

PTCM 0,5/ 3-PI-2,5 WH - Printed-circuit board connector



1015243

<https://www.phoenixcontact.com/us/products/1015243>

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PCB connector, nominal cross section: 0.75 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTCM 0,5/..-PI, pitch: 2.5 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PTSM, locking: Snap-in locking, mounting: Engagement nose, type of packaging: packed in cardboard

Your advantages

- White design: Stable color when welding and during use
- 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
- Cost-effective connection of crimped conductors in large quantities
- Tools for manual and automatic crimping available as an option

Commercial data

Item number	1015243
Packing unit	1 pc
Minimum order quantity	250 pc
Note	Made to order (non-returnable)
Sales key	AA01
Product key	AAACP
GTIN	4055626495453
Weight per piece (including packing)	0.47 g
Weight per piece (excluding packing)	0.47 g
Customs tariff number	85389099
Country of origin	DE

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Technical data

Product properties

Product line	COMBICON Connectors XS
Product type	PCB connector
Product family	PTCM 0,5/...-PI
Number of positions	3
Pitch	2.5 mm
Number of connections	3
Number of rows	1
Number of potentials	3

Electrical properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Degree of pollution	3
Contact resistance	3.2 mΩ
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)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	Inverted
Connector system	COMBICON PTSM
Nominal cross section	0.75 mm ²
Contact connection type	Pin

Interlock

Locking type	Snap-in locking
Mounting flange	Engagement nose

Conductor connection

Connection method	Crimp connection
Conductor/PCB connection direction	0 °
Conductor cross section flexible	0.14 mm ² ... 0.75 mm ² (Maximum external diameter of the insulation 1.9 mm)
Conductor cross section AWG	26 ... 18 (Maximum external diameter of the insulation 1.9 mm)
Stripping length	4.1 mm ... 4.5 mm

Material specifications

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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]	9.2 mm
Height [h]	5 mm
Length [l]	18.3 mm

Mounting

Connection method	Crimp connection
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Mechanical tests

Tensile strength of crimp connections

Result	Test passed
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm ² / flexible / > 18 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	3 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

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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)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	3.2 m Ω
Contact resistance R_2	3.4 m Ω
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 M Ω

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	105 °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

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 M Ω

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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)	160 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)	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

Packaging specifications

Type of packaging	packed in cardboard
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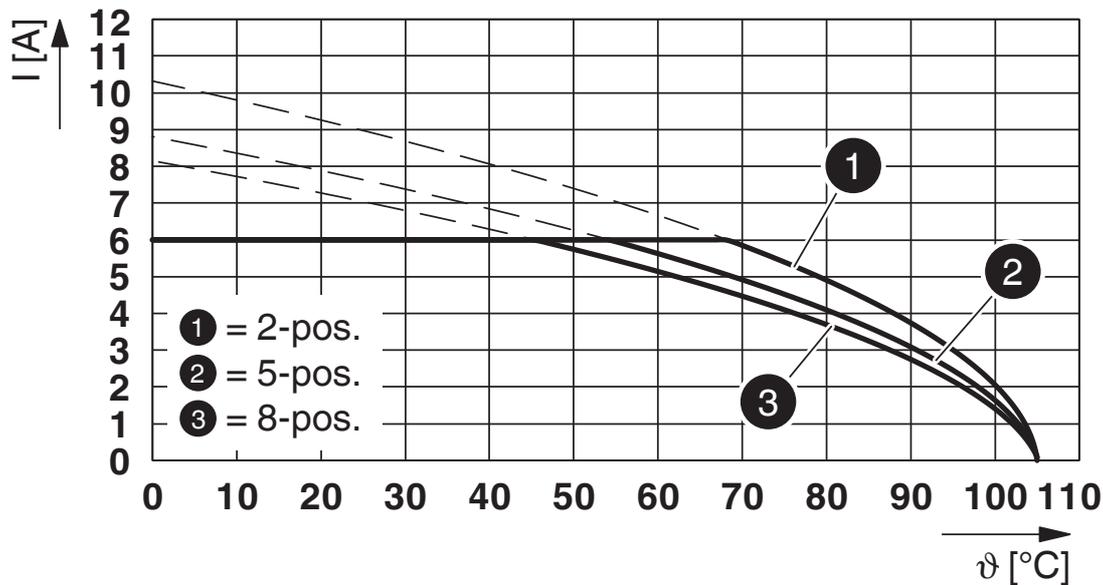


