

## PCB terminal block - PTSM 0,5/ 3-2,5-V THR R44 - 1770966

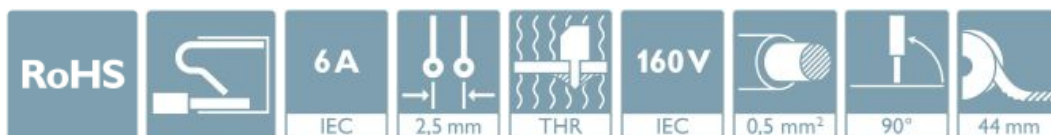
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PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, Number of potentials: 3, Number of rows: 1, Number of positions per row: 3, product range: PTSM 0,5/..-V-THR, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Linear double pinning, Solder pin [P]: 2.1 mm, 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



### Key Commercial Data

|                                      |               |
|--------------------------------------|---------------|
| Packing unit                         | 310 pc        |
| Minimum order quantity               | 310 pc        |
| GTIN                                 |               |
| GTIN                                 | 4046356459549 |
| Weight per Piece (excluding packing) | 2.402 g       |
| Custom tariff number                 | 85369010      |
| Country of origin                    | India         |
| Sales Key                            | AACBBA        |

### Technical data

#### Item properties

|                           |                       |
|---------------------------|-----------------------|
| Brief article description | PCB terminal block    |
| Range of articles         | PTSM 0,5/..-V-THR     |
| Pitch                     | 2.5 mm                |
| Number of positions       | 3                     |
| Mounting type             | THR soldering         |
| Pin layout                | Linear double pinning |

# PCB terminal block - PTSM 0,5/ 3-2,5-V THR R44 - 1770966

## Technical data

### Item properties

|                       |   |
|-----------------------|---|
| Number of levels      | 1 |
| Number of connections | 3 |
| Number of potentials  | 3 |

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nominal current             | 6 A    |
| Nom. voltage                | 160 V  |
| Rated voltage (III/3)       | 63 V   |
| Rated voltage (III/2)       | 160 V  |
| Rated voltage (II/2)        | 200 V  |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated surge voltage (II/2)  | 2.5 kV |

### Connection capacity

|   |  |
|---|--|
| Connection method   | Push-in spring connection  |
| pluggable   | no   |
| Conductor cross section solid   | 0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>   |
| Conductor cross section flexible                                      | 0.2 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (up to 0.75 mm <sup>2</sup> supported, at a rated insulation voltage of 32 V at III/2) |
| Conductor cross section AWG / kcmil                                   | 26 ... 20  |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>   |
| Conductor cross section, flexible, with ferrule, with plastic sleeve  | 0.25 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>  |
| Cylindrical gauge a x b / diameter                                    | - / 1.2 mm   |
| Stripping length  | 6 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                          | black (9005) |
| Insulating material                    | LCP          |
| Insulating material group              | IIIa         |
| CTI according to IEC 60112             | 175          |
| Flammability rating according to UL 94 | V0           |

### Dimensions for the product

|         |  |
|---------|--|
| Caption | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
|---------|--|

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## Technical data

### Dimensions for the product

|                             |              |
|-----------------------------|--------------|
| Length [ l ]                | 5 mm         |
| Width [ w ]                 | 8 mm         |
| Height [ h ]                | 12.1 mm      |
| Pitch                       | 2.5 mm       |
| Height (without solder pin) | 10 mm        |
| Solder pin [P]              | 2.1 mm       |
| Pin spacing                 | 2.5 mm       |
| Pin dimensions              | 0.3 x 0.8 mm |

### Dimensions for PCB design

|               |        |
|---------------|--------|
| Hole diameter | 1.2 mm |
| Pin spacing   | 2.5 mm |

### Packaging information

|                             |                 |
|-----------------------------|-----------------|
| Type of packaging           | 44 mm wide tape |
| Pieces per package          | 310             |
| Denomination packing units  | Pcs.            |
| [W] tape width              | 44 mm           |
| [A] coil diameter           | 330 mm          |
| [W2] coil overall dimension | 50.4 mm         |
| Outer packaging type        | Transparent-Bag |

### General product information

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

### Processing notes

|   |  |
|---|--|
| Process                                   | Reflow/wave soldering                    |
| Specification                             | Following IPC/JEDEC J-STD-020D.1:2008-03 |
|   | Following IEC 61760-1:2006-04            |
|   | Following IEC 60068-2-58:2005-02         |
| Moisture Sensitive Level                  | MSL 1                                    |
| Classification temperature T <sub>c</sub> | 260 °C                                   |
| Solder cycles in the reflow               | 3  |

### 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 |
|-----------------|-----------------------|

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## Technical data

### Termination and connection method

|  |                       |
|--|-----------------------|
| 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                    |
| Conductor cross section / conductor type / tensile force | 0.14 mm <sup>2</sup> / solid / > 10 N    |
|  | 0.2 mm <sup>2</sup> / flexible / > 10 N  |
|  | 0.5 mm <sup>2</sup> / solid / > 20 N     |
|  | 0.75 mm <sup>2</sup> / flexible / > 30 N |

