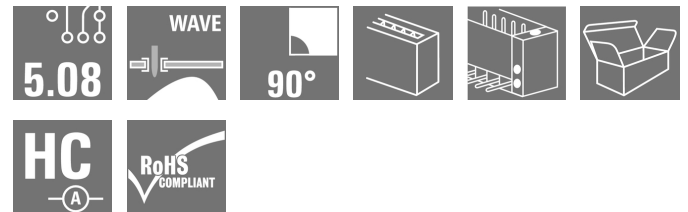


**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
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Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
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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/20/90F 3.2SN OR BX
Order No.	<a href="#">1149210000</a>
Version	PCB plug-in connector, male header, Flange, THT solder connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4032248936427
Qty.	12 pc(s).
Product data	IEC: 400 V / 24 A UL: 300 V / 18.5 A
Packaging	Box

Creation date May 2, 2020 6:45:12 AM CEST

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Technical data**
**Dimensions and weights**

Width	111.76 mm	Width (inches)	4.4 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	7.964 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°		
Number of poles	20		
Number of solder pins per pole	1		
Solder pin length (l)	3.2 mm		
Solder pin length tolerance	+0.1 / -0.3 mm		
Tolerance of solder pin position	± 0.20 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	96.52 mm		
L1 in inches	3.8 inch		
Number of rows	1		
Pin series quantity	1		
Volume resistance	≤ 5mΩ		
Can be coded	Yes		
Plugging cycles	25		
Plugging force/pole, max.	10 N		
Pulling force/pole, max.	7.5 N		
Tightening torque	Torque type	PCB, Screw flange	
	Usage information	Tightening torque	min. 0.1 Nm max. 0.15 Nm
		Recommended screw	Part number <a href="#">PTSC KA 2.2X4.5 WN1412</a>

**Material data**

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 550	Insulation strength	≥ 10 <sup>8</sup> 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.	50 °C
Max. relative humidity during storage	70 %	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**

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		

**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	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	35 mm
VPE width	90 mm	VPE height	125 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		

**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>• 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.

Creation date May 2, 2020 6:45:12 AM CEST

**Data sheet****OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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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](#)  
[MB DEVICE MANUF. EN](#)  
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[CAT 2 PORTFOLIOGUIDE EN](#)  
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[FL APPL INVERTER EN](#)  
[FL\\_BASE\\_STATION\\_EN](#)  
[FL ELEVATOR EN](#)  
[FL POWER SUPPLY EN](#)  
[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

Engineering Data

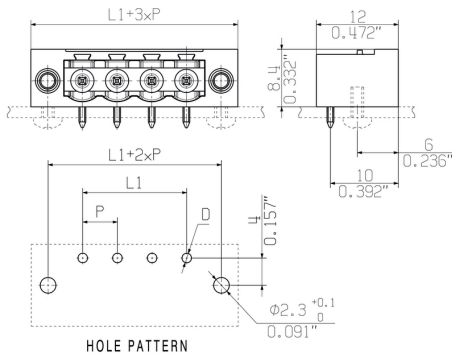
[STEP](#)

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Drawings**

**Dimensional drawing**



**Graph**



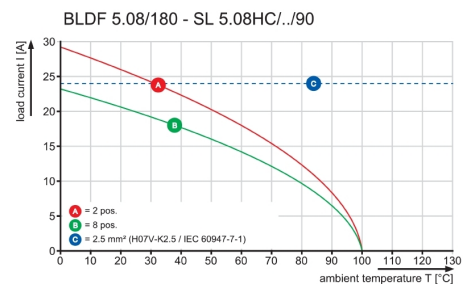
**Graph**



**Graph**



**Graph**



## OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/20/90F 3.2SN OR BX

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### Mating connector (fully pluggable)

#### BLZP 5.08HC/180F 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/20/180F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1944270000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248618859	180°, 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/20/180F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1944510000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248619085	180°, 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).			

#### BLF 5.08HC/180LR 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/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1014320000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248723034	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/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1014570000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248722808	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).			

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Mating connector (fully pluggable)****BLF 5.08HC/270LR 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/20/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1982490000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248686582	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	
Type	BLF 5.08HC/20/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1983260000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248687350	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	

**BLZP 5.08HC/270F 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/20/270F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1950770000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248629176	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/20/270F SN ...	Version	Product data	Packaging
Order No.	<a href="#">1950490000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248628612	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).			

