

# PTSM 0,5/ 8-2,5-H THR WH R32 - PCB terminal block



1814553

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Printed circuit board terminal, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of potentials: 8, number of rows: 1, number of positions per row: 8, product range: PTSM 0,5/..-H-THR WH, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering / wave soldering, conductor/PCB connection direction: 0 °, color: signal white, Pin layout: Linear pinning, Solder pin [P]: 2.1 mm, number of solder pins per potential: 2, type of packaging: 32 mm wide tape

## Your advantages

- White design: Stable color when welding and during use
- 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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1814553       |
| Packing unit                         | 530 pc        |
| Minimum order quantity               | 530 pc        |
| Sales key                            | AA11          |
| Product key                          | AAKCAB        |
| GTIN                                 | 4046356760300 |
| Weight per piece (including packing) | 2.4 g         |
| Weight per piece (excluding packing) | 2.4 g         |
| Customs tariff number                | 85369010      |
| Country of origin                    | IN            |

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## Technical data

### Product properties

|                           |  |
|---------------------------|--|
| Product type              | Printed circuit board terminal             |
| Product family            | PTSM 0,5/..-H-THR WH                       |
| Product line              | COMBICON Terminals XS                      |
| Type                      | Component suitable for through hole reflow |
| Number of positions       | 8  |
| Pitch                     | 2.5 mm                                     |
| Number of connections     | 8  |
| Number of rows            | 1  |
| Number of potentials      | 8  |
| Pin layout                | Linear pinning                             |
| Solder pins per potential | 2  |

### Electrical properties

#### Properties

|                             |        |
|-----------------------------|--------|
| Nominal current $I_N$       | 6 A    |
| Nominal voltage $U_N$       | 160 V  |
| Rated voltage (III/3)       | 80 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)        | 320 V  |
| Rated surge voltage (II/2)  | 2.5 kV |

### Connection data

#### Connection technology

|                       |  |
|-----------------------|--|
| Type                  | Component suitable for through hole reflow |
| Nominal cross section | 0.5 mm <sup>2</sup>                        |

#### Conductor connection

|   |  |
|---|--|
| Connection method   | Push-in spring connection  |
| Conductor cross-section rigid   | 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, 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 <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> (possible from 0.14 mm <sup>2</sup> , when using ferrule AI 0.14- 6 GY in combination with crimping pliers CRIMPFOX 10T-F) |
| Cylindrical gauge a x b / diameter                                    | - / 1.2 mm   |
| Stripping length  | 6 mm   |

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## Mounting

|               |                                |
|---------------|--------------------------------|
| Mounting type | THR soldering / wave soldering |
| Pin layout    | Linear pinning                 |

### Processing notes

|                                  |                       |
|----------------------------------|-----------------------|
| Process                          | Reflow/wave 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)                        | signal white (9003) |
| Insulating material                    | PA                  |
| Insulating material group              | I                   |
| CTI according to IEC 60112             | 600                 |
| Flammability rating according to UL 94 | V0                  |

## Dimensions

| Dimensional drawing   |              |
|-----------------------|--------------|
|                       |              |
| Pitch                 | 2.5 mm       |
| Width [w]             | 20.5 mm      |
| Height [h]            | 7.1 mm       |
| Length [l]            | 10 mm        |
| Installed height      | 5 mm         |
| Solder pin length [P] | 2.1 mm       |
| Pin dimensions        | 0.3 x 0.8 mm |

### PCB design

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

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## Electrical tests

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)                       | 80 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)                      | 2 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)                      | 1.5 mm              |
| Rated insulation voltage (II/2)                        | 320 V               |
| Rated surge voltage (II/2)                             | 2.5 kV              |
| minimum clearance value - non-homogenous field (II/2)  | 1.5 mm              |
| minimum creepage distance (II/2)                       | 1.6 mm              |

## Environmental and real-life conditions

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           | 32 mm wide tape |
| [W] tape width              | 32 mm           |
| [W2] coil overall dimension | ≤ 38.4 mm       |
| [A] coil diameter           | ≤ 330 mm        |
| Outer packaging type        | Transparent-Bag |

