

## PCB terminal block - SPT 16/ 1-V-10,0 - 1735862

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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>, pitch: 10 mm, number of positions: 1, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 4.1 mm. 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



### Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 50 pc   |
| GTIN         | <br>4 046356 179508 |
| GTIN         | 4046356179508   |

### Technical data

#### Item properties

|                           |                           |
|---------------------------|---------------------------|
| Brief article description | PCB terminal block        |
| Range of articles         | SPT 16/..-V               |
| Pitch                     | 10 mm                     |
| Number of positions       | 1                         |
| Connection method         | Push-in spring connection |
| Mounting type             | Wave soldering            |
| Pin layout                | Linear double pinning     |
| Number of levels          | 1                         |
| Number of connections     | 1                         |
| Number of potentials      | 1                         |

#### Electrical parameters

|                 |      |
|-----------------|------|
| Nominal current | 76 A |
|-----------------|------|

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## Technical data

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nom. voltage                | 1000 V |
| Rated voltage               | 1000 V |
| Rated voltage (III/2)       | 1000 V |
| Rated voltage (II/2)        | 1000 V |
| Rated surge voltage (III/3) | 8 kV   |
| Rated surge voltage (III/2) | 8 kV   |
| Rated surge voltage (II/2)  | 6 kV   |

### Connection capacity

|   |   |
|---|---|
| Connection method   | Push-in spring connection                   |
| pluggable   | no  |
| Conductor cross section solid   | 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 / kcmil   | 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                                       |

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

### Material data - housing

|   |              |
|---|--------------|
| Housing color   | 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 for the product

|                             |         |
|-----------------------------|---------|
| Length [ l ]                | 24.7 mm |
| Width [ w ]                 | 11.8 mm |
| Height [ h ]                | 35.4 mm |
| Pitch                       | 10 mm   |
| Height (without solder pin) | 31.3 mm |

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## Technical data

### Dimensions for the product

|                |            |
|----------------|------------|
| Solder pin [P] | 4.1 mm     |
| Pin spacing    | 15 mm      |
| Pin dimensions | 1.2 x 1 mm |

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.7 mm |
| Pin spacing   | 15 mm  |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 50                  |
| Denomination packing units | Pcs.                |

### Termination and connection method

|  |                       |
|--|-----------------------|
| Connection test                          | IEC 60998-2-2:2002-12 |
| Test result                              | Test passed           |
| Test for conductor damage and slackening | IEC 60998-2-2:2002-12 |
|  | Test passed           |

### Pull-out test

|  |  |
|--|--|
| Pull-out test  | IEC 60998-2-2:2002-12                    |
|  | Test passed                              |
| Conductor cross section / conductor type / tensile force | 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  |

### Mechanical tests according to standard

|                    |                          |
|--------------------|--------------------------|
| Test specification | IEC 60998-2-2 (in parts) |
|--------------------|--------------------------|

### Electrical tests

|                             |                    |
|-----------------------------|--------------------|
| Rated current               | 76 A               |
| Conductor cross section     | 16 mm <sup>2</sup> |
| Rated voltage (III/2)       | 1000 V             |
| Rated surge voltage (III/2) | 8 kV               |

### Temperature-rise test

|                                   |                                |
|-----------------------------------|--------------------------------|
| Specification                     | IEC 60998-2-1:2002-12          |
| Result                            | Test passed                    |
| Requirement temperature-rise test | Increase in temperature ≤ 45 K |

### Current carrying capacity / derating curves

|         |  |
|---------|--|
| Caption | Type: SPT 16/...-V-10,0-ZB<br>Test based on DIN EN 60512-5-2:2003-01<br>Reduction factor = 1<br>Number of positions: 5 |
|---------|--|

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## Technical data

### Current carrying capacity / derating curves

|                     |                                 |
|---------------------|---------------------------------|
| Specification       | Following IEC 60512-5-2:2002-02 |
| Number of positions | 5                               |
| Reduction factor    | 1                               |

