

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/10/180G 1.5SN BK BX

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Similar to illustration

High-temperature-resistant pin 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/10/180G 1.5SN BK BX
Order No.	<a href="#">1776002001</a>
Version	PCB plug-in connector, male header, closed side, THT/THR solder connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length (l): 1.5 mm, tinned, black, Box
GTIN (EAN)	4032248158997
Qty.	50 pc(s).
Product data	IEC: 400 V / 27.5 A UL: 300 V / 18.5 A
Packaging	Box

Creation date May 3, 2020 12:54:54 PM CEST

**OMNIMATE Signal - series BL/SL 5.08**  
**SL-SMT 5.08HC/10/180G 1.5SN BK BX**

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

Width	54 mm	Width (inches)	2.126 inch
Height	13.5 mm	Height (inches)	0.531 inch
Height of lowest version	12 mm	Depth	8.5 mm
Depth (inches)	0.335 inch	Net weight	4.66 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	180°
Number of poles	10	Number of solder pins per pole	1
Solder pin length (l)	1.5 mm	Solder pin length tolerance	0 / -0.3 mm
Tolerance of solder pin position	± 0.15 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	45.72 mm	L1 in inches	1.8 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	IIIa
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 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	35 mm
VPE width	115 mm	VPE height	165 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>• 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 <math>D = 1.4 + 0.1 \text{ mm}</math></li> <li>• Solder eyelet diameter <math>D = 1.5 + 0.1 \text{ mm}</math>, 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.

**Data sheet**

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**Technical data**

**Approvals**

Approvals



ROHS

Conform

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">CB Certificate</a> <a href="#">CB Testreport</a> <a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB SMT EN</a> <a href="#">FL DRIVES DE</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">CAT 2 PORTFOLIOGUIDE EN</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FLIndustr.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">WSCAD</a>
Engineering Data	<a href="#">STEP</a>
White paper surface mount technology	<a href="#">Download Whitepaper</a>

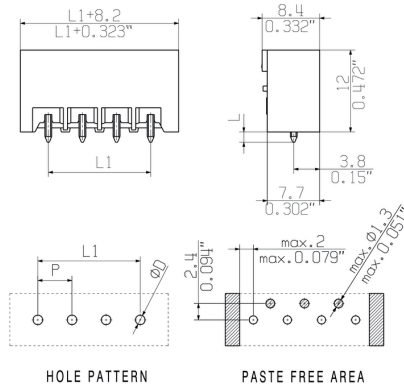
**Data sheet**

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**Drawings**

**Dimensional drawing**



**Product benefits**



Safe power transmission

**Product benefits** Proven properties

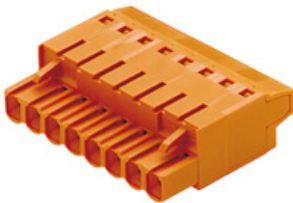


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**Mating connector (conditionally pluggable)**

**BLT 5.08HC/180B**



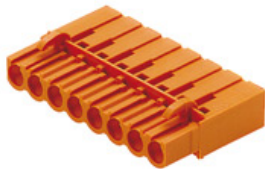
Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

Type	BLT 5.08HC/10/180B SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1502660000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 27 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190158699	180°, TOP connection, Clamping range, max. : 2.5 mm <sup>2</sup> , Box	UL: 300 V / 17 A / AWG 26 - AWG 14	
Qty.	30 pc(s).			

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**Mating connector (fully pluggable)**
**BLC 5.08R**


Female plugs with crimp wire connection system. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLC 5.08/10/180R OR BX	Version	Product data	Packaging
Order No.	<a href="#">1610570000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 21 A	Box
GTIN (EAN)	4008190128180	180°, Crimp connection, Clamping range, max. : 2.5 mm², Box	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).			
Type	BLC 5.08/10/180R BK BX	Version	Product data	Packaging
Order No.	<a href="#">1712040000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 21 A	Box
GTIN (EAN)	4008190935054	180°, Crimp connection, Clamping range, max. : 2.5 mm², Box	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 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 5.08/10/180 4.5 SN ...	Version	Product data	Packaging
Order No.	<a href="#">1646330000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190285678	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	36 pc(s).	(l): 4.5 mm, tinned, black, Box		
Type	BLL 5.08/10/180 3.2 SN ...	Version	Product data	Packaging
Order No.	<a href="#">1630790000</a>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190204228	connection, 5.08 mm, Number of poles: 10, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	36 pc(s).	(l): 3.2 mm, tinned, orange, Box		

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**Mating connector (fully pluggable)**
**BLZ 5.08/180**


Female plugs with clamping-yoke screw for wire connection with straight (180°) outlet direction. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLZ 5.08/10/180 SN OR B ...	Version	Product data	Packaging
Order No.	<a href="#">1688390000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 19 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190857684	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	36 pc(s).	Box		
Type	BLZ 5.08/10/180 SN DKGN ...	Version	Product data	Packaging
Order No.	<a href="#">1527250000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 19 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190017446	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

