

**OMNIMATE Signal - series BL/SL 5.08
SL 5.08HC/03/90B 4.5SN BK BX**

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Similar to illustration

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

Type	SL 5.08HC/03/90B 4.5SN BK BX
Order No.	255140000
Version	PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, No. of poles: 3, 90°, Solder pin length (l): 4.5 mm, tinned, black, Box
GTIN (EAN)	4050118561739
Qty.	100 pc(s).
Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Packaging	Box

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Technical data
Dimensions and weights

Width	17 mm	Width (inches)	0.669 inch
Height	13 mm	Height (inches)	0.512 inch
Height of lowest version	8.5 mm	Depth	12 mm
Depth (inches)	0.472 inch	Net weight	1.186 g

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°
No. of poles	3	Number of solder pins per pole	1
Solder pin length (l)	4.5 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
L1 in mm	10.16 mm	L1 in inches	0.4 inch
Pin series quantity	1	Plugging cycles	25
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
CTI	≥ 550	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
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.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	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	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Tu=20°C)	24 A
Rated current, max. no. of poles (Tu=20°C)	19 A	Rated current, min. no. of poles (Tu=40°C)	21 A
Rated current, max. no. 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

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

Packing

Packaging	Box	VPE length	170 mm
VPE width	70 mm	VPE height	42 mm

Classifications

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002637	eClass 6.2	27-26-07-04
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02

Notes

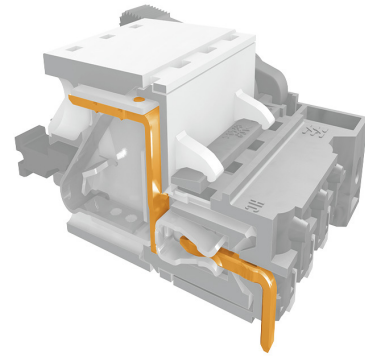
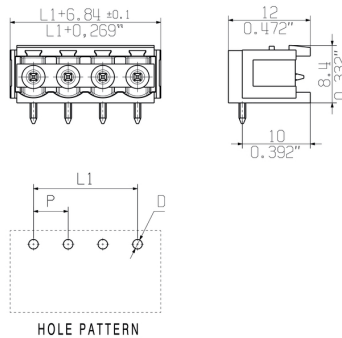
Notes	
IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products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

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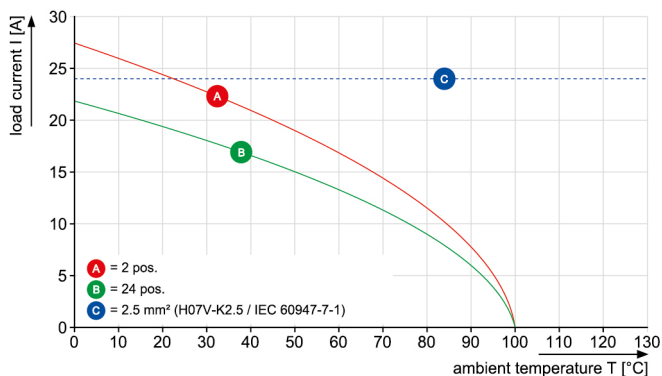
Drawings

Dimensional drawing



Graph

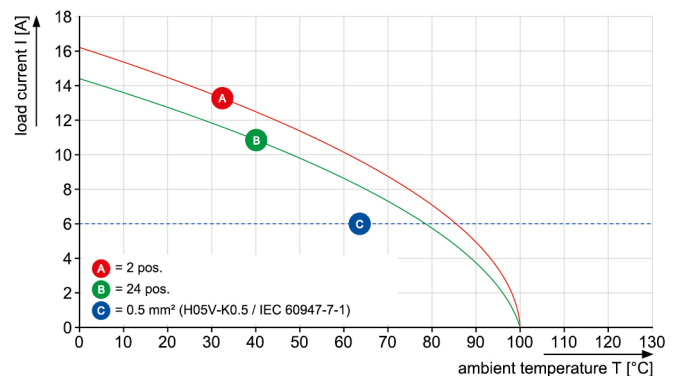
BLF 5.08HC/./90 - SL 5.08HC/./90



Graph

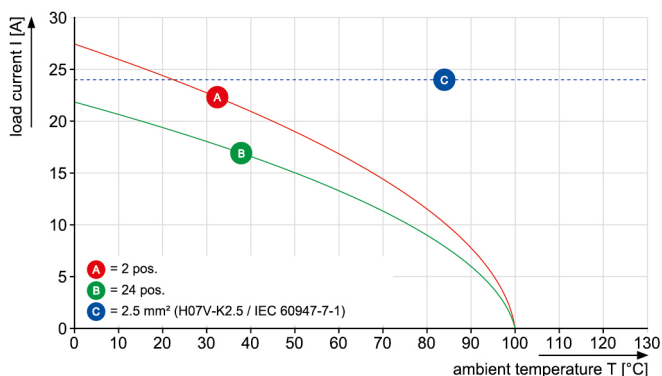
Safe power transmission
Proven properties

