SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Weidmüller 🔲

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Similar to illustration

High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Version	PCB plug-in connector, male header, Solder flange, THT/THR solder connection, 5.08 mm, Number of poles: 4, 90°, Solder pin length (l): 1.5 mm, tinned, black, Tape
Order No.	1775254001
Type	SL-SMT 5.08HC/04/90LF 1.5SN BK RL
GTIN (EAN)	4032248167807
Qty.	350 pc(s).
Product data	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A
Packaging	Tape

Creation date January 27, 2022 10:33:44 PM CET

Weidmüller ⧓

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Technical data

Dimensions and weights

Depth	12 mm	Depth (inches)	0.472 inch
Height	10 mm	Height (inches)	0.394 inch
Height of lowest version	8.5 mm	Width	30.12 mm
Width (inches)	1.186 inch	Net weight	3.889 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	4	Number of solder pins per pole	1
Solder pin length (I)	1.5 mm	Solder pin length tolerance	0 / -0.3 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder eyelet hole diameter (D)	1.5 mm
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm	L1 in mm	15.24 mm
L1 in inches	0.6 inch	Number of rows	1
Pin series quantity	1	Protection degree	IP20
Volume resistance	≤5 mΩ	Can be coded	Yes
Plugging force/pole, max.	9 N	Pulling force/pole, max.	7 N

Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	CuMg
Contact surface	tinned	Layer structure of solder connection	1…3 µm Ni / 2…4 µm Sn matt
Layer structure of plug contact	1…3 µm Ni / 2…4 µm Sn matt	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, min. number of poles (Tu=20°C)	27.5 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	24 A
Rated current, max. number of poles (Tu=40°C)	16.5 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV		

Catalogue status 14.01.2022 / We reserve the right to make technical changes.

2

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

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

www.weidmueller.com

Technical data

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	
			200039-1176845
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	18.5 A	Rated current (Use group D / CSA)	18.5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	
			E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	18.5 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Tape	VPE length	329 mm
VPE width	329 mm	VPE height	49 mm
Tape depth (T2)	13 mm	Tape width (W)	44 mm
Tape pocket depth (K0)	12.5 mm	Tape pocket height (A0)	12.3 mm
Tape pocket width (B0)	32.5 mm	Tape pocket separation (P1)	16 mm
Tape hole separation (E)	1.75 mm	Tape pocket separation (F)	20.2 mm
Tape reel diameter ⌀ (A)	330 mm	Surface resistance	$Rs = 10^9 - 10^{12}\ \Omega$

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		

Creation date January 27, 2022 10:33:44 PM CET

Catalogue status 14.01.2022 / We reserve the right to make technical changes.

3

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Technical data

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.
Notes	• Gold-plated contact surfaces on request
	• Rated current related to rated cross-section & min. No. of poles.
	• Diameter of solder eyelet D = 1.4+0.1mm
	• Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 poles
	• P on drawing = pitch
	• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN
	MB SMT EN
	FL DRIVES DE
	MB DEVICE MANUF. EN
	FL BUILDING SAFETY EN
	FL APPL LED LIGHTING EN
	FL INDUSTR.CONTROLS EN
	FL MACHINE SAFETY EN
	FL HEATING ELECTR EN
	FL APPL_INVERTER EN
	FL_BASE_STATION_EN
	FL ELEVATOR EN
	FL POWER SUPPLY EN
	FL 72H SAMPLE SER EN
	PO OMNIMATE EN
	PO OMNIMATE EN
White paper surface mount technology	Download Whitepaper