**BLF 5.08HC/270 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/10/270 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1982010000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248684700	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	36 pc(s).	Box		
Type	BLF 5.08HC/10/270 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1982780000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248686872	270°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG 12	
Qty.	36 pc(s).	Box		



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**Mating connector (fully pluggable)**
**BLL 5.08/180B**


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

**General ordering data**

Type	BLL 5.08/10/180B 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1682810000</a>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190474577	solder connection, 5.08 mm, Number of poles: 10, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	30 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

**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/10/225B SN ...	Version	Product data	Packaging
Order No.	<a href="#">1946060000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248621590	225°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	30 pc(s).			
Type	BLZP 5.08HC/10/225B SN ...	Version	Product data	Packaging
Order No.	<a href="#">1945830000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248621309	225°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	30 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/10/90 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1948080000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248624300	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			
Type	BLZP 5.08HC/10/90 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1948320000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248624843	90°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			

**BLDT 5.08B**


Female plugs with two clamping-yoke screw connections per pole for wire connections with 90° and 270° outlet directions. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLDT 5.08/10/-B SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1651820000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190400507	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	25 pc(s).	Box		
Type	BLDT 5.08/10/-B SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1673860000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190435592	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		

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**Mating connector (fully pluggable)****BLF 5.08HC/90 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/10/90 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1000110001</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248690046	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	36 pc(s).	Box	12	
Type	BLF 5.08HC/10/90 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1001610000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248693412	90°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	36 pc(s).	Box	12	

**BLDT 5.08**

Female plugs with two clamping-yoke screw connections per pole for wire connections with 90° and 270° outlet directions. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLDT 5.08/10/- SN BK BX	Version	Product data	Packaging
Order No.	<a href="#">1660790000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190417246	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	50 pc(s).	Box		
Type	BLDT 5.08/10/- SN OR BX	Version	Product data	Packaging
Order No.	<a href="#">1644810000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4008190284022	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	30 pc(s).	Box		

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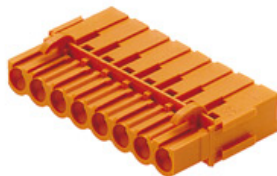
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**Mating connector (fully pluggable)**
**BLZP 5.08HC/225 SN**


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/10/225 SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1946640000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248622412	225°, Clamping yoke connection, Clamping range, max.: 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			
Type	BLZP 5.08HC/10/225 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1946330000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248621903	225°, Clamping yoke connection, Clamping range, max.: 4 mm <sup>2</sup> , Box	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			

**BLC 5.08BR**


Female plugs with crimp wire connection system. The female plugs provide space for labelling and can be coded.

**General ordering data**

Type	BLC 5.08/10/180BR OR BX	Version	Product data	Packaging
Order No.	<a href="#">1649450000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 21 A	Box
GTIN (EAN)	4008190294564	180°, Crimp connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).			
Type	BLC 5.08/10/180BR BK BX	Version	Product data	Packaging
Order No.	<a href="#">1712190000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 21 A	Box
GTIN (EAN)	4008190935207	180°, Crimp connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 300 V / 10 A / AWG 26 - AWG 14	
Qty.	50 pc(s).			

**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/10/180G 1.5SN BK BX**

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**Mating connector (fully pluggable)**
**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/10/180 SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1013770000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248721887	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	36 pc(s).	Box	12	
Type	BLF 5.08HC/10/180 SN BK ...	Version	Product data	Packaging
Order No.	<a href="#">1013520000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248721665	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm <sup>2</sup> ,	UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	36 pc(s).	Box	12	

**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/10/180 SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1943890000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248618002	180°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			
Type	BLZP 5.08HC/10/180 SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1943660000</a>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10,	IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>	Box
GTIN (EAN)	4032248617678	180°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box	UL: 300 V / 20 A / AWG 26 - AWG 12	
Qty.	36 pc(s).			

**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/10/180G 1.5SN BK BX**

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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	Version	Product data	Packaging
BLL 5.08/10/90 3.2 SN O ...	PCB plug-in connector, female header, closed side, THT solder connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 400 V / 23 A UL: 300 V / 15 A	Box
Order No. <a href="#">1623020000</a>			
GTIN (EAN) 4008190194079			
Qty. 36 pc(s).			
Type	Version	Product data	Packaging
BLL 5.08/10/90 4.5 SN B ...	PCB plug-in connector, female header, closed side, THT solder connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (l): 4.5 mm, tinned, black, Box	IEC: 400 V / 23 A UL: 300 V / 15 A	Box
Order No. <a href="#">1646110000</a>			
GTIN (EAN) 4008190285456			
Qty. 36 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	Version	Product data	Packaging
BLZP 5.08HC/10/270 SN O ...	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10, 270°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12	Box
Order No. <a href="#">1948870000</a>			
GTIN (EAN) 4032248626328			
Qty. 36 pc(s).			
Type	Version	Product data	Packaging
BLZP 5.08HC/10/270 SN B ...	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 10, 270°, Clamping yoke connection, Clamping range, max.: 4 mm², Box	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12	Box
Order No. <a href="#">1949100000</a>			
GTIN (EAN) 4032248626557			
Qty. 36 pc(s).			

