

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

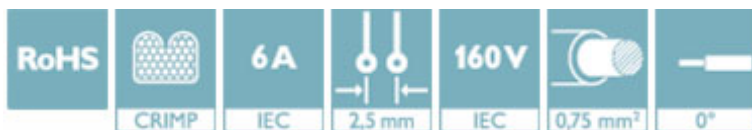
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PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm<sup>2</sup>, number of positions: 2, pitch: 2.5 mm, connection method: Crimp connection, color: white, contact surface: Tin

### Your advantages

- ✓ White design: Stable color when welding and during use
- ✓ High current carrying capacity of 6 A in very compact dimensions
- ✓ 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 | 250 pc  |
| GTIN         | <br>4 055626 495644 |
| GTIN         | 4055626495644   |

### 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       | 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-PI-2,5 WH - 1015242

## 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

|   |        |
|---|--------|
| 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 ]                 | 6.7 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         | 250                 |
| 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

### Mechanical tests according to standard

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

## Technical data

### 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)         | 0.8 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>      | 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               |

### Climatic tests (D)

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

## Technical data

### 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)

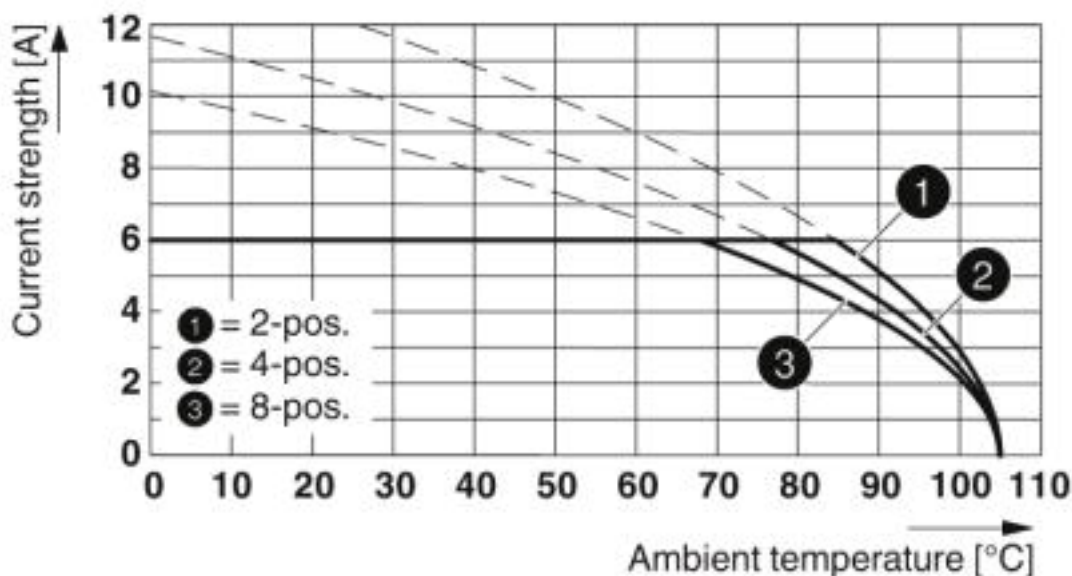
|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Specification                         | IEC 61984:2008-10                   |
| Result, degree of protection, IP code | Finger safety with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

## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440309 |
| eCl@ss 4.0    | 27260700 |
| eCl@ss 4.1    | 27260700 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| 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

#### 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 |
|---|

## Accessories

### Accessories

Crimp contact

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

### Accessories

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



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

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



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

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



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

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



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

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### 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 - PTCM 0,5/ 2-PI-2,5 WH - 1015242

### Accessories

Printed-circuit board connector - PTSM 0,5/ 2-P-2,5 WH - 1704853



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-HHI-2,5-SMD WHR24 - 1707990



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

Feed-through header - PTSM 0,5/ 2-HHI0-2,5-SMD WHR24 - 1815196



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-HHI-2,5-THR WH R24 - 1814980



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, solder pin [P]: 2.1 mm

Printed-circuit board connector - PTSM 0,5/ 2-PL-2,5 WH - 1709457



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

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

### Accessories

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



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

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