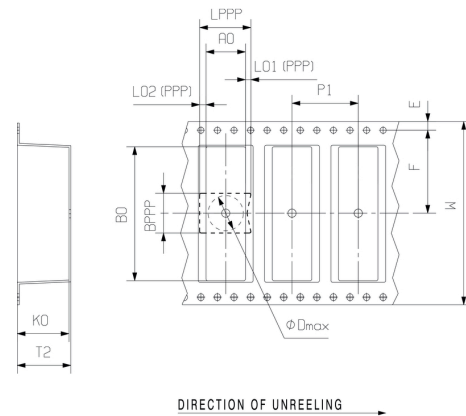**SL-SMT 5.08HC/04/90LF 1.5SN BK RL**

Drawings

Dimensional drawing
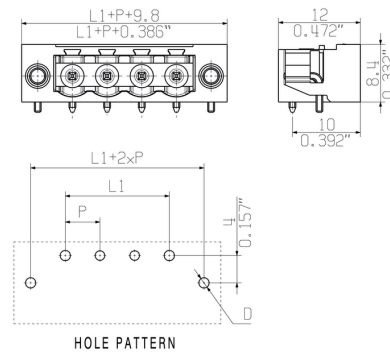
Dimensional drawing
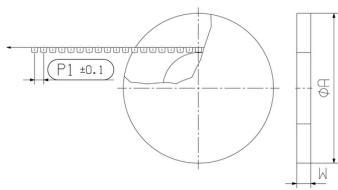
Dimensional drawing

Example of use

Product benefits
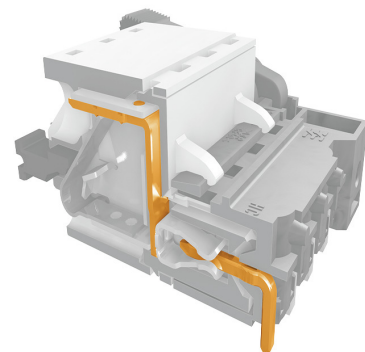
Safe power transmission
Proven properties

Creation date January 27, 2022 10:33:44 PM CET

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Accessories

Coding elements

Only connects what is supposed to be connected: the right connection at the right place.
Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.
The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible.
The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	BLZ/SL KO OR BX	Version		Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number			Box
GTIN (EAN)	4008190048396	of poles: 1			
Qty.	100 pc(s).				

Type	BLZ/SL KO BK BX	Version		Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number			Box
GTIN (EAN)	4008190087142	of poles: 1			
Qty.	50 pc(s).				

Weidmüller ⧾⧸

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Accessories

LED Light guides

Effective: the link between LED and front panel.
Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.
The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.
The advantages compared to conventional solutions:
• No additional LED circuit board required behind the front panel
• No "long-legged" LEDs with separate mounting required
• Bent fibre-optic cable line for maximum light efficiency
• Uncomplicated front plate bore holes due to circular shape of outgoing light beam
• Easy to maintain correct clearance and creepage distance
• Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

Type	SL FLA 9.0/24	Version		Product data	
Order No.	1595870000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			
GTIN (EAN)	4008190079796	Number of poles: 1			
Qty.	10 pc(s).				
Type	SL FLA 2,3/1	Version		Product data	Packaging
Order No.	1636670000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190409975	Number of poles: 1			
Qty.	100 pc(s).				
Type	SL FLA 3.8/1	Version		Product data	Packaging
Order No.	1580110000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190050740	Number of poles: 1			
Qty.	100 pc(s).				
Type	SL FLA 3.8/24	Version		Product data	
Order No.	1595860000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			
GTIN (EAN)	4008190140892	Number of poles: 1			
Qty.	10 pc(s).				
Type	SL FLA 9.0/1	Version		Product data	Packaging
Order No.	1580120000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190031909	Number of poles: 1			
Qty.	100 pc(s).				
Type	SL FLA 1.5/1	Version		Product data	Packaging
Order No.	1580100000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190152475	Number of poles: 1			
Qty.	100 pc(s).				

Creation date January 27, 2022 10:33:44 PM CET

SL-SMT 5.08HC/04/90LF 1.5SN BK RL

Weidmüller ⅀Ε

Accessories

Type	SL FLA 1.5/24	Version		Product data	
Order No.	1595850000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			
GTIN (EAN)	4008190092573	Number of poles: 1			
Qty.	10 pc(s).				
Type	SL FLA 2,3/24	Version		Product data	Packaging
Order No.	1636680000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190409968	Number of poles: 1			
Qty.	10 pc(s).				

Additional accessories

No task is too small when creating the perfect solution. br />
Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:
- Test plugs - ensure reliable pick-up from diagnostic sockets
- Cross-connectors - ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements - divide a large number of male connectors into several separate socket connector channels
- Locks and clips - optional vibration-resistant clip-on connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

General ordering data

| Type	SL AT OR	Version		Product data	Packaging
Order No.	1598300000	PCB plug-in connector, Accessories, Spacer, orange, Number of poles:			Box
GTIN (EAN)	4008190189266	1			
Qty.	100 pc(s).				
Type	SL AT SW	Version		Product data	Packaging
Order No.	1770240000	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1			Box
GTIN (EAN)	4032248117710				
Qty.	100 pc(s).				

