

**SAIE-M12S-5S-9/14SMT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

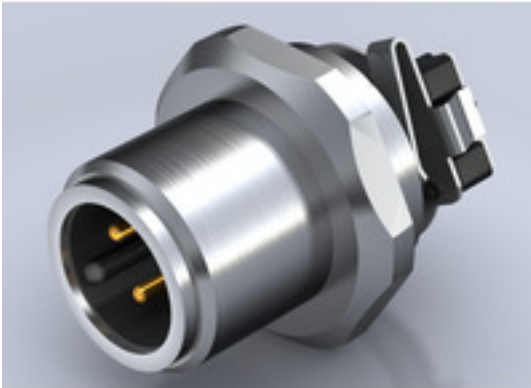
D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

www.weidmueller.com

**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-M12S-5S-9/14SMT
Order No.	<a href="#">2423320000</a>
Version	Built-in plugs, M12, Number of poles: 5
GTIN (EAN)	4050118431940
Qty.	25 pc(s).

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**Technical data****Dimensions and weights**

Net weight	11.28 g
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**Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
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**Technical data of PCB plug-in connector**

Coding	A	Housing surface	nickel-plated
Housings	M12 pin	Mounting height	9 mm
Mounting thread	M14	Number of poles	5
Shield connection	Yes	Rated voltage	60 V
Rated voltage (text)	250 V (4-pole) / 60 V (5-pole) / 30 V (8-pole)	Rated current	4 A
Rated current	4 A (4- and 5-pole) / 2 A (8-pole)	Temperature range	-30...80 °C
Protection degree	IP67	Contact surface	Au (Gold)
Housing main material	CuZn, nickel-plated	Connection thread	M12
Tightening torque	M12: 0.8 Nm	Mounting thread	M 14
Mounting torque range	1.2 Nm	Mounting onto the PCB	SMD solder connection
Insulation strength	100 MΩ	Pollution severity	3 (2 within the sealed area)
Plugging cycles	≥ 100	Contact material	CuZn
Lock nut material	Nickel-plated CuZn	Material of the flange-mounted housing	Nickel-plated CuZn

**Material data**

Contact material	CuZn	Contact surface	Au (Gold)
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**System parameters**

Mounting onto the PCB	SMD solder connection	Insulation strength	100 MΩ
Number of poles	5	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
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**Downloads**

Brochure/Catalogue	<a href="#">FL FIELDWIRING EN</a>
Engineering Data	<a href="#">STEP</a>

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## Recommended reflow soldering profile

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
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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  $\leq +3\text{K/s}$ . 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  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.