

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



1015248

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

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 documentation. Our general terms of use for downloads are valid.



PCB connector, nominal cross section: 0.75 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, 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 method: 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 |

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



1015248

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

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

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 |
| Note on change in voltage | With a cable cross-section of AWG 18 or 0.75 mm ² , the rated insulation voltage is reduced to 63 V with a rated surge voltage of 1.5 kV and a pollution degree of 1 or 2, depending on the insulation thickness of the cable used. |

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 type | 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) |

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



1015248

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

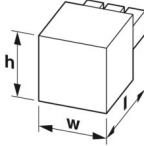
| | |
|-----------------------------|--|
| Conductor cross-section AWG | 26 ... 18 (Maximum external diameter of the insulation 1.9 mm) |
| Stripping length | 4.1 mm ... 4.5 mm |

Material specifications

Material data - housing

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

Notes

| | |
|---------------------------|--|
| Note on the contact | The information on the basic material and the finish properties of the crimp contacts is to be found in the E-Shop in the technical data for the respective crimp contact. |
| Note on application | All laboratory tests are performed in combination with the crimp contacts specified as accessories. |
| Note on application | The current depends on the crimp contact and conductor cross-section used. |
| Note on application | The corresponding crimp contacts are to be found in the "Accessories" tab. |
| Note on application | The crimp contacts may only be processed with approved crimping tools. |
| Note on the contact | These connectors conform to DIN EN 61984, connectors without switching power (COC). When used for their intended purpose, they must not be plugged in or disconnected live or under load. |
| Note on change in voltage | With a cable cross-section of AWG 18 or 0.75 mm ² , the rated insulation voltage is reduced to 63 V with a rated surge voltage of 1.5 kV and a pollution degree of 1 or 2, depending on the insulation thickness of the cable used. |

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



1015248

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

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

| | |
|-------------------------------------|------------------------|
| Specification | IEC 60512-13-2:2006-02 |
| 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 |

Dimension check

| | |
|---------------|-----------------------|
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |

Environmental and real-life conditions

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 |

Vibration test

| | |
|---------------|-----------------------|
| Specification | IEC 60068-2-6:2007-12 |
|---------------|-----------------------|

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



1015248

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

| | |
|------------------------|-----------------------------|
| 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 |
| Test directions | X-, Y- and Z-axis |

Shocks

| | |
|-----------------|-----------------------------------|
| Specification | IEC 60068-2-27:2008-02 |
| Pulse shape | Semi-sinusoidal |
| Acceleration | 30g |
| Shock duration | 18 ms |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |

Railway application: Oscillation/broadband noise

| | |
|------------------------|--|
| Specification | DIN EN 50155 (VDE 0115-200):2018-05 IEC 61373:2010-05 |
| Spectrum | Long life test category 1, class B, body mounted |
| Frequency | $f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$ |
| ASD level | 0.964 (m/s ²)/Hz |
| Acceleration | 0.572 g |
| Test duration per axis | 5 h |
| Test directions | X-, Y- and Z-axis |
| Contact interruption | < 1 μs |
| Result | Test passed |

Railway application: Shocks

| | |
|--------------------------------|--|
| Specification | DIN EN 50155 (VDE 0115-200):2018-05 IEC 61373:2010-05 |
| Pulse shape | Semi-sinusoidal |
| Acceleration | 30g |
| Shock duration | 18 ms |
| Number of shocks per direction | 3 |
| Test directions | X-, Y- and Z-axis (pos. and neg.) |
| Contact interruption | < 1 μs |
| Result | Test passed |