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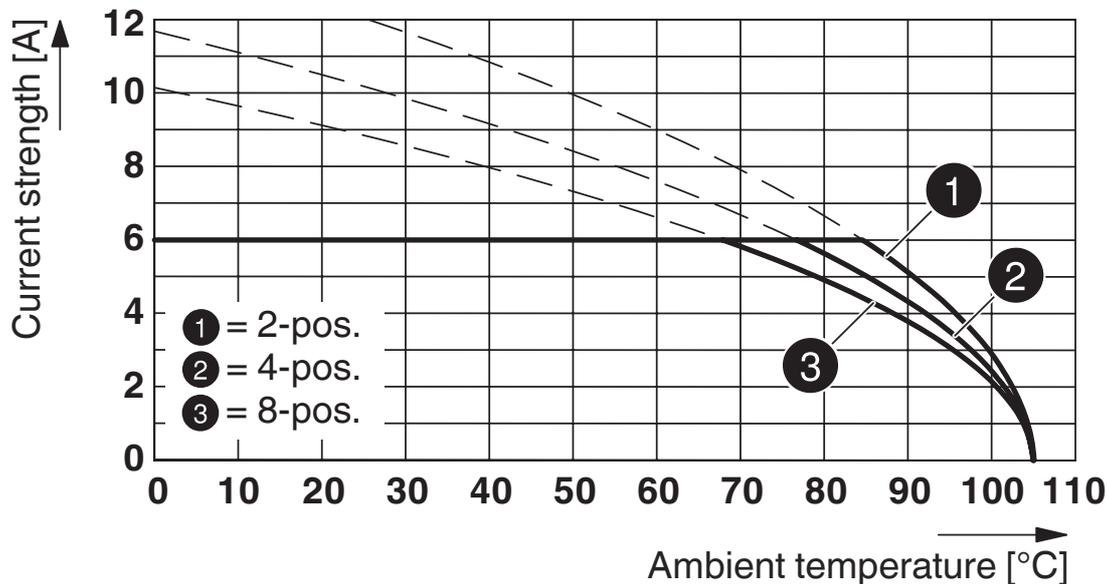
Drawings

Diagram



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

Diagram



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

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1015243>

 cULus Recognized Approval ID: E60425-20101209				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	5 A	22 - 18	-
Use group D	150 V	5 A	22 - 18	-

 EAC Approval ID: B.01687				
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 VDE Zeichengenehmigung Approval ID: 40048497				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	6 A	-	0.14 - 0.75

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Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 8.0	EC002638
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

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

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Accessories

PTCM-MP-PI 0,34-0,75 R - Crimp contact

1013987

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Crimp contact, nominal current: 6 A, contact connection type: Pin, connection method: Crimp connection, contact surface: Tin, type of packaging: Belt

PTCM-MP-PI 0,14-0,5 R - Crimp contact

1013988

<https://www.phoenixcontact.com/us/products/1013988>



Crimp contact, nominal current: 6 A, contact connection type: Pin, connection method: Crimp connection, contact surface: Tin, type of packaging: Belt

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PTCM-MP-PI 0,34-0,75 - Crimp contact

1013989

<https://www.phoenixcontact.com/us/products/1013989>



Crimp contact, nominal current: 6 A, contact connection type: Pin, connection method: Crimp connection, contact surface: Tin, type of packaging: Bulk goods

