

# Printed-circuit board connector - PTCM 0,5/ 7-PI-2,5 WH - 1015247

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PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, connection method: Crimp connection, color: white, contact surface: Tin

The figure shows a 5-position version

## 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



## Key Commercial Data

Packing unit	100 pc
GTIN	
GTIN	4055626496214

## Technical data

### Item properties

Brief article description	Printed-circuit board connector
Plug-in system	COMBICON COMPACT PTSM
Type of contact	Male connector
Range of articles	PTCM 0,5/...-PI
Pitch	2.5 mm
Number of positions	7
Connection method	Crimp connection
Number of levels	1
Number of connections	7
Number of potentials	7

# Printed-circuit board connector - PTCM 0,5/ 7-PI-2,5 WH - 1015247

## Technical data

### Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

### Connection capacity

Connection method	Crimp connection
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 / kcmil	26 ... 18 (Maximum external diameter of the insulation 1.9 mm)
Stripping length	4.1 mm ... 4.5 mm

### Material data - housing

Housing color	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 for the product

Length [ l ]	18.3 mm
Width [ w ]	19.2 mm
Height [ h ]	5 mm
Pitch	2.5 mm
Height (without solder pin)	5 mm

### Packaging information

Type of packaging	packed in cardboard
Pieces per package	100
Denomination packing units	Pcs.

### Ambient conditions

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

### Termination and connection method

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## Technical data

### Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	20 N

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

### Current carrying capacity / derating curves

Caption	Type: PTCM 0,5/...-PL-2,5 WH with PTCM 0,5/...-PI-2,5 WH
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	3 N
Withdraw strength per pos. approx.	2 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

### Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R <sub>1</sub>	3.2 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	3.4 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

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## Technical data

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8
Conductor cross section	0.75 mm <sup>2</sup>
Test current	6 A
Upper limiting temperature requirements <100 °C	Test passed

### Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-55 °C/2 h
Thermal stress	105 °C/168 h
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

### Environmental and durability tests (E)

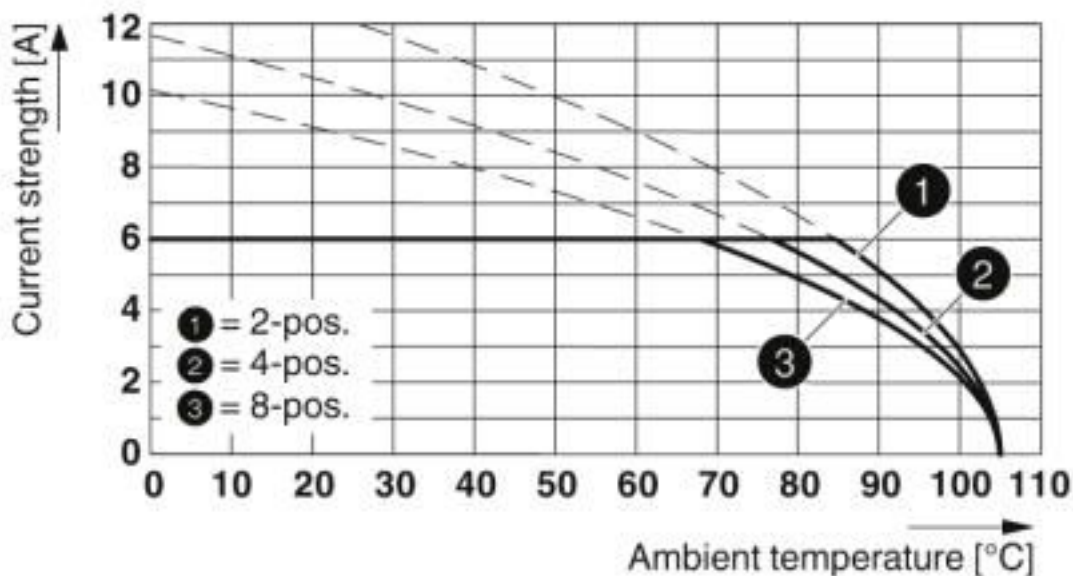
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

### Environmental Product Compliance

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

## Drawings

Diagram



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

# Printed-circuit board connector - PTCM 0,5/ 7-PI-2,5 WH - 1015247

## Classifications

### eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

### ETIM

ETIM 6.0	EC002638
ETIM 7.0	EC002638

## Approvals


### Approvals

#### Approvals

cULus Recognized / EAC / VDE Zeichengenehmigung

#### Ex Approvals

### Approval details

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20101209
	B	D	
Nominal voltage UN	150 V	150 V	
Nominal current IN	5 A	5 A	
mm <sup>2</sup> /AWG/kcmil	22-18	22-18	

EAC		B.01687
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## Approvals

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40048497
Nominal voltage UN		160 V	
Nominal current IN		6 A	
mm <sup>2</sup> /AWG/kcmil		0.14-.75	

## Accessories

### Accessories

#### Crimp contact

Accessories - PTCM-MP-PI 0,34-0,75 R - 1013987



Crimp contact, type of contact: Male connector, connection method: Crimp connection, contact surface: Tin

Accessories - PTCM-MP-PI 0,14-0,5 R - 1013988



Crimp contact, type of contact: Male connector, connection method: Crimp connection, contact surface: Tin

Accessories - PTCM-MP-PI 0,34-0,75 - 1013989



Crimp contact, type of contact: Male connector, connection method: Crimp connection, contact surface: Tin

Accessories - PTCM-MP-PI 0,14-0,5 - 1013990



Crimp contact, type of contact: Male connector, connection method: Crimp connection, contact surface: Tin

## Printed-circuit board connector - PTCM 0,5/ 7-PI-2,5 WH - 1015247

### Accessories

#### Crimping tool

Crimping pliers - CRIMPFOX-P CC 0.75 L - 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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### Additional products

Printed-circuit board connector - PTSM 0,5/ 7-P-2,5 WH - 1704860



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, connection method: Push-in spring connection, color: white, contact surface: Tin

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Feed-through header - PTSM 0,5/ 7-HHI-2,5-SMD WHR44 - 1707999



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry, solder pin [P]: 2 mm, Article with anti-rotation pin

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Feed-through header - PTSM 0,5/ 7-HHI0-2,5-SMD WHR44 - 1815248



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry

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Feed-through header - PTSM 0,5/ 7-HHI-2,5-THR WH R32 - 1815031



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.1 mm

## Printed-circuit board connector - PTCM 0,5/ 7-PI-2,5 WH - 1015247

### Accessories

Printed-circuit board connector - PTSM 0,5/ 7-PL-2,5 WH - 1709464



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, connection method: Push-in spring connection, color: white, contact surface: Tin

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Printed-circuit board connector - PTCM 0,5/ 7-PL-2,5 WH - 1015459



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm<sup>2</sup>, number of positions: 7, pitch: 2.5 mm, connection method: Crimp connection, color: white, contact surface: Tin

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