

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, Flange, THT solder connection, 5.08 mm, Number of poles: 8, 90°, Solder pin length (I): 3.2 mm, tinned, black, Box
Order No.	<u>1150150000</u>
Туре	SL 5.08HC/08/90F 3.2SN BK BX
GTIN (EAN)	4032248936243
Qty.	36 pc(s).
Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Packaging	Вох

Creation date January 21, 2022 8:47:30 AM CET



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## **Technical data**

Depth	12 mm	Depth (inches)	0.472 inch
Height	11.7 mm	Height (inches)	0.461 inch
Height of lowest version	8.5 mm	Width	50.8 mm
Width (inches)	2 inch	Net weight	3.722 g

#### **System specifications**

Product family	OMNIMATE Signal - series BL/3	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	8				
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	35.56 mm				
L1 in inches	1.4 inch				
Number of rows	1				
Pin series quantity	1				
Protection degree	IP20				
Volume resistance	≤5 mΩ				
Can be coded	Yes				
Plugging force/pole, max.	10 N				
Pulling force/pole, max.	7.5 N				
Tightening torque	Torque type		Mounting screw, PCB		
	Usage information		Tightening torque	min.	0.15 Nm
				max.	0.2 Nm
			Recommended screw	Part	PTSC KA
				number	<u>2.2X4.5</u>
					<u>WN1412</u>

#### **Material data**

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	11
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



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## **Technical data**

Rated data	acc. to	IEC
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tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (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	<u>_</u>	
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
Rated data acc. to UL 1059			
Institute (cURus)		Certificate No. (cURus)	
			E60693
Rated voltage (Use group B / UL 1059)	300 V 18.5 A	Rated voltage (Use group D / UL 1059) Rated current (Use group D / UL 1059)	
Rated current (Use group B / UL 1059) Reference to approval values	Specifications are maximum values, details - see approval certificate.	Nated current (Use group D / OL 1059)	10 A
Packing			
Packaging	Вох	VPE length	338 mm
VPE width	130 mm	VPE height	14 mm
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 27-46-02-01	ECLASS 10.0	27-44-04-02
ECLASS 11.0			

**Technical data** 

## SL 5.08HC/08/90F 3.2SN BK BX



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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
	<ul> <li>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.</li> </ul>
Approvals	
Approvals	
ROHS	Conform
UL File Number Search	E60693
Downloads	
Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Catalogues Brochures	Catalogues in PDF-format FL DRIVES EN
biocitules	MB DEVICE MANUF. EN
	FL DRIVES DE
	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
	<u>FL POWER SUPPLY EN</u> FL 72H SAMPLE SER EN
	PO OMNIMATE EN PO OMNIMATE EN

## Drawings

#### **Product image**



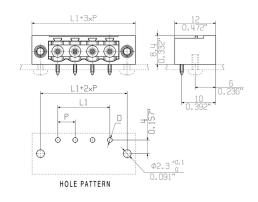


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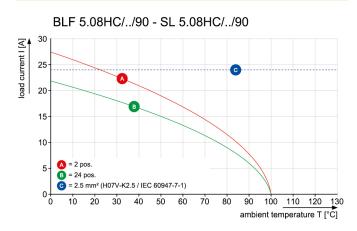
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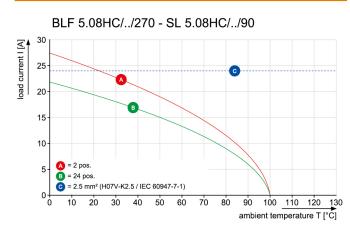
#### **Dimensional drawing**



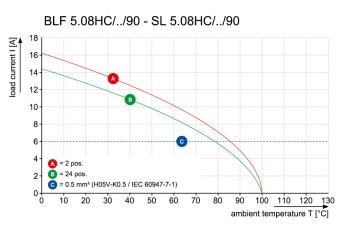
#### Graph



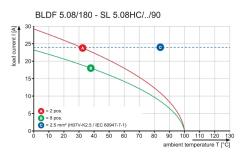
#### Graph



#### Graph



#### Graph



## Accessories

**LED Light guides** 

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#### 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

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Туре	SL FLA 2,3/24	Version	Product data	Packaging
Order No.	<u>1636680000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409968	Number of poles: 1		
Qty.	10 pc(s).			
Туре	SL FLA 9.0/1	Version	Product data	Packaging
Order No.	<u>1580120000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190031909	Number of poles: 1		
Qty.	100 pc(s).			
Туре	SL FLA 3.8/1	Version	Product data	Packaging
Order No.	<u>1580110000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190050740	Number of poles: 1		
Qty.	100 pc(s).			
Туре	SL FLA 9.0/24	Version	Product data	
Order No.	<u>1595870000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190079796	Number of poles: 1		
Qty.	10 pc(s).			
Туре	SL FLA 1.5/24	Version	Product data	
Order No.	<u>1595850000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190092573	Number of poles: 1		
Qty.	10 pc(s).			
Туре	SL FLA 2,3/1	Version	Product data	Packaging
Order No.	<u>1636670000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409975	Number of poles: 1		
Qty.	100 pc(s).			



