

PCB plug - MSTB 2,5/ 8-ST RD H1L VPE250 - 1012218

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PCB connector, nominal cross section: 2.5 mm², color: red, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 8, Number of rows: 1, Number of positions per row: 8, number of connections: 8, product range: MSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors

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Commercial Data

Order Key	1012218
Packing unit	250 pc
Minimum order quantity	250 pc
Note	Made to Order (non-returnable)
GTIN	4055626489209
Weight per Piece (including packing)	13.5 GRM
Weight per Piece (excluding packing)	13.0 GRM
Customs tariff number	85366990

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Technical Data

Mounting

Drive form screw head	Philipps recess with slotted Torx
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Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	24

Electrical properties

Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Contact resistance	1.4 mΩ
Pollution degree	2

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

Electrical properties

Contact resistance	1.5 mΩ
Insulation resistance	> 1 TΩ, (DIN EN 60512-3-1:2003-01)
Contact resistance	2.5 mΩ
Insulation resistance	> 0,4 TΩ, (DIN EN 60512-3-1:2003-01)
Contact resistance	1.8 mΩ
Insulation resistance	> 80 GΩ, (IEC 60512-3-1:2002-02)
Contact resistance	2.6 mΩ
Insulation resistance	> 0.2 TΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.8 mΩ

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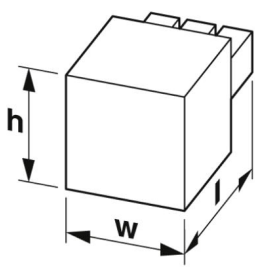
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Insulation resistance	> 50 GΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.5 mΩ
Insulation resistance	11 TΩ, (DIN EN 60512-3-1:2003-01)
Contact resistance	1.2 mΩ
Insulation resistance	> 1 TΩ, (DIN EN 60512-3-1:2003-01)
Contact resistance	1.2 mΩ
Insulation resistance	> 1 TΩ, (DIN EN 60512-3-1:2003-01)
Contact resistance	1.4 mΩ
Insulation resistance	> 0.1 TΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.5 mΩ
Insulation resistance	> 0.3 TΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.6 mΩ
Insulation resistance	> 0.3 TΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.6 mΩ
Insulation resistance	> 50 GΩ, (IEC 60512-3-1:2002-02)
Contact resistance	2.6 mΩ
Insulation resistance	> 0.3 TΩ, (IEC 60512-3-1:2002-02)
Contact resistance	1.6 mΩ
Insulation resistance	> 94 GΩ, (IEC 60512-3-1:2002-02)
Nominal current I _N	12 A

Packaging specifications

Type of packaging	packed in cardboard
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Dimensions

Dimensional drawing	
Width	40 mm
Height	15 mm
Length	18.2 mm
Pitch	5 mm

Environmental and durability tests

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R ₁	1.4 mΩ

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Contact resistance R_2	1.5 m Ω
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 0,4 T Ω

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	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Ambient conditions

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

Mechanical tests

Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Result	Test passed
Test force per pos.	36 N

Torque test

Specification	IEC 60999-1:1999-11
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Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

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Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / flexible / > 10 N
Conductor cross section/conductor type/tractive force setpoint/actual value	2.5 mm ² / solid / > 50 N
Conductor cross section/conductor type/tractive force setpoint/actual value	2.5 mm ² / flexible / > 50 N

Visual inspection

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

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Dimension check

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

Notes

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Connection data

Connection technology

Type	Standard
Plug-in system	CLASSIC COMBICON
Nominal cross section	2.5 mm ²
Type of contact	Female connector

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with same cross section, solid	0.2 mm ² ... 1 mm ²

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2 conductors with same cross section, flexible	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.4 mm / 2.5 mm
Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

Interlock

Locking type	without
Mounting flange	without

Material specifications

Material data - housing

Housing color	red (3001)
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

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
Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)

Product properties

Number of positions	8
Number of connections	8
Number of levels	1
Plug-in system	CLASSIC COMBICON
Number of potentials	8

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Approvals

EAC

cULus Recognized

Usegroup	B	D
Nominal voltage U_N	300 V	300 V
Nominal current I_N	15 A	10 A
AWG/kcmil	30 mm ²	30 mm ²
Min. cross section	12 mm ²	12 mm ²
Max. cross section		

IECEE CB Scheme

Nominal voltage U_N	250 V
Nominal current I_N	12 A
AWG/kcmil	
Min. cross section	0.2 mm ²
Max. cross section	2.5 mm ²

VDE Zeichengenehmigung

Nominal voltage U_N	250 V
Nominal current I_N	12 A
AWG/kcmil	
Min. cross section	0.2 mm ²
Max. cross section	2.5 mm ²

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