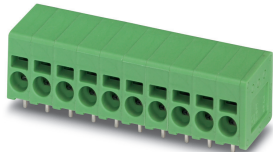


PCB terminal block - SPT 2,5/ 3-H-5,0 - 1990986

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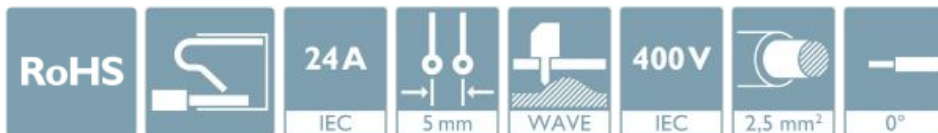


The figure shows a 10-position version of the product

PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², Number of potentials: 3, Number of rows: 1, Number of positions per row: 3, product range: SPT 2,5/..-H, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 2.5 mm, 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



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| Minimum order quantity | 100 pc |
| GTIN |  4 046356 104609 |
| GTIN | 4046356104609 |
| Weight per Piece (excluding packing) | 4.040 g |
| Custom tariff number | 85369010 |
| Country of origin | Poland |

Technical data

Item properties

| | |
|---------------------------|--------------------|
| Brief article description | PCB terminal block |
| Range of articles | SPT 2,5/..-H |

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Technical data

Item properties

| | |
|-----------------------|-----------------------|
| Pitch | 5 mm |
| Number of positions | 3 |
| Mounting type | Wave soldering |
| Pin layout | Linear double pinning |
| Number of levels | 1 |
| Number of connections | 3 |
| Number of potentials | 3 |

Electrical parameters

| | |
|-----------------------------|-------|
| Nominal current | 24 A |
| Nom. voltage | 400 V |
| Rated voltage (III/3) | 250 V |
| Rated voltage (III/2) | 400 V |
| Rated voltage (II/2) | 630 V |
| Rated surge voltage (III/3) | 4 kV |
| Rated surge voltage (III/2) | 4 kV |
| Rated surge voltage (II/2) | 4 kV |

Connection capacity

| | |
|---|--|
| Connection method | Push-in spring connection |
| Conductor cross section solid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section AWG / kcmil | 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) |
| Stripping length | 10 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 (4 - 8 µm Sn) |
| Metal surface soldering area (top layer) | Tin (4 - 8 µm Sn) |

Material data - housing

| | |
|----------------------------|--------------|
| Housing color | green (6021) |
| Insulating material | PA |
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |

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Technical data

Material data - housing

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

| | |
|-----------------------------|--|
| Caption | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [l] | 14.4 mm |
| Width [w] | 16.4 mm |
| Height [h] | 16 mm |
| Pitch | 5 mm |
| Height (without solder pin) | 13.5 mm |
| Solder pin [P] | 2.5 mm |
| Pin spacing | 5 mm |
| Pin dimensions | 0.8 x 0.8 mm |

Dimensions for PCB design

| | |
|---------------|--------|
| Hole diameter | 1.1 mm |
| Pin spacing | 5 mm |

Packaging information

| | |
|----------------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 100 |
| Denomination packing units | Pcs. |

General product information

| | |
|--------------|---|
| Type of note | Note on application |
| Note | 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) |

Ambient conditions

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

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 |

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Technical data

Termination and connection method

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

Pull-out test

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

Mechanical tests according to standard

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

Electrical tests

| | |
|-----------------------------|---------------------|
| Rated current | 24 A |
| Conductor cross section | 2.5 mm ² |
| Rated voltage (III/2) | 400 V |
| Rated surge voltage (III/2) | 4 kV |

Air clearances and creepage distances

| | |
|---|---------------------|
| Clearances and creepage distances | IEC 60664-1:2007-04 |
| Specification | IEC 60664-1:2007-04 |
| Minimum clearance - inhomogeneous field (III/3) | 3 mm |
| Minimum clearance - inhomogeneous field (III/2) | 3 mm |
| Minimum clearance - inhomogeneous field (II/2) | 3 mm |
| Minimum creepage distance value (III/3) | 3.2 mm |
| Minimum creepage distance value (III/2) | 3 mm |
| Minimum creepage distance value (II/2) | 3.2 mm |