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## Accessories

Туре	SL FLA 1.5/1	Version	Product data	Packaging
Order No.	<u>1580100000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent	,	Box
GTIN (EAN)	4008190152475	Number of poles: 1		
Qty.	100 pc(s).			
Туре	SL FLA 3.8/24	Version	Product data	
Order No.	<u>1595860000</u>	PCB plug-in connector, Accessories, Flood-light display, Transparent	,	
	4008190140892	Number of poles: 1		
GTIN (EAN)	4000130140032	•		

#### **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.

Туре	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<u>1573010000</u>	PCB plug-in connector, Accessories, Coding element, orange, Number	r	Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Туре	BLZ/SL KO BK BX	Version	Product data	Packaging
Type Order No.	BLZ/SL KO BK BX 1545710000	Version PCB plug-in connector, Accessories, Coding element, black, Number	Product data	Packaging Box
			Product data	

## Accessories

**Additional accessories** 





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## 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 clipon connection or mounting for male and female connectors

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

Туре	SL AT OR	Version	Product data	Packaging
Order No.	<u>1598300000</u>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles	:	Box
GTIN (EAN)	4008190189266	1		
Qty.	100 pc(s).			
Туре	SL AT SW	Version	Product data	Packaging
Type Order No.	SL AT SW <u>1770240000</u>	Version PCB plug-in connector, Accessories, Spacer, black, Number of poles:		Packaging Box
				00

## Accessories



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#### **Blocks for PCB mounting**



#### Minor component, major effect:

Clip-on attachment elements increase the mechanical resilience of the whole plug connection by

- securing the male connectors to the circuit board
- providing a vibration-proof connection between the sockets and the male connectors

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

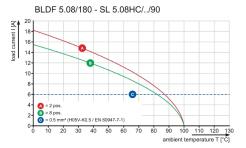
- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

Туре	SLA BB11R OR	Version	Product data	Packaging
Order No.	<u>1604120000</u>	PCB plug-in connector, Accessories, Mounting block, orange, Numbe	r	Box
GTIN (EAN)	4008190182977	of poles: 1		
Qty.	20 pc(s).			
Туре	SLA BB11R SW	Version	Product data	Packaging
Type Order No.	SLA BB11R SW <u>1692340000</u>	Version PCB plug-in connector, Accessories, Mounting block, black, Number of		Packaging Box

## Drawings

#### Graph

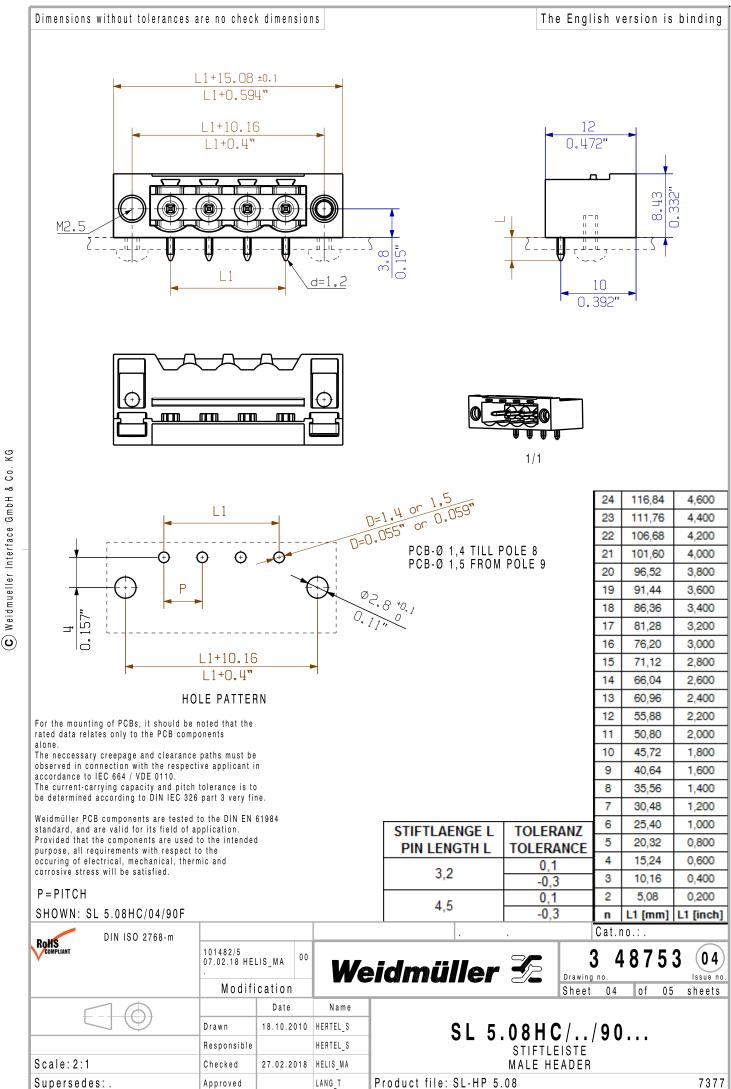




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## Wave Solder Profile

#### **Recommended wave solderding profiles**

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#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com



**Double Wave:** 

Single 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.

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