

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

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: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: PTSM 0,5/...-V-SMD, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: SMD soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Linear pinning, number of solder pins per potential: 1, type of packaging: 44 mm wide tape

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- High current carrying capacity of 6 A in very compact dimensions
- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB
- Additional solder anchors reduce the mechanical strain on the soldering spots

Commercial Data

| | |
|--------------------------------------|--------------------|
| Item number | 1771127 |
| Packing unit | 400 pc |
| Minimum order quantity | 400 pc |
| Sales Key | AAK |
| Product Key | AAKDAC |
| Catalog Page | Page 53 (C-1-2013) |
| GTIN | 4046356460156 |
| Weight per Piece (including packing) | 2.64 g |
| Weight per Piece (excluding packing) | 2.6 g |
| Customs tariff number | 85369010 |
| Country of origin | IN |

1771127

<https://www.phoenixcontact.com/in/products/1771127>

Technical Data

Product properties

| | |
|---------------------------|--------------------------------|
| Product line | COMBICON Terminals XS |
| Product type | Printed circuit board terminal |
| Product family | PTSM 0,5/...-V-SMD |
| Number of positions | 5 |
| Pitch | 2.5 mm |
| Number of connections | 5 |
| Number of rows | 1 |
| Number of potentials | 5 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 6 A |
| Nominal voltage U_N | 160 V |
| Degree of pollution | 3 |
| Rated voltage (III/3) | 32 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2) | 160 V |
| Rated surge voltage (II/2) | 2.5 kV |

Connection data

Connection technology

| | |
|-----------------------|---------------------|
| Nominal cross section | 0.5 mm ² |
|-----------------------|---------------------|

Conductor connection

| | |
|---|---|
| Connection method | Push-in spring connection |
| Conductor cross section rigid | 0.14 mm ² ... 0.5 mm ² |
| Conductor cross section flexible | 0.2 mm ² ... 0.5 mm ² (up to 0.75 mm ² supported, with a stripping length of 7.5 mm and a rated insulation voltage of 32 V at III/2) |
| Conductor cross section AWG | 26 ... 20 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² ... 0.5 mm ² |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | 0.25 mm ² ... 0.34 mm ² |
| Cylindrical gauge a x b / diameter | - / 1.2 mm |
| Stripping length | 6 mm |

Mounting

| | |
|---------------|----------------|
| Mounting type | SMD soldering |
| Pin layout | Linear pinning |

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

| | |
|-------------------|---------------------------|
| Connection method | Push-in spring connection |
|-------------------|---------------------------|

Processing notes

| | |
|----------------------------------|------------------|
| Process | Reflow soldering |
| Moisture Sensitive Level | MSL 1 |
| Classification temperature T_c | 260 °C |
| Solder cycles in the reflow | 3 |

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) | black (9005) |
| Insulating material | LCP |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 175 |
| Flammability rating according to UL 94 | V0 |

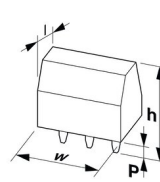
Material data – actuating element

| | |
|---------------------------|--------------|
| Color (Actuating element) | black (9005) |
|---------------------------|--------------|

Notes

| | |
|---------------------|---|
| Note on application | Pick and place pads may protrude beyond the components. The PCB layout must ensure that collisions are avoided when components are assembled. |
|---------------------|---|

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Pitch | 2.5 mm |
| Width [w] | 17.6 mm |
| Height [h] | 9 mm |
| Length [l] | 7 mm |
| Installed height | 9 mm |

PCB design

| | |
|--------------|--------------|
| Pad geometry | 1.4 x 3.4 mm |
|--------------|--------------|

1771127

<https://www.phoenixcontact.com/in/products/1771127>

Mechanical tests

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 | 0.14 mm ² / solid / > 10 N |
| | 0.2 mm ² / flexible / > 10 N |
| | 0.5 mm ² / solid / > 20 N |
| | 0.75 mm ² / flexible / > 30 N |

Flexion test

| | |
|---------------|-----------------------|
| Specification | IEC 60998-2-2:2002-12 |
| 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 60664-1:2007-04 |
| Insulating material group | IIIa |
| Comparative tracking index (IEC 60112) | CTI ≥175 to <400 |
| Rated insulation voltage (III/3) | 32 V |
| Rated surge voltage (III/3) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/3) | 1.5 mm |
| minimum creepage distance (III/3) | 1.3 mm |
| Rated insulation voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (III/2) | 1.5 mm |
| minimum creepage distance (III/2) | 1.6 mm |
| Rated insulation voltage (II/2) | 160 V |
| Rated surge voltage (II/2) | 2.5 kV |
| minimum clearance value - non-homogenous field (II/2) | 1.5 mm |

