

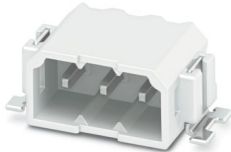
PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

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.



PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Sn, contact connection type: Pin, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PTSM 0,5/..-HH-SMD WH, pitch: 2.5 mm, mounting: SMD soldering, pin layout: Linear pad geometry, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON PTSM, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 32 mm wide tape, Article with anti-rotation pin

Your advantages

- White design: Stable color when welding and during use
- Designed for integration into the SMT soldering process
- Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting
- Additional solder anchors reduce the mechanical strain on the soldering spots

Commercial data

Item number	1708004
Packing unit	600 pc
Minimum order quantity	600 pc
Note	Made to order (non-returnable)
Sales key	AA01
Product key	AAAUPA
GTIN	4046356960670
Weight per piece (including packing)	1.185 g
Weight per piece (excluding packing)	1.185 g
Customs tariff number	85366930
Country of origin	IN

1708004

<https://www.phoenixcontact.com/us/products/1708004>

Technical data

Product properties

Product type	PCB headers
Product family	PTSM 0,5/...-HH-SMD WH
Product line	COMBICON Connectors XS
Type	Standard
Number of positions	2
Pitch	2.5 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Mounting flange	without
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
Contact resistance	3 mΩ
Rated voltage (III/3)	125 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

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
------	--

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

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]	8.8 mm
Height [h]	7 mm
Length [l]	9.5 mm
Installed height	5 mm
Solder pin length [P]	2 mm

PCB design

Pad geometry	1.2 x 3.2 mm
Pin spacing	2.50 mm
Hole diameter	1.1 mm

Mechanical tests

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	10
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	8

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

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)	125 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)	1.9 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

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

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

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	3 m Ω
Contact resistance R_2	4 m Ω
Insertion/withdrawal cycles	10

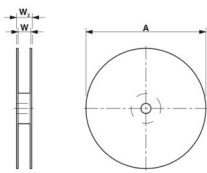
Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	1.39 kV