Creation date January 27, 2022 10:33:44 PM CET

Recommended wave solderding profiles

Single Wave:
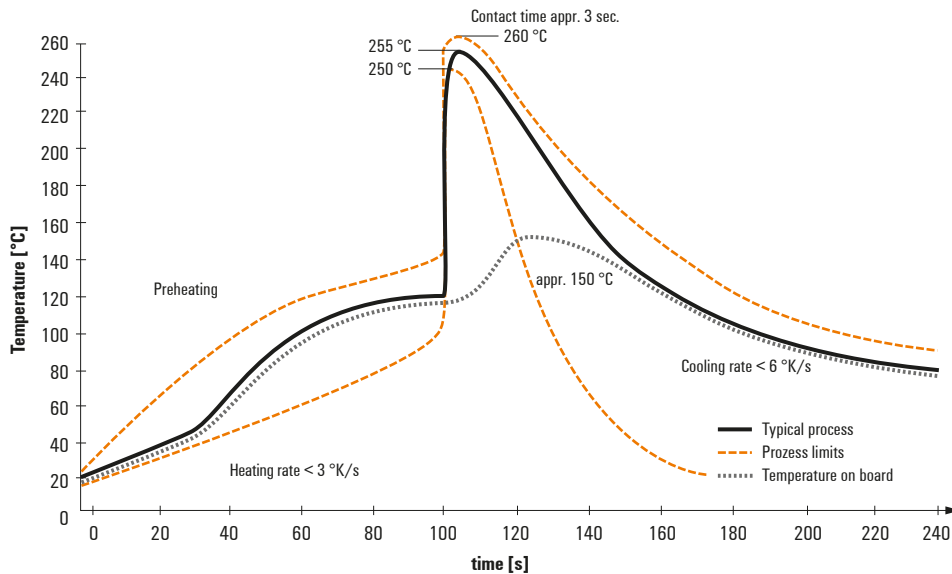
Double Wave:
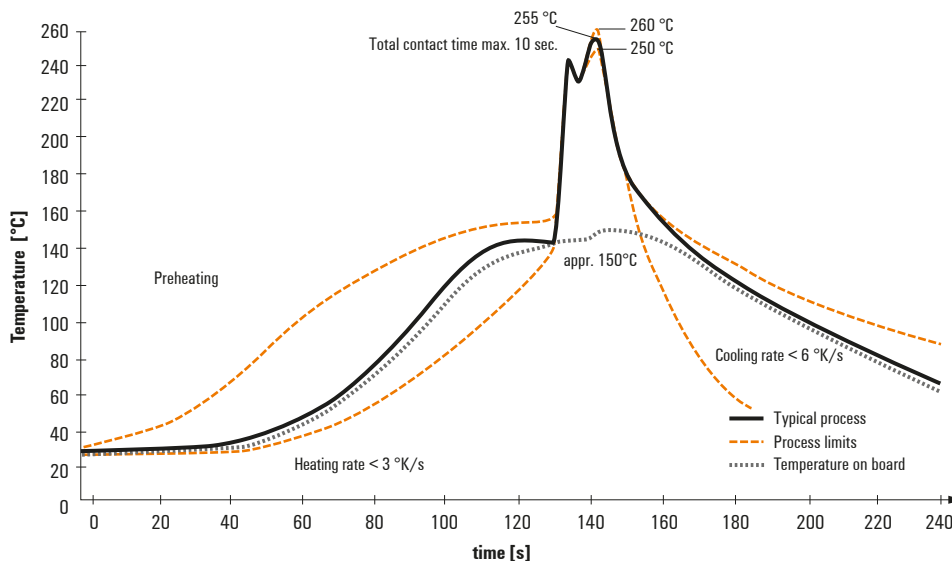
Wave soldering profiles

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.

We reserve the right to make technical changes.

