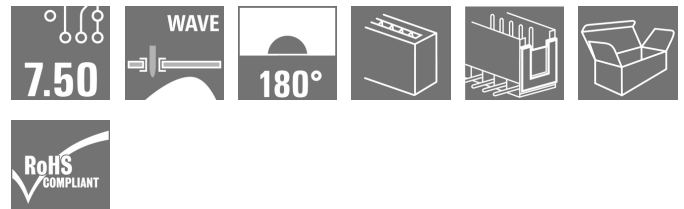


OMNIMATE Signal - series BL/SL 7.50 SL 7.50/12/180B 3.2SN OR BX

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Product image



Similar to illustration

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

General ordering data

Type	SL 7.50/12/180B 3.2SN OR BX
Order No.	1629230000
Version	PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 7.50 mm, Number of poles: 12, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4008 190202033
Qty.	50 pc(s).
Product data	IEC: 800 V / 18.5 A UL: 300 V / 15 A
Packaging	Box

Creation date May 3, 2020 7:23:01 PM CEST

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Technical data**Dimensions and weights**

Height	15.2 mm	Height (inches)	0.598 inch
Height of lowest version	12 mm	Depth	8.5 mm
Depth (inches)	0.335 inch	Net weight	5.56 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 7.50	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.5 mm
Pitch in inches (P)	0.295 inch	Outgoing elbow	180°
Number of poles	12	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Tolerance of solder pin position	± 0.15 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)+	0,1 mm
L1 in mm	82.5 mm	L1 in inches	3.248 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch, plugged	Volume resistance	4.50 mΩ
Can be coded	Yes		

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	CuSn	Contact surface	tinned
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		

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	18.5 A
Rated current, max. number of poles (Tu=20°C)	17 A	Rated current, min. number of poles (Tu=40°C)	16 A
Rated current, max. number of poles (Tu=40°C)	14.5 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	500 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

**OMNIMATE Signal - series BL/SL 7.50
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Technical data**Rated data acc. to CSA**

Institute (CSA)		Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

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)	15 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	40 mm
VPE width	110 mm	VPE height	225 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"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Rated voltage for 7.62 mm pitch: $U/2 = 1000 \text{ V} / 6 \text{ kV}$ • P on drawing = pitch • 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.
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**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Technical data**Approvals**

Approvals



ROHS

Conform

DownloadsApproval/Certificate/Document of
Conformity[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[FL BUILDING SAFETY EN](#)
[FL APPL LED LIGHTING EN](#)
[FLIndustr.CONTROLS EN](#)
[FL MACHINE SAFETY EN](#)
[FL HEATING ELECTR EN](#)
[FL APPL INVERTER EN](#)
[FL_BASE_STATION EN](#)
[FL ELEVATOR EN](#)
[FL POWER SUPPLY EN](#)
[FL 72H SAMPLE SER EN](#)
[PO OMNIMATE EN](#)

Engineering Data

[SL.zip](#)

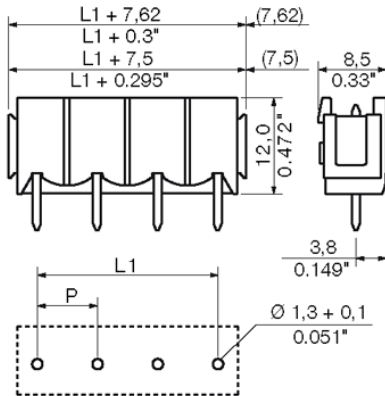
Data sheet

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Drawings

Dimensional drawing



**OMNIMATE Signal - series BL/SL 7.50
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Mating connector (conditionally pluggable)
BLZ 7.50/270


Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/270 SN OR BX	Version	Product data	Packaging
Order No.	1702330000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908812	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	18 pc(s).	Box		

BLZ 7.50/180


Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/180 SN OR BX	Version	Product data	Packaging
Order No.	1628020000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190200824	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	20 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Mating connector (conditionally pluggable)
BLZ 7.50/90


Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/90 SN OR BX	Version	Product data	Packaging
Order No.	1701890000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908478	90°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	18 pc(s).	Box		
Type	BLZ 7.50/12/90 SN BK BX	Version	Product data	Packaging
Order No.	1702000000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908362	90°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	18 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Mating connector (fully pluggable)
BLZ 7.50/270B


Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/270B SN OR ...	Version	Product data	Packaging
Order No.	1702550000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190909031	270°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	18 pc(s).	Box		

BLZ 7.50/90B


Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/90B SN OR BX	Version	Product data	Packaging
Order No.	1702110000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 15 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190908591	90°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 10 A / AWG 26 - AWG 12	
Qty.	18 pc(s).	Box		

**OMNIMATE Signal - series BL/SL 7.50
SL 7.50/12/180B 3.2SN OR BX**

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Mating connector (fully pluggable)
BLZ 7.50/180B


Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

General ordering data

Type	BLZ 7.50/12/180B SN OR ...	Version	Product data	Packaging
Order No.	1628240000	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12,	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4008190201043	180°, Clamping yoke connection, Clamping range, max. : 3.31 mm ² ,	UL: 300 V / 15 A / AWG 26 - AWG 12	
Qty.	20 pc(s).	Box		

OMNIMATE Signal - series BL/SL 7.50 SL 7.50/12/180B 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 BB1R SW	Version	Product data	Packaging
Order No.	1723480000		PCB plug-in connector, Accessories, Mounting block, black, Number of	Box
GTIN (EAN)	4008190366032		poles: 1	
Qty.	20 pc(s).			
Type	SLA BB6R SW	Version	Product data	Packaging
Order No.	1723520000		PCB plug-in connector, Accessories, Mounting block, black, Number of	Box
GTIN (EAN)	4008190366070		poles: 1	
Qty.	20 pc(s).			
Type	SLA BB1R OR	Version	Product data	Packaging
Order No.	1723430000		PCB plug-in connector, Accessories, Mounting block, orange, Number	Box
GTIN (EAN)	4008190365981		of poles: 1	
Qty.	20 pc(s).			
Type	SLA BB5R OR	Version	Product data	Packaging
Order No.	1723460000		PCB plug-in connector, Accessories, Mounting block, orange, Number	Box
GTIN (EAN)	4008190366018		of poles: 1	
Qty.	20 pc(s).			
Type	SLA BB2R SW	Version	Product data	Packaging
Order No.	1723490000		PCB plug-in connector, Accessories, Mounting block, black, Number of	Box
GTIN (EAN)	4008190366049		poles: 1	
Qty.	20 pc(s).			
Type	SLA BB11R OR	Version	Product data	Packaging
Order No.	1604120000		PCB plug-in connector, Accessories, Mounting block, orange, Number	Box
GTIN (EAN)	4008190182977		of poles: 1	
Qty.	20 pc(s).			
Type	SLA BB2R OR	Version	Product data	Packaging
Order No.	1723440000		PCB plug-in connector, Accessories, Mounting block, orange, Number	Box
GTIN (EAN)	4008190365998		of poles: 1	
Qty.	20 pc(s).			

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Accessories

Type	SLA BB11R SW	Version	Product data	Packaging
Order No.	1692340000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190864965	poles: 1		
Qty.	20 pc(s).			
Type	SLA BB12R SW	Version	Product data	Packaging
Order No.	1626880000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190198213	poles: 1		
Qty.	100 pc(s).			
Type	SLA BB6R OR	Version	Product data	Packaging
Order No.	1723470000	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190366025	of poles: 1		
Qty.	20 pc(s).			
Type	SLA BB5R SW	Version	Product data	Packaging
Order No.	1723510000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366063	poles: 1		
Qty.	20 pc(s).			
Type	SLA BB12R OR	Version	Product data	Packaging
Order No.	1593450000	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190122164	of poles: 1		
Qty.	100 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.	1573010000	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.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

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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