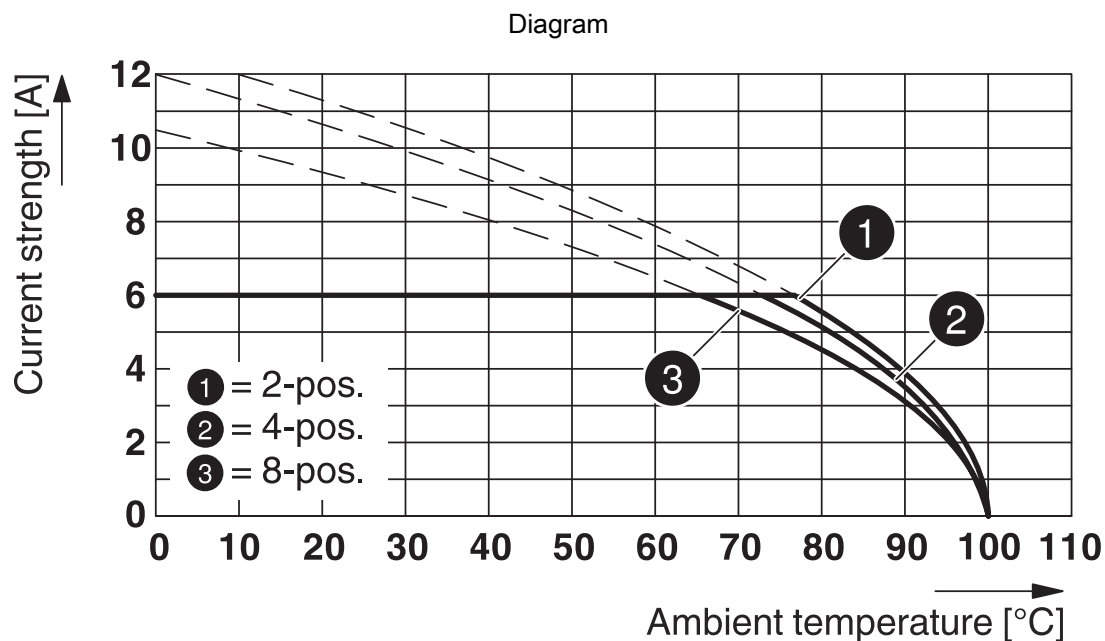
Ambient conditions

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

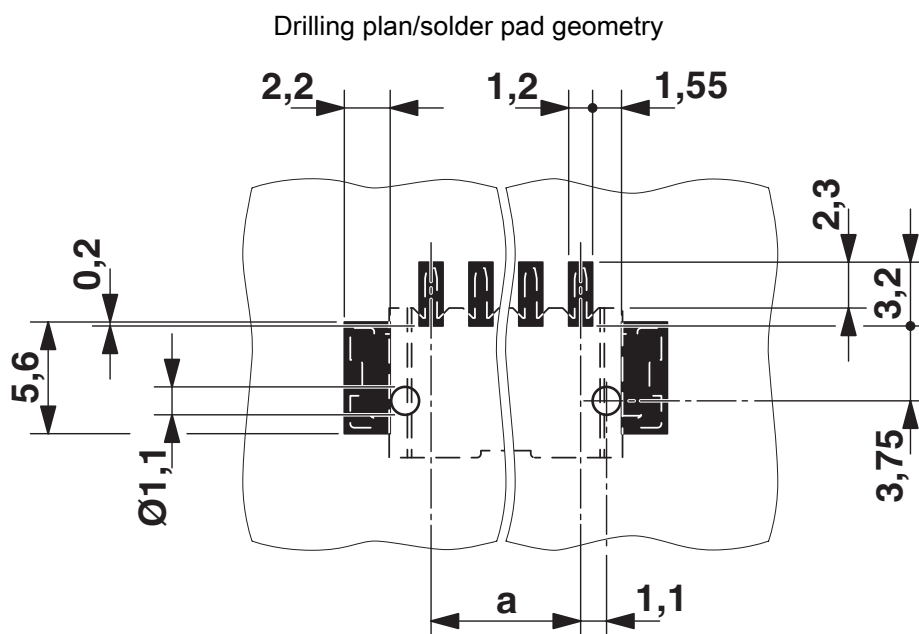
Packaging specifications

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

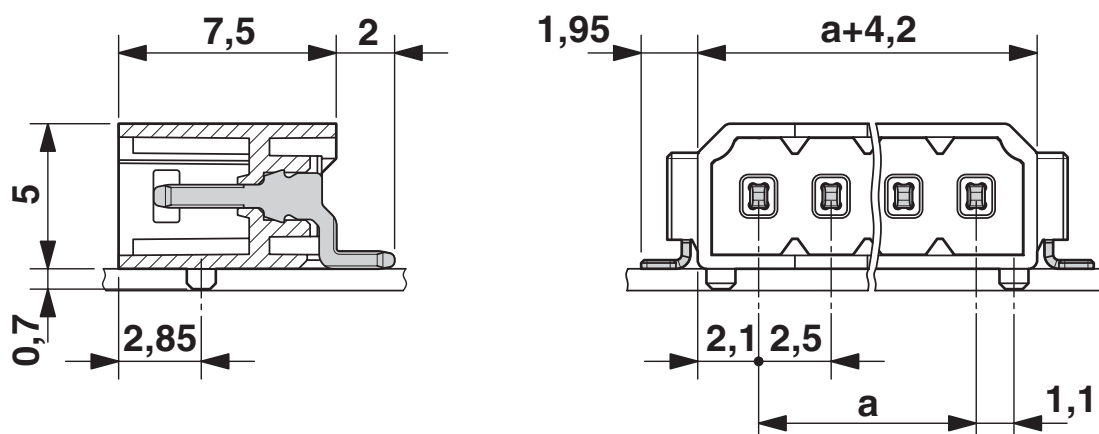
Drawings



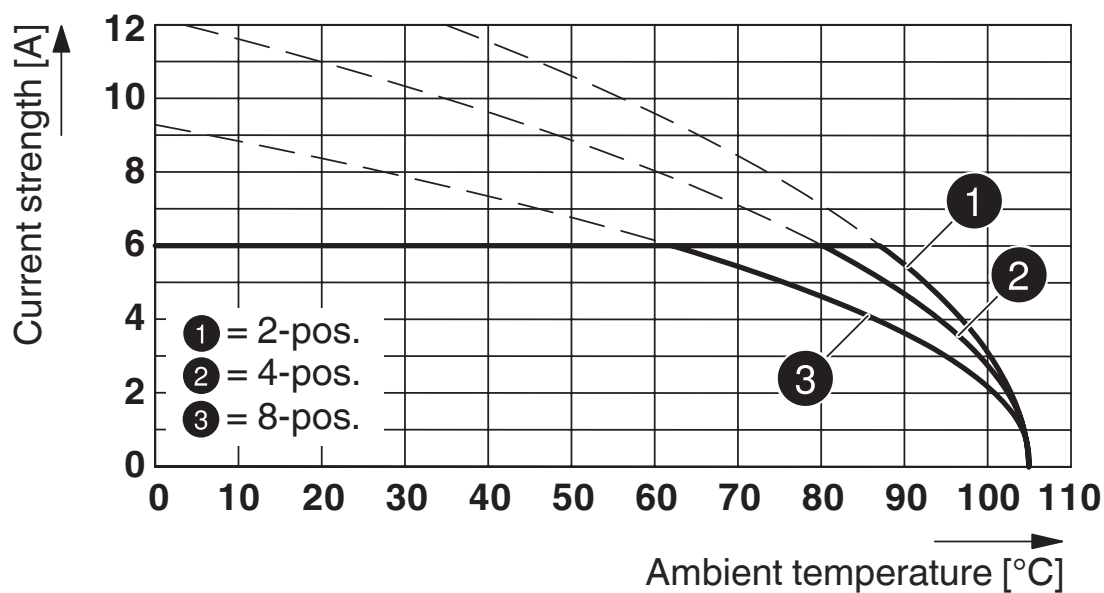
Type: PTSM 0,5/...-PL-2,5 ... with PTSM 0,5/...-HH-2,5-SMD... R...



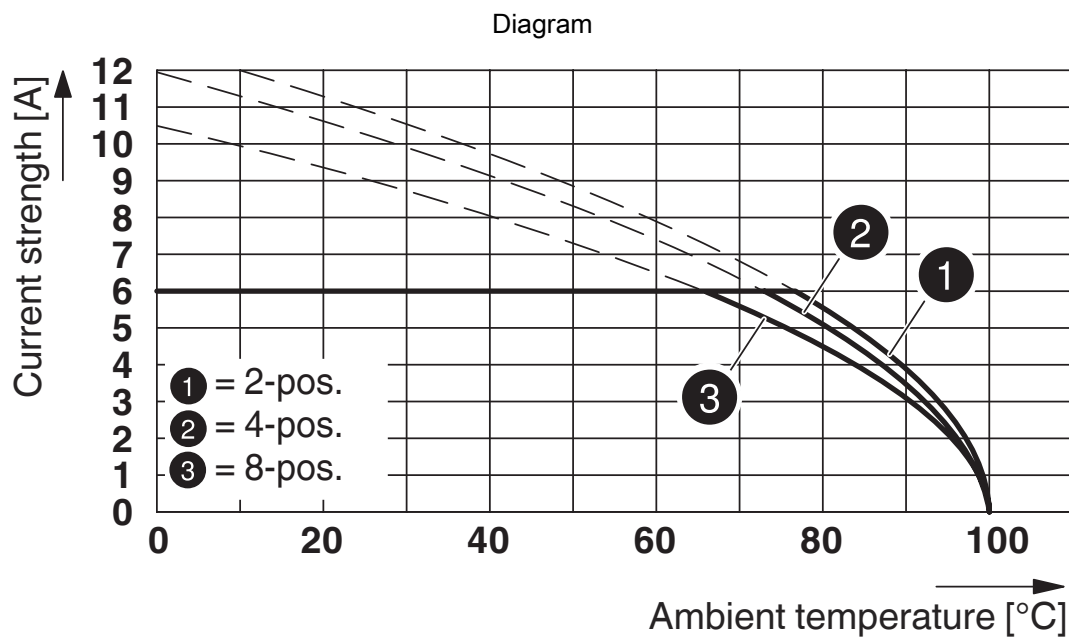
Dimensional drawing



Diagram



Type: PTCM 0,5/...-PL-2,5 WH with PTSM 0,5/...-HH(0)-2,5-SMD WH R...



Type: PTSM 0,5/...-P-2,5 WH... with PTSM 0,5/...-HH0-2,5-SMD WH R...

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1708004>

 UL Recognized Approval ID: E118976-20130619				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	150 V	5 A	-	-

 cULus Recognized Approval ID: E60425-20110108				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	150 V	6 A	-	-

 VDE approval of drawings Approval ID: 40048497				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	160 V	6 A	-	-

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

Classifications

ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

ETIM

ETIM 9.0	EC002637
----------	----------

UNSPSC

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

PTSM 0,5/ 2-HH-2,5-SMD WH R32 - PCB header



1708004

<https://www.phoenixcontact.com/us/products/1708004>

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 USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com