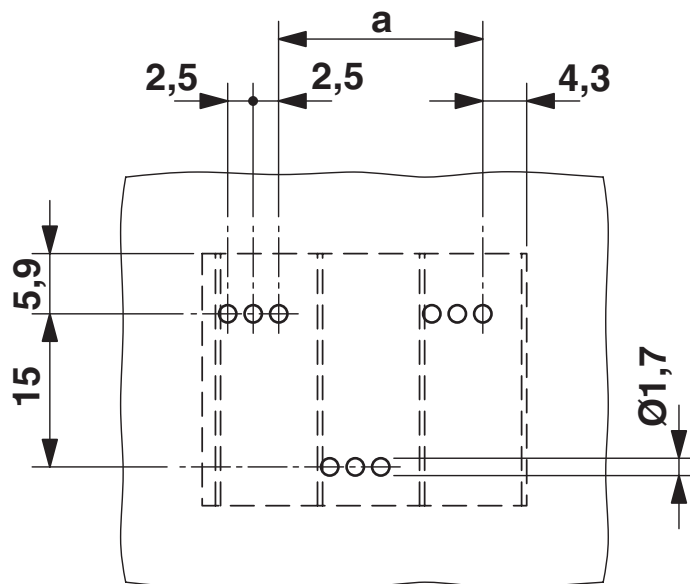
## Drawings

Diagram



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

Drilling plan/solder pad geometry



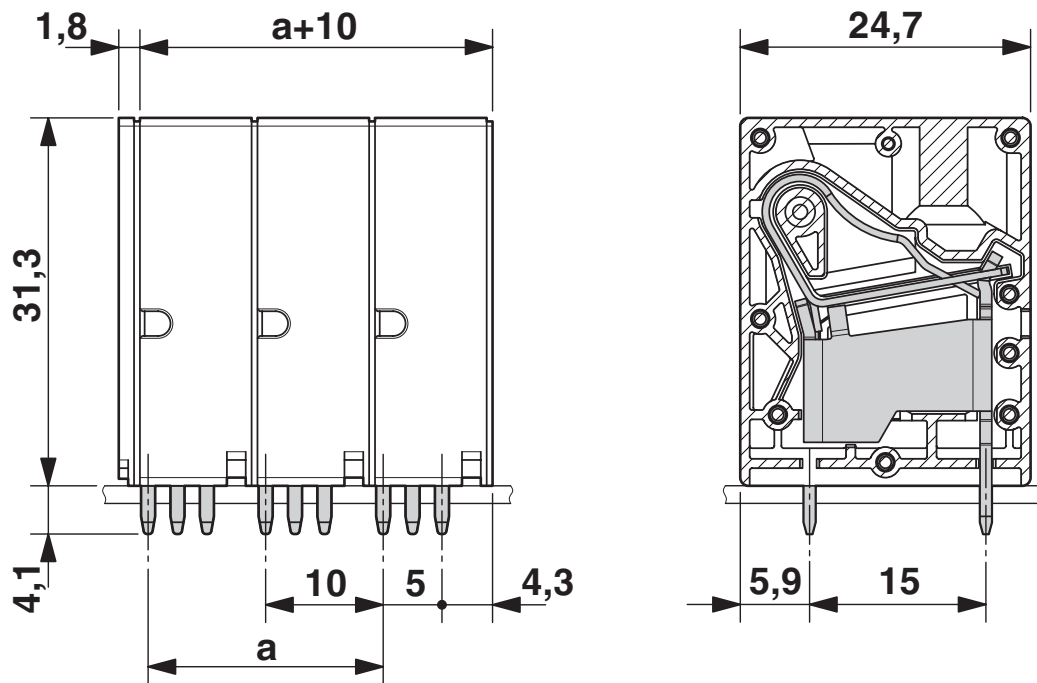
# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

Dimensional drawing



# PCB terminal block - SPT 16/ 8-V-10,0-ZB




1735930

<https://www.phoenixcontact.com/pc/products/1735930>

## Approvals

 <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>EAC</b> Approval ID: B.01687				
--	--	--	--	--

 <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	600 V	66 A	20 - 4	-
Use group C	600 V	66 A	20 - 4	-

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

## Classifications

### ECLASS

ECLASS-9.0	27440401
ECLASS-10.0.1	27440401
ECLASS-11.0	27460101

### ETIM

ETIM 8.0	EC002643
----------	----------

### UNSPSC

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

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

## Environmental Product Compliance

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

# PCB terminal block - SPT 16/ 8-V-10,0-ZB



1735930

<https://www.phoenixcontact.com/pc/products/1735930>

## Accessories

### Screwdriver

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

---

### Crimping pliers

Crimping pliers - CRIMPFOX 6 - 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 2022 © - 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)