

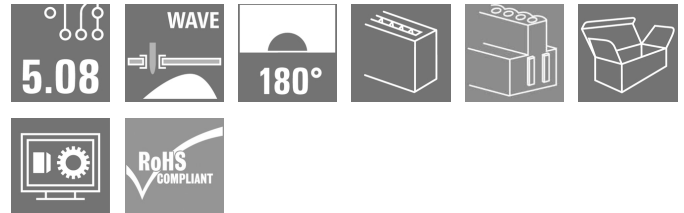
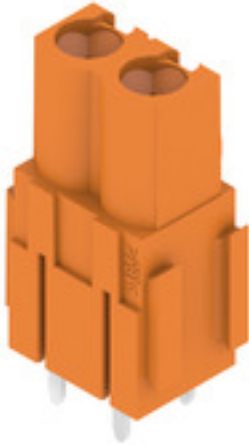
**BLL 5.08/02/180B 3.2SN OR BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

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

**General ordering data**

Version	PCB plug-in connector, female header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, Number of poles: 2, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	<a href="#">1682730000</a>
Type	BLL 5.08/02/180B 3.2SN OR BX
GTIN (EAN)	4008190474492
Qty.