

**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/24/90 3.2SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
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Similar to illustration

High-temperature-resistant, 90° angled, open male header. Packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	SL-SMT 5.08HC/24/90 3.2SN BK BX
Order No.	<a href="#">1780170000</a>
Version	PCB plug-in connector, male header, open side, THT/THR solder connection, 5.08 mm, Number of poles: 24, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248165490
Qty.	20 pc(s).
Product data	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A
Packaging	Box

Creation date May 3, 2020 1:24:55 PM CEST

# OMNIMATE Signal - series BL/SL 5.08

## SL-SMT 5.08HC/24/90 3.2SN BK BX

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## Technical data

### Dimensions and weights

Width	121.92 mm	Width (inches)	4.8 inch
Height	11.7 mm	Height (inches)	0.461 inch
Height of lowest version	8.5 mm	Depth	12 mm
Depth (inches)	0.472 inch	Net weight	10.65 g

### System specifications

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Outgoing elbow	90°
Number of poles	24	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin length tolerance	0 / -0.3 mm
Tolerance of solder pin position	± 0.20 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.5 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	116.84 mm	L1 in inches	4.6 inch
Number of rows	1	Pin series quantity	1
Volume resistance	≤ 5mΩ	Can be coded	Yes
Plugging cycles	25	Plugging force/pole, max.	9 N
Pulling force/pole, max.	7 N		

### Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIla
Comparative Tracking Index (CTI)	≥ 175	Insulation strength	≥ 10 <sup>8</sup> Ω
Moisture Level (MSL)	1	UL 94 flammability rating	V-0
GWIT	930 °C	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.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		


### Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	27.5 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	24 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		


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**Technical data**
**Rated data acc. to CSA**

Institute (CSA)		Certificate No. (CSA)	200039-1176845
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)	18.5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Rated data acc. to UL 1059**

Institute (UR)		Certificate No. (UR)	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	30 mm
VPE width	130 mm	VPE height	150 mm

**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	UNSPSC	30-21-18-10

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Diameter of solder eyelet D = 1.4+0.1mm</li> <li>• Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 poles</li> <li>• P on drawing = pitch</li> <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>		
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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**Technical data****Approvals**

Approvals



ROHS

Conform

**Downloads**Approval/Certificate/Document of  
Conformity[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)  
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[PO OMNIMATE EN](#)

Engineering Data

[EPLAN, WSCAD](#)

Engineering Data

[STEP](#)

White paper surface mount technology

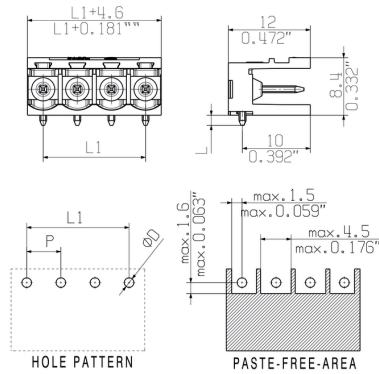
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## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/24/90 3.2SN BK BX

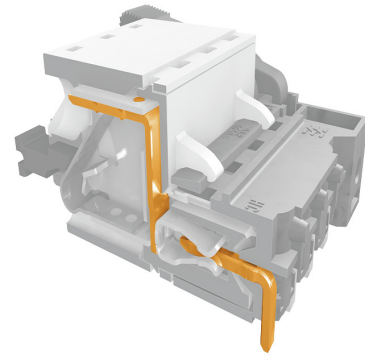
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# Drawings

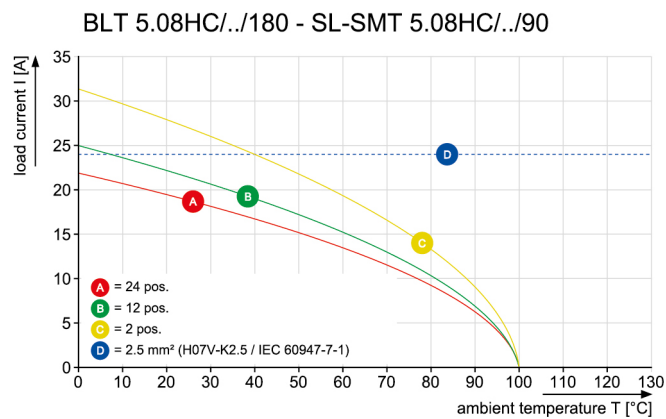
## Dimensional drawing



## Product benefits



## Graph



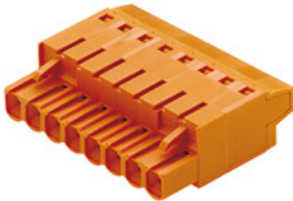
## Product benefits

Safe power transmission  
Proven properties



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**Mating connector (conditionally pluggable)**
**BLT 5.08HC/180B**


Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	BLT 5.08HC/24/180B SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1504060000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190072971	180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 300 V / 17 A / AWG 26 - AWG 14	
Qty.	12 pc(s).			