Weidmüller ΞΞ

Recommended reflow soldering profile
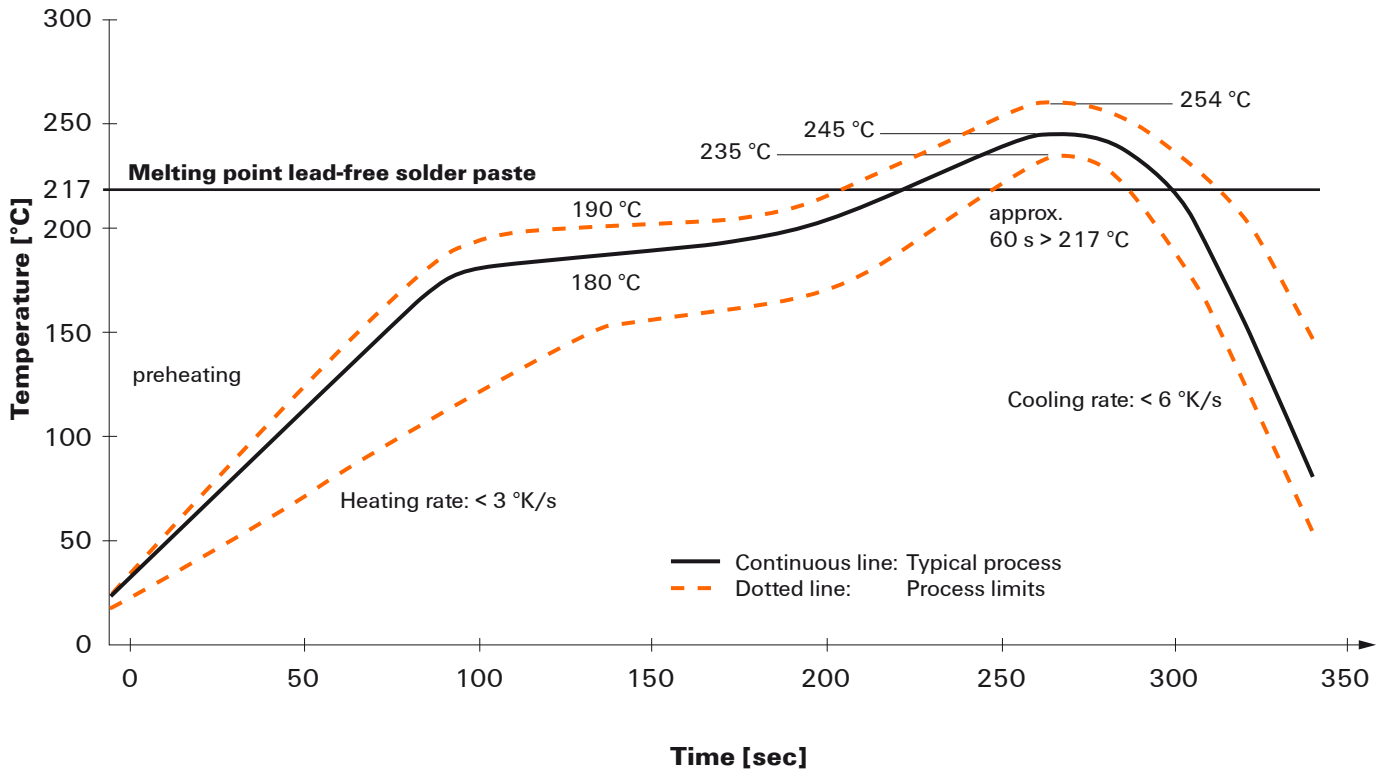
Reflow soldering profile

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.

We reserve the right to make technical changes.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Pluggable Terminal Blocks *category:*

Click to view products by Weidmuller *manufacturer:*

Other Similar products are found below :

57.510.0053 MC 1.5/ 6-ST-3.5 GY AU 734-104 734-302 8-141-P 8426620000 860505 860516 860810 GBPACX-12 93.731.4953.0 PV05-5,08-K PVP02-5,00 PVP03-3,50 PVP04-3,50 PVS02-5,00 1-1986160-3 1377680000 1531000000 1546228-5 ELFH16150 ELFP03110 ELFP10210 ELFT06250 ELVP03100 1700101 1700410 1700425 1702246 1705229 1710175 1714537 1717806 1719600 1728941 1734692 1734795 1736036 1740194 1740291 1740628 1740990 1746952 1750207 1752441 1752865 1754115 1754144 1756913 1760051