

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

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: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm<sup>2</sup>, number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: SPT 5/...-H, pitch: 7.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 4.6 mm, number of solder pins per potential: 2, 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
- Operation and conductor connection from one direction enable integration into front of device

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1719202             |
| Packing unit                         | 50 pc               |
| Minimum order quantity               | 50 pc               |
| Sales key                            | AA14                |
| Product key                          | AANBBA              |
| Catalog page                         | Page 463 (C-1-2013) |
| GTIN                                 | 4046356141307       |
| Weight per piece (including packing) | 12.09 g             |
| Weight per piece (excluding packing) | 12.26 g             |
| Customs tariff number                | 85369010            |
| Country of origin                    | BG                  |

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Technical data

### Product properties

|                           |                                |
|---------------------------|--------------------------------|
| Product type              | Printed circuit board terminal |
| Product family            | SPT 5/...-H                    |
| Product line              | COMBICON Terminals L           |
| Number of positions       | 3                              |
| Pitch                     | 7.5 mm                         |
| Number of connections     | 3                              |
| Number of rows            | 1                              |
| Number of potentials      | 3                              |
| Pin layout                | Zigzag pinning W               |
| Solder pins per potential | 2                              |

### Electrical properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 41 A   |
| Nominal voltage $U_N$       | 1000 V |
| Degree of pollution         | 3      |
| Rated voltage (III/3)       | 800 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 | 6 mm <sup>2</sup> |
|-----------------------|-------------------|

#### Conductor connection

|                                                                                           |                                              |
|-------------------------------------------------------------------------------------------|----------------------------------------------|
| Connection method                                                                         | Push-in spring connection                    |
| Conductor cross section rigid                                                             | 0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>   |
| Conductor cross section flexible                                                          | 0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>    |
| Conductor cross section AWG                                                               | 24 ... 8                                     |
| Conductor cross section flexible, with ferrule without plastic sleeve                     | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>   |
| Conductor cross section, flexible, with ferrule, with plastic sleeve                      | 0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>   |
| 2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve | 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Stripping length                                                                          | 15 mm                                        |

### Mounting

|               |                  |
|---------------|------------------|
| Mounting type | Wave soldering   |
| Pin layout    | Zigzag pinning W |

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Material specifications

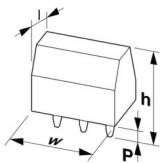
### Material data - contact

|                                          |                                                                                  |
|------------------------------------------|----------------------------------------------------------------------------------|
| 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 (4 - 8 µm Sn)                                                                |
| Metal surface soldering area (top layer) | Tin (4 - 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                 | 7.5 mm                                                                               |
| Width [w]             | 24.3 mm                                                                              |
| Height [h]            | 24.2 mm                                                                              |
| Length [l]            | 24.15 mm                                                                             |
| Installed height      | 19.6 mm                                                                              |
| Solder pin length [P] | 4.6 mm                                                                               |
| Pin dimensions        | 1.7 x 0.8 mm                                                                         |

### PCB design

|               |         |
|---------------|---------|
| Pin spacing   | 13.2 mm |
| Hole diameter | 2.1 mm  |

## Mechanical tests

### Connection test

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60998-2-2:2002-12 |
| Result        | Test passed           |

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Test for conductor damage and slackening

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60998-2-2:2002-12 |
| Result        | Test passed           |

## Pull-out test

|                                                                             |                                         |
|-----------------------------------------------------------------------------|-----------------------------------------|
| Specification                                                               | IEC 60998-2-2:2002-12                   |
| 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 |
|                                                                             | 10 mm <sup>2</sup> / solid / > 90 N     |
|                                                                             | 6 mm <sup>2</sup> / flexible / > 80 N   |

## Flexion test

|               |                       |
|---------------|-----------------------|
| Specification | IEC 60998-2-2:2002-12 |
| Result        | Test passed           |

## Insulation holder for crimp connections

|        |             |
|--------|-------------|
| Result | Test passed |
|--------|-------------|

## Electrical tests

### Temperature-rise test

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

### Insulation resistance

|                                              |                     |
|----------------------------------------------|---------------------|
| Specification                                | IEC 60998-1:2002-12 |
| Insulation resistance, neighboring positions | > 5 MΩ              |

