

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

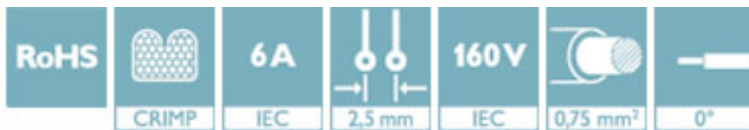
Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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

## Your advantages

- ✓ White design: Stable color when welding and during use
- ✓ High current carrying capacity of 6 A in very compact dimensions
- ✓ Intuitive locking mechanism prevents accidental disconnection
- ✓ Cost-effective connection of crimped conductors in large quantities
- ✓ Tools for manual and automatic crimping available as an option



## Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 250 pc  |
| GTIN         | <br>4 055626 496634 |
| GTIN         | 4055626496634   |

## Technical data

### Item properties

|                           |                                 |
|---------------------------|---------------------------------|
| Brief article description | Printed-circuit board connector |
| Plug-in system            | COMBICON COMPACT PTSM           |
| Type of contact           | Female connector                |
| Range of articles         | PTCM 0,5/...-PL                 |
| Pitch                     | 2.5 mm                          |
| Number of positions       | 2                               |
| Connection method         | Crimp connection                |
| Number of levels          | 1                               |
| Number of connections     | 2                               |
| Number of potentials      | 2                               |

### Electrical parameters

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

## 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 - 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  |

### Material data - housing

|   |        |
|---|--------|
| 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 ]                | 16.2 mm  |
| Width [ w ]                 | 29.46 mm |
| Height [ h ]                | 3.9 mm   |
| Pitch                       | 2.5 mm   |
| Height (without solder pin) | 3.9 mm   |

### Packaging information

|                            |                     |
|----------------------------|---------------------|
| Type of packaging          | packed in cardboard |
| Pieces per package         | 250                 |
| Denomination packing units | Pcs.                |

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
|---|------------------|

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

## Technical data

### Ambient conditions

|                                 |   |
|---------------------------------|---|
| Ambient temperature (assembly)  | -5 °C ... 100 °C                                    |
| Ambient temperature (operation) | -40 °C ... 105 °C (dependent on the derating curve) |

### Termination and connection method

### Mechanical tests according to standard

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Test specification                  | IEC 61984                          |
| Visual examination                  | Test passed IEC 60512-1-1:2002-02  |
| Dimensional test                    | Test passed IEC 60512-1-2:2002-02  |
| Resistance of marking               | Test passed IEC 60068-2-70:1995-12 |
| Result                              | Test passed                        |
| Specification                       | 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             | Test passed IEC 60512-13-5:2006-02 |
| Result                              | Test passed                        |
| Specification                       | 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

|               |           |
|---------------|-----------|
| Specification | IEC 61984 |
|---------------|-----------|

### 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> | 2 mΩ                  |
| Insertion/withdrawal cycles       | 25                    |

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

## Technical data

### Durability tests (B)

|  |                  |
|--|------------------|
| Contact resistance $R_2$                     | 2.1 m $\Omega$   |
| Impulse withstand voltage at sea level       | 2.95 kV          |
| Power-frequency withstand voltage            | 1.39 kV          |
| Insulation resistance, neighboring positions | > 0,4 T $\Omega$ |

### 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)

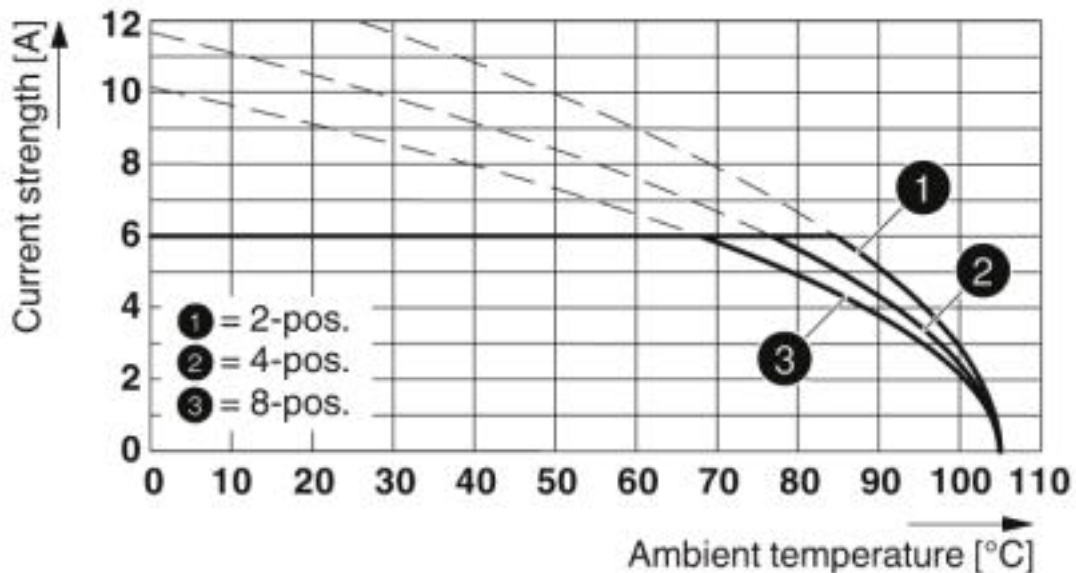
|                                       |  |
|---------------------------------------|--|
| Specification                         | IEC 61984:2008-10                          |
| Result, degree of protection, IP code | Back of hand safety with IP10 access probe |

