Data sheet

SPE P20 R1H 2.1 6 N/N TU

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, 1.80 mm, Number of poles: 2, 90°, Solder pin length (l): 2.1 mm, Ni/Au, black, Tube
Order No.	3150600000
Type	SPE P20 R1H 2.1 6 N/N TU
GTIN (EAN)	4099987609906
Qty.	62 items
Packaging	Tube

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Technical data

Dimensions and weights

Depth	21.5 mm	Depth (inches)	0.8465 inch
Height	12.35 mm	Height (inches)	0.4862 inch
Height of lowest version	9.95 mm	Width	9 mm
Width (inches)	0.3543 inch	Net weight	1.44 g

Temperatures

Installation temperature	-40 °C ... 85 °C

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

System specifications

Number of poles	2	LED	No
Solder pin length (l)	2.1 mm	Mounting onto the PCB	THT/THR solder connection
Pitch in inches (P)	0.071 "	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	Solder connection	Category	CAT B (ISO/IEC 63171)
Product family	OMNIMATE Data - Single Pair Ethernet	Pitch in mm (P)	1.80 mm
Protection degree	IP20	Plugging cycles	750
Model	Socket connector	Outgoing elbow	90°
Shield surface	tinned	Shield tabs	none
Performance-Category	CAT B (ISO/IEC 63171) 10/100/1000 MBit/s	Soldering process	Reflow soldering, Manual soldering, Wave soldering
Latch option	top	Solder pin dimensions	Octagonal

Electrical properties

Dielectric strength, contact / shield	2250 V DC	Dielectric strength, contact / contact	1000 V DC
Insulation resistance	≥ 500 MΩ	Nominal voltage	72 V
PoE / PoE+	PoDL acc. to IEEE 802.3bu / cg		

Standards

Connector standard	IEC 63171-7 ED2

Material data

Insulating material	PA 9T	Colour	black
Colour chart (similar)	RAL 9011	Insulation resistance	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact base material	Copper alloy	Contact material	Cu-alloy
Contact surface	Ni/Au	Layer structure of solder connection	2...4 µm Ni / ≥ 0.25 µm Au
Layer structure of plug contact	2...4 µm Ni / ≥ 0.25 µm Au	Storage temperature, min.	-40 °C
Storage temperature, max.	85 °C	Operating temperature, min.	-40 °C
Operating temperature, max.	85 °C		

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Packing

Packaging	Tube	VPE length	555.00 mm
VPE width	25.00 mm	VPE height	17.00 mm

Important note

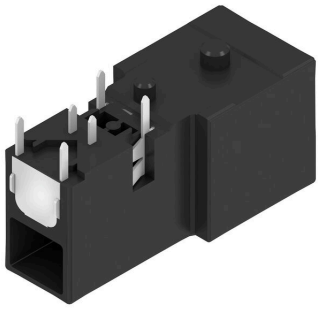
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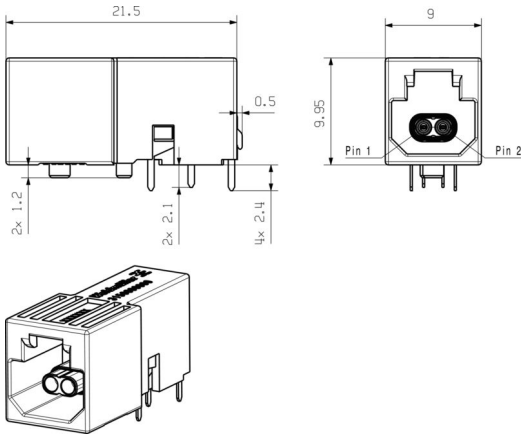
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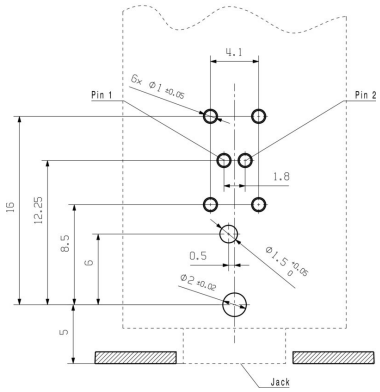
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Drawings

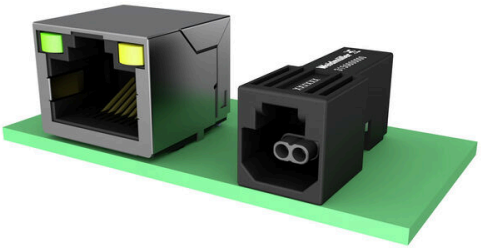




M 4:1
Installation position and hole pattern PCB



Product benefits



Product benefits



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Counterpart

Single Pair Ethernet tool-free



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General ordering data

Type	IE-PS-SP0-S-FH-2-180	Version
Order No.	3150000000	
GTIN (EAN)	4099987605045	
Qty.	1 ST	