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLL 5.08/90FI**


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

**General ordering data**

Type	BLL 5.08/20/90FI 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1843930000</a>	PCB plug-in connector, female header, Inverted flange, THT solder connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 400 V / 23 A UL: 300 V / 15 A	Box
GTIN (EAN)	4032248355686			
Qty.	12 pc(s).			

**BLT 5.08HC/180F**


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

**General ordering data**

Type	BLT 5.08HC/20/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1844400000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box	IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14	Box
GTIN (EAN)	4032248356331			
Qty.	12 pc(s).			
Type	BLT 5.08HC/20/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1844170000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box	IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14	Box
GTIN (EAN)	4032248356096			
Qty.	12 pc(s).			



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**Mating connector (fully pluggable)**
**BLF 5.08HC/90LR 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/20/90LR SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1002460000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248694624	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	
Type	BLF 5.08HC/20/90LR SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1000590001</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248690558	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	

**BLF 5.08HC/180F SN**


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

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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/20/180F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1013020000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248720781	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	

**OMNIMATE Signal - series BL/SL 5.08  
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**Mating connector (fully pluggable)**

Type	BLF 5.08HC/20/180F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1013280000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248721023	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	

**BLT 5.08HC/180LR**


Female plugs with TOP screw connection system for connecting wires with straight wire outlet and release latch mechanism. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	BLT 5.08HC/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1894330000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248508655	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).			
Type	BLT 5.08HC/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1890400000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248498888	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).			

**BLZP 5.08HC/90LR**


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/20/90LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1087200000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248854424	90°, 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/20/90LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1087430000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248854394	90°, 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).			

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLZP 5.08HC/270LR 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/20/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1947940000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248624430	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/20/270LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1947710000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248624102	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).			

**BLZP 5.08HC/90F 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/20/90F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1950220000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248628155	90°, 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/20/90F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1949980000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248627912	90°, 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).			

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLZP 5.08HC/180LR 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/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1945240000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248620388	180°, 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/20/180LR SN ...	Version	Product data	Packaging
Order No.	<a href="#">1945010000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248620135	180°, 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).			

**BLF 5.08HC/270F 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/20/270F SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1982300000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248686391	270°, 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/20/270F SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1983070000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248687169	270°, 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).			

**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Mating connector (fully pluggable)**
**BLF 5.08HC/90F 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/20/90F SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1000400001</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248690367	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	
Type	BLF 5.08HC/20/90F SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1002270000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248694433	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	

## OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/20/90F 3.2SN OR BX

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# Accessories

### 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.

### General ordering data

Type	SLA BB11R OR	Version	Product data	Packaging
Order No.	<a href="#">1604120000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190182977	of poles: 1		
Qty.	20 pc(s).			
Type	SLA BB11R SW	Version	Product data	Packaging
Order No.	<a href="#">1692340000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190864965	poles: 1		
Qty.	20 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).			



## Data sheet

### OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/20/90F 3.2SN OR BX

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## Accessories

Type	SL FLA 1.5/1	Version	Product data	Packaging
Order No.	<a href="#">158010000</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="#">159585000</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="#">157301000</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="#">154571000</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 5.08HC/20/90F 3.2SN OR BX

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# Accessories

### Additional accessories



#### No task is too small when creating the perfect solution.

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

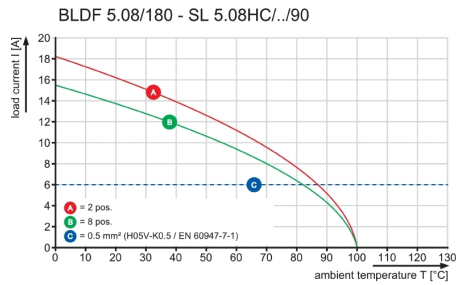
In tandem with the manufacturing process and application - more accessories = smaller workload