### Vibration test

|                        |                        |
|------------------------|------------------------|
| Specification          | IEC 60068-2-6:1995-03  |
| Result                 | Test passed            |
| Frequency              | 10 - 150 - 10 Hz       |
| Sweep speed            | 1 octave/min           |
| Amplitude              | 0.35 mm (10 - 60.1 Hz) |
| Acceleration           | 5 g (60.1 - 150 Hz)    |
| Test duration per axis | 2.5 h                  |

### Resistance to ageing, humidity and penetration of solids

|            |                 |
|------------|-----------------|
| Dry heat   | 168 h/100°C     |
| Humid heat | 48 h/30 °C/92 % |

### Insulation resistance

|  |                     |
|--|---------------------|
| Specification                                | IEC 60998-1:2002-12 |
| Result                                       | Test passed         |
| Insulation resistance, neighboring positions | 10 GΩ               |

### Glow-wire test

|                  |                     |
|------------------|---------------------|
| Specification    | IEC 60998-1:2002-12 |
| Result           | Test passed         |
| Temperature      | 850 °C              |
| Time of exposure | 5 s                 |

### Mechanical strength/tumbling barrel test

|                       |                     |
|-----------------------|---------------------|
| Specification         | IEC 60998-1:2002-12 |
| Height of fall        | 50 cm               |
| Number of drop cycles | 50                  |
| Rotation speed        | 5 rpm               |

### Standards and Regulations

|  |        |
|--|--------|
| Connection in acc. with standard       | EN-VDE |
|  | CUL    |
| Flammability rating according to UL 94 | V0     |