## OMNIMATE Signal - series BL/SL 5.08 SL-SMT 5.08HC/10/180G 1.5SN BK BX

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# Accessories

## 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).			

## 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).			



**Data sheet**

**OMNIMATE Signal - series BL/SL 5.08  
SL-SMT 5.08HC/10/180G 1.5SN BK BX**

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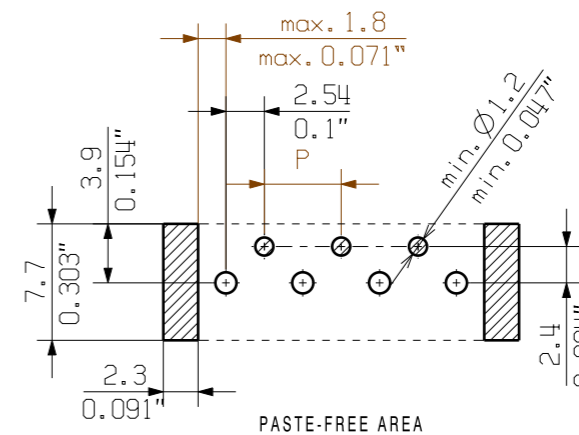
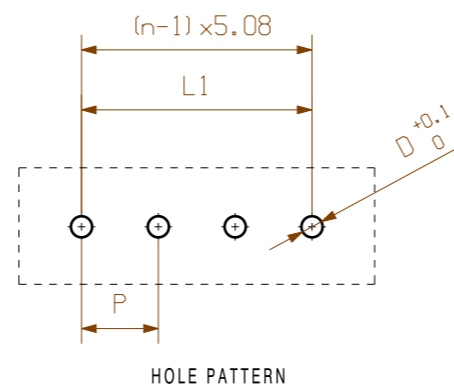
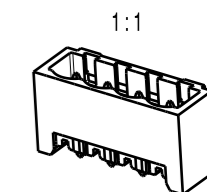
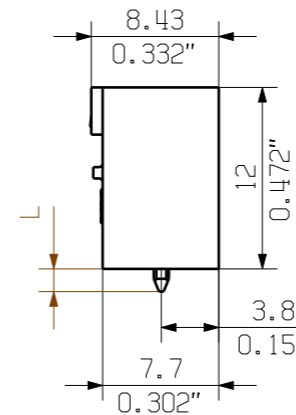
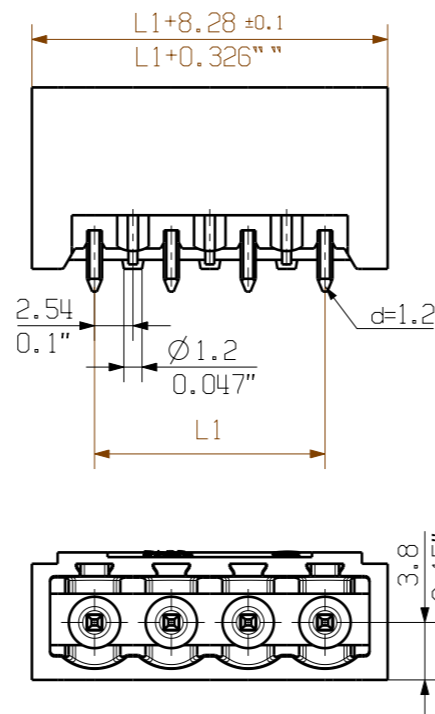
**Accessories**

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).			



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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 = POLZAH/ NO OF POLES

P = RASTER/PITCH

SHOWN: SL-SMT 5.08HC/04/180 G

1,5	0,0	n	L1 [mm]	L1 [Inch]
	-0,3			
3,2	0,1	6	25,40	1,000
	-0,3	5	20,32	0,800
4,5	0,1	4	15,24	0,600
	-0,3	3	10,16	0,400
		2	5,08	0,200

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.

	DIN ISO 2768-m	Cat.no.: .	
	106339/4 30.07.18 HERTEL_S 00		
Modification		<b>C 34148</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">23</span>	
		Drawing no. <span style="float: right;">Issue no.</span> Sheet 02 of 04 sheets	
Scale: 2:1	Drawn: 30.11.2007 HELIS_MA Responsible: HERTEL_S Checked: 01.08.2018 KOCH_JG Approved: LANG_T	<b>SL-SMT 5.08HC/.../180...</b> STIFTLAENGE L TOLERANZ STIFTLISTE MALE HEADER	
Supersedes: .	Product file: SL-SMT 5.08HC	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.

## 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.