

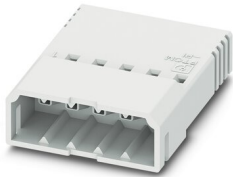
PTCM 0,5/ 7-PI-2,5 WH - Printed-circuit board connector



1015247

<https://www.phoenixcontact.com/us/products/1015247>

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PCB connector, nominal cross section: 0.75 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Pin, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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 | 1015247 |
| Packing unit | 1 pc |
| Minimum order quantity | 100 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA01 |
| Product key | AAACPB |
| GTIN | 4055626496214 |
| Weight per piece (including packing) | 0.948 g |
| Weight per piece (excluding packing) | 0.948 g |
| Customs tariff number | 85389099 |
| Country of origin | DE |

PTCM 0,5/ 7-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 | 7 |
| Pitch | 2.5 mm |
| Number of connections | 7 |
| Number of rows | 1 |
| Number of potentials | 7 |

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 ² |
| 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 ² ... 0.75 mm ² (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/ 7-PI-2,5 WH - Printed-circuit board connector



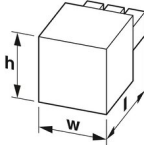
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Material data - housing

| | |
|-------------------------------------------------------------------|--------------|
| 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] | 19.2 mm |
| Height [h] | 5 mm |
| Length [l] | 18.3 mm |

Mounting

| | |
|-------------------|------------------|
| Connection method | Crimp connection |
|-------------------|------------------|

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

| | |
|-------------------------------------|-------------|
| 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 ³ SO ₂ on 300 dm ³ /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 |