Temperature-rise test

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

Current carrying capacity / derating curves

| | |
|---------|---|
| Caption | Type: SPT 2,5/5-H-5,0 Test following DIN EN 60512-5-2:2003-01 Reduction factor = 1 No. of positions: 5 |
|---------|---|

Vibration test

| | |
|---------------|-----------------------|
| Specification | IEC 60068-2-6:1995-03 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |

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Technical data

Vibration test

| | |
|------------------------|------------------------|
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |

Insulation resistance

| | |
|--|---------------------|
| Specification | IEC 60998-1:2002-12 |
| Result | Test passed |
| Insulation resistance, neighboring positions | $10^9 \Omega$ |

Glow-wire test

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

Mechanical strength/tumbling barrel test

| | |
|-----------------------|---------------------|
| Specification | IEC 60998-1:2002-12 |
| Number of drop cycles | 50 |

Standards and Regulations

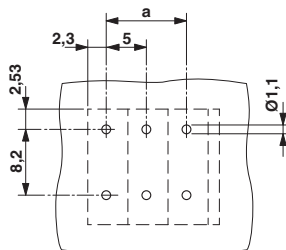
| | |
|--|--------|
| Connection in acc. with standard | EN-VDE |
| | CUL |
| Flammability rating according to UL 94 | V0 |

Environmental Product Compliance

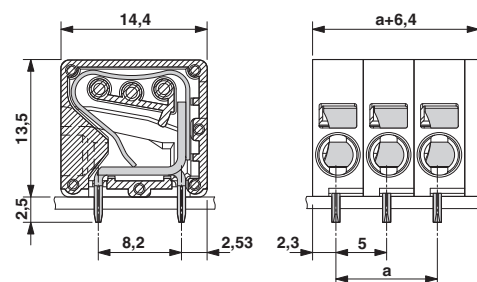
| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

Drawings

Drilling diagram

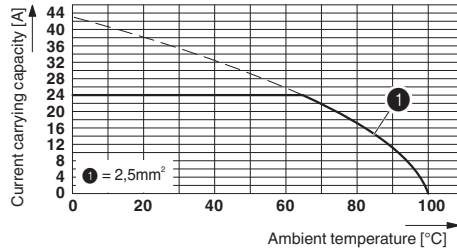


Dimensional drawing



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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

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27440401 |
| eCl@ss 11.0 | 27460101 |
| 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 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211801 |
| UNSPSC 7.0901 | 39121432 |
| UNSPSC 11 | 39121432 |
| UNSPSC 12.01 | 39121432 |
| UNSPSC 13.2 | 39121432 |
| UNSPSC 18.0 | 39121432 |

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 19.0 | 39121432 |
| UNSPSC 20.0 | 39121432 |
| UNSPSC 21.0 | 39121432 |

Approvals


Approvals


Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals

Approval details

| | | | |
|----------------------------|---|---|----------|
| IECEE CB Scheme |  | http://www.iecee.org/ | CH-10802 |
| Nominal voltage UN | 400 V | | |
| Nominal current IN | 24 A | | |
| mm ² /AWG/kcmil | 0.2-2.5 | | |

| | | | |
|----------------------------|---|---|---------|
| SEV |  | https://www.eurofins.ch/de/ | IK-4498 |
| Nominal voltage UN | 400 V | | |
| Nominal current IN | 24 A | | |
| mm ² /AWG/kcmil | 0.2-2.5 | | |

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

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Approvals

| | | | |
|----------------------------|-------|---|-----------------|
| cULus Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | E60425-20061129 |
| | B | C | D |
| Nominal voltage UN | 300 V | 150 V | 150 V |
| Nominal current IN | 20 A | 20 A | 15 A |
| mm ² /AWG/kcmil | 24-12 | 24-12 | 24-12 |

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 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Labeled terminal marker

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

Pitch spacer

Pitch spacer - RZ-SPT 2,5-2,5 - 1772595



Pitch spacer, number of positions: 1, pitch: 5 mm, color: green

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Accessories

Pitch spacer - RZ-SPT 2,5-5,0 - 1772605



Pitch spacer, number of positions: 1, pitch: 5 mm, color: green

Screwdriver tools

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