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



1820990

https://www.phoenixcontact.com/pc/products/1820990

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.



Printed circuit board terminal, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: PTSM 0,5/..-V-SMD WH, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: SMD soldering, conductor/PCB connection direction: 90 °, Pin layout: Linear pad geometry, 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

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
- · Additional solder anchors reduce the mechanical strain on the soldering spots

Commercial data

Item number	1820990
Packing unit	5 pc
Minimum order quantity	5 рс
Product key	AAKDAD
GTIN	4046356787673
Weight per piece (including packing)	1.49 g
Weight per piece (excluding packing)	1.45 g
Customs tariff number	85369010
Country of origin	DE



https://www.phoenixcontact.com/pc/products/1820990

Technical data

Product properties

Product type	Printed circuit board terminal
Product family	PTSM 0,5/V-SMD WH
Product line	COMBICON Terminals XS
Number of positions	2
Pitch	2.5 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear pad geometry
Solder pins per potential	1
Data management status	
Article revision	00

Electrical properties

Nominal current I _N	6 A
Nominal voltage U _N	160 V
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)	320 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 mm² 0.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² 0.34 mm ² (possible from 0.14 mm ² , 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



https://www.phoenixcontact.com/pc/products/1820990

Mounting

Mounting type	SMD soldering
Pin layout	Linear pad geometry
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 ()	0
Insulating material	PA GF
Insulating material group	1
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.

Dimensions

Dimensional drawing	h b b b b b b b b b b b b b b b b b b b
Pitch	2.5 mm
Width [w]	10.1 mm
Height [h]	9 mm
Length [I]	7 mm
Installed height	9 mm
Solder pin length [P]	2 mm

PCB design



https://www.phoenixcontact.com/pc/products/1820990

Pad geometry	1.4 x 3.4 mm
Pin spacing	2.5 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	0.14 mm² / solid / > 10 N
setpoint/actual value	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	1
Comparative tracking index (IEC 60112)	CTI 600
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)	1.6 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



https://www.phoenixcontact.com/pc/products/1820990

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

/ibration 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)
Acceleration	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Slow-wire test	
Specification	IEC 60998-1:2002-12
Temperature	850 °C
Time of exposure	5 s
mbient 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
kaging specifications	
Type of packaging	packed in cardboard

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

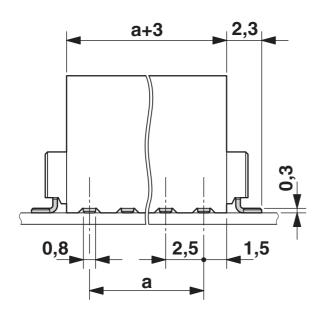


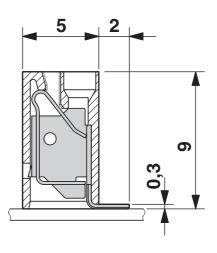
1820990

https://www.phoenixcontact.com/pc/products/1820990

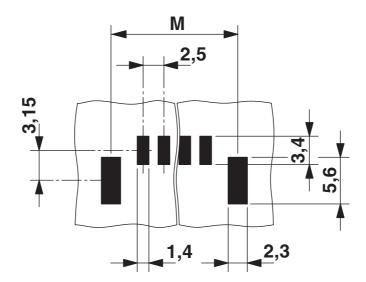
Drawings

Dimensional drawing



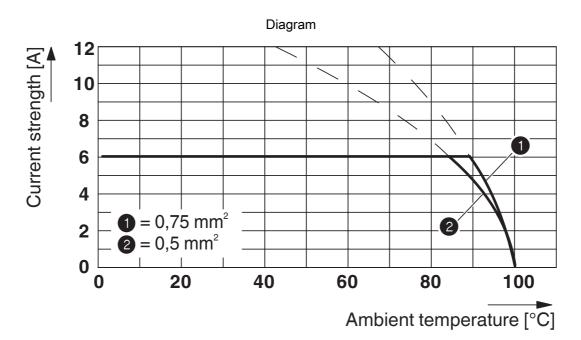


Drilling plan/solder pad geometry





https://www.phoenixcontact.com/pc/products/1820990



Type: PTSM 0,5/...-2,5-V SMD WH R44 Tested in accordance with DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 5



https://www.phoenixcontact.com/pc/products/1820990

Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-13.0	27460101

UNSPSC

LINSPSC 21.0	30121/22
UNSPSC 21.0	39121432



https://www.phoenixcontact.com/pc/products/1820990

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%

Phoenix Contact 2024 © - all rights reserved https://www.phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG Flachsmarktstraße 8 D-32825 Blomberg +49 (0) 5235-3 00 info@phoenixcontact.com