IE-PCB-SPM-P-180-SMD

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

www.weidmueller.com

SPElink®

RoHS COMPLIANT

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	Built-in plugs, M8 PCB insert, IP67 with housing, SMD solder connection, 180°, Number of poles: 2
Order No.	2795110000
Type	IE-PCB-SPM-P-180-SMD
GTIN (EAN)	4064675119166
Qty.	100 pc(s).

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Technical data

Dimensions and weights

Depth	14.5 mm	Depth (inches)	0.571 inch
Height	22.1 mm	Height (inches)	0.87 inch
Width	10.1 mm	Width (inches)	0.398 inch
Net weight	5.14 g		

Temperatures

Operating temperature	-40 °C...85 °C

System specifications

Category	T1-B	Mounting onto the PCB	SMD solder connection
Number of poles	2	Outgoing elbow	180°
Performance-Category	T1-B	Plugging cycles	≥ 100
Product family	Industrial Ethernet	Protection degree	IP67 with housing
Soldering process	Reflow soldering, Manual soldering		

Electrical properties

Insulation strength	≥ 500 MΩ	Rated current	4 A
Rated voltage	72 V		

Standards

Connector standard	IEC 63171-5

Material data

Insulating material	LCP	Colour	black
Colour chart (similar)	RAL 9011	Insulation strength	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	Ni/Au
Operating temperature, min.	-40 °C	Operating temperature, max.	85 °C

Packing

VPE length	327 mm	VPE width	327 mm
VPE height	52 mm		

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01
ECLASS 12.0	27-46-02-01	ECLASS 13.0	27-46-02-01
ECLASS 14.0	27-46-02-01		

Environmental Product Compliance

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

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Technical data

Approvals

ROHS	Conform

Downloads

Engineering Data	CAD data – STEP
Technical Documentation	IE-PCB-SPM-P-180-SMD
Catalogues	Catalogues in PDF-format

IE-PCB-SPM-P-180-SMD

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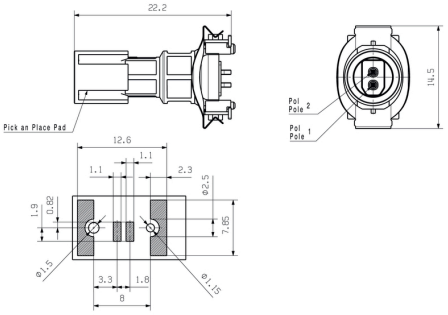
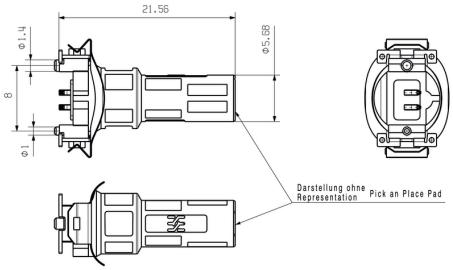
Drawings





Reflow Solder Profile

Recommended reflow soldering profile

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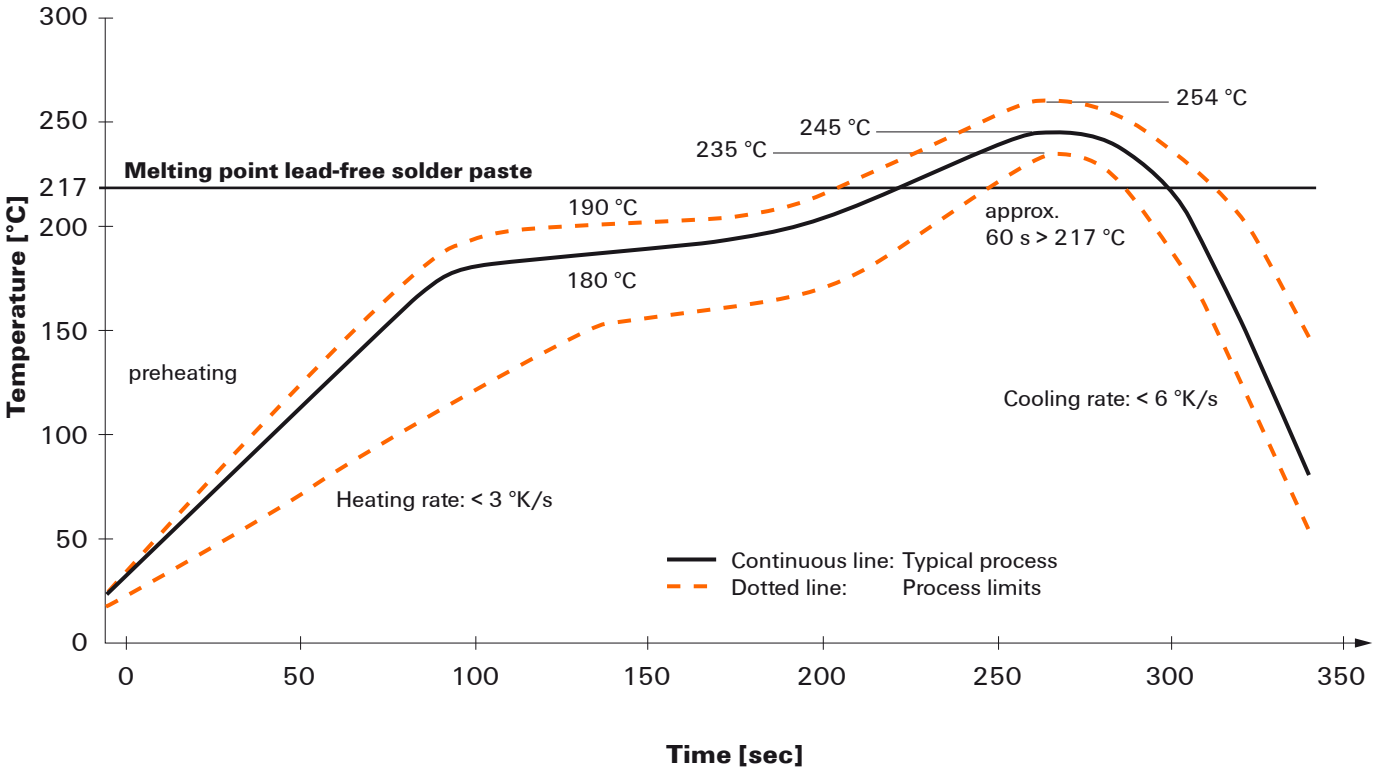

Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:
- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically ≤ +3K/s. In parallel the solder paste is ‚activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at ≥ -6K/s solder is cured. Board and components cool down while avoiding cold cracks.