PTSM 0,5/ 3-2,5-H THR R32 - PCB terminal block

1770898

https://www.phoenixcontact.com/in/products/1770898

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PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm^2, number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: PTSM 0,5/..-H-THR, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: THR soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 2.1 mm, number of solder pins per potential: 2, type of packaging: 32 mm wide tape. For user information and design recommendations for through-hole reflow technology, go to: Downloads

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

Commercial Data

Item number	1770898
Packing unit	530 pc
Minimum order quantity	530 pc
Sales Key	AAK
Product Key	AAKCAA
Catalog Page	Page 51 (C-1-2013)
GTIN	4046356459471
Weight per Piece (including packing)	1.56 g
Weight per Piece (excluding packing)	1.18 g
Customs tariff number	39269098
Country of origin	IN

Technical Data

Product properties

Type	Component suitable for through hole reflow
Product line	COMBICON Terminals XS
Product type	Printed circuit board terminal
Product family	PTSM 0,5/..-H-THR
Number of positions	3
Pitch	2.5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Degree of pollution	3
Rated voltage (III/3)	63 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)	200 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 mm²

Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.14 mm² ... 0.5 mm²
Conductor cross section flexible	0.2 mm² ... 0.5 mm² (up to 0.75 mm² 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 mm² ... 0.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.34 mm²
Cylindrical gauge a x b / diameter	- / 1.2 mm
Stripping length	6 mm

Mounting

Mounting type	THR 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)

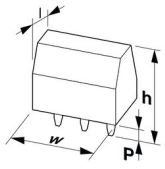
Material data - housing

Color (Housing)	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 ()	()

Dimensions

Dimensional drawing	
Pitch	2.5 mm
Width [w]	8 mm
Height [h]	7.1 mm
Length [l]	10 mm
Installed height	5 mm
Solder pin length [P]	2.1 mm

PCB design

Pin spacing	5 mm

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 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	0.5 mm² / solid / > 20 N
	0.75 mm² / 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)	63 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)	2 mm
Rated insulation voltage (II/2)	200 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)	2 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

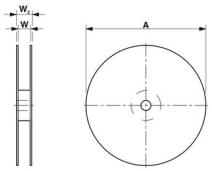
Glow-wire test

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

Ambient conditions

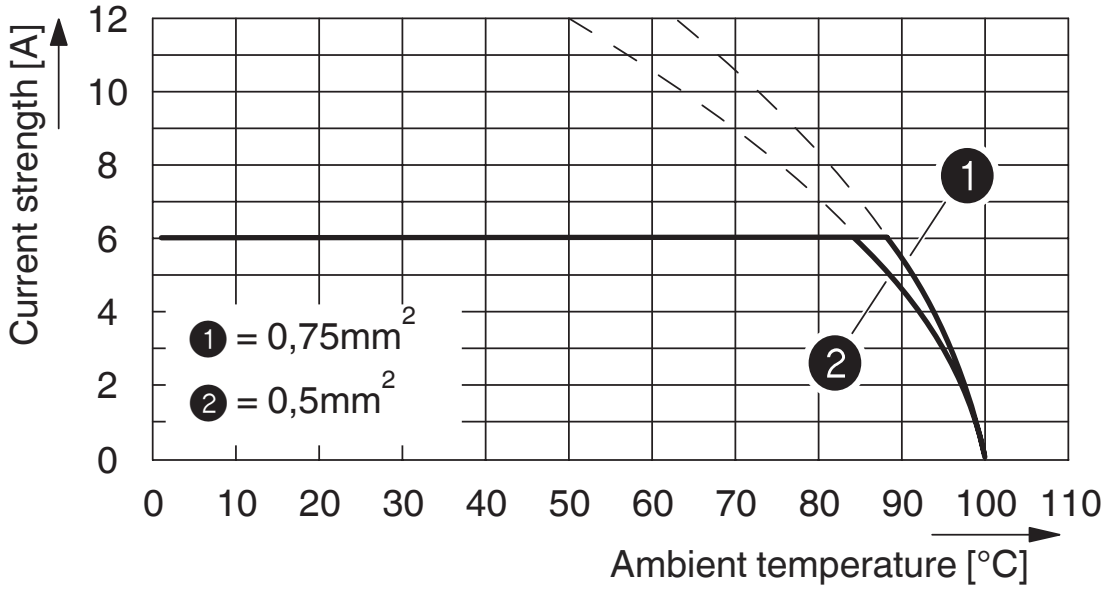
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Dimensional drawing	
Type of packaging	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
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