BLF 5.08HC/./90 - SL 5.08HC/./90



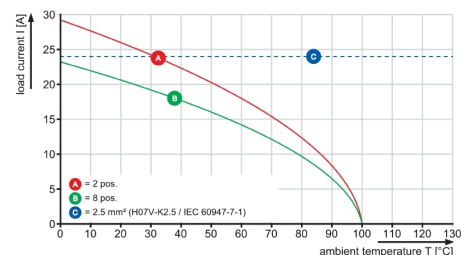
Graph

BLF 5.08HC/./270 - SL 5.08HC/./90



Graph

BLDF 5.08/180 - SL 5.08HC/./90

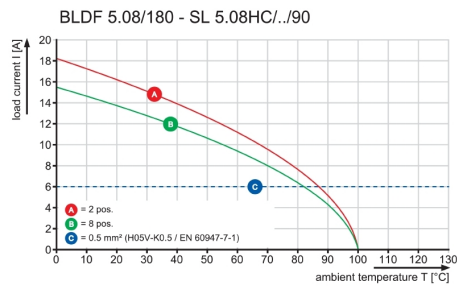


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Drawings

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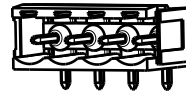
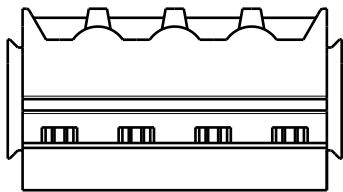
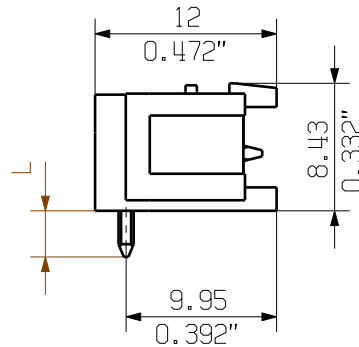
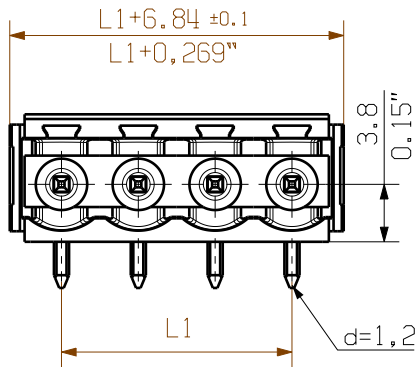


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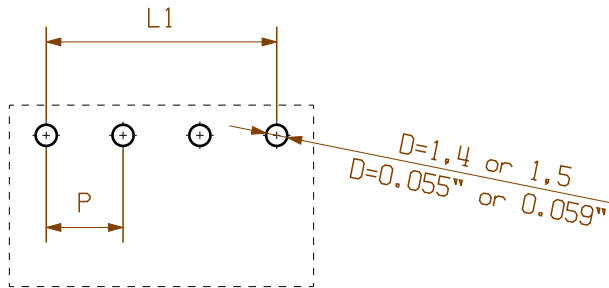
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Dimensions without tolerances are no check dimensions

The English version is binding



1/1



HOLE PATTERN

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 necessary 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 occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

P=PITCH
SHOWN: SL 5.08/4/90 B

STIFTLÄNGE L PIN LENGTH L	TOLERANZ TOLERANCE	
3,2	0,1 -0,3	
4,5	0,1 -0,3	
n	L1 [mm]	L1 [inch]

24	116,84	4,600
23	111,76	4,400
22	106,68	4,200
21	101,60	4,000
20	96,52	3,800
19	91,44	3,600
18	86,36	3,400
17	81,28	3,200
16	76,20	3,000
15	71,12	2,800
14	66,04	2,600
13	60,96	2,400
12	55,88	2,200
11	50,80	2,000
10	45,72	1,800
9	40,64	1,600
8	35,56	1,400
7	30,48	1,200
6	25,40	1,000
5	20,32	0,800
4	15,24	0,600
3	10,16	0,400
2	5,08	0,200

	DIN ISO 2768-m		Cat.no.: .	
	101482/5 07.02.18 HELIS_MA	00		
Modification		Weidmüller		
	Date	Name	SL 5.08HC/.. /90... STIFTLISTE MALE HEADER	
	Drawn	18.10.2010 HERTEL_S		
Responsible		HERTEL_S		
Checked	27.02.2018 HELIS_MA			
Supersedes: .	Approved	LANG_T	Product file: SL-HP 5.08	7377

Recommended wave soldering profiles

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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.

We reserve the right to make technical changes.