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

| | |
|----------------------------------|--------|
| minimum creepage distance (II/2) | 1.6 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 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

| | |
|-----------------------------|--|
| Dimensional drawing | |
| Type of packaging | 44 mm wide tape |
| [W] tape width | 44 mm |
| [W2] coil overall dimension | 50.4 mm |
| [A] coil diameter | 330 mm |
| Outer packaging type | Transparent-Bag |
| ESD level | (D) electrostatically conductive |
| Specification | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block

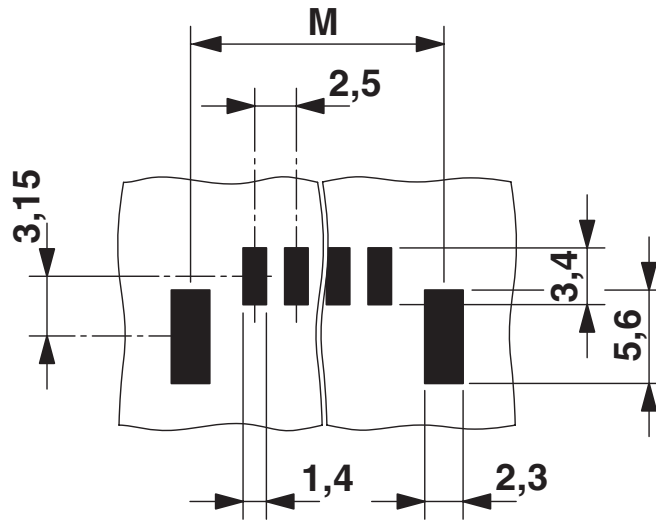


1771127

<https://www.phoenixcontact.com/in/products/1771127>

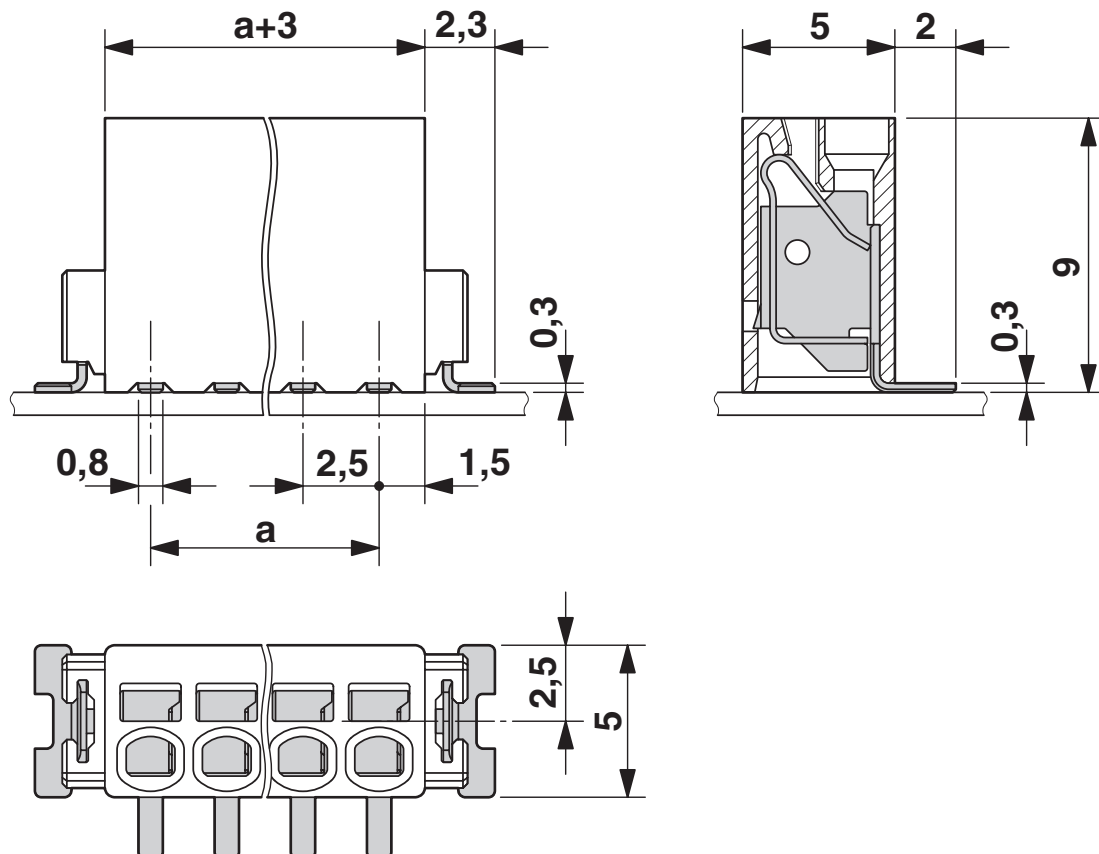
Drawings

Drilling plan/solder pad geometry



Dimension M: 15.9 mm

Dimensional drawing



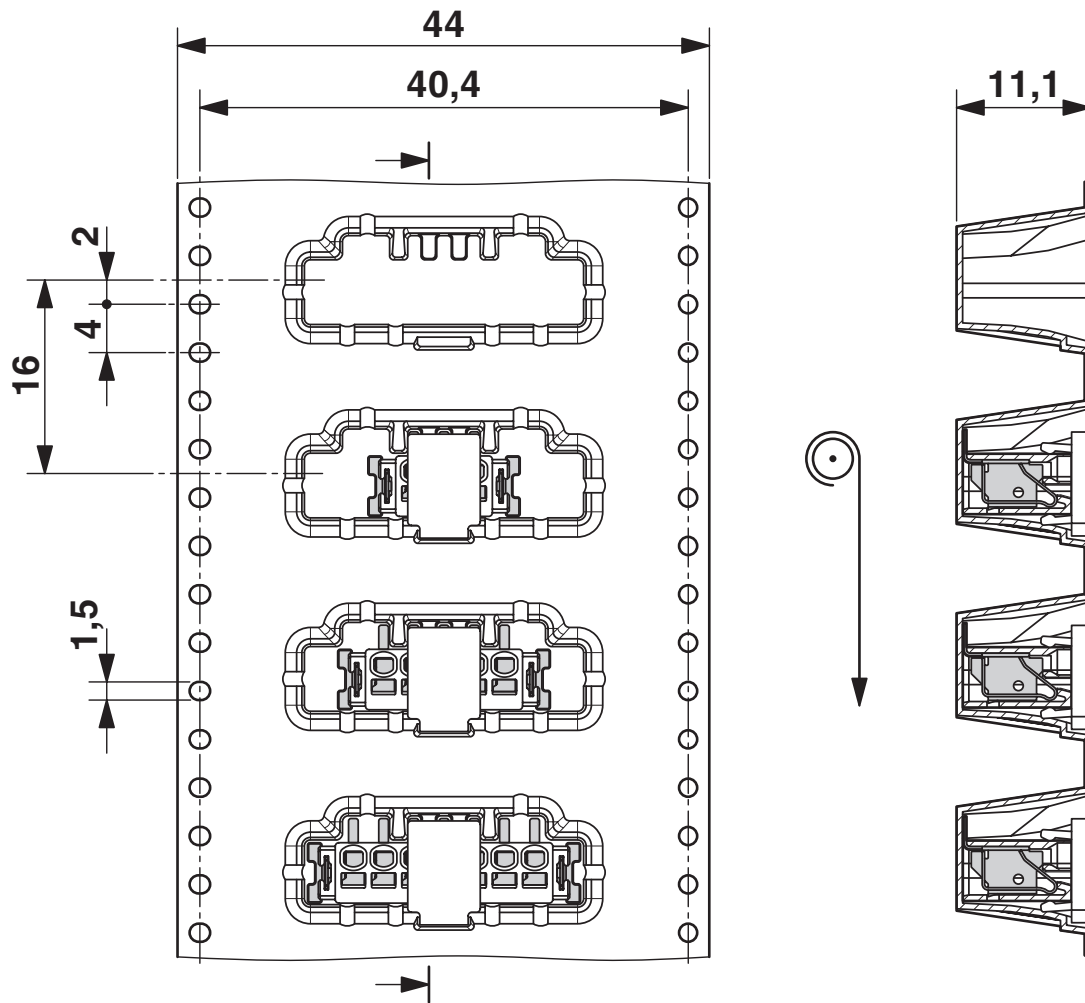
PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block

