

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

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 connector, nominal cross section: 0.5 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Sn, contact connection type: Pin, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: PTSM 0,5/...-PI WH, pitch: 2.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PTSM, locking: without, mounting method: without, type of packaging: packed in cardboard

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
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections

Commercial data

Item number	1709452
Packing unit	250 pc
Minimum order quantity	250 pc
Sales key	AAAFPC
Product key	AAAFPC
GTIN	4055626130378
Weight per piece (including packing)	1.08 g
Weight per piece (excluding packing)	1.062 g
Customs tariff number	85366990
Country of origin	DE

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

Technical data

Product properties

Product type	PCB connector
Product family	PTSM 0,5/...-PI WH
Product line	COMBICON Connectors XS
Type	Inverted
Number of positions	4
Pitch	2.5 mm
Number of connections	4
Number of rows	1
Number of potentials	4

Electrical properties

Properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Contact resistance	2.7 mΩ
Rated voltage (III/3)	100 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	Inverted
Connector system	COMBICON PTSM
Nominal cross section	0.5 mm ²
Contact connection type	Pin

Interlock

Locking type	without
Mounting type	without

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
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	24 ... 20
Conductor cross-section flexible, with ferrule without plastic	0.25 mm ² ... 0.5 mm ²

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

sleeve	
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

Specifications for ferrules with insulating collar

recommended crimping tool	1134913 CRIMPFOX 10T-F
	1212034 CRIMPFOX 6

Material specifications

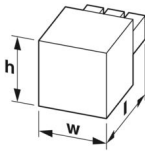
Material data - contact

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 contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Color (Housing)	white (9010)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Dimensions

Dimensional drawing	
Pitch	2.5 mm
Width [w]	16.46 mm
Height [h]	5.2 mm
Length [l]	15.5 mm

Mechanical tests

Conductor connection

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

Specification	IEC 60999-1:1999-11
Result	Test passed

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force setpoint/actual value	0.14 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	0.5 mm ² / solid / > 20 N
	0.75 mm ² / flexible / > 30 N

Insertion and withdrawal forces

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	10
Insertion strength per pos. approx.	4 N
Withdraw strength per pos. approx.	2 N

Resistance of inscriptions

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

Polarization and coding

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

Visual inspection

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

Dimension check

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

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)

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

Acceleration	50 m/s ² (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	2.7 mΩ
Contact resistance R ₂	2.6 mΩ
Insertion/withdrawal cycles	10
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	EN ISO 22479:2022-06
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	1.39 kV

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °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

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)	100 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)	1.8 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