# PTSM 0,5/ 8-2,5-H THR WH R32 - PCB terminal block

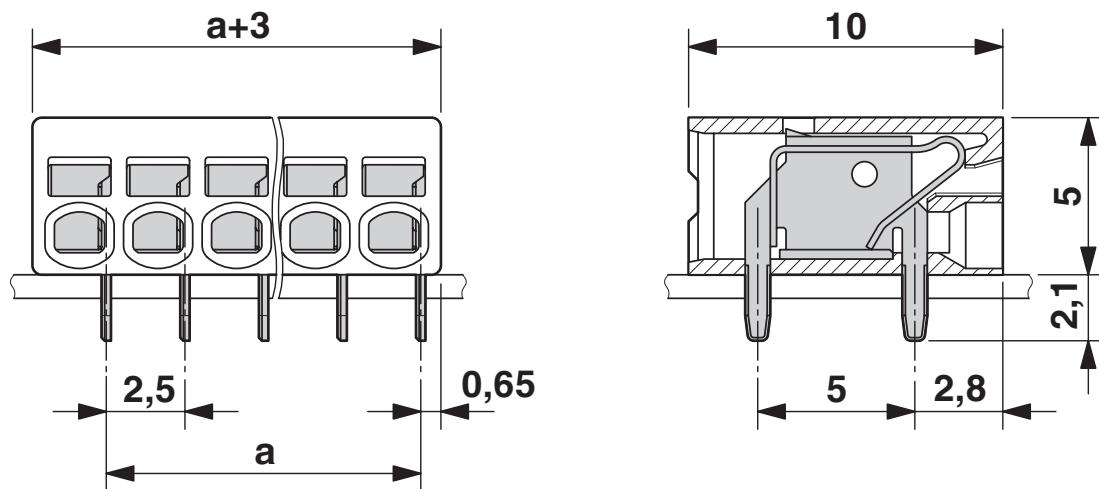


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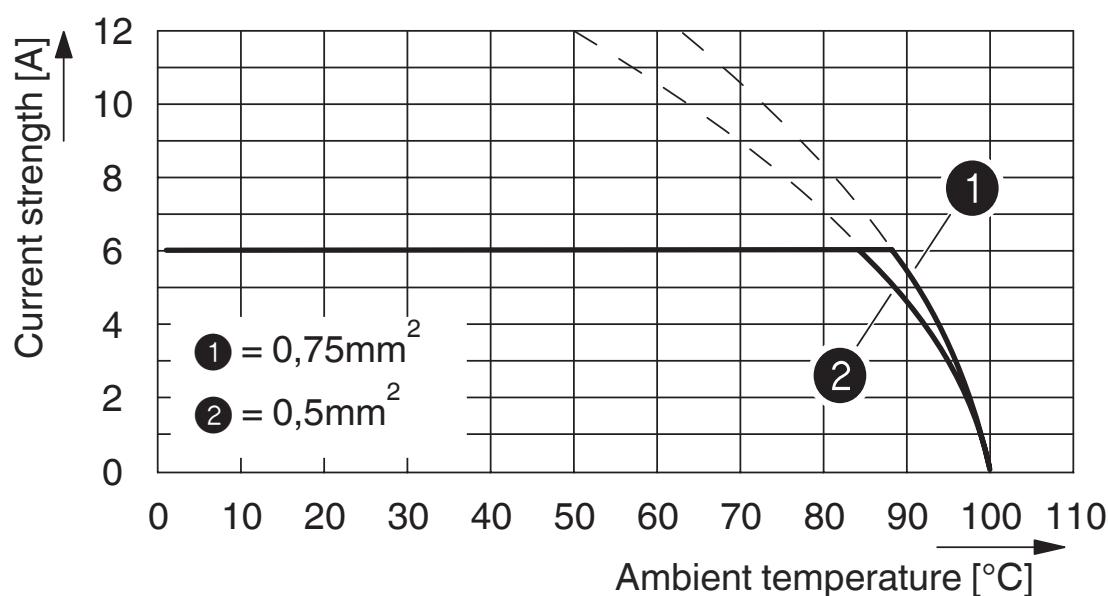
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## Drawings

Dimensional drawing



Diagram



Type: PTSM 0,5/...-2,5-H- THR R...

Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5

# PTSM 0,5/ 8-2,5-H THR WH R32 - PCB terminal block



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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1814553>

| UL Recognized |                       |                       |                   |                      |
|---------------|-----------------------|-----------------------|-------------------|----------------------|
|               | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| B             | 150 V                 | 5 A                   | 26 - 18           | -                    |

| cULus Recognized |                       |                       |                   |                      |
|------------------|-----------------------|-----------------------|-------------------|----------------------|
|                  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| B                | 150 V                 | 5 A                   | 26 - 20           | -                    |

| VDE Zeichengenehmigung |                       |                       |                   |                      |
|------------------------|-----------------------|-----------------------|-------------------|----------------------|
|                        | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
| keine                  | 160 V                 | 6 A                   | -                 | 0.14 - 0.5           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 27460101 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC002643 |
|----------|----------|

### UNSPSC

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

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## 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% |
|-------------------------------------|----------------------------|

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