1771127

<https://www.phoenixcontact.com/in/products/1771127>

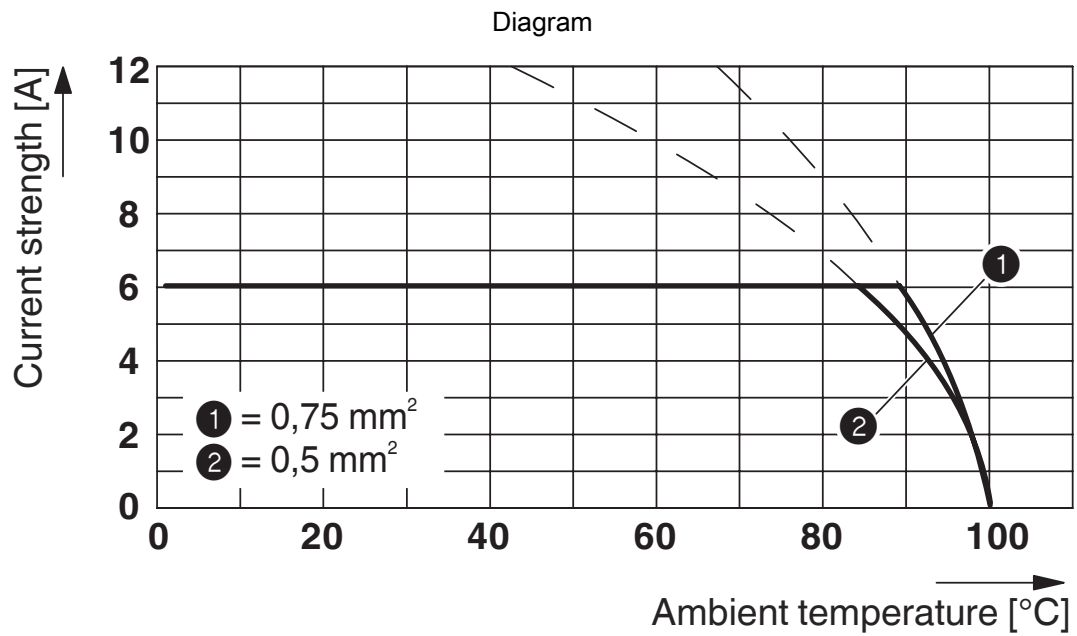


Dimensional drawing



1771127

<https://www.phoenixcontact.com/in/products/1771127>



Type: PTSM 0,5/...-2,5-V SMD R44

Tested according to DIN EN 60512-5-2:2003-01

Reduction factor = 1

Number of positions: 5


PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block





1771127

<https://www.phoenixcontact.com/in/products/1771127>

Approvals

|  UL Recognized Approval ID: E118976-20130619 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | | | | |
| | 150 V | 5 A | 26 - 18 | - |

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

|  cULus Recognized Approval ID: E60425-20030527 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal Voltage U_N | Nominal Current I_N | Cross Section AWG | Cross Section mm^2 |
| Use group B | | | | |
| | 150 V | 5 A | 26 - 20 | - |

|  VDE Zeichengenehmigung Approval ID: 40048725 | | | | |
|--|--|--|--|--|
|--|--|--|--|--|

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

Environmental Product Compliance

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

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

Accessories

SZS 0,4X2,0 - Screwdriver

1205202

<https://www.phoenixcontact.com/in/products/1205202>



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

AI 0,25- 6 BU - Ferrule

3203040

<https://www.phoenixcontact.com/in/products/3203040>



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: blue

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block

1771127

<https://www.phoenixcontact.com/in/products/1771127>

AI 0,25- 6 YE - Ferrule

3203024

<https://www.phoenixcontact.com/in/products/3203024>



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow

AI 0,34- 6 TQ - Ferrule

3203053

<https://www.phoenixcontact.com/in/products/3203053>



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: turquoise

PTSM 0,5/ 5-2,5-V SMD R44 - PCB terminal block



1771127

<https://www.phoenixcontact.com/in/products/1771127>

SAMPLE PTSM 0,5/ 5-2,5-V-SMD - PCB terminal block

1701087

<https://www.phoenixcontact.com/in/products/1701087>



PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: PTSM 0,5/..-V-SMD, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: SMD soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 2 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. SAMPLE set with 5 items in belt section. When used as part of soldering process, please use items without SAMPLE marking

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

info@phoenixcontact.co.in