### Mechanical tests according to standard

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

### Electrical tests

|                             |                     |
|-----------------------------|---------------------|
| Rated current               | 6 A                 |
| Conductor cross section     | 0.5 mm <sup>2</sup> |
| Rated voltage (III/2)       | 160 V               |
| Rated surge voltage (III/2) | 2.5 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) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (III/2) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (II/2)  | 1.5 mm              |
| Minimum creepage distance value (III/3)         | 2 mm                |
| Minimum creepage distance value (III/2)         | 2 mm                |
| Minimum creepage distance value (II/2)          | 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: PTSM 0,5/...-2,5-V THR R44<br>Tested according to DIN EN 60512-5-2:2003-01<br>Reduction factor = 1<br>Number of positions: 5 |
|---------|--|

### Vibration test

|               |                        |
|---------------|------------------------|
| Specification | IEC 60068-2-6:2007-12  |
| 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)    |

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## Technical data

### Vibration test

|                        |       |
|------------------------|-------|
| Test duration per axis | 2.5 h |
|------------------------|-------|

### Insulation resistance

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

### 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

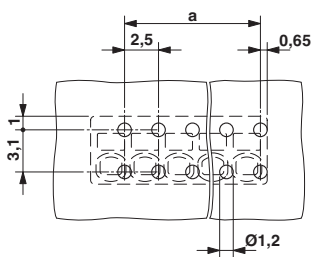
|  |        |
|--|--------|
| Connection in acc. with standard       | EN-VDE |
|  | UL     |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

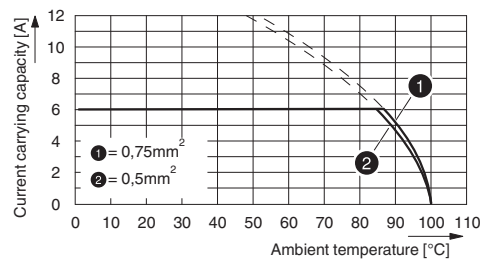
|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

Drilling diagram



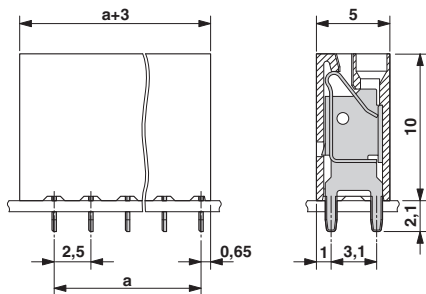
Diagram



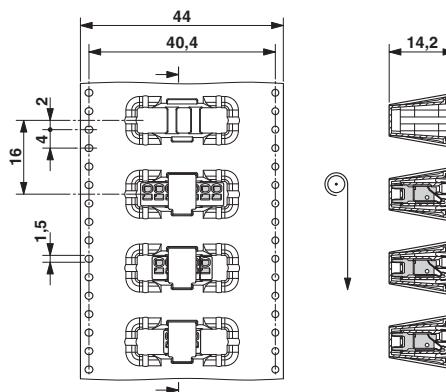
Type: PTSM 0,5/...-2,5-V THR R44  
 Tested according to DIN EN 60512-5-2:2003-01  
 Reduction factor = 1  
 Number of positions: 5

# PCB terminal block - PTSM 0,5/ 3-2,5-V THR R44 - 1770966

Dimensional drawing



Dimensional drawing



## 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 | EC002637 |
| 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

VDE Zeichengenehmigung / UL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                        |  |   |          |
|------------------------|--|---|----------|
| VDE Zeichengenehmigung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40048725 |
|------------------------|--|---|----------|

|                            |  |   |                  |
|----------------------------|--|---|------------------|
| UL 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> | E118976-20130619 |
|                            |  |   | B                |
| Nominal voltage UN         |  |   | 150 V            |
| Nominal current IN         |  |   | 5 A              |
| mm <sup>2</sup> /AWG/kcmil |  |   | 26-18            |

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

|                            |  |   |                 |
|----------------------------|--|---|-----------------|
| 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> | E60425-20030527 |
|                            |  |   | B               |
| Nominal voltage UN         |  |   | 150 V           |
| Nominal current IN         |  |   | 5 A             |
| mm <sup>2</sup> /AWG/kcmil |  |   | 26-20           |

## PCB terminal block - PTSM 0,5/ 3-2,5-V THR R44 - 1770966

### Accessories

#### Accessories

##### Cable end sleeve

Ferrule - AI 0,25- 6 BU - 3203040



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

Ferrule - AI 0,25- 6 YE - 3203024



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

Ferrule - AI 0,34- 6 TQ - 3203053



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

### Screwdriver tools

Screwdriver - SZS 0,4X2,0 - 1205202



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

### Additional products

Sample set - SAMPLE PTSM 0,5/ 3-2,5-V-THR - 1701101



PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, Number of potentials: 3, Number of rows: 1, Number of positions per row: 3, product range: PTSM 0,5/...-V-THR, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 90 °, color: black, Pin layout: Linear double pinning, Solder pin [P]: 2.1 mm, 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



## PCB terminal block - PTSM 0,5/ 3-2,5-V THR R44 - 1770966

### Accessories

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