IE-PCB-SPM-P-90-THR

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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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	Built-in plugs, M8 PCB insert, Solder connection, Male contact, IP67 with housing, THT/THR solder connection, 90°, Number of poles: 2
Order No.	2795100000
Type	IE-PCB-SPM-P-90-THR
GTIN (EAN)	4064675119159
Qty.	100 pc(s).

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Technical data

Dimensions and weights

Depth	31.6 mm	Depth (inches)	1.244 inch
Height	14.5 mm	Height (inches)	0.571 inch
Width	15.2 mm	Width (inches)	0.598 inch
Net weight	8.14 g		

Temperatures

Operating temperature	-40 °C...85 °C

System specifications

Category	T1-B	Mounting onto the PCB	THT/THR solder connection
Number of poles	2	Outgoing elbow	90°
Performance-Category	T1-B	Plugging cycles	≥ 100
Product family	Industrial Ethernet	Protection degree	IP67 with housing
Soldering process	Reflow soldering, Manual soldering, Wave soldering	Type of connection	Solder connection, Male contact

Electrical properties

Dielectric strength, contact / contact	1000 V DC	Dielectric strength, contact / shield	2250 V DC
Insulation strength	≥ 500 MΩ	Rated current	4 A
Rated voltage	72 V		

Standards

Connector standard	IEC 63171-5

Material data

Insulating material	LCP	Colour	silver, black
Colour chart (similar)	RAL 7001, RAL 9011	Insulation strength	≥ 500 MΩ
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	Ni/Au
Operating temperature, min.	-40 °C	Operating temperature, max.	85 °C

Packing

VPE length	330 mm	VPE width	330 mm
VPE height	50 mm		

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	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		

Approvals

ROHS	Conform

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Technical data

Downloads

Technical Documentation	IE-PCB-SPM-P-90-THR
Catalogues	Catalogues in PDF-format

Wave Solder Profile

Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG
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Fon: +49 5231 14-0
Fax: +49 5231 14-292083
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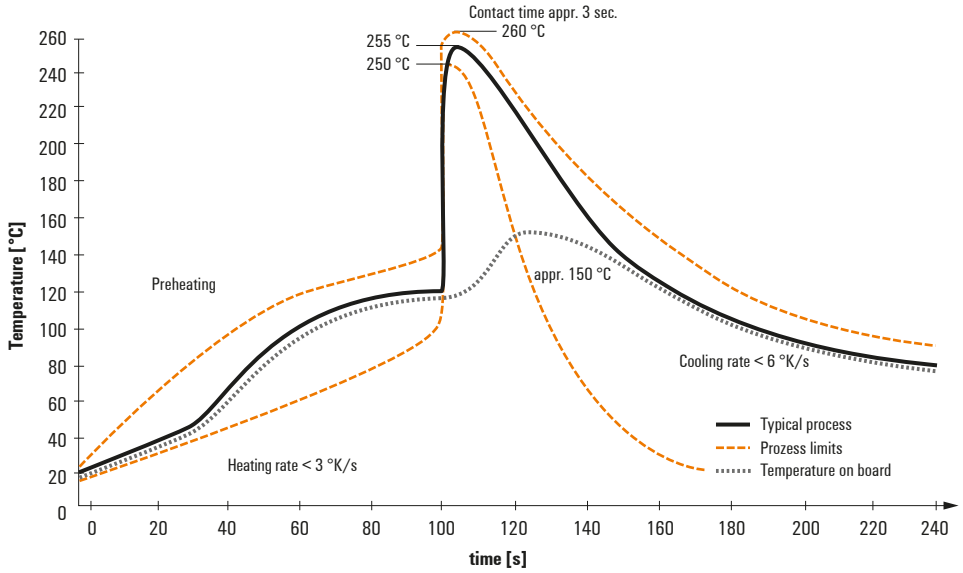
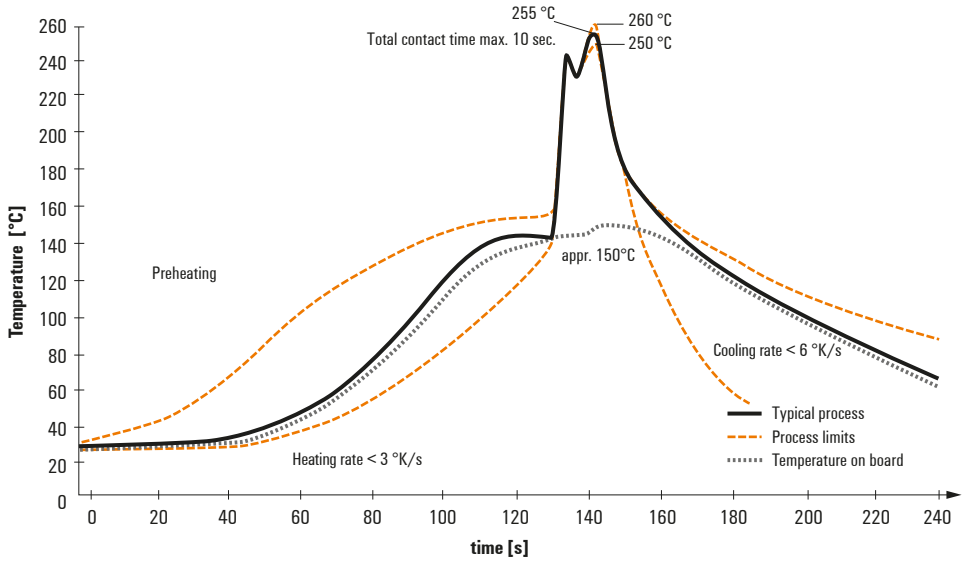
Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

