SAIE-M8S-4S-F10THR

Weidmüller Interface GmbH & Co. KG
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Similar to illustration

Weidmüller is one of the industry's leading international providers of connectors. An important mainstay in this product family are the circular connectors, which Weidmüller groups under the product name SAI. In the development of SAI products, Weidmüller engineers have always concentrated on achieving rational, cost-effective installation concepts, and – in cooperation with major users – have supplied the markets with well-conceived products which set standards in terms of functionality and quality across the globe. The best examples are the new power distributors with S and T coded M12. These modules are characterised by particularly high currents and voltages. This enables them to also be used, for example, with three-phase motors.

General ordering data

Type	SAIE-M8S-4S-F10THR
Order No.	2423190000
Version	Built-in plugs, M8, Number of poles: 4, Front mounting
GTIN (EAN)	4050118430196
Qty.	25 pc(s).

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Technical data

Dimensions and weights

Net weight	3.84 g

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

Technical data of PCB plug-in connector

Coding	M8 = none	Housing surface	nickel-plated
Housings	M8 pin	Mounting height	13 mm
Mounting thread	M10	Number of poles	4
Shield connection	Yes	Type of mounting	Front mounting
Rated voltage	30 V	Rated current	4 A
Temperature range	-30...80 °C	Protection degree	IP67
Contact surface	Au (Gold)	Housing main material	CuZn, nickel-plated
Connection thread	M8	Tightening torque	M8: 0.5 Nm
Mounting thread	M10	Mounting torque range	0.8 Nm
Mounting onto the PCB	THT/THR solder connection	Insulation strength	100 MΩ
Pollution severity	3 (2 within the sealed area)	Plugging cycles	≥ 100
Contact material	CuZn	Seal material	NBR
Lock nut material	Nickel-plated CuZn	Material of the flange-mounted housing	Nickel-plated CuZn
Grouting material	PUR		

Material data

Contact material	CuZn	Contact surface	Au (Gold)

System parameters

Mounting onto the PCB	THT/THR solder connection	Insulation strength	100 MΩ
Number of poles	4	Pin series quantity	1
Plugging cycles	≥ 100	Protection degree	IP67

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09		

Approvals

ROHS	Conform

Downloads

Brochure/Catalogue	FL FIELDWIRING EN
Engineering Data	STEP

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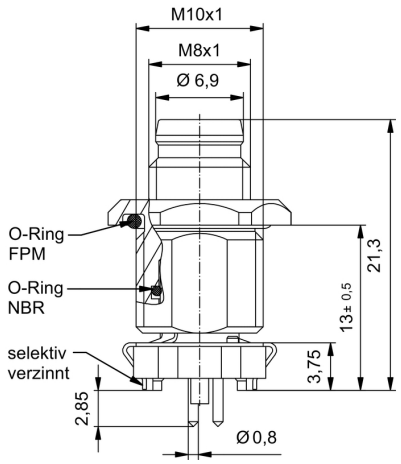
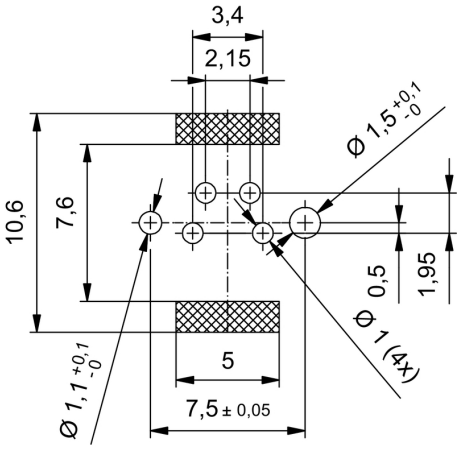
Drawings

