

# PTSM 0,5/ 7-2,5-V THR WH R44 - PCB terminal block



1814618

<https://www.phoenixcontact.com/us/products/1814618>

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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: 7, number of rows: 1, number of positions per row: 7, product range: PTSM 0,5/..-V-THR WH, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering / wave soldering, conductor/PCB connection direction: 90 °, color: signal white, Pin layout: Linear pinning, Solder pin [P]: 2.1 mm, number of solder pins per potential: 2, type of packaging: 44 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
- Vertical connection enables multi-row arrangement on the PCB

## Commercial data

Item number	1814618
Packing unit	310 pc
Minimum order quantity	310 pc
Sales key	AA11
Product key	AAKCAD
Catalog page	Page 391 (C-1-2013)
GTIN	4046356760362
Weight per piece (including packing)	3.3 g
Weight per piece (excluding packing)	3.2 g
Customs tariff number	85369010
Country of origin	IN

## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	PTSM 0,5/...-V-THR WH
Product line	COMBICON Terminals XS
Type	Component suitable for through hole reflow
Number of positions	7
Pitch	2.5 mm
Number of connections	7
Number of rows	1
Number of potentials	7
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

Nominal current $I_N$	6 A
Nominal voltage $U_N$	160 V
Rated voltage (III/3)	160 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)	400 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)
Stripping length	6 mm

### Mounting

Mounting type	THR soldering / wave soldering
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Pin layout	Linear pinning
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## Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T <sub>c</sub>	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

## 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.
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## Dimensions

Dimensional drawing	
Pitch	2.5 mm
Width [w]	18 mm
Height [h]	12.1 mm
Length [l]	5 mm
Installed height	10 mm
Solder pin length [P]	2.1 mm
Pin dimensions	0.3 x 0.8 mm

### PCB design

Pin spacing	2.5 mm
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Hole diameter	1.2 mm
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## Electrical tests

Air clearances and creepage distances |

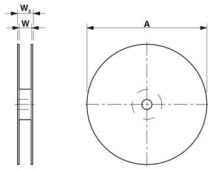
Insulating material group	I
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	2.5 kV