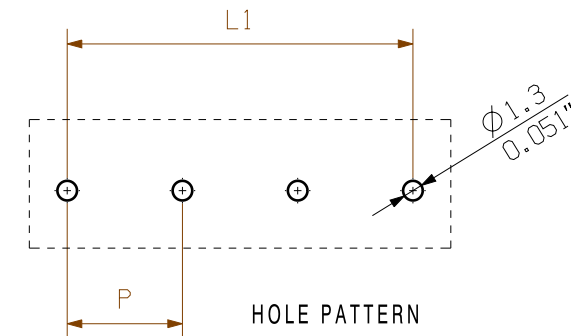
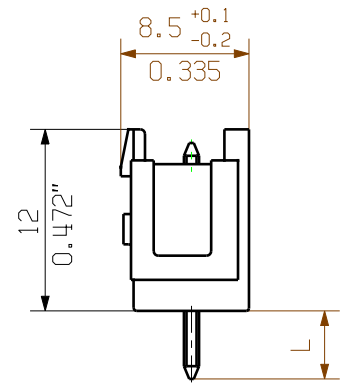
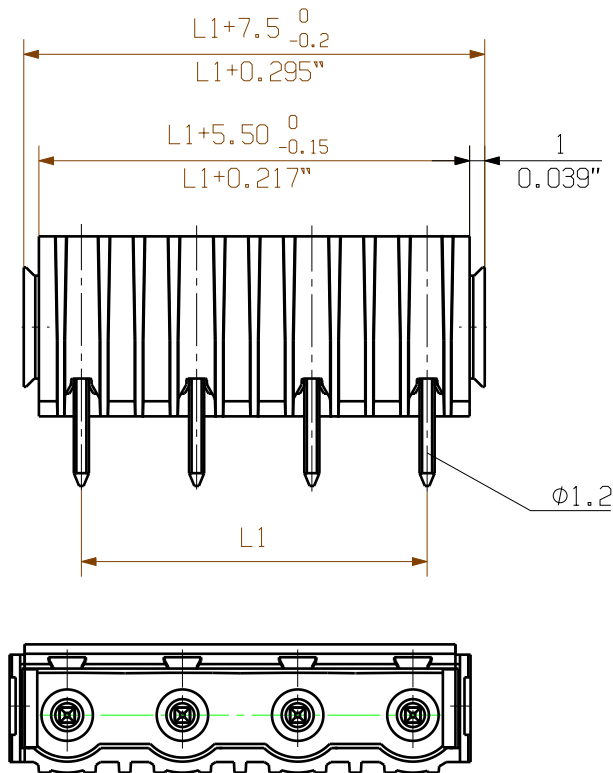
In tandem with the manufacturing process and application - more accessories = smaller workload

General ordering data

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

MASSE OHNE TOLERANZ SIND KEINE PRUEFFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



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: SL7.50/04/180B

12	82,50	3,248
11	75,00	2,953
10	67,50	2,657
9	60,00	2,362
8	52,50	2,067
7	45,00	1,772
6	37,50	1,476
5	30,00	1,181
4	22,50	0,886
3	15,00	0,591
2	7,50	0,295
n	L1 [mm]	L1 [inch]

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

RoHS COMPLIANT

METRIC TOLERANCES:
 X. = ±0.3
 X.X = ±0.1
 X.XX = ±0.05

57768/0
28.03.11
HOHLBEIN_K 01
MODIFICATION

CAT.NO.:

Weidmüller

C 21324 13

DRAWING NO. SHEET 02 OF 02 SHEETS ISSUE NO.

	DATE	NAME
DRAWN	15.10.2003	HERTEL_S
RESPONSIBLE		HERTEL_S
CHECKED	29.03.2011	HECKERT_M
APPROVED		HECKERT_M

SCALE: 5:1
SUPERSEDES: .

SL 7.50/./180...
STIFTLISTE
PIN HEADER

PRODUCT FILE: BLZ/SL 7.50 7152

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Recommended wave soldering profiles

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 www.weidmueller.com

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.