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

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

Packaging specifications

Type of packaging	packed in cardboard
Outer packaging type	Carton

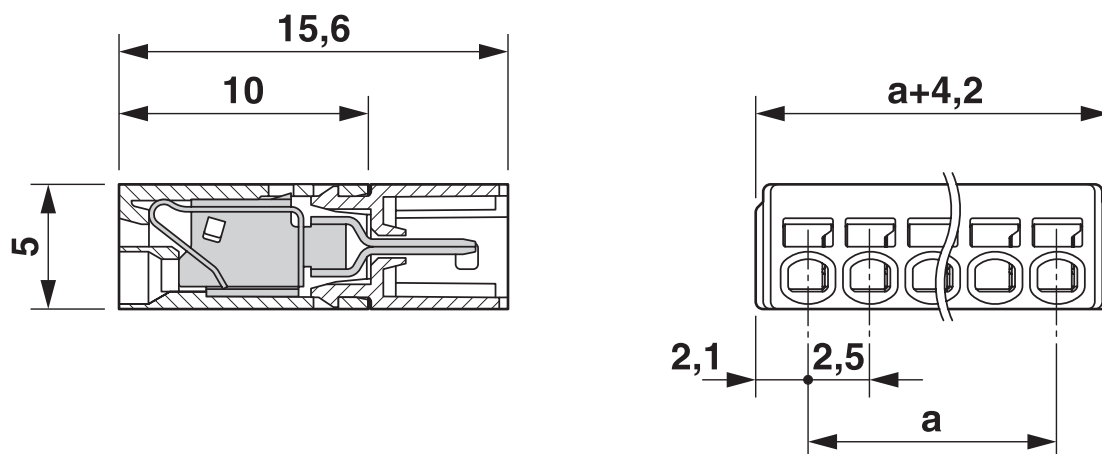
PTSM 0,5/ 4-PI-2,5 WH - PCB connector

1709452

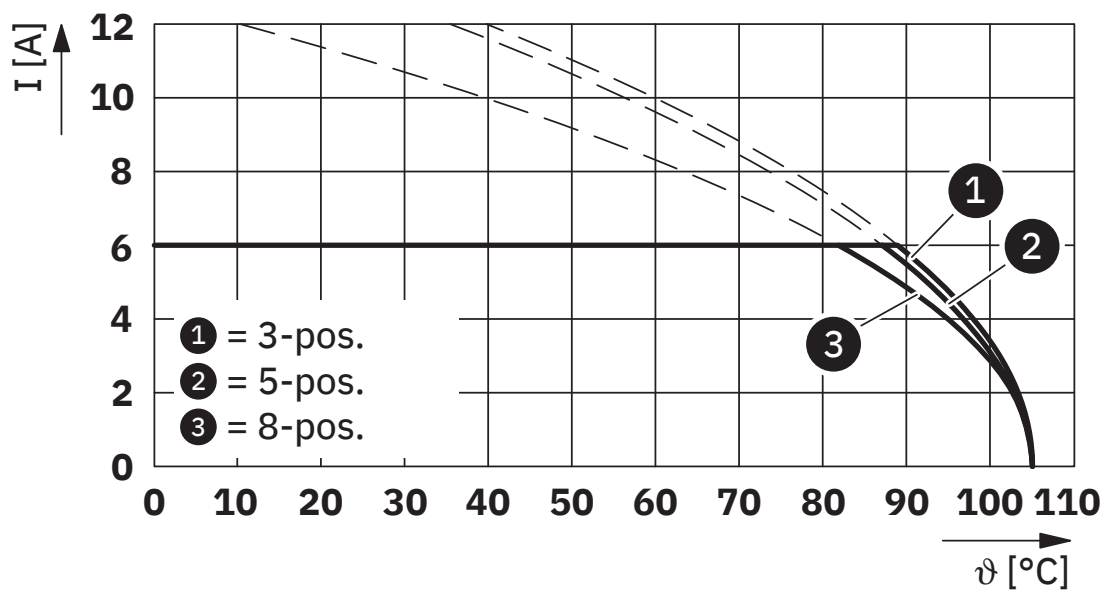
<https://www.phoenixcontact.com/au/products/1709452>

Drawings

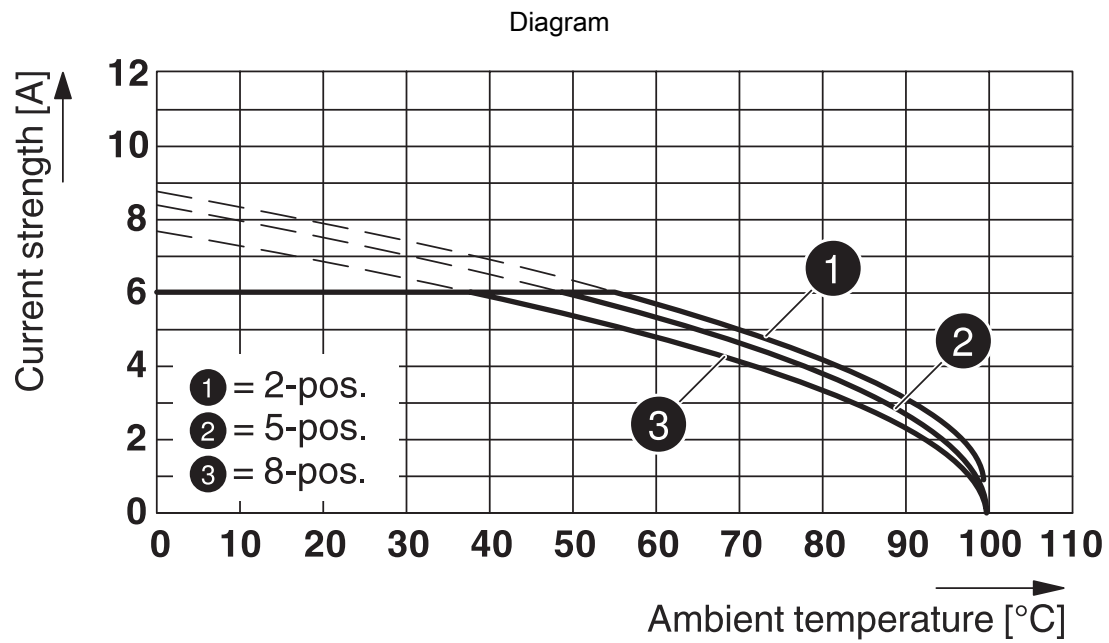
Dimensional drawing



Diagram



Type: PTSM 0,5/...-PL-2,5 WH with PTSM 0,5/...-PI-2,5 WH



Type: PTSM 0,5/...-PI-2,5 WH with PTSM 0,5/...-HHI0-2,5-SMD WHR...

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/1709452>

 UL Recognized Approval ID: E118976-20130619				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	150 V	5 A	26 - 18	-

 cULus Recognized Approval ID: E60425-20101209				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	150 V	5 A	26 - 20	-

 VDE Zeichengenehmigung Approval ID: 40048497				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	160 V	6 A	-	0.14 - 0.5

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

Classifications

ECLASS

ECLASS-13.0	27460202
ECLASS-15.0	27460202

ETIM

ETIM 9.0	EC002638
----------	----------

UNSPSC

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

PTSM 0,5/ 4-PI-2,5 WH - PCB connector



1709452

<https://www.phoenixcontact.com/au/products/1709452>

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 2025 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd
Unit 7, 2-8 South Street
Rydalmere NSW 2116
1300 786 411
customerservice@phoenixcontact.com.au