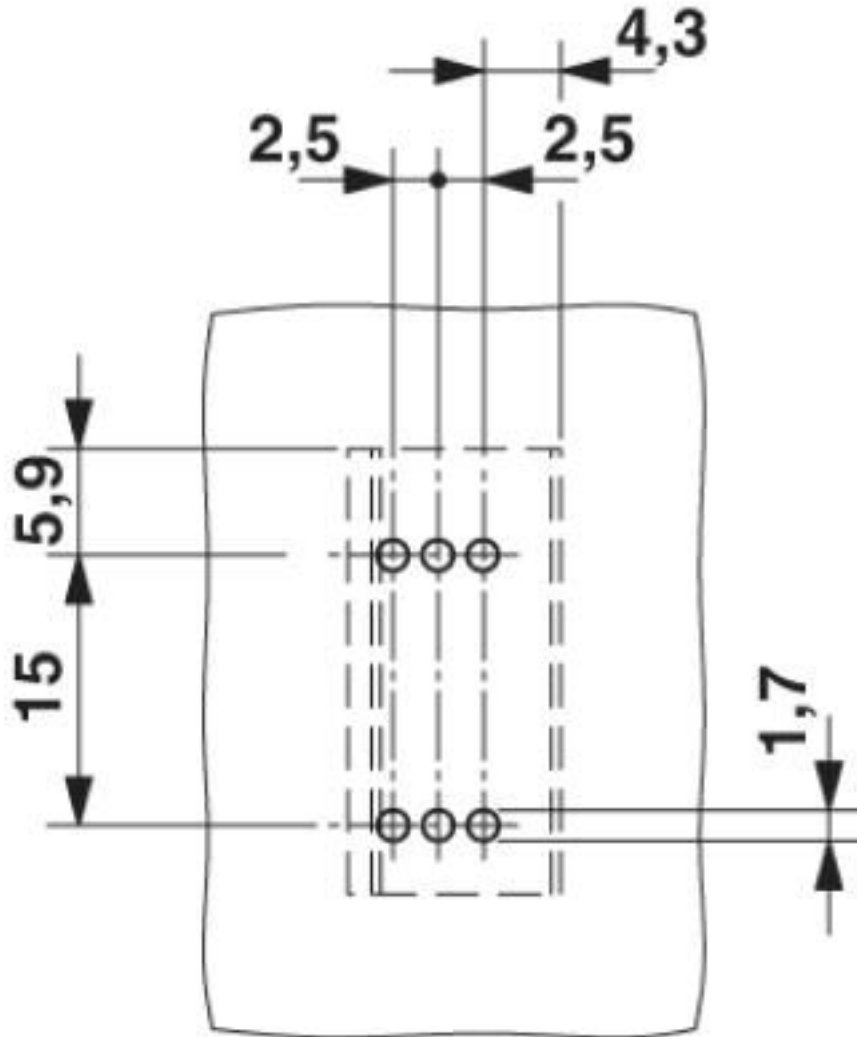
### Environmental Product Compliance

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

## Drawings

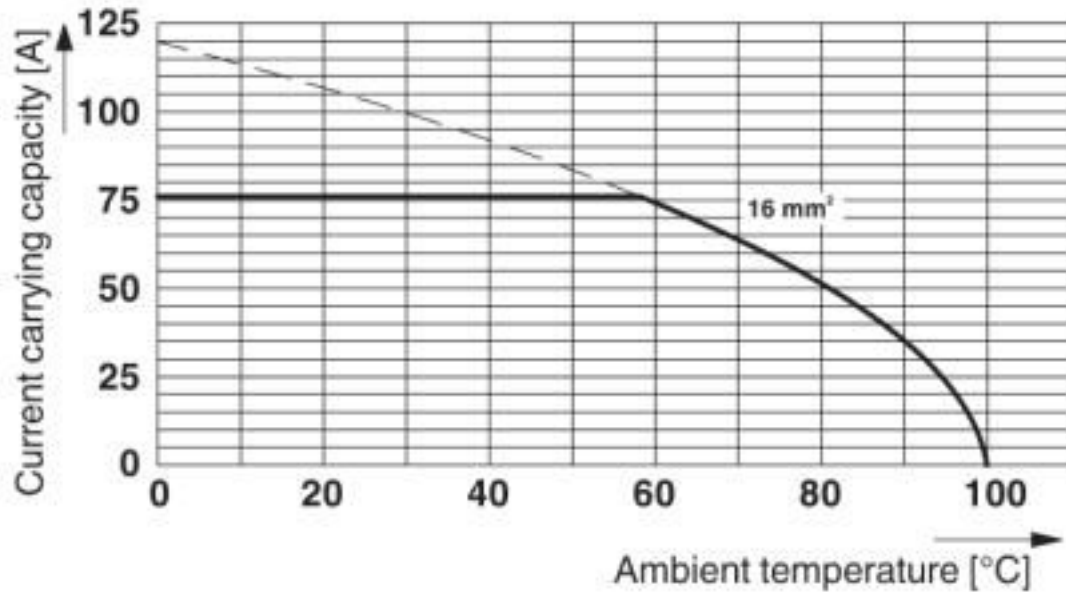
# PCB terminal block - SPT 16/ 1-V-10,0 - 1735862