Drawings

Diagram



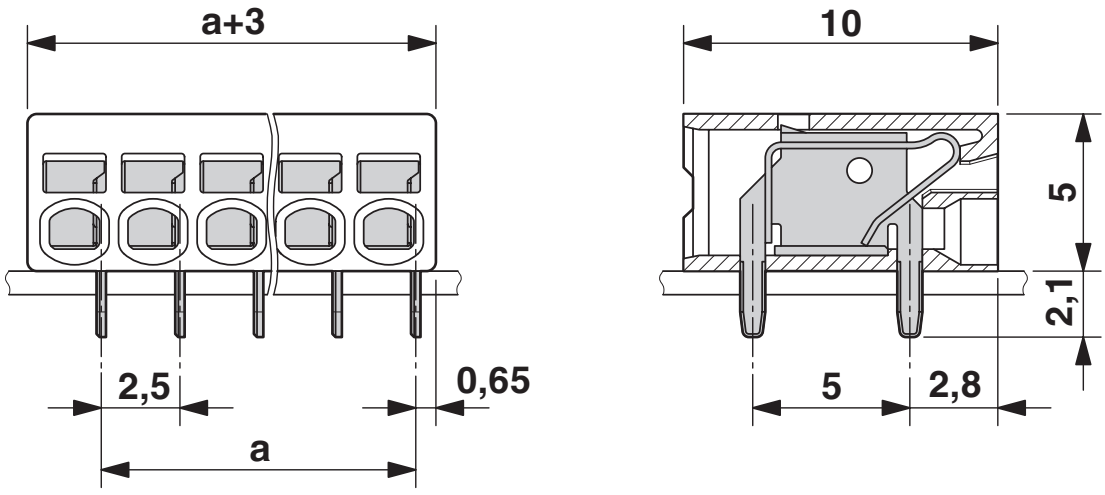
Type: PTSM 0,5/...-2,5-H- THR R...

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

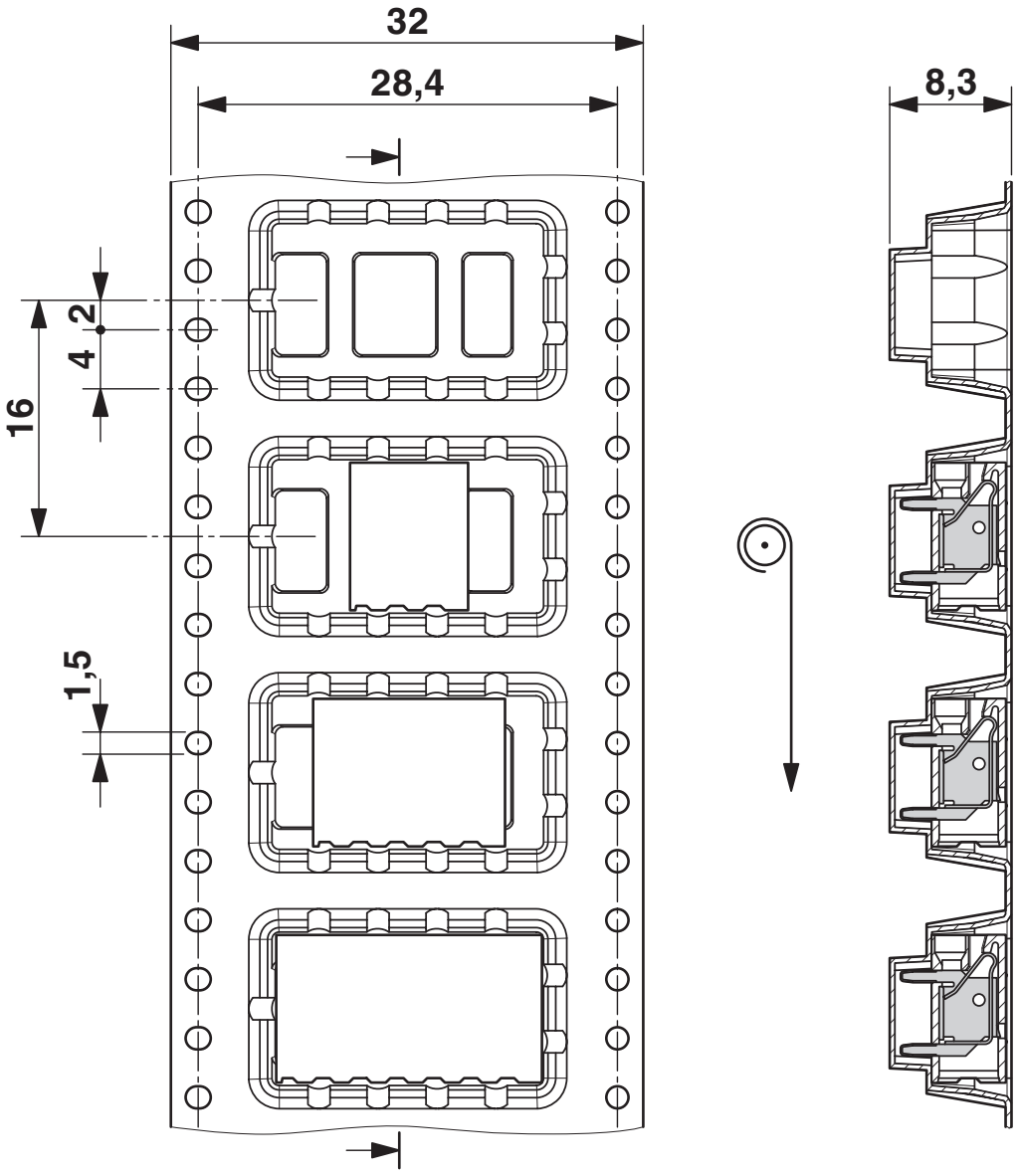
Reduction factor = 1

No. of positions: 5

Dimensional drawing



Dimensional drawing



Approvals

UL Recognized
Approval ID: E118976-20130619

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	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
	150 V	5 A	26 - 20	-

VDE Zeichengenehmigung
Approval ID: 40048725

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC002643

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

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

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/ 3-2,5-H THR R32 - PCB terminal block

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SAMPLE PTSM 0,5/ 3-2,5-H-THR - PCB terminal block

1701093

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

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