Data sheet

SPE M12F DC FPM16 RV 2.0 6 TY

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



Single Pair Ethernet PCB sockets
Single pair Ethernet is a technology that only requires one pair of wires to transmit data and power.
The resulting benefits will make SPE the preferred network at the field level and beyond.
Advantages of Single Pair Ethernet:

- Consistent: Single Pair Ethernet enables uniform Ethernet-based communication from the sensor to the cloud
- Future-proof: key technology for Industry 4.0 and IIoT
- Flexible: ranges of up to 1000 m and transmission properties of up to 1 Gbps enable use across applications
- Innovative: lighter, less space required, and reduced installation effort

General ordering data

Version	PCB plug-in connector, SPE (Single Pair Ethernet), Clip-on flange, THT/THR solder connection, Number of poles: 2, 180°, Solder pin length (l): 2 mm, Ni/Au, black, Tray
Order No.	3228130000
Type	SPE M12F DC FPM16 RV 2.0 6 TY
GTIN (EAN)	4069166016207
Qty.	1000 items
Packaging	Tray

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Technical data

Dimensions and weights

Depth	16.5 mm	Depth (inches)	0.6496 inch
Height	19.55 mm	Height (inches)	0.7697 inch
Height of lowest version	17.55 mm	Width	16.5 mm
Width (inches)	0.6496 inch	Net weight	3 g

System specifications

Number of poles	2	Solder pin length (l)	2 mm
Mounting onto the PCB	THT/THR solder connection	Shielding material	CuSn
Shielding	Yes	Side termination, characteristic	Clip-on flange
Transmission rate	10/100/1000 MBit/s	Number of solder pins per pole	1
Type of connection	Socket connector	Category	T1-B
Product family	OMNIMATE Data - Single Pair Ethernet	Protection degree	IP67 with housing
Plugging cycles	≥ 100	Outgoing elbow	180°
Shield surface	nickel-plated	Performance-Category	T1-B 10/100/1000 MBit/s
Soldering process	Reflow soldering, Manual soldering, Wave soldering	Solder pin dimensions	Octagonal

Electrical properties

Dielectric strength, contact / shield	2250 V DC	Dielectric strength, contact / contact	1000 V DC
Insulation resistance	≥ 100 MΩ	Nominal voltage	72 V

Standards

Connector standard	IEC 63171-7 ED2

Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Insulation resistance	≥ 100 MΩ	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	CuZn
Contact surface	Ni/Au	Operating temperature, min.	-40 °C
Operating temperature, max.	85 °C		

Packing

Packaging	Tray	VPE length	0.00 mm
VPE width	0.00 mm	VPE height	0.00 mm

Important note

Notes

Classifications

ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

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Drawings