## Environmental and real-life conditions

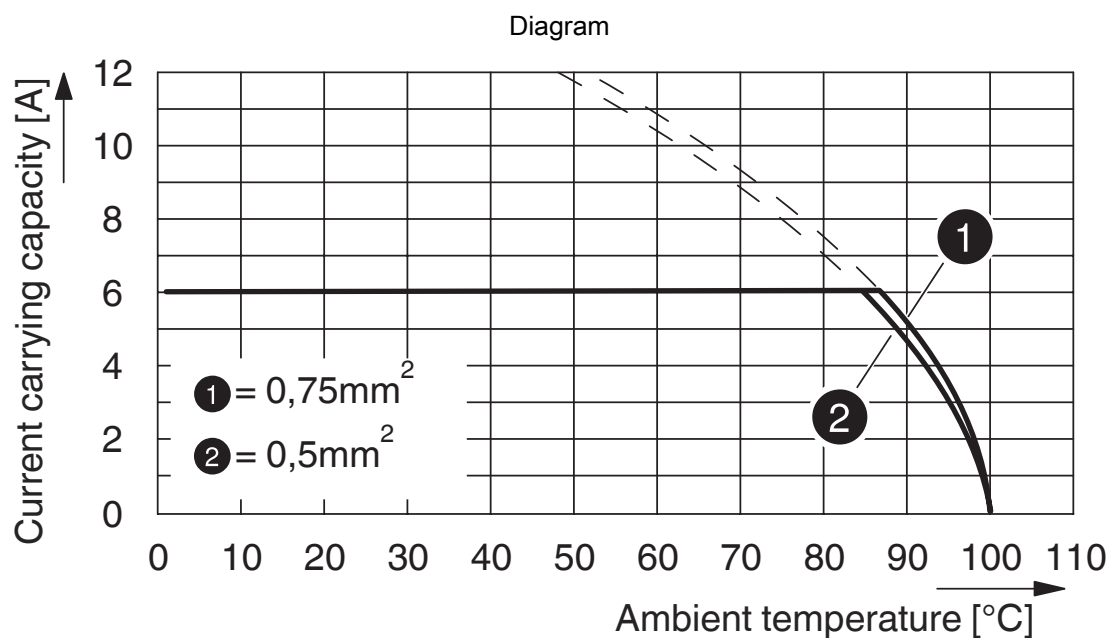
Ambient conditions

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

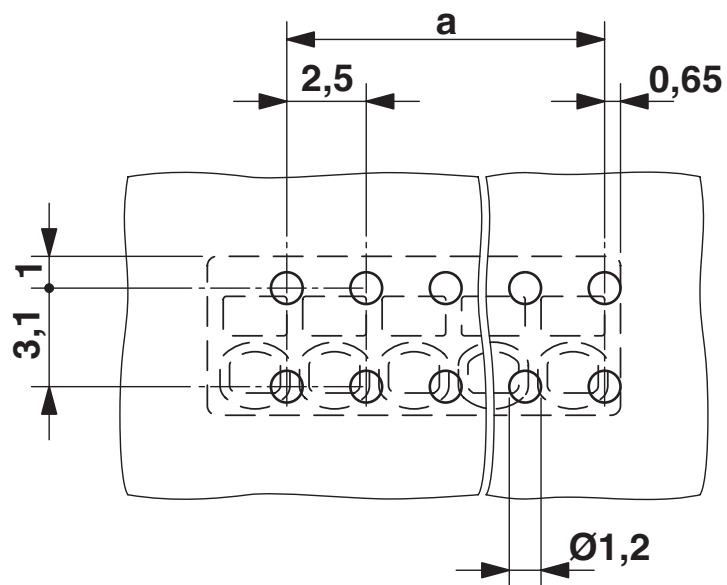
## Packaging specifications

Dimensional drawing	
Type of packaging	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

## Drawings



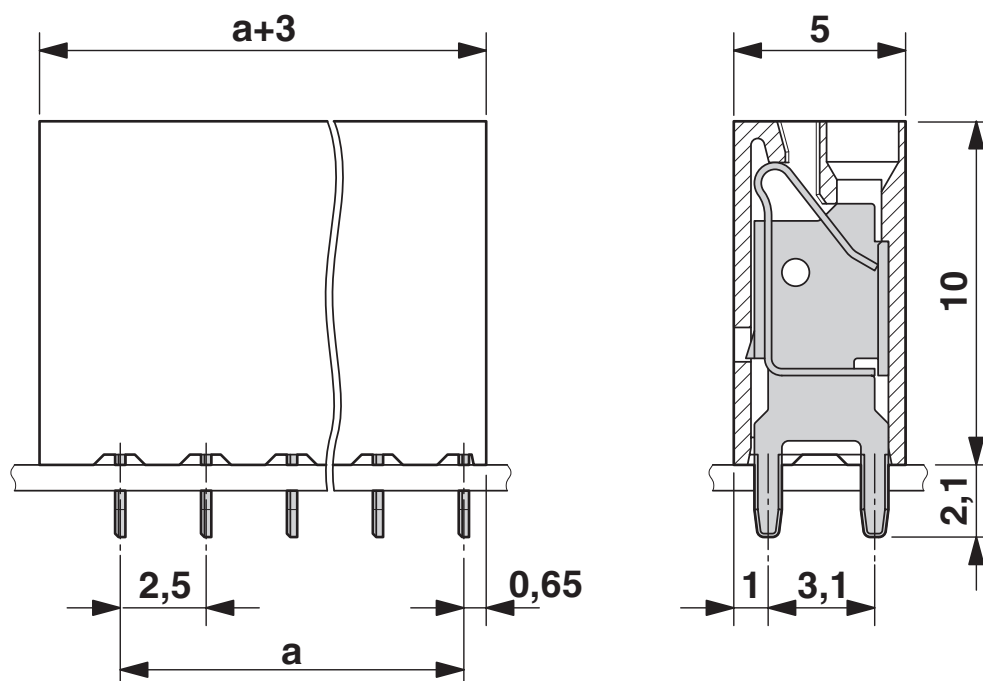
Drilling plan/solder pad geometry



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Dimensional drawing



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1814618>

 <b>UL Recognized</b> Approval ID: E118976-20130619				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	150 V	5 A	26 - 18	-

 <b>cULus Recognized</b> Approval ID: E60425-20030527				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
	150 V	5 A	26 - 20	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40048725				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	160 V	6 A	-	0.14 - 0.5

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002643
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### 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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