

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

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PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm², number of positions: 7, pitch: 2.5 mm, connection method: Crimp connection, color: white, contact surface: Tin



The figure shows a 5-pos. version of the product

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	100 pc
GTIN	
GTIN	4055626496436

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	7
Connection method	Crimp connection
Number of levels	1
Number of connections	7
Number of potentials	7

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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 ² ... 0.75 mm ² (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

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]	16.2 mm
Width [w]	16.96 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	100
Denomination packing units	Pcs.

Ambient conditions

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Technical data

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
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 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 PTSM 0,5/...-HH-2,5-THR WH R...
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)

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Technical data

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	2.1 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 0,4 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	8
Conductor cross section	0.75 mm ²
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 ³ SO ₂ on 300 dm ³ /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

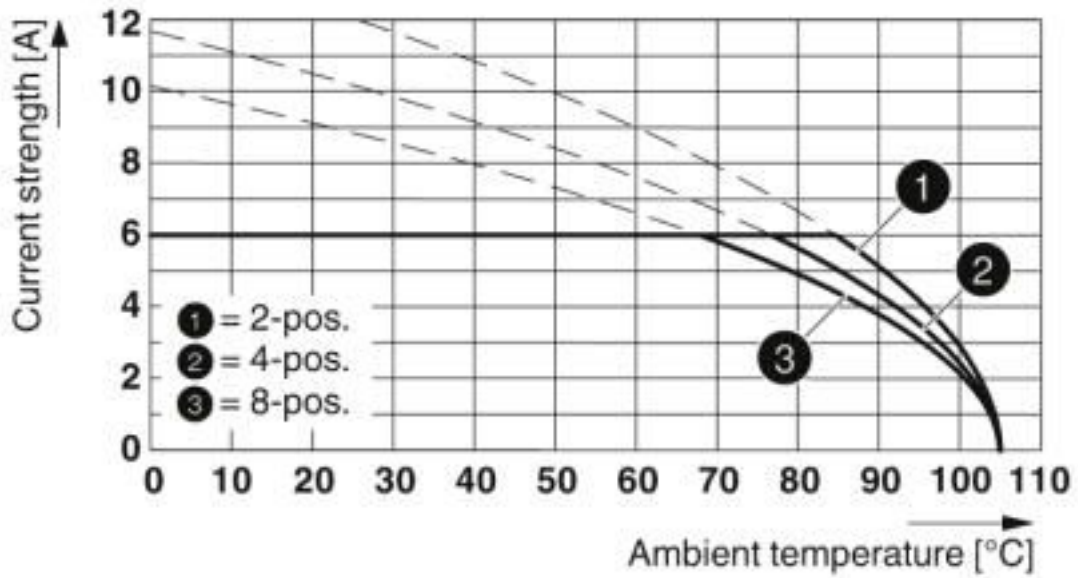
Environmental Product Compliance

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

Drawings

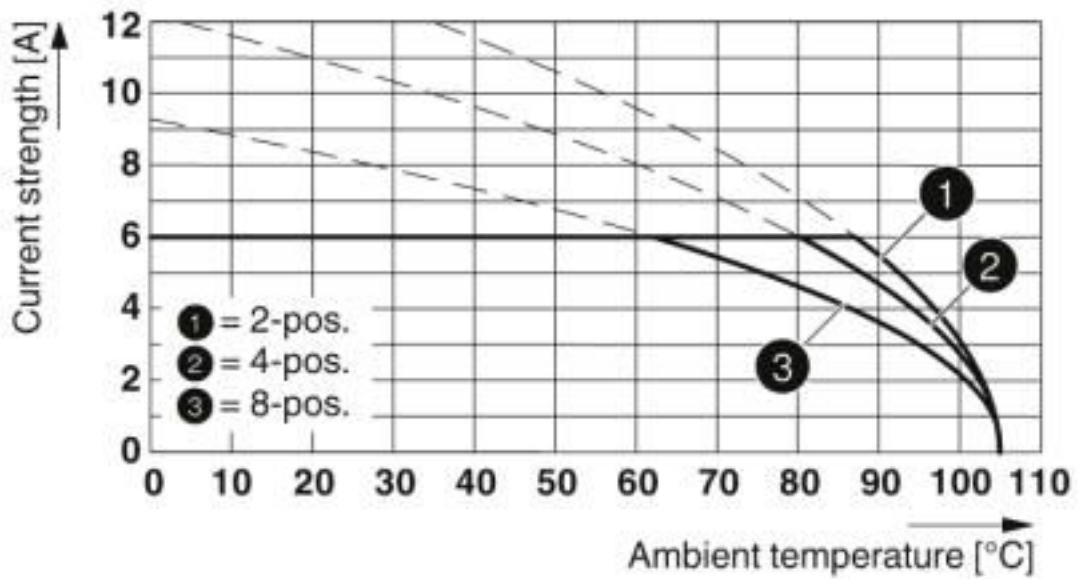
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Diagram



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

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

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Classifications

eCl@ss

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  http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-20101209		
	B	D
Nominal voltage UN	150 V	150 V
Nominal current IN	6 A	6 A
mm ² /AWG/kcmil	22-18	22-18

EAC 	B.01687
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VDE Zeichengenehmigung 	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx 40048497
Nominal voltage UN	160 V

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Approvals

Nominal current I _N	6 A
mm ² /AWG/kcmil	0.14-.75

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

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

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Accessories

Crimping pliers - CRIMPFOX-P CC 0.75 L - 1064998



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

Additional products

Feed-through header - PTSM 0,5/ 7-HH0-2,5-SMD WH R44 - 1814964



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry

Feed-through header - PTSM 0,5/ 7-HV-2,5-SMD WH R44 - 1778748



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², 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

Feed-through header - PTSM 0,5/ 7-HV0-2,5-SMD WH R44 - 1839240



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: SMD soldering, pin layout: Linear pad geometry

Feed-through header - PTSM 0,5/ 7-HTB-2,5-SMD WH R44 - 1830171



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², 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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Accessories

Feed-through header - PTSM 0,5/ 7-HH-2,5-THR WH R44 - 1814896



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², 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

Feed-through header - PTSM 0,5/ 7-HV-2,5-THR WH R44 - 1815316



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, color: white, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm

Printed-circuit board connector - PTSM 0,5/ 7-PI-2,5 WH - 1709455



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², number of positions: 7, pitch: 2.5 mm, connection method: Push-in spring connection, color: white, contact surface: Tin

Feed-through header - PTSM 0,5/ 7-HH-2,5-SMD WH R44 - 1708016



PCB headers, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm², 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

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



PCB connector, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.75 mm², number of positions: 7, pitch: 2.5 mm, connection method: Crimp connection, color: white, contact surface: Tin

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