

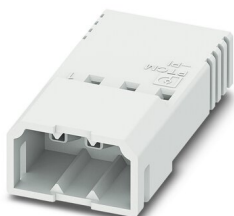
# PTCM 0,5/ 3-PI-2,5 WH - Printed-circuit board connector



1015243

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

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PCB connector, nominal cross section: 0.75 mm<sup>2</sup>, 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	AAACPB
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

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



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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 <sup>2</sup>
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 <sup>2</sup> ... 0.75 mm <sup>2</sup> (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

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



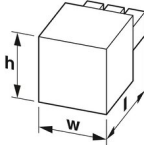
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## Material data - housing

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 <sup>2</sup> / 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 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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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

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



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

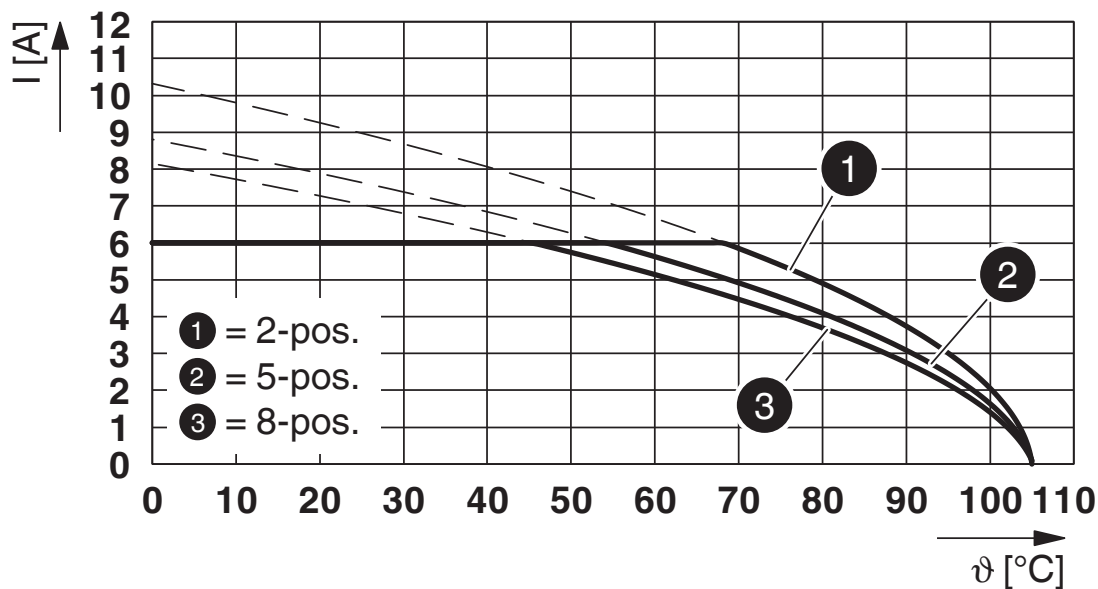


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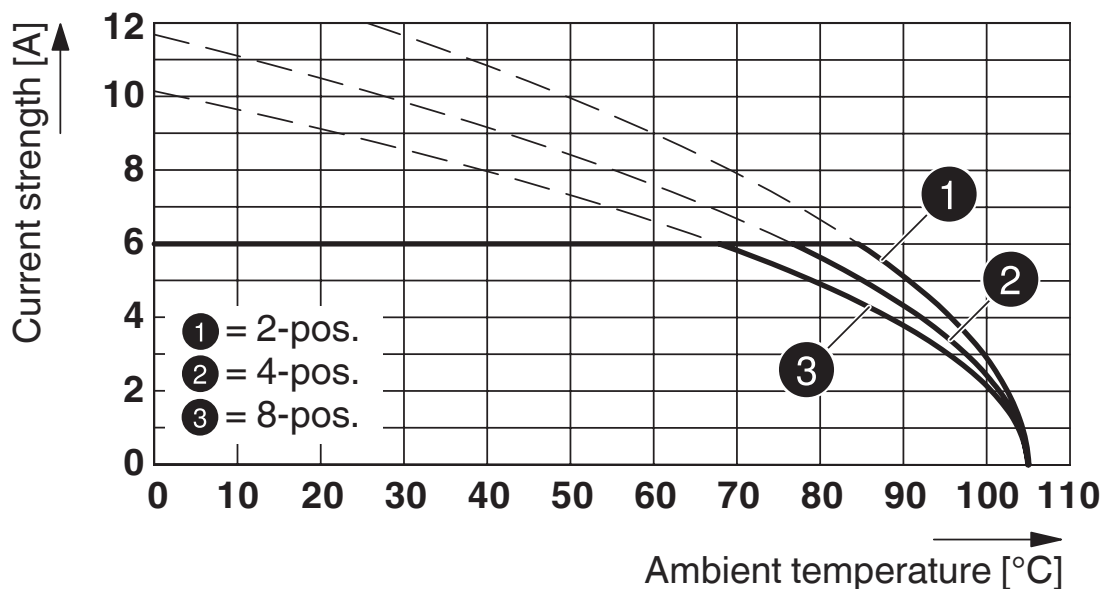
## Drawings

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

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





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## Approvals

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

 <b>cULus Recognized</b> Approval ID: E60425-20101209				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	150 V	5 A	22 - 18	-
Use group D	150 V	5 A	22 - 18	-

 <b>EAC</b> Approval ID: B.01687				
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 <b>VDE Zeichengenehmigung</b> Approval ID: 40048497				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	160 V	6 A	-	0.14 - 0.75

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



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



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## Environmental product compliance

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

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



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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

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



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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

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## 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>



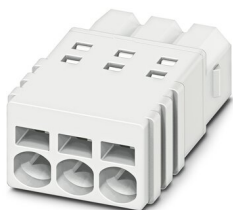
Crimping pliers, for COMBICON crimp connectors with cross section: 0.14 ... 0.75 mm<sup>2</sup>. Unlockable pressure lock, precise parallel crimping, front entry, B crimp, incl. 2 positioning aids

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## 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 mm<sup>2</sup>, 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

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



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

1707992

<https://www.phoenixcontact.com/us/products/1707992>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, 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

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

1815206

<https://www.phoenixcontact.com/us/products/1815206>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, 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

<https://www.phoenixcontact.com/us/products/1814993>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, 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

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

1709459

<https://www.phoenixcontact.com/us/products/1709459>



PCB connector, nominal cross section: 0.5 mm<sup>2</sup>, 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

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



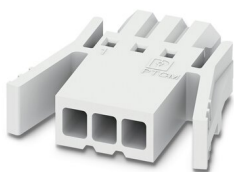
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## PTCM 0,5/ 3-PL-2,5 WH - Printed-circuit board connector

1015463

<https://www.phoenixcontact.com/us/products/1015463>



PCB connector, nominal cross section: 0.75 mm<sup>2</sup>, 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

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## CAC-PTCM1015463/D - Cable

1084515

<https://www.phoenixcontact.com/us/products/1084515>



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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