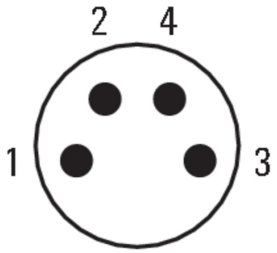
Dimensioned drawing



PCB design



Pole scheme



Wave Solder Profile

Recommended wave solderding profiles

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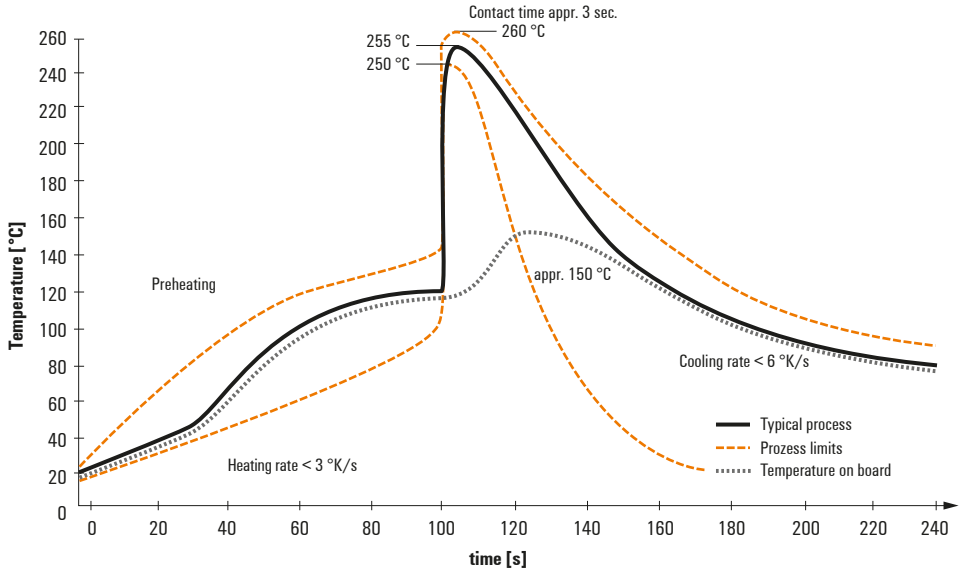
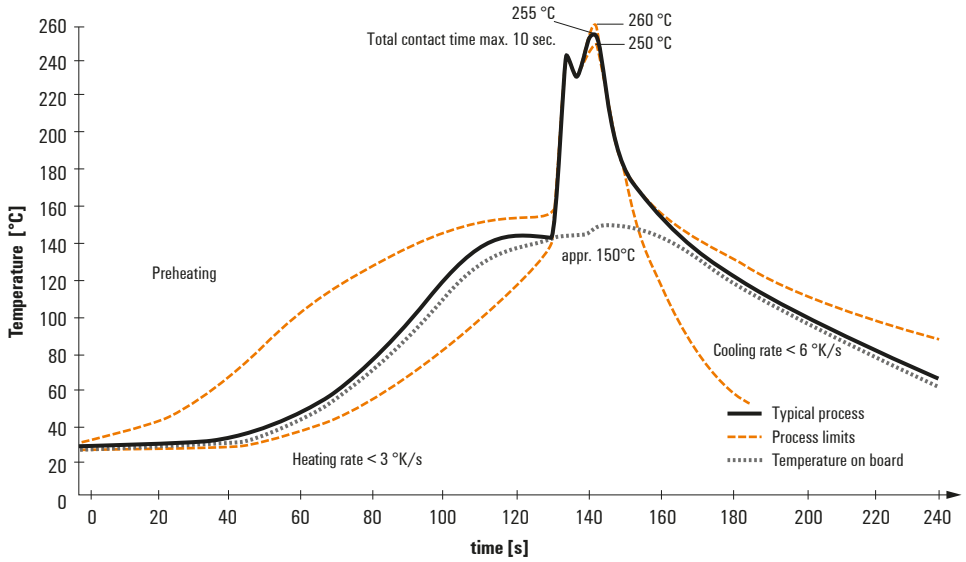
Single Wave:



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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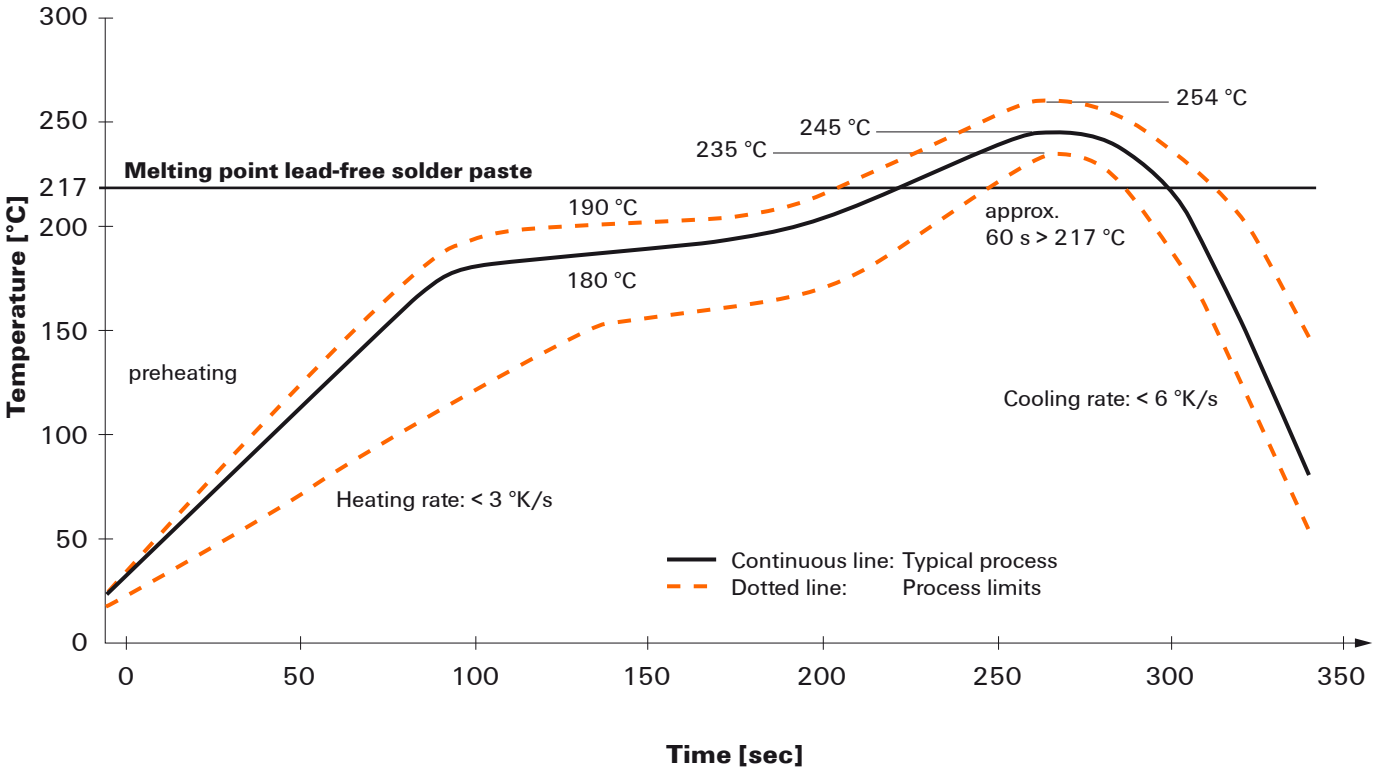

Reflow soldering profile

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.