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/225 SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/24/225 SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1946780000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248622559	225°, Clamping yoke connection, Clamping range, max.: 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLZP 5.08HC/24/225 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1946480000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	403224862252	225°, Clamping yoke connection, Clamping range, max.: 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

#### BLF 5.08HC/180 SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Type	BLF 5.08HC/24/180 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1013670000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248721801	180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm <sup>2</sup> , Box	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLF 5.08HC/24/180 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1013930000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248722020	180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm <sup>2</sup> , Box	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/180 SN



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/24/180 SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1944030000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248618217	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLZP 5.08HC/24/180 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1943800000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248617814	180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

#### BLL 5.08/180



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### General ordering data

Type	BLL 5.08/24/180 3.2 SN ...	Version	Product data	Packaging
Order No.	<a href="#">1649010000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293499	connection, 5.08 mm, Number of poles: 24, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	12 pc(s).	(l): 3.2 mm, tinned, orange, Box		



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### Mating connector (fully pluggable)

#### BLL 5.08/90



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### General ordering data

Type	BLL 5.08/24/90 3.2 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1648530000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293000	connection, 5.08 mm, Number of poles: 24, 90°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	12 pc(s).	3.2 mm, tinned, orange, Box		

#### BLL 5.08/180B



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### General ordering data

Type	BLL 5.08/24/180B 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1682950000</a>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190474713	solder connection, 5.08 mm, Number of poles: 24, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	12 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/225B SN



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/24/225B SN ...	Version	Product data	Packaging
Order No.	<a href="#">1945970000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248621491	225°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLZP 5.08HC/24/225B SN ...	Version	Product data	Packaging
Order No.	<a href="#">1946200000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248621774	225°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

#### BLZP 5.08HC/270 SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/24/270 SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1949240000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248626694	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLZP 5.08HC/24/270 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1949010000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248626465	270°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/90 SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### General ordering data

Type	BLZP 5.08HC/24/90 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1948460000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248624980	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			
Type	BLZP 5.08HC/24/90 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1948230000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24,	IEC: 400 V / 23 A / 0.2 - 4 mm²	Box
GTIN (EAN)	4032248624751	90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	12 pc(s).			

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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

Type	SL FLA 3.8/1	Version	Product data	Packaging
Order No.	<a href="#">1580110000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190050740	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/1	Version	Product data	Packaging
Order No.	<a href="#">1636670000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409975	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 2,3/24	Version	Product data	Packaging
Order No.	<a href="#">1636680000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190409968	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 3.8/24	Version	Product data	
Order No.	<a href="#">1595860000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190140892	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/24	Version	Product data	
Order No.	<a href="#">1595870000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190079796	Number of poles: 1		
Qty.	10 pc(s).			
Type	SL FLA 9.0/1	Version	Product data	Packaging
Order No.	<a href="#">1580120000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190031909	Number of poles: 1		
Qty.	100 pc(s).			

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### Accessories

Type	SL FLA 1.5/1	Version	Product data	Packaging
Order No.	<a href="#">1580100000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		Box
GTIN (EAN)	4008190152475	Number of poles: 1		
Qty.	100 pc(s).			
Type	SL FLA 1.5/24	Version	Product data	
Order No.	<a href="#">1595850000</a>	PCB plug-in connector, Accessories, Flood-light display, Transparent,		
GTIN (EAN)	4008190092573	Number of poles: 1		
Qty.	10 pc(s).			

### 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

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/24/90 3.2SN BK BX

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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.