Reflow Solder Profile

Recommended reflow soldering profile

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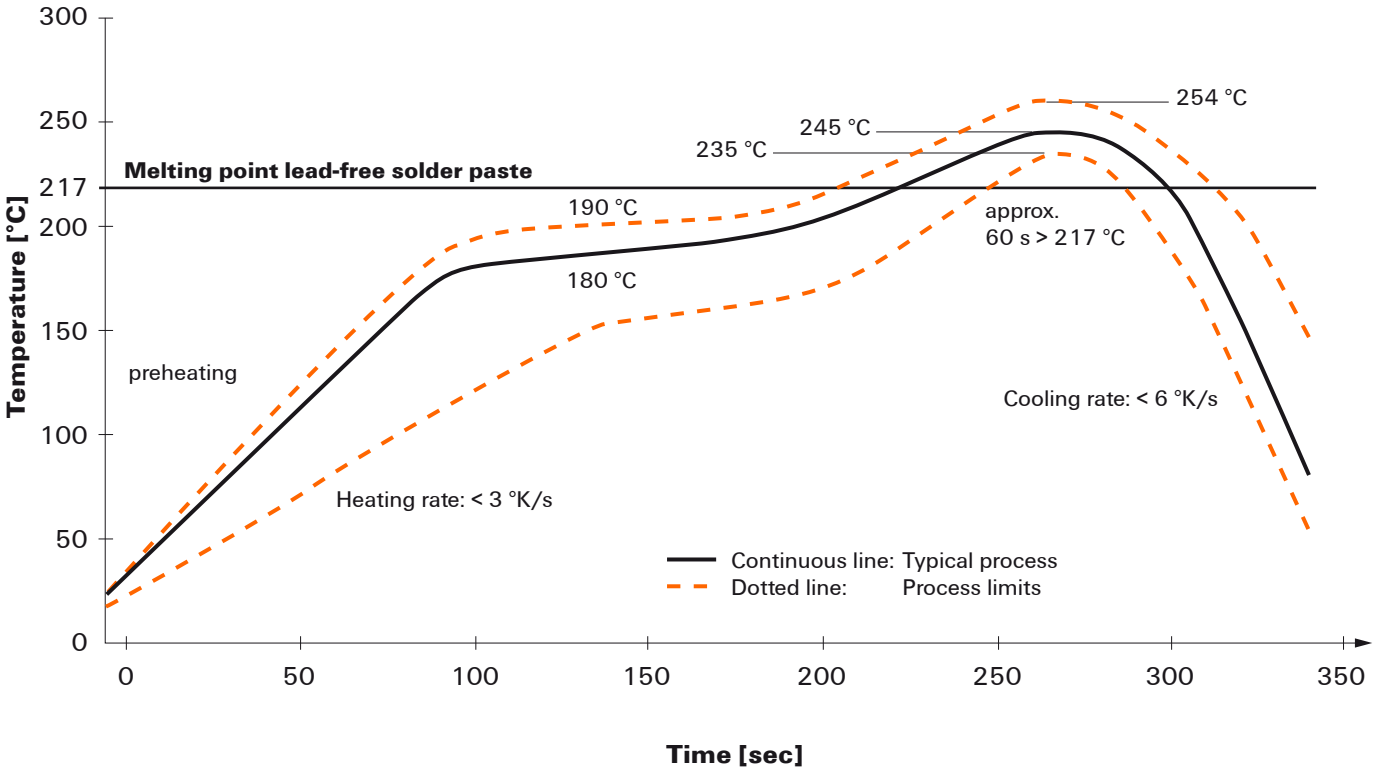

Reflow soldering profile

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.