Drilling diagram



# PCB terminal block - SPT 16/ 1-V-10,0 - 1735862

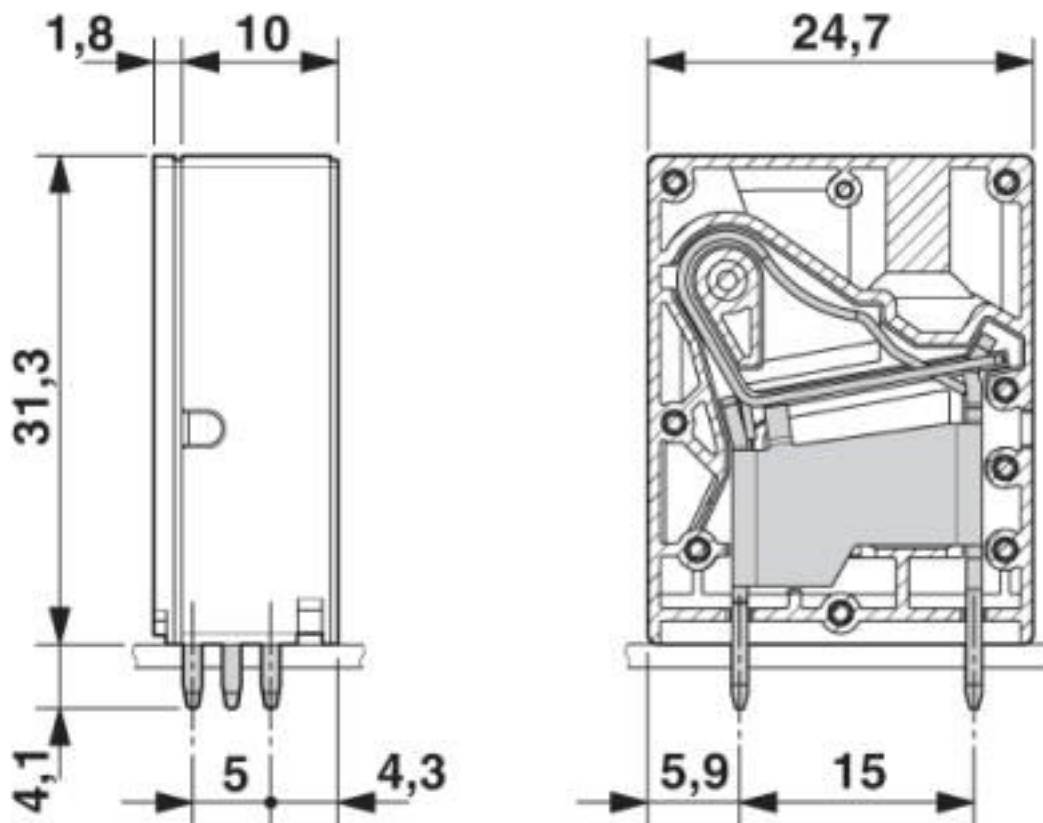
Diagram



Type: SPT 16/...-V-10,0-ZB  
Test based on DIN EN 60512-5-2:2003-01  
Reduction factor = 1  
Number of positions: 5

# PCB terminal block - SPT 16/ 1-V-10,0 - 1735862

Dimensional drawing



## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 4.0    | 27141100 |
| eCl@ss 4.1    | 27141100 |
| eCl@ss 5.0    | 27141100 |
| eCl@ss 5.1    | 27261100 |
| eCl@ss 6.0    | 27261100 |
| eCl@ss 7.0    | 27440401 |
| eCl@ss 8.0    | 27440401 |
| eCl@ss 9.0    | 27440401 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002643 |
| ETIM 5.0 | EC002643 |
| ETIM 6.0 | EC002643 |
| ETIM 7.0 | EC002643 |

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## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11     | 39121432 |
| UNSPSC 12.01  | 39121432 |
| UNSPSC 13.2   | 39121432 |
| UNSPSC 18.0   | 39121432 |
| UNSPSC 19.0   | 39121432 |
| UNSPSC 20.0   | 39121432 |
| UNSPSC 21.0   | 39121432 |

## Approvals

### Approvals


#### Approvals


EAC / SEV / cULus Recognized / IEC/IEE CB Scheme

#### Ex Approvals

### Approval details

|     |   |         |
|-----|---|---------|
| EAC |  | B.01687 |
|-----|---|---------|

|                            |   |   |         |
|----------------------------|---|---|---------|
| SEV                        |  | <a href="https://www.eurofins.ch/de/">https://www.eurofins.ch/de/</a> | IK-4498 |
| Nominal voltage UN         | 1000 V  |   |         |
| Nominal current IN         | 76 A  |   |         |
| mm <sup>2</sup> /AWG/kcmil | 0.75-16   |   |         |

|                            |   |   |                 |
|----------------------------|---|---|-----------------|
| cULus Recognized           |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | E60425-20061129 |
|                            | B   | C   | D               |
| Nominal voltage UN         | 300 V   | 150 V   | 300 V           |
| Nominal current IN         | 66 A  | 66 A  | 10 A            |
| mm <sup>2</sup> /AWG/kcmil | 20-4  | 20-4  | 20-4            |



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## Approvals

|                            |                     |   |          |
|----------------------------|---------------------|---|----------|
| IECEE CB Scheme            | <b>CB</b><br>scheme | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | CH-10802 |
| Nominal voltage UN         | 1000 V              |   |          |
| Nominal current IN         | 76 A                |   |          |
| mm <sup>2</sup> /AWG/kcmil | 0.75-16             |   |          |

## Accessories

### Accessories

#### Crimping tool

Crimping pliers - CRIMPFOX 6 - 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

Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm<sup>2</sup>

#### Screwdriver tools

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

#### Terminal marking

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### Accessories

Marker strip - SK 5,0 WH:REEL - 0805221



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5#mm, Number of individual labels: 90000

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