### Air clearances and creepage distances |

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Specification                                          | IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05 |
| Insulating material group                              | I                                             |
| Comparative tracking index (IEC 60112)                 | CTI 600                                       |
| Rated insulation voltage (III/3)                       | 800 V                                         |
| Rated surge voltage (III/3)                            | 8 kV                                          |
| minimum clearance value - non-homogenous field (III/3) | 8 mm                                          |
| minimum creepage distance (III/3)                      | 10 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

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## 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                       |

## Glow-wire test

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

## 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

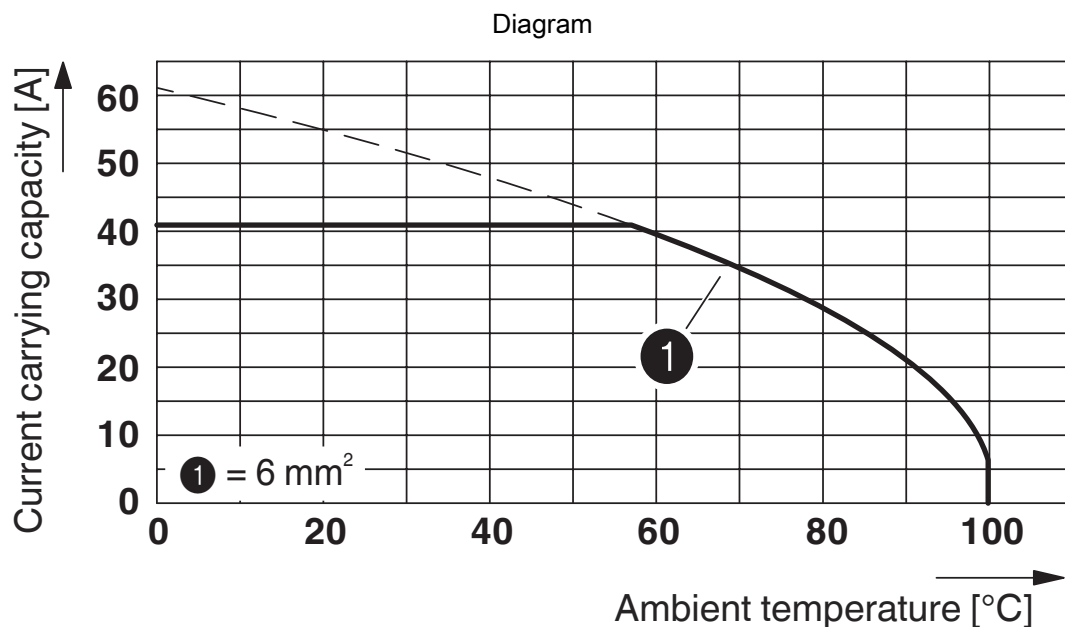
|                   |                     |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