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

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

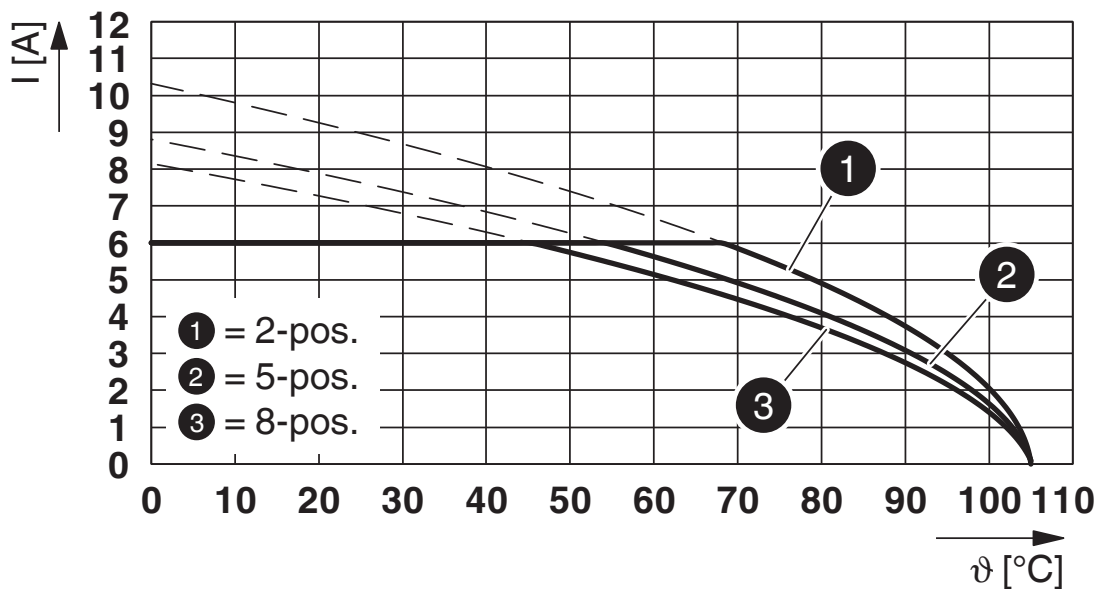


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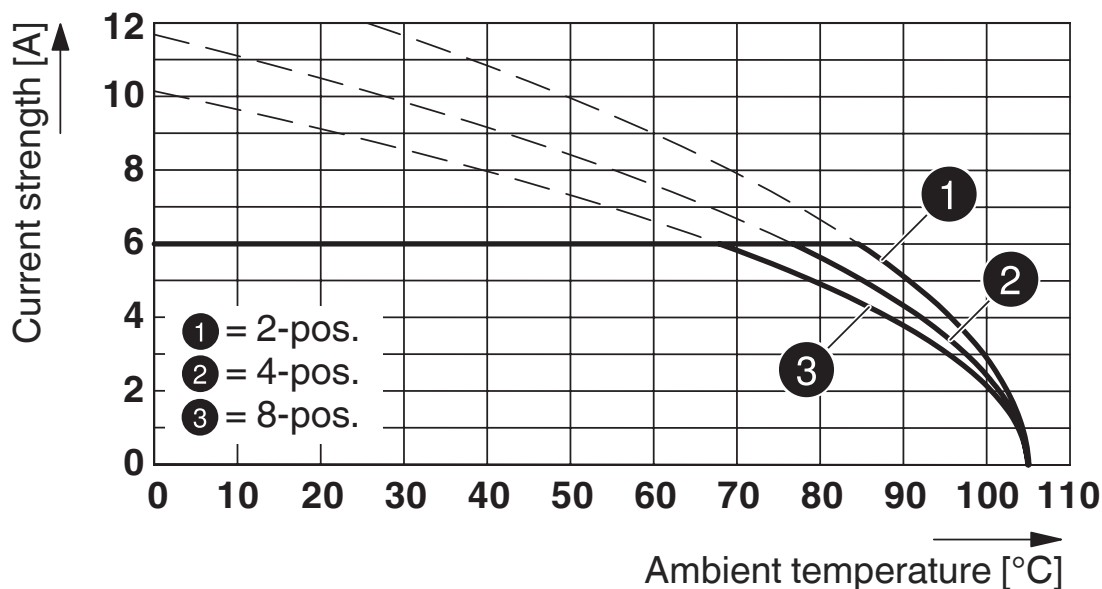
Drawings

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/ 7-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/1015247>

|  cULus Recognized Approval ID: E60425-20101209 | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| Use group B | 150 V | 5 A | 22 - 18 | - |
| Use group D | 150 V | 5 A | 22 - 18 | - |

| | | | | |
|----------------------------------------------------------------------------------------------------------------------|--|--|--|--|
|  EAC Approval ID: B.01687 | | | | |
|----------------------------------------------------------------------------------------------------------------------|--|--|--|--|

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

PTCM 0,5/ 7-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 |
|----------|----------|

UNSPSC

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

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



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Accessories

PTCM-MP-PI 0,34-0,75 R - Crimp contact

1013987

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Crimp contact, nominal current: 6 A, contact connection type: Pin, connection method: Crimp connection, contact surface: Tin, type of packaging: Belt

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/ 7-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

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/ 7-PI-2,5 WH - Printed-circuit board connector



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CRIMPFOX-P CC 0.75 L - Crimping pliers

1064998

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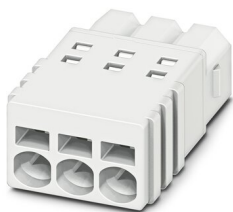


Crimping pliers, for COMBICON crimp connectors with cross section: 0.14 ... 0.75 mm². Unlockable pressure lock, precise parallel crimping, front entry, B crimp, incl. 2 positioning aids

PTSM 0,5/ 7-P-2,5 WH - PCB connector

1704860

<https://www.phoenixcontact.com/us/products/1704860>



PCB connector, nominal cross section: 0.5 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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/ 7-PI-2,5 WH - Printed-circuit board connector



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PTSM 0,5/ 7-HHI-2,5-SMD WHR44 - PCB header

1707999

<https://www.phoenixcontact.com/us/products/1707999>



PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, product range: PTSM 0,5/...-HHI-SMD WH, pitch: 2.5 mm, mounting: SMD soldering, pin layout: Linear pinning, 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

PTSM 0,5/ 7-HHI0-2,5-SMD WHR44 - PCB header

1815248

<https://www.phoenixcontact.com/us/products/1815248>



PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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/ 7-PI-2,5 WH - Printed-circuit board connector



1015247

<https://www.phoenixcontact.com/us/products/1015247>

PTSM 0,5/ 7-HHI-2,5-THR WH R32 - PCB header

1815031

<https://www.phoenixcontact.com/us/products/1815031>



PCB headers, nominal cross section: 0.5 mm², color: signal white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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

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

1709464

<https://www.phoenixcontact.com/us/products/1709464>



PCB connector, nominal cross section: 0.5 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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/ 7-PI-2,5 WH - Printed-circuit board connector



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

1015459

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PCB connector, nominal cross section: 0.75 mm², color: white, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 7, number of rows: 1, number of positions: 7, number of connections: 7, 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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