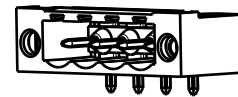
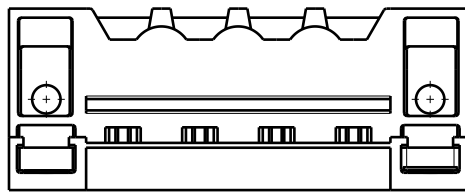
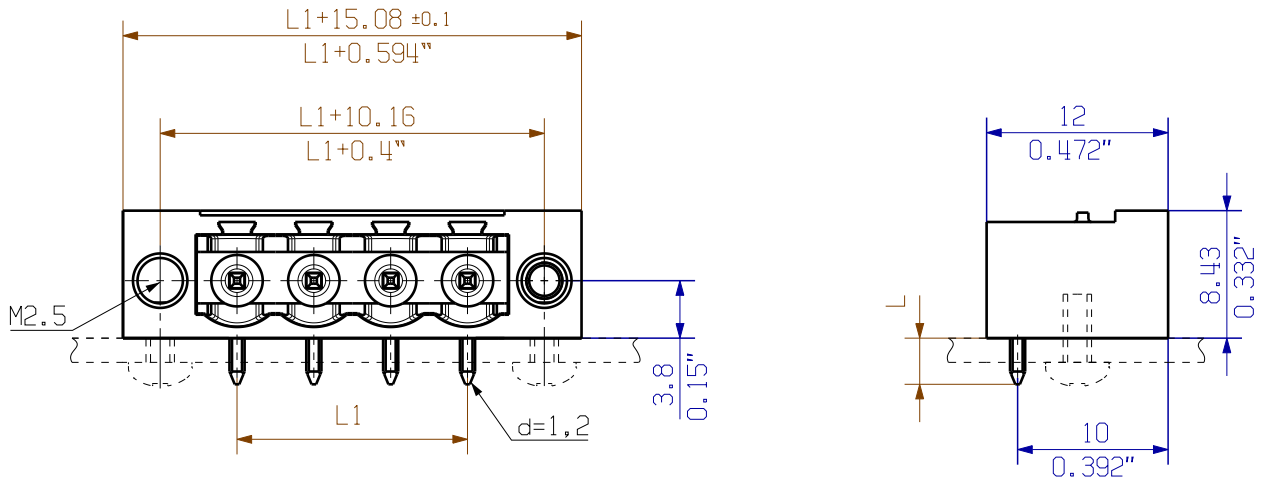
### General ordering data

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:		Box
GTIN (EAN)	4008190189266	1		
Qty.	100 pc(s).			

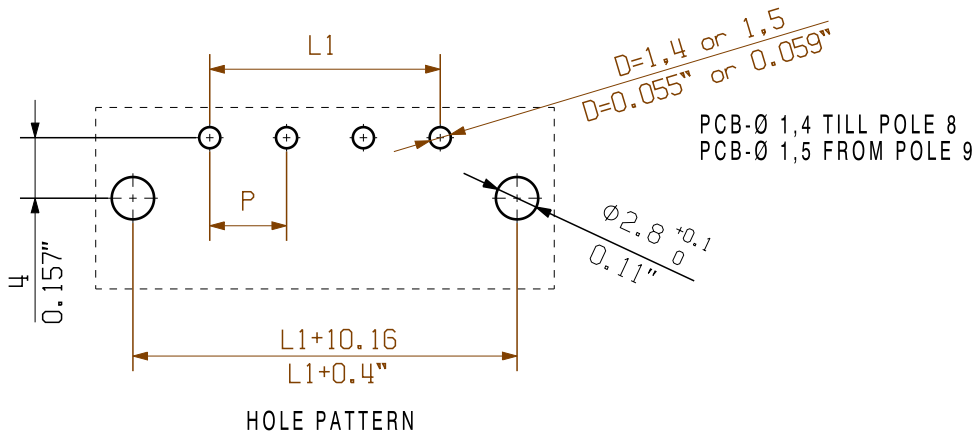
**Data sheet****OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/20/90F 3.2SN OR BX**

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**Drawings****Graph**



1/1



HOLE PATTERN

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 5.08HC/04/90F

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
n	L1 [mm]	L1 [inch]

STIFTLAENGE L PIN LENGTH L	TOLERANZ TOLERANCE
3,2	0,1 -0,3
4,5	0,1 -0,3

	DIN ISO 2768-m	101482/5 07.02.18 HELIS_MA 00			Cat.no.: <b>3 48753</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">04</span>	
	Modification		Drawing no. Issue no.			
	Date	Name	<b>SL 5.08HC/.. /90...</b> STIFTLAISTE MALE HEADER			
	Drawn	18.10.2010				HERTEL_S
	Responsible					HERTEL_S
Scale: 2:1	Checked	27.02.2018	HELIS_MA	Sheet 04 of 05 sheets	7377	
Supersedes: .	Approved		LANG_T	Product file: SL-HP 5.08		

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## 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.