

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, Dovetails for fixing blocks, THT solder connection, 5.08 mm, Number of poles: 22, 90°, Solder pin length (I): 3.2 mm, tinned, black, Box
Order No.	<u>1155800000</u>
Туре	SL 5.08HC/22/90B 3.2SN BK BX
GTIN (EAN)	4050118049954
Qty.	20 pc(s).
Product data	IEC: 400 V / 24 A
	UL: 300 V / 18.5 A
Packaging	Box

Creation date March 23, 2021 6:49:02 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	8.052 g
Width	113.52 mm	Width (inches)	4.469 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	22	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	106.68 mm	L1 in inches	4.2 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	black
Colour chart (similar)	RAL 9011	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)	
	C = 100 03		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

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	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 <b>SAL</b> us
ROHS	Conform
UL File Number Search	E60693
Downloads	

Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	<u>STEP</u>
Product Change Notification	EN - Change of packaging
	DE - Change of packaging



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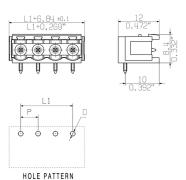
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# Drawings

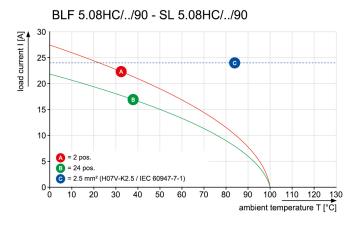
## **Product image**



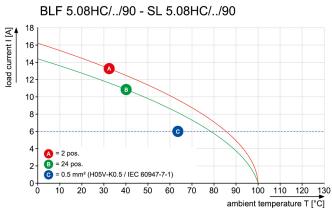
## **Dimensional drawing**



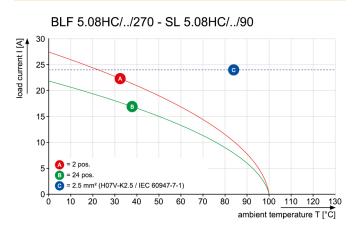
### Graph



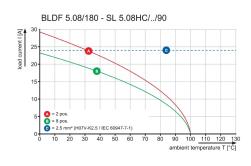
#### Graph



## Graph



## Graph





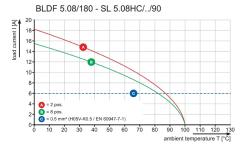
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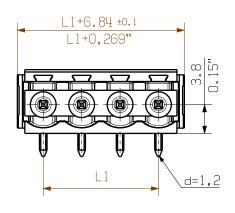
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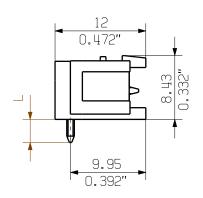
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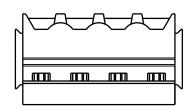
# **Drawings**

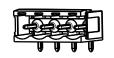
## Graph











1/1

24

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

116,84

111,76

106,68

101,60

96.52

91,44

86,36

81,28

76.20

71,12

66,04

60,96

55,88

50,80

45,72

40,64

35,56

30,48

25,40

20,32

15,24

10,16

5,08

L1 [mm]

4.600

4,400

4,200

4,000

3.800

3,600

3,400

3,200

3.000

2.800

2,600

2,400

2,200

2.000

1,800

1,600

1,400

1,200

1,000

0.800

0,600

0.400

0,200

L1 [inch]

D=1.4 or 1.5

P

D=0.055" or 0.059"

PCB-Ø 1,4 TILL POLE 8
PCB-Ø 1,5 FROM POLE 9

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.

The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

P = PITCH

SHOWN: SL 5.08/4/90 B

STIFTLAENGE L	TOLERANZ	6
		5
PIN LENGTH L	TOLERANCE	-
2.0	0,1	-
3,2	-0.3	3
	0.1	2
4,5	-0.3	n

		Date	Name
	Drawn	18.10.2010	HERTEL_S
	Responsible		HERTEL_S
Scale: 2:1	Checked	27.02.2018	HELIS_MA
Supersedes: .	Approved		LANG_T

SL 5.08HC/../90...
STIFTLEISTE
MALE HEADER

MALE HEADEK

Product file: SL-HP 5.08 7377



## 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.