

**IE-PCB-SPM-P-180-SMD****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



SPElink®

**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.	<a href="#">2795110000</a>
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
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**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
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**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

**Environmental Product Compliance**

REACH SVHC

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**Technical data****Approvals**

ROHS	Conform
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**Downloads**

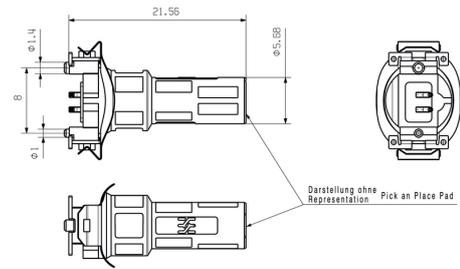
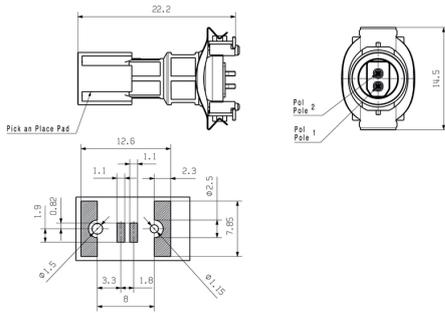
Engineering Data	<a href="#">CAD data – STEP</a>
Technical Documentation	<a href="#">IE-PCB-SPM-P-180-SMD</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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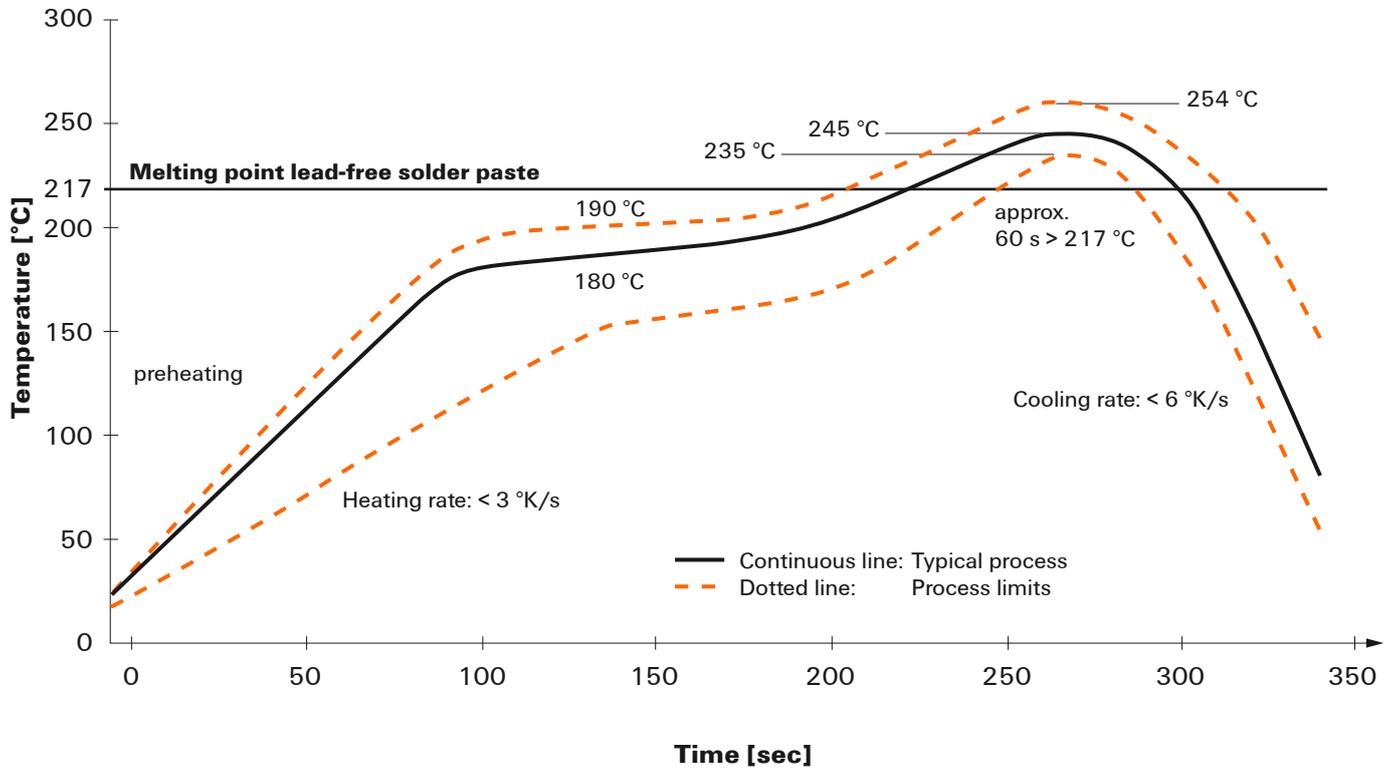
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**Drawings**



## 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  $\leq +3K/s$ . 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  $\geq -6K/s$  solder is cured. Board and components cool down while avoiding cold cracks.