

PTCM 0,5/ 8-PI-2,5 WH - PCB connectors



1015248

<https://www.phoenixcontact.com/us/products/1015248>

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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: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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	1015248
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AA01
Product key	AAACPB
GTIN	4055626495859
Weight per piece (including packing)	1.054 g
Weight per piece (excluding packing)	1.044 g
Customs tariff number	85389099
Country of origin	DE

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Technical data

Product properties

Product type	PCB connector
Product family	PTCM 0,5/..-PI
Product line	COMBICON Connectors XS
Number of positions	8
Pitch	2.5 mm
Number of connections	8
Number of rows	1
Number of potentials	8

Electrical properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Contact resistance	3.2 m Ω
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

Material data - housing

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

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

Visual inspection

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

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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)
Acceleration	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 mΩ
Contact resistance R_2	3.4 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

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 MΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I

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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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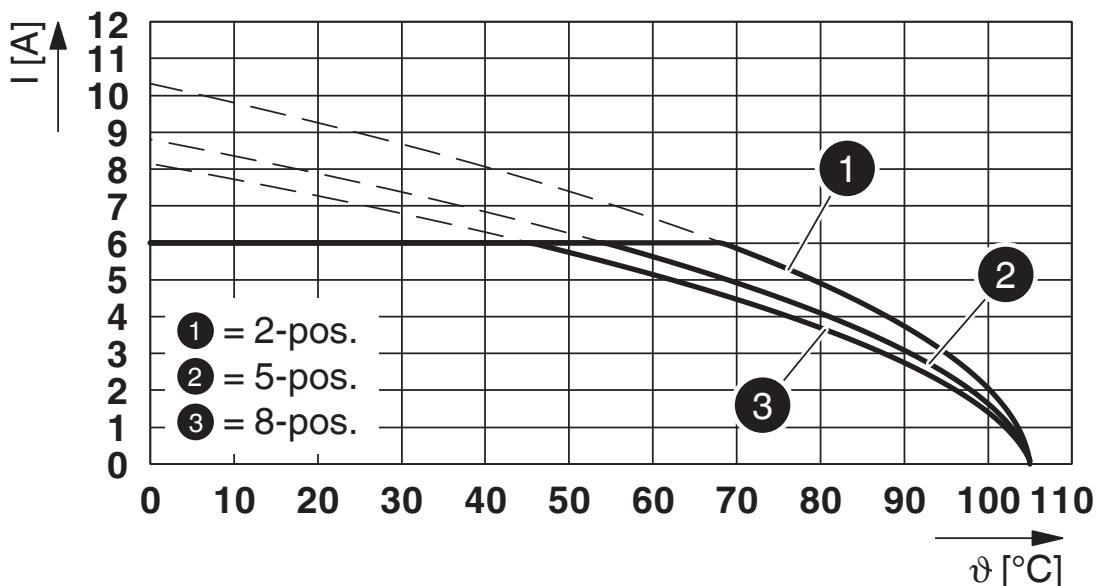
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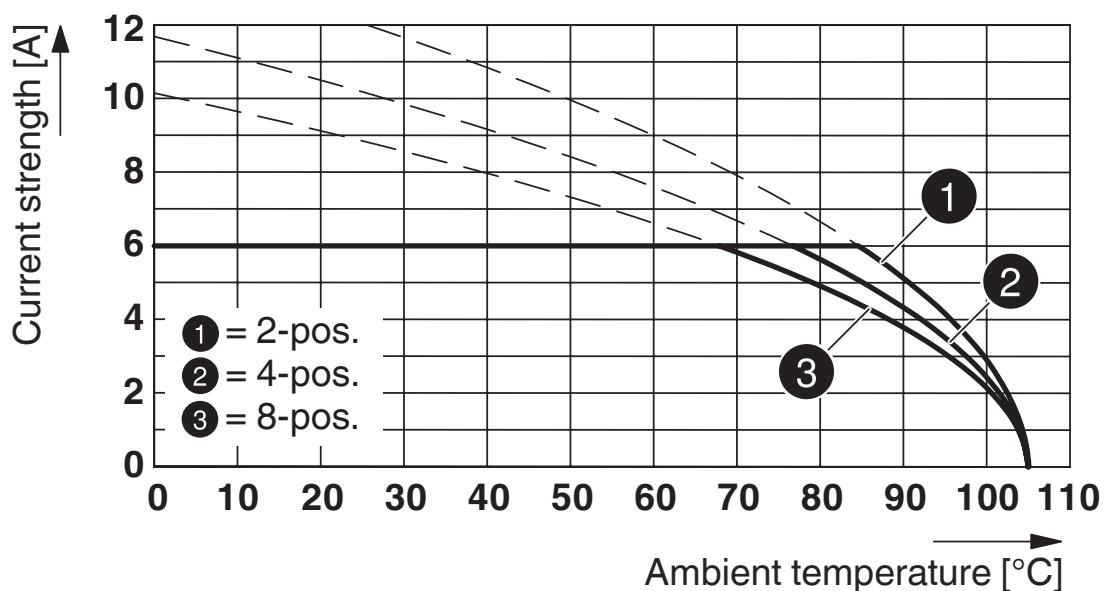
Drawings

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/1015248>

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	-

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 9.0	EC002638
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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%
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Accessories

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

1013987

<https://www.phoenixcontact.com/us/products/1013987>

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



PTCM 0,5/ 8-PI-2,5 WH - PCB connectors



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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/ 8-PI-2,5 WH - PCB connectors



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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/ 8-P-2,5 WH - PCB connector

1704861

<https://www.phoenixcontact.com/us/products/1704861>



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: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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

PTCM 0,5/ 8-PI-2,5 WH - PCB connectors

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PTSM 0,5/ 8-HHI-2,5-SMD WHR44 - PCB header

1708001

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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: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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/ 8-HHI0-2,5-SMD WHR44 - PCB header

1815251

<https://www.phoenixcontact.com/us/products/1815251>



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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PTSM 0,5/..-HHI-SMD WH, pitch: 2.5 mm, mounting: SMD soldering, pin layout: Linear pad geometry, 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/ 8-PI-2,5 WH - PCB connectors

1015248

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PTSM 0,5/ 8-HHI-2,5-THR WH R32 - PCB header

1815044

<https://www.phoenixcontact.com/us/products/1815044>



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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: PTSM 0,5/..-HHI-THR WH, pitch: 2.5 mm, mounting: THR soldering / wave 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/ 8-PL-2,5 WH - PCB connectors

1709465

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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: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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/ 8-PL-2,5 WH - PCB connectors

1015458

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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: 8, number of rows: 1, number of positions: 8, number of connections: 8, 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-PTCM1015458/D - Cable

1084519

<https://www.phoenixcontact.com/us/products/1084519>

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: 8-position , pitch: 2.5 mm , Crimp connection , Socket, Color: white, Cable type:Individual litz wire, PVC, 22 AWG, white, Head 2: 8-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/ 8-PI-2,5 WH - PCB connectors



1015248

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CAC-PTCM1015458/1015248 - Assembled PCB connectors

1084537

<https://www.phoenixcontact.com/us/products/1084537>



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: 8-position, pitch: 2.5 mm, Crimp connection, Socket, Color: white, Cable type: Individual litz wire, PVC, 22 AWG, white, Head 2: 8-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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