

# SPTA 16/ 4-15,0-ZB - PCB terminal block



1034124

<https://www.phoenixcontact.com/us/products/1034124>

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PCB terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm<sup>2</sup>, number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: SPTA 16/, pitch: 15 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 60 °, 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
- Angled connection enables multi-row arrangement on the PCB

## Commercial data

Item number	1034124
Packing unit	1 pc
Minimum order quantity	50 pc
Sales key	AA15
Product key	AAOBCC
GTIN	4055626540160
Weight per piece (including packing)	44.1 g
Weight per piece (excluding packing)	44 g
Customs tariff number	85369010
Country of origin	IN

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## Technical data

### Product properties

Product line	COMBICON Terminals XL
Product type	Printed circuit board terminal
Product family	SPTA 16/
Number of positions	4
Pitch	15 mm
Number of connections	4
Number of rows	1
Number of potentials	4
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
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Nominal cross section	16 mm <sup>2</sup>
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#### Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.75 mm <sup>2</sup> ... 10 mm <sup>2</sup> (Conductor connection with open terminal point)
	2.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> (Push-in connection)
Single-conductor/terminal point multi-stranded	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section flexible	0.75 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	18 ... 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

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## Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning W
Connection method	Push-in spring connection

### Processing notes

Process	Wave soldering
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## Material specifications

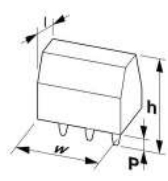
### Material data - contact

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

## Dimensions

Dimensional drawing	
Pitch	15 mm
Width [w]	56.8 mm
Height [h]	42.23 mm
Length [l]	32.7 mm
Installed height	38.13 mm
Solder pin length [P]	4.1 mm
Pin dimensions	1.2 x 1 mm

## Mechanical tests

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## 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	0.75 mm <sup>2</sup> / solid / > 30 N
	0.75 mm <sup>2</sup> / flexible / > 30 N
	10 mm <sup>2</sup> / solid / > 90 N
	16 mm <sup>2</sup> / flexible / > 100 N

## Dimension check

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

## Electrical tests

### Temperature-rise test

Specification	IEC 60947-7-4:2013-08
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 60947-7-4:2013-08
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### Insulation resistance

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

### Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
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

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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 60068-2-6:2007-12
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 60695-2-10:2000-10
Temperature	850 °C
Time of exposure	5 s

### Aging

Specification	IEC 60947-7-4:2013-08
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### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °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

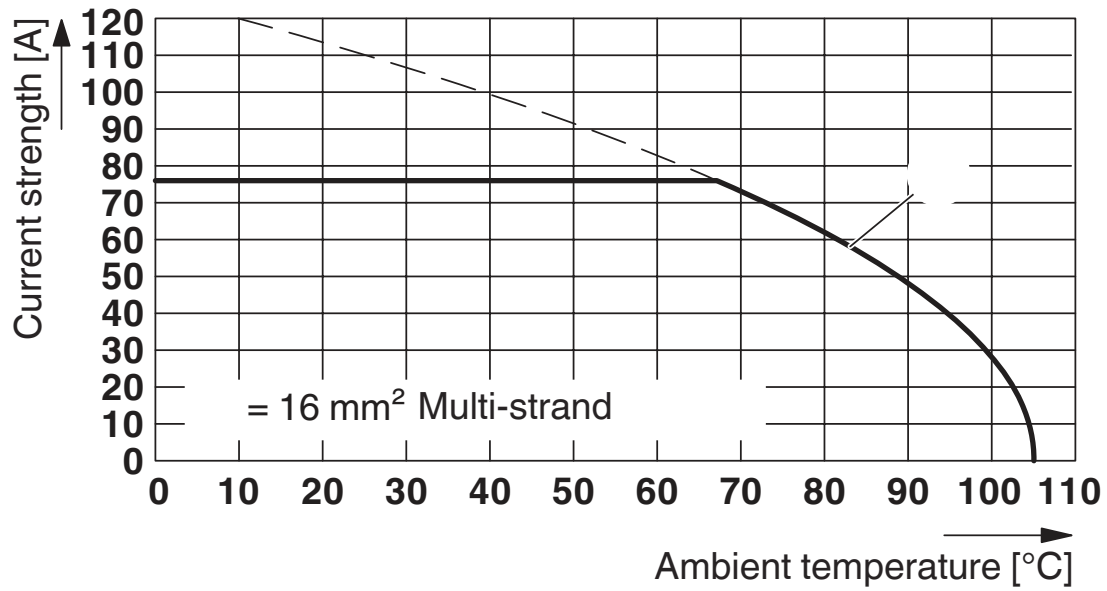
Type of packaging	packed in cardboard
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## Drawings

Diagram



Type: SPTA 16/...-15,0-ZB

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1034124>

 **EAC**  
Approval ID: B.01687

 **cULus Recognized**  
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	51 A	18 - 4	-
Use group C	600 V	51 A	18 - 4	-
Use group E	1000 V	51 A	18 - 4	-

 **VDE Zeichengenehmigung**  
Approval ID: 40041641

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	1000 V	76 A	-	0.75 - 16

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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

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

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## Accessories

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

1204520

<https://www.phoenixcontact.com/us/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

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### CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/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

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## FBSK 2-15/ZFKDS 10 - Plug-in bridge

1986699

<https://www.phoenixcontact.com/us/products/1986699>



Fixed bridge, fully insulated, pitch: 15 mm, no. of positions: 2

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## FBSK 3-15/ZFKDS 10 - Plug-in bridge

1986686

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Fixed bridge, fully insulated, pitch: 15 mm, no. of positions: 3

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## FBSK 4-15/ZFKDS 10 - Plug-in bridge

1986673

<https://www.phoenixcontact.com/us/products/1986673>

Fixed bridge, fully insulated, pitch: 15 mm, no. of positions: 4



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