

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Product image**



















Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

## General ordering data

Version	PCB plug-in connector, male header, Solder flange, THT solder connection, 5.08 mm, Number of poles: 14, 90°, Solder pin length (I): 3.2 mm, tinned, orange, Box
Order No.	<u>1149780000</u>
Туре	SL 5.08HC/14/90LF 3.2SN OR BX
GTIN (EAN)	4032248936601
Qty.	18 pc(s).
Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Packaging	Box

Creation date March 23, 2021 5:05:31 AM CET



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# **Technical data**

## **Dimensions and weights**

Depth	12 mm	Depth (inches)	0.472 inch
Height	11.7 mm	Height (inches)	0.461 inch
Height of lowest version	8.5 mm	Net weight	6.146 g
Width	80.92 mm	Width (inches)	3.186 inch

## **System specifications**

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	14	Number of solder pins per pole	1
Solder pin length (I)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder pin dimensions = d tolerance	0 / -0,03 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (	(D)+ 0,1 mm
L1 in mm	66.04 mm	L1 in inches	2.6 inch
Number of rows	1	Pin series quantity	1
Volume resistance	≤5 mΩ	Can be coded	Yes
Plugging force/pole, max.	10 N	Pulling force/pole, max.	7.5 N

### **Material data**

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 550	UL 94 flammability rating	V-0
Contact material	CuMg	Contact surface	tinned
Layer structure of solder connection	13 µm Ni / 24 µm Sn matt	Layer structure of plug contact	13 μm Ni / 24 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.	-25 °C	Temperature range, installation, max.	100 °C

### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	24 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	21 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		

### Rated data acc. to CSA

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)	10 A



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# **Technical data**

### Rated data acc. to UL 1059

Institute (cURus)		Certificate No. (cURus)	
			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	Box	VPE length	0
VPE width	0	VPE height	0

### Classifications

ETIM 6.0	EC002637	ETIM 7.0	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

## Important note

Notes

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.

- · Additional colours on request
- · Gold-plated contact surfaces on request
- · Rated current related to rated cross-section & min. No. of 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals	
Approvals	C TOUS III KEMA
ROHS	Conform
UL File Number Search	E60693
Downloads	
Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	STEP



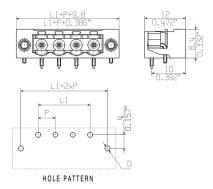
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## **Drawings**

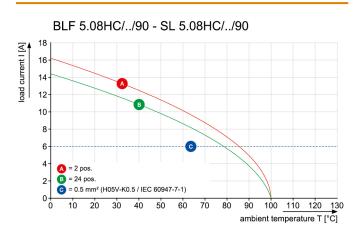
## **Dimensional drawing**



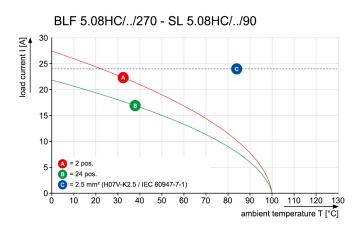
### Graph

#### BLF 5.08HC/../90 - SL 5.08HC/../90 30 load current I [A] 25 20 15 10 A = 2 pos. B = 24 pos. 5 © = 2.5 mm² (H07V-K2.5 / IEC 60947-7-1) 30 40 50 60 70 80 90 100 110 120 130 ambient temperature T [°C]

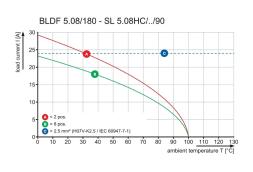
### Graph



## Graph



## Graph





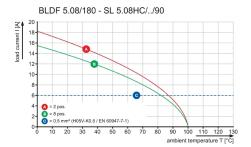
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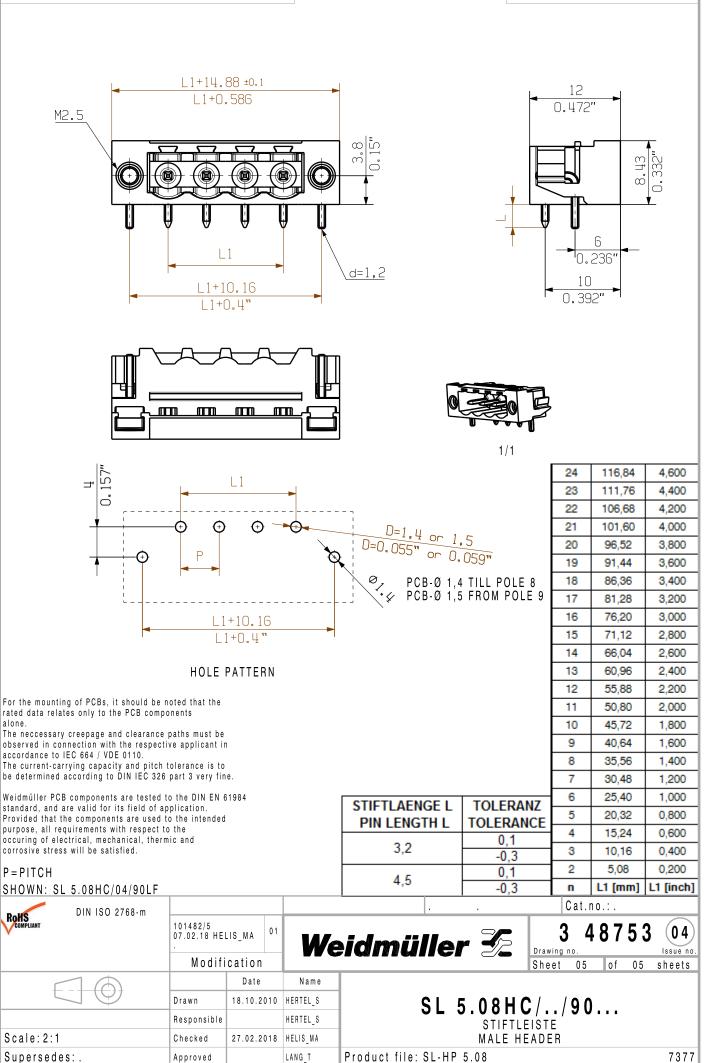
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# **Drawings**

## Graph







## Recommended wave solderding profiles

### Weidmüller Interface GmbH & Co. KG

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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.