### Environmental Product Compliance

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

## Drawings

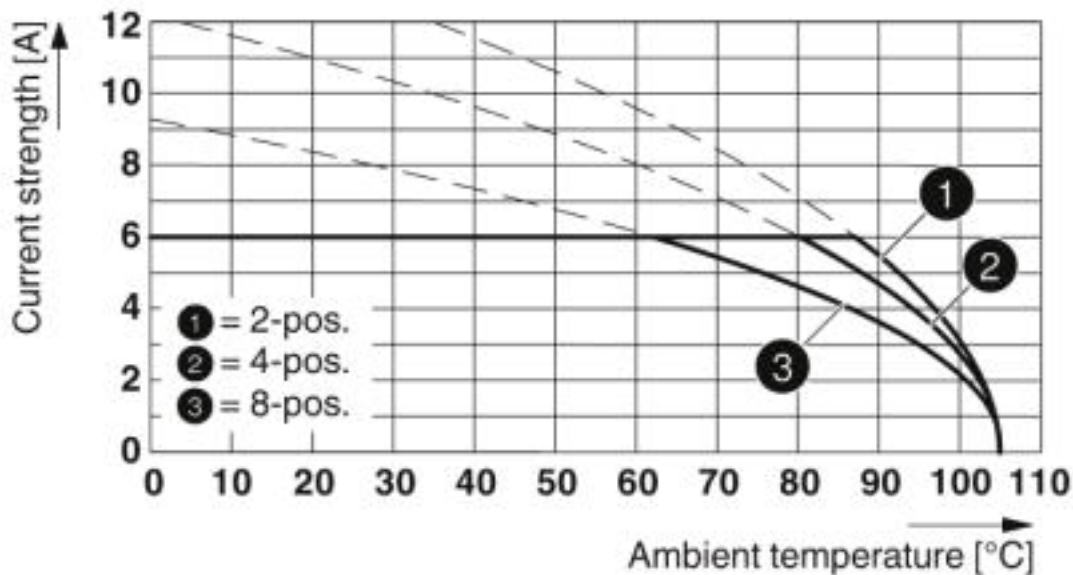
Diagram



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

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

Diagram



Type: PTCM 0,5/...-PL-2,5 WH with PTSM 0,5/...-HH-2,5-THR WH R...

## 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

# Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

## Approvals

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   | 6 A   | 6 A   |
| mm <sup>2</sup> /AWG/kcmil   | 22-18 | 22-18 |

|   |         |
|---|---------|
| EAC  | B.01687 |
|---|---------|

## Accessories

### Accessories

#### Crimp contact

Accessories - PTCM-MP-P 0,34-0,75 R - 1013777



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

Accessories - PTCM-MP-P 0,14-0,5 R - 1013778



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

Accessories - PTCM-MP-P 0,34-0,75 - 1013780



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

## Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

### Accessories

Accessories - PTCM-MP-P 0,14-0,5 - 1013781



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

---

### 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

---

### Additional products

Printed-circuit board connector - PTSM 0,5/ 2-PI-2,5 WH - 1709450



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

---

Feed-through header - PTSM 0,5/ 2-HH0-2,5-SMD WH R32 - 1814919



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

---

Feed-through header - PTSM 0,5/ 2-HV-2,5-SMD WH R24 - 1778696



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 2, 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

## Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

### Accessories

Feed-through header - PTSM 0,5/ 2-HV0-2,5-SMD WH R24 - 1839198



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

Feed-through header - PTSM 0,5/ 2-HTB-2,5-SMD WH R24 - 1830126



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

Feed-through header - PTSM 0,5/ 2-HH-2,5-THR WH R16 - 1814841



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

Feed-through header - PTSM 0,5/ 2-HV-2,5-THR WH R32 - 1815264



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

Feed-through header - PTSM 0,5/ 2-HH-2,5-SMD WH R32 - 1708004



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, number of positions: 2, 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

## Printed-circuit board connector - PTCM 0,5/ 2-PL-2,5 WH - 1015464

### Accessories

Printed-circuit board connector - PTCM 0,5/ 2-PI-2,5 WH - 1015242



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

---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>