# SPT 5/ 3-H-7,5-ZB - PCB terminal block

1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Drawings



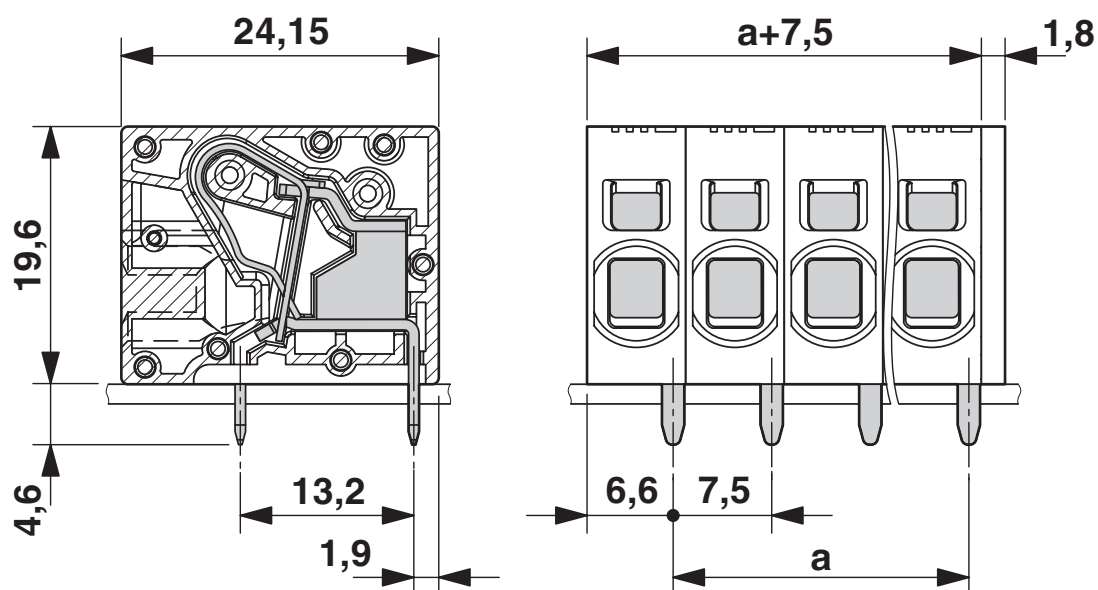
Type: SPT 5/...-H-7,5-ZB

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5

## Dimensional drawing



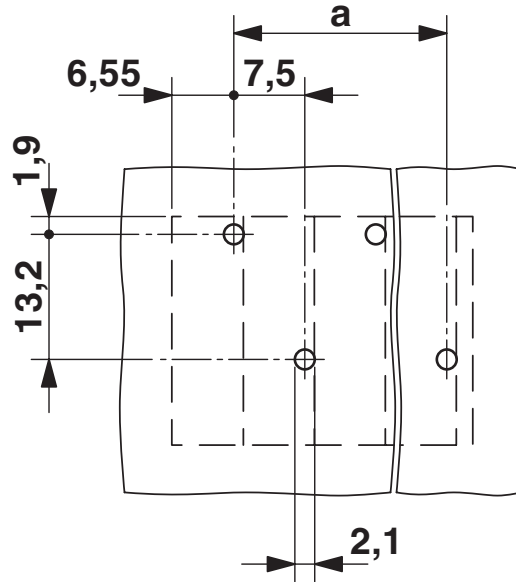
# SPT 5/ 3-H-7,5-ZB - PCB terminal block

1719202

<https://www.phoenixcontact.com/us/products/1719202>



Drilling plan/solder pad geometry



# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1719202>

|                                                                                                                                                       |                       |                       |                   |                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>cULus Recognized</b><br/>Approval ID: E60425-20061129</div> |                       |                       |                   |                             |
|                                                                                                                                                       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
| Use group B                                                                                                                                           |                       |                       |                   |                             |
|                                                                                                                                                       | 600 V                 | 36 A                  | 24 - 8            | -                           |
| Use group C                                                                                                                                           |                       |                       |                   |                             |
|                                                                                                                                                       | 600 V                 | 36 A                  | 24 - 8            | -                           |

|                                                                                                                                                      |                       |                       |                   |                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| <div> <b>VDE Zeichengenehmigung</b><br/>Approval ID: 40042909</div> |                       |                       |                   |                             |
|                                                                                                                                                      | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|                                                                                                                                                      | 1000 V                | 41 A                  | -                 | 0.2 - 10                    |



# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## 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 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## 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%               |

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



1719202

<https://www.phoenixcontact.com/us/products/1719202>

## Accessories

### SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/products/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

---

### RZ-SPT 5-4 H - Pitch spacer

1701534

<https://www.phoenixcontact.com/us/products/1701534>



Pitch spacer, color: green, product range: DECKEL + RZ + DP, width: 4 mm

## SPT 5/ 3-H-7,5-ZB - PCB terminal block

1719202

<https://www.phoenixcontact.com/us/products/1719202>



## 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

## SK 7,5/3,8:FORTL.ZAHLEN - Marker card

0804455

<https://www.phoenixcontact.com/us/products/0804455>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: adhesive, for terminal block width: 7.5 mm, lettering field size: 7.5 x 3.8 mm

# SPT 5/ 3-H-7,5-ZB - PCB terminal block



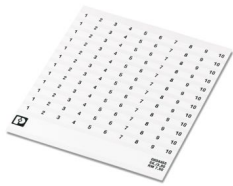
1719202

<https://www.phoenixcontact.com/us/products/1719202>

## SK 3,8 REEL P7,5 WH CUS - Marker card

0825127

<https://www.phoenixcontact.com/us/products/0825127>



Marker card, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, for terminal block width: 7.5 mm, lettering field size: continuous x 3.8 mm

---

Phoenix Contact 2024 © - 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)