PTCM-MP-PI 0,14-0,5 - Crimp contact

1013990

<https://www.phoenixcontact.com/us/products/1013990>



Crimp contact, nominal current: 6 A, contact connection type: Pin, connection method: Crimp connection, contact surface: Tin, type of packaging: Bulk goods

PTCM 0,5/ 3-PI-2,5 WH - Printed-circuit board connector



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CRIMPFOX-P CC 0.75 L - Crimping pliers

1064998

<https://www.phoenixcontact.com/us/products/1064998>



Crimping pliers, for COMBICON crimp connectors with cross section: 0.14 ... 0.75 mm². Unlockable pressure lock, precise parallel crimping, front entry, B crimp, incl. 2 positioning aids

PTSM 0,5/ 3-P-2,5 WH - PCB connector

1704854

<https://www.phoenixcontact.com/us/products/1704854>



PCB connector, nominal cross section: 0.5 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTSM 0,5/...-P WH, pitch: 2.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PTSM, locking: without, mounting: without, type of packaging: packed in cardboard

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PTSM 0,5/ 3-HHI-2,5-SMD WHR44 - PCB header

1707992

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PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTSM 0,5/...-HHI-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: 44 mm wide tape, Article with anti-rotation pin

PTSM 0,5/ 3-HHI0-2,5-SMD WHR44 - PCB header

1815206

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PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTSM 0,5/...-HHI-SMD WH, pitch: 2.5 mm, mounting: SMD soldering, pin layout: Linear pinning, number of solder pins per potential: 1, plug-in system: COMBICON PTSM, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 44 mm wide tape

PTCM 0,5/ 3-PI-2,5 WH - Printed-circuit board connector



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PTSM 0,5/ 3-HHI-2,5-THR WH R32 - PCB header

1814993

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PCB headers, nominal cross section: 0.5 mm^2 , color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTSM 0,5/...-HHI-THR WH, pitch: 2.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.1 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

PTSM 0,5/ 3-PL-2,5 WH - Printed-circuit board connector

1709459

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PCB connector, nominal cross section: 0.5 mm^2 , color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTSM 0,5/...-PL WH, pitch: 2.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0° , plug-in system: COMBICON PTSM, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

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PTCM 0,5/ 3-PL-2,5 WH - Printed-circuit board connector

1015463

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PCB connector, nominal cross section: 0.75 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: PTCM 0,5/...-PL, pitch: 2.5 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PTSM, locking: Snap-in locking, mounting: Self-locking flange, type of packaging: packed in cardboard

CAC-PTCM1015463/D - Cable

1084515

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Assembled PCB connector / Connecting cable with 2 printed circuit board connectors, rated current: 6 A, cable length: Free input (0.1 ... 3.0 m), Head 1: 3-position, pitch: 2.5 mm, Crimp connection, Socket, Color: white, Cable type: Individual litz wire, PVC, 22 AWG, white, Head 2: 3-position, pitch: 2.5 mm, Crimp connection, Socket, Color: white, Cable type: Individual litz wire, PVC, 20 AWG, white, Individual litz wire, PVC, 22 AWG, white

PTCM 0,5/ 3-PI-2,5 WH - Printed-circuit board connector



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CAC-PTCM1015463/1015243 - Assembled PCB connectors

1084534

<https://www.phoenixcontact.com/us/products/1084534>



Assembled PCB connector / Connecting cable with 2 printed circuit board connectors, rated current: 6 A, cable length: Free input (0.1 ... 3.0 m), Head 1: 3-position , pitch: 2.5 mm , Crimp connection , Socket, Color: white, Cable type: Individual litz wire, PVC, 22 AWG, white, Head 2: 3-position, pitch: 2.5 mm , Crimp connection , Pin, Color: white, Cable type: Individual litz wire, PVC, 20 AWG, white, Individual litz wire, PVC, 22 AWG, white

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