

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Product image**

















Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

### **General ordering data**

Version	PCB plug-in connector, male header, open side, THT solder connection, 5.00 mm, Number of poles: 7, 90°, Solder pin length (I): 3.2 mm, tinned, orange, Box
Order No.	<u>1571180000</u>
Туре	SL 5.00/07/90 3.2SN OR BX
GTIN (EAN)	4008190177782
Qty.	50 pc(s).
Product data	IEC: 400 V / 18 A UL: 300 V / 15 A
Packaging	Вох

Creation date January 26, 2022 10:16:20 AM CET



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# **Technical data**

## **Dimensions and weights**

Depth	12 mm	Depth (inches)	0.472 inch
Height	11.6 mm	Height (inches)	0.457 inch
Height of lowest version	8.4 mm	Width	35 mm
Width (inches)	1.378 inch	Net weight	2.212 g

## **System specifications**

Product family	OMNIMATE Signal - series	Type of connection	
,	BL/SL 5.00	7,62 27 22	<b>Board connection</b>
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Outgoing elbow	90°
Number of poles	7	Number of solder pins per pole	1
Solder pin length (I)	3.2 mm	Solder pin length tolerance	+0.1 / -0.2 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	30 mm	L1 in inches	1.181 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch, plugged	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged
Protection degree	IP20	Volume resistance	≤5 mΩ
Can be coded	Yes	Plugging force/pole, max.	10 N
Pulling force/pole, max.	8 N		

### **Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	CuSn	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)	18 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	14.5 A	(Tu=40°C)	15 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	12 A	pollution degree II/2	400 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	320 V	pollution degree III/3	250 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	4 kV	class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	4 kV		3 x 1s with 120 A



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# **Technical data**

#### Rated data acc. to CSA

Institute (CSA)	_	Certificate No. (CSA)	
	CD.	•	
	OL.		
			200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are		
	maximum values, details - see approval certificate.		
Rated data acc. to UL 1059			
nstitute (UR)		Certificate No. (UR)	
nstitute (On)	<i>71.</i>	Certificate No. (On)	
			E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	
Rated current (Use group B / UL 1059)	15 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	168 mm
/PE width	116 mm	VPE height	38 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	ECLASS 10.0	27-44-04-02
ECLASS 11.0	27-46-02-01	202 100 10.0	27 44 04 02
mportant note			
PC conformity	standards and norms and comp	eveloped, manufactured and delivered according ly with the assured properties in the data sheet Class 2". Further claims on the products can be e	resp. fulfill decorative propert
Votes	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 co	omponent itself. Clearance and creepage distanc	ces to other components are

be designed in accordance with the relevant application standards.



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# **Technical data**

#### **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	Catalogues in PDF-format
Brochures	<u>FL DRIVES EN</u>
	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
	FL POWER SUPPLY EN
	FL 72H SAMPLE SER EN
	PO OMNIMATE EN
	PO OMNIMATE EN



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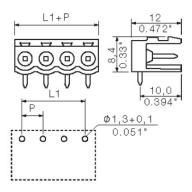
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## **Drawings**

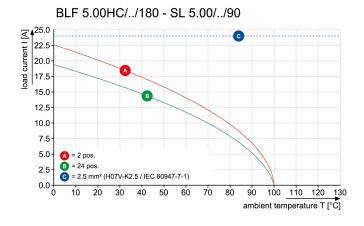
## **Product image**



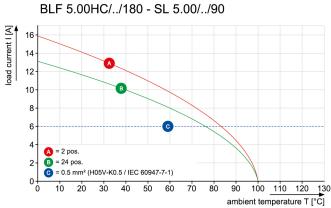
## **Dimensional drawing**



#### Graph



#### Graph





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## **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

Gonorai	ordorning data			
Туре	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).			
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 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).			
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).			
City.	1 1 7			



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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,		
Order No. GTIN (EAN)	<u>1595860000</u> 4008190140892	PCB plug-in connector, Accessories, Flood-light display, Transparent, Number of poles: 1		

#### **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**

Туре	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<u>1573010000</u>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Туре	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<u>1545710000</u>	PCB plug-in connector, Accessories, Coding element, black, Number		Вох
Order No. GTIN (EAN)	1545710000 4008190087142	PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1		Box



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## **Accessories**

#### **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 clipon connection or mounting for male and female connectors

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

#### **General ordering data**

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



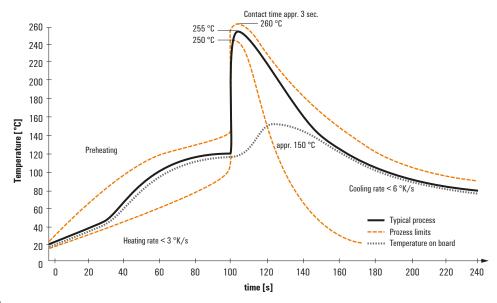
## Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

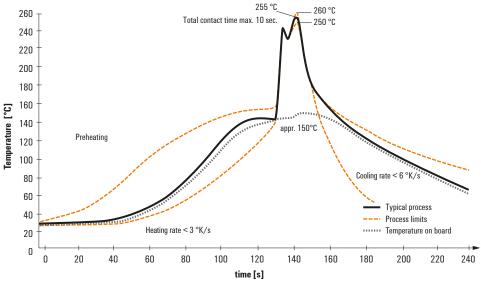
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## Single Wave:



#### **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.

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