Ambient conditions

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Electrical tests

Thermal test | Test group C

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



1015248

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

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

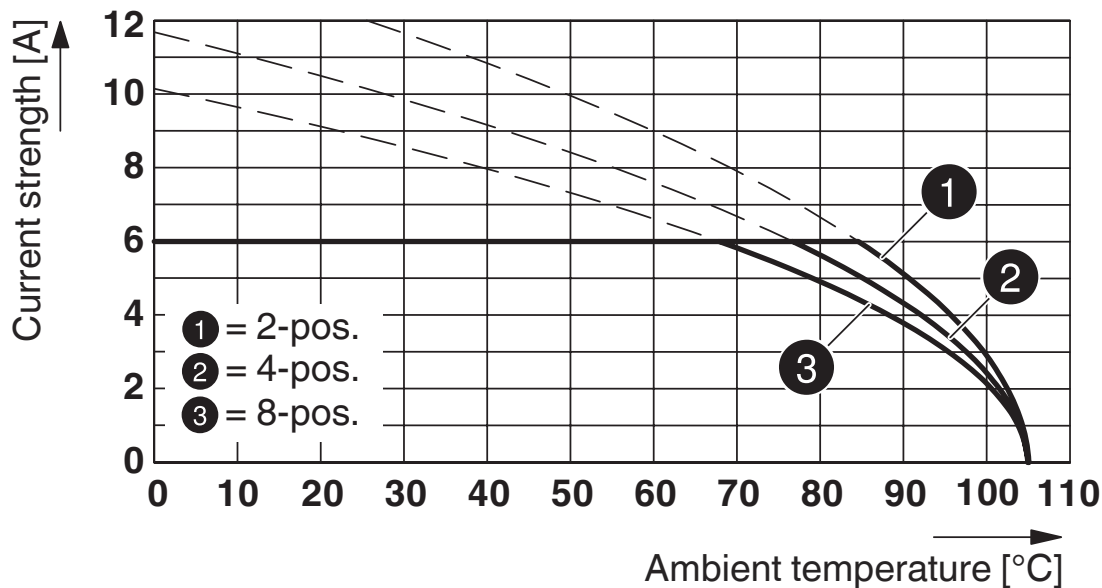
| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

1015248

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

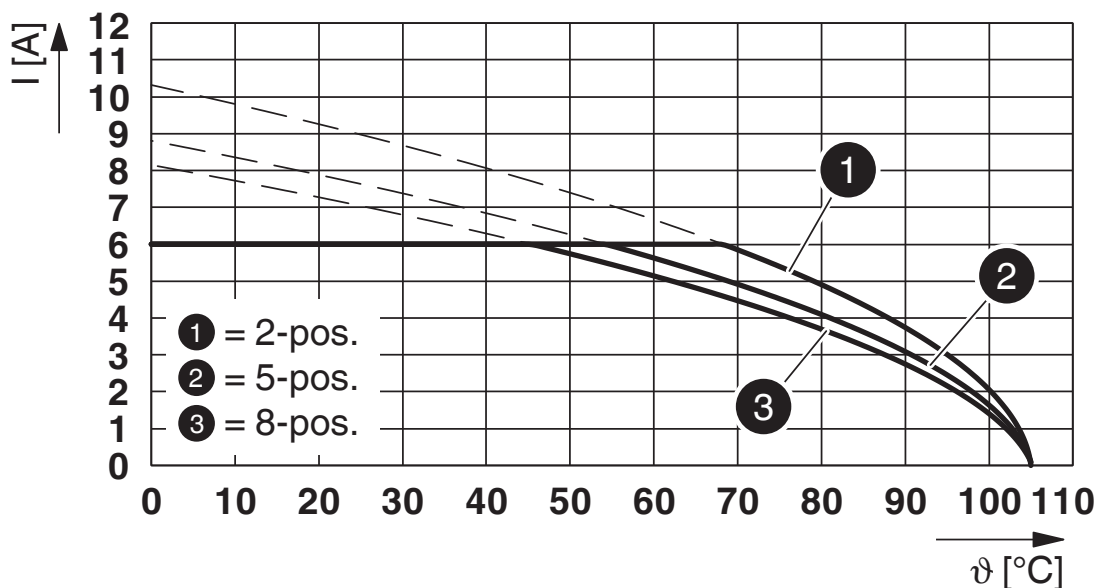
Drawings

Diagram



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

Diagram



Type: PTCM 0,5/...-PI-2,5 WH with PTSM 0,5/...-HHI0-2,5-SMD WHR...

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





1015248

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

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 |
| B | 150 V | 5 A | 22 - 18 | - |
| D | 150 V | 5 A | 22 - 18 | - |

|  VDE approval of drawings Approval ID: 40048497 | | | | |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | 160 V | 6 A | - | 0.14 - 0.75 |

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



1015248

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

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460202 |
| ECLASS-15.0 | 27460202 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002638 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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



1015248

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

Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

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% |
|-------------------------------------|----------------------------|

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com