SR-SMD 4.50/05/90 AU BK BX

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

www.weidmueller.com

The integrated rail bus for the modular electronics housing system

When supplying, connecting or distributing within modular applications, the rail bus can replace the tedious individual wiring process with a flexible and uninterrupted system-wide solution.

The system bus is securely integrated within the 35-mm standard mounting rail. The SMD-bus contact block can be reflow-soldered so that it can be completely automatically processed during the component assembly. The resistant, gold-plated contact surfaces ensure a permanent and reliable contact for all housing widths.

- **Unlimited scalability** The integrated connection solution covers all system widths: from the 6-mm slice to the 67-mm large-area housing.
- **Easy to service during installation** It's easy to replace a module, even in existing modules groups – without any influence on the neighbouring modules.
- **Universal integration** The uninterrupted system bus is securely integrated within the 35-mm standard mounting rail.
- **Maximum availability** Five fully-galvanized and partially gold-plated twin-arched contacts are used to establish a permanent contact to the rail bus. THR solder flanges ensure that the connection to the circuit board is stable.

General ordering data

Version	PCB plug-in connector, Bus-contact block for CH20M6, THT/THR solder connection, Number of poles: 5, 180°, Gold-plated, black
Order No.	1155840000
Type	SR-SMD 4.50/05/90 AU BK BX
GTIN (EAN)	4032248942534
Qty.	78 pc(s).
Product data	IEC: 160 V UL: 300 V / 5 A
Packaging	Box

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Technical data

Dimensions and weights

Height	5.9 mm	Height (inches)	0.232 inch
Width	16.3 mm	Width (inches)	0.642 inch
Length	24 mm	Length (inches)	0.945 inch
Net weight	2.897 g		

Material data

Insulating material	LCP	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	175 ≤ CTI <400	Insulation strength	≥ 10^8 Ω
Moisture Level (MSL)	1	Contact surface	Gold-plated
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-30 °C	Temperature range, installation, max.	100 °C

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, max. number of poles (Tu=40°C)	3.6 A
Rated voltage for surge voltage class / pollution degree II/2	160 V	Rated voltage for surge voltage class / pollution degree III/2	100 V
Rated voltage for surge voltage class / pollution degree III/3	63 V	Short-time withstand current resistance	3 x 1s with 14.5 A
Rated impulse voltage for surge voltage class/ pollution degree II/3	1.5 kV	Clearance, min.	2.3 mm
Creepage distance, min.	3.2 mm		

Rated data acc. to UL 1059

Institute (cURus)	c UL us	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	50 V
Rated voltage (Use group D / UL 1059)	50 V	Rated current (Use group B / UL 1059)	5 A
Rated current (Use group C / UL 1059)	5 A	Rated current (Use group D / UL 1059)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Material data

Comparative Tracking Index (CTI)	175 ≤ CTI <400	Insulating material	LCP
Insulating material group	IIIa		

General data

Colour	black	Colour chart (similar)	RAL 9011
Protection degree	IP20		

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Technical data

Classifications

ETIM 6.0	EC001031	ETIM 7.0	EC001031
ETIM 8.0	EC001031	ETIM 9.0	EC001031
ECLASS 9.0	27-18-27-90	ECLASS 9.1	27-18-27-90
ECLASS 10.0	27-18-27-92	ECLASS 11.0	27-18-27-92
ECLASS 12.0	27-18-27-92	ECLASS 13.0	27-18-27-92

Important note

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Downloads

Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	FL ANALO.SIGN.CONV. EN MB DEVICE MANUF. EN FL MACHINE SAFETY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

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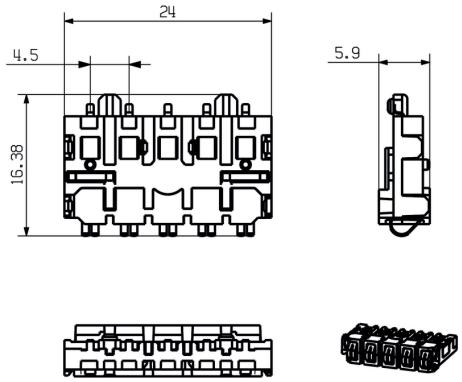
Drawings



Recommended reflow soldering profile

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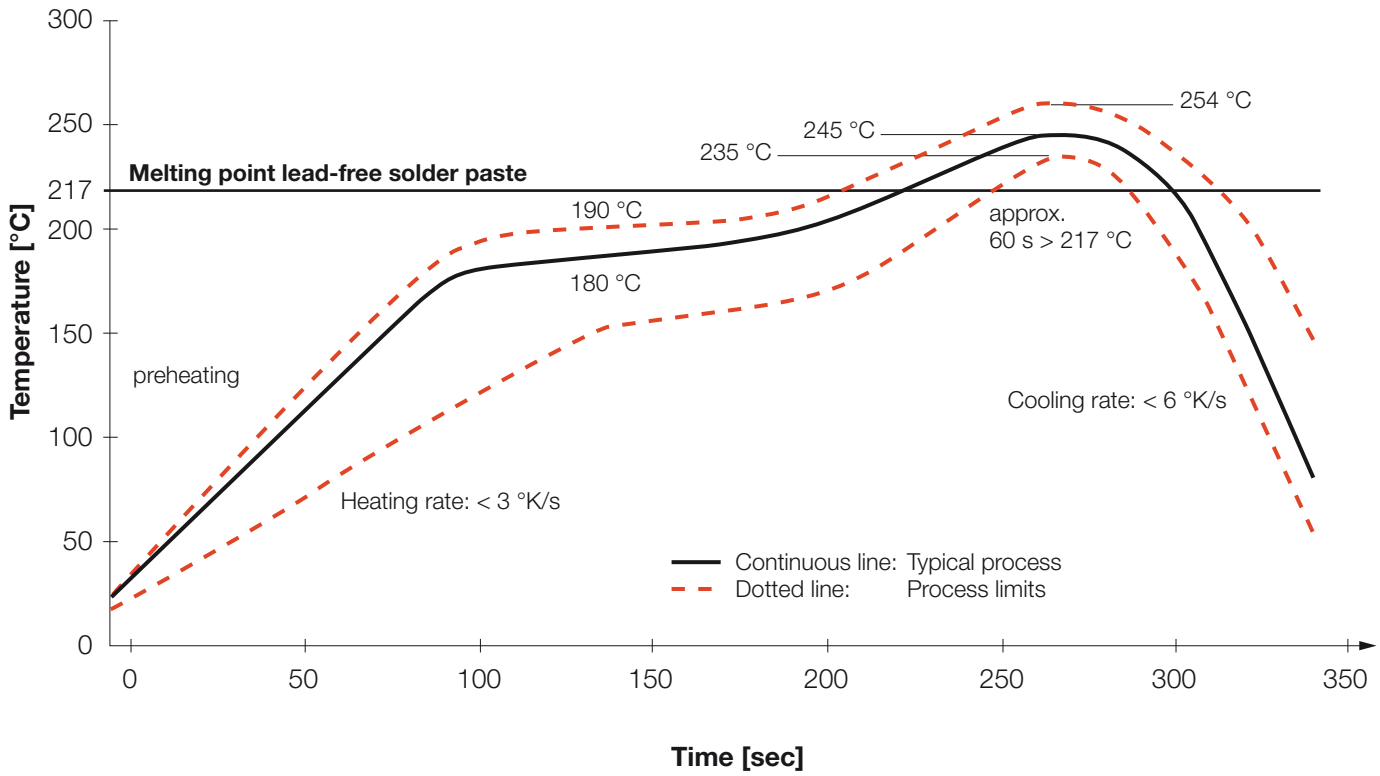

Reflow soldering profile

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 ≤ +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.