SPE-T1-M8MSM-180 - SPE PCB connector

1163793

https://www.phoenixcontact.com/us/products/1163793

PHŒNIX CONTACT

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SPE PCB connector, design: IEC 63171-5, degree of protection: IP20, number of positions: 2, 10 Gbps, CAT B (ISO/IEC 63171), material: Plastic, connection method: THR solder connection, Single Pair Ethernet

Your advantages

- Connectors in accordance with IEC 63171-2
- THR solderable
- Data transmission up to 600 MHz
- Packaging available for automated pick and place assembly
- Reduced mounting costs thanks to two-piece device connector

Commercial data

Item number	1163793
Packing unit	1 pc
Minimum order quantity	100 pc
Sales key	AB13
Product key	ABNBDA
GTIN	4063151176617
Weight per piece (including packing)	5.75 g
Weight per piece (excluding packing)	5.64 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Product properties

Type	SPE
Product type	Data connector (device side)
Sensor type	Single Pair Ethernet
Number of positions	2
Type of packaging	Tape and Reel
Connection profile	SPE M8
Number of slots	1
Type	Socket
Shielded	yes
Thread type	M8

Insulation characteristics

Overvoltage category	I
Degree of pollution	2

Electrical properties

Rated voltage (III/2)	72 V DC
Rated surge voltage	2250 V DC
Rated surge voltage (III/2)	1500 V
Rated surge voltage	1000 V DC
Rated current	4 A
Frequency range	5 Hz ... 500 Hz
Insulation resistance	> 1 TΩ
Contact resistance	20 mΩ (in accordance with IEC 63171)
Transmission medium	Copper
Transmission characteristics (category)	CAT B (ISO/IEC 63171)
Transmission speed	1 Gbps
Power transmission	PoDL

Output data

Transmission frequency	600.00 MHz

Connection data

Connection technology

Connection method	THR solder connection
Locking mechanism tightening torque	0.2 Nm

Dimensions

Width	10.1 mm
Height	24 mm
Length	14.5 mm

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Installed height	21.50 mm
Orientation to	180.00 °

Material specifications

Material	LCP
Flammability rating according to UL 94	V0
Housing surface material	LCP
Contact material	Copper alloy
Contact surface material	Gold
Housing material	Plastic

Cable/line

Test voltage Core/Core	1000 V DC
Test voltage Core/Shield	2250 V DC
Halogen-free	yes
Resistance to oil	yes
Flame resistance	yes

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
Insertion force per signal contact	< 30.00 N (in accordance with IEC 63171)
Extraction force per signal contact	< 30 N (in accordance with IEC 63171)
Locking mechanism tightening torque	0.2 Nm

Environmental and real-life conditions

Test specification

Specification	IEC 63171
Cold stress	-40°C
Thermal stress	85°C
Corrosive stress	IEC 60512-11-7

Test specification

Specification	IEC 60068-2-6
Frequency	5-500 Hz
Sweep speed	1 octave/min
Amplitude	0.75 mm
Acceleration	100 m/s²
Test duration	20 s

Test specification

Specification	IEC 60068-2-27
Acceleration	500 m/s²
Number of shocks per direction	18

Test specification

Specification	IEC 60999-1

Ambient conditions

Degree of protection	IP65/IP67 (in combination with M8 housing screw connection)
	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Resistance to oil	yes

Standards and regulations

Flame resistance	yes
Resistance to oil	yes

Mounting

Mounting type	PCB mounting
Connection method	THR solder connection

Processing notes

Process	Reflow
Moisture Sensitive Level	MSL 1
Solder cycles in the reflow	3

Classifications

ECLASS

ECLASS-11.0	27440390
ECLASS-13.0	27440390
ECLASS-12.0	27440390

ETIM

ETIM 8.0	EC001121

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

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

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Accessories

SACC-FP-M-M8/M10 SMD - Housing screw connection

1412502

https://www.phoenixcontact.com/us/products/1412502

Housing screw connection, Plug, M8, Front mounting, M10 x 0.75

SACC-BP-M-M8/M12 SMD - Housing screw connection

1412505

https://www.phoenixcontact.com/us/products/1412505

Housing screw connection, Rear mounting, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239002

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