

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

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: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: SPT 2,5/..-H, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: multicolored, Pin layout: Linear pinning, Solder pin [P]: 2.5 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
- Operation and conductor connection from one direction enable integration into front of device
- Two solder pins reduce the mechanical strain on the soldering spots

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1711043 |
| Packing unit | 1 pc |
| Minimum order quantity | 960 pc |
| Sales key | AA13 |
| Product key | AAMBFE |
| GTIN | 4055626200972 |
| Weight per piece (including packing) | 2.83 g |
| Weight per piece (excluding packing) | 2.647 g |
| Customs tariff number | 85369010 |
| Country of origin | DE |

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

Technical data

Product properties

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

Electrical properties

| | |
|-----------------------------|-------|
| Nominal current I_N | 24 A |
| Nominal voltage U_N | 400 V |
| Degree of pollution | 3 |
| Rated voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |

Connection data

Connection technology

| | |
|-----------------------|---------------------|
| Nominal cross section | 2.5 mm ² |
|-----------------------|---------------------|

Conductor connection

| | |
|---|--|
| Connection method | Push-in spring connection |
| Conductor cross section rigid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG | 24 ... 12 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 2.5 mm ² (Stripping length 8 mm) |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 1.5 mm ² (Stripping length 8 mm) |
| Cylindrical gauge a x b / diameter | 2.8 mm x 2.0 mm / - |
| Stripping length | 10 mm |

Mounting

| | |
|-------------------|---------------------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |
| Connection method | Push-in spring connection |

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block

1711043

<https://www.phoenixcontact.com/us/products/1711043>

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 | hot-dip tin-plated |
| Metal surface terminal point (top layer) | Tin (4 - 8 µm Sn) |
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn) |

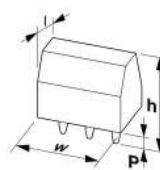
Material data - housing

| | |
|---|-----------------|
| Color (Housing) | multicolored () |
| 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

| | |
|---------------------|---|
| Note on application | Rated insulation voltages with pitch spacer RZ-SPT-2,5-2,5: 400 V (III/3), 630 V (III/2), 1000 V (II/2) RZ-SPT-2,5-5,0: 630 V (III/3), 800 V (III/2), 1000 V (II/2) |
|---------------------|---|

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 5 mm |
| Width [w] | 11.4 mm |
| Height [h] | 16 mm |
| Length [l] | 14.4 mm |
| Installed height | 13.5 mm |
| Solder pin length [P] | 2.5 mm |
| Pin dimensions | 0.8 x 0.8 mm |

PCB design

| | |
|---------------|--------|
| Pin spacing | 8.2 mm |
| Hole diameter | 1.1 mm |

Mechanical tests

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

Connection test

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

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 ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 4 mm ² / solid / > 60 N |
| | 2.5 mm ² / flexible / > 50 N |

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 | 10 ⁹ Ω |

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 250 V |
| Rated surge voltage (III/3) | 4 kV |
| minimum clearance value - non-homogenous field (III/3) | 3 mm |
| minimum creepage distance (III/3) | 3.2 mm |
| Rated insulation voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |
| minimum clearance value - non-homogenous field (III/2) | 3 mm |
| minimum creepage distance (III/2) | 3 mm |
| Rated insulation voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| minimum clearance value - non-homogenous field (II/2) | 3 mm |
| minimum creepage distance (II/2) | 3.2 mm |

Environmental and real-life conditions

Vibration test

| | |
|---------------|-----------------------|
| Specification | IEC 60068-2-6:1995-03 |
|---------------|-----------------------|

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

| | |
|------------------------|-----------------------------|
| 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 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 |

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block

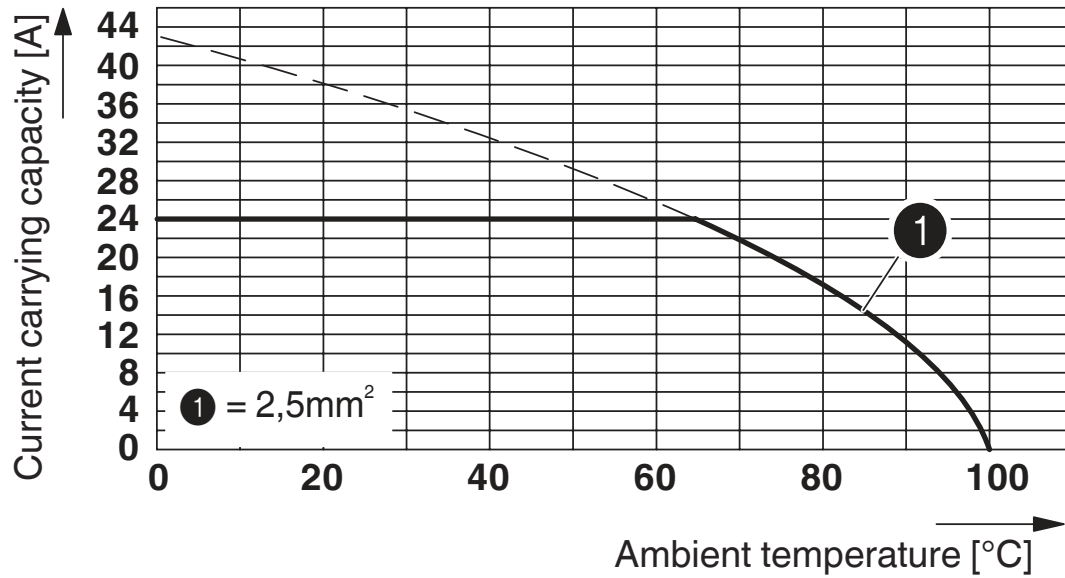


1711043

<https://www.phoenixcontact.com/us/products/1711043>

Drawings

Diagram



Type: SPT 2,5/5-H-5,0

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

Reduction factor = 1

No. of positions: 5

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block





1711043


<https://www.phoenixcontact.com/us/products/1711043>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1711043>

|  VDE Zeichengenehmigung Approval ID: 40042909 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| | 400 V | 32 A | - | 0.2 - 4 |

|  EAC Approval ID: B.01687 | |
|--|--|
|--|--|

|  cULus Recognized Approval ID: E60425-20061129 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | 300 V | 20 A | 24 - 12 | - |
| Use group C | 150 V | 20 A | 24 - 12 | - |
| Use group D | 150 V | 15 A | 24 - 12 | - |

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

SPT 2,5/ 2-H-5,0 RD/BK - PCB terminal block



1711043

<https://www.phoenixcontact.com/us/products/1711043>

Environmental product compliance

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

Phoenix Contact 2023 © - 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