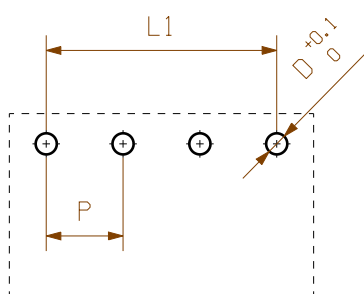
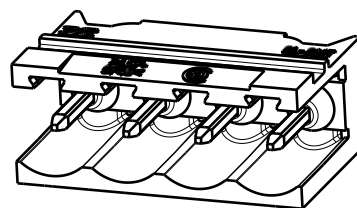
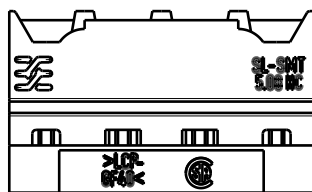
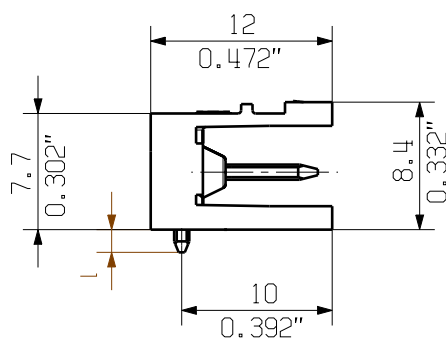
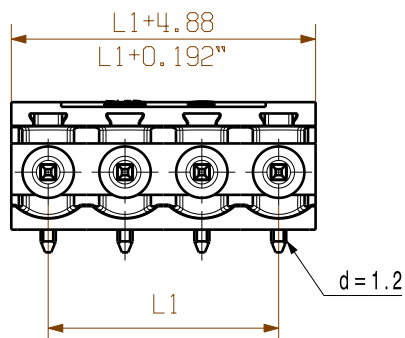
A system is not a system without small but useful details:

- 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 clip-on connection or mounting for male and female connectors

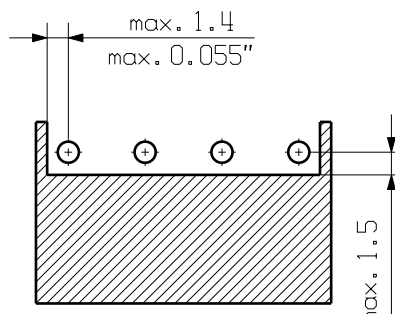
In tandem with the manufacturing process and application - more accessories = smaller workload

### General ordering data

Type	SL AT SW	Version	Product data	Packaging
Order No.	<a href="#">1770240000</a>	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			
Type	SL AT OR	Version	Product data	Packaging
Order No.	<a href="#">1598300000</a>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles: 1		Box
GTIN (EAN)	4008190189266			
Qty.	100 pc(s).			



hole pattern



paste - free - area

D = 1.4/0.055" or 1.5/0.059" (REFLOW SOLDERING)  
RECOMMENDATION FOR AUTOMATIC ASSEMBLY  
(1.4mm FOR n=2...8 / 1.5mm for n=9...24)

n = Polzahl / no of poles

P = Raster / pitch

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.

shown: SL-SMT 5.08HC/04/90

24	116.84	4.600	+/- 0.2
23	111.76	4.400	
22	106.68	4.200	
21	101.60	4.000	
20	96.52	3.800	+/- 0.15
19	91.44	3.600	
18	86.36	3.400	
17	81.28	3.200	
16	76.20	3.000	+/- 0.1
15	71.12	2.800	
14	66.04	2.600	
13	60.96	2.400	
12	55.88	2.200	+/- 0.1
11	50.80	2.000	
10	45.72	1.800	
9	40.64	1.600	
8	35.56	1.400	+/- 0.1
7	30.48	1.200	
6	25.40	1.000	
5	20.32	0.800	
4	15.24	0.600	+/- 0.1
3	10.16	0.400	
2	5.08	0.200	
1	tolerance		

4.5	0.1/-0.3
3.2	0.1/-0.3
2.1	0.1/-0.3
1.5	-0.3
1	tolerance

no of poles	L1 [mm]	L1 [inch]	tolerance L1
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DIN ISO 2768-m

106339/4  
30.07.18 HERTEL\_S 00

Modification

**Weidmüller****2 33262****31**

Drawing no.

Issue no.

Sheet 01

of 04 sheets



Date Name

Drawn 29.11.2007 HELIS\_MA

Responsible HERTEL\_S

Checked 01.08.2018 KOCH\_JG

Approved LANG\_T

Scale: 2:1

Supersedes: .

**SL-SMT 5.08HC/.../90...**  
STIFTELEISTE  
MALE HEADER

Product file: SL-SMT 5.08

7280

## 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.



## Recommended reflow soldering profile

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## Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically  $\leq +3\text{K/s}$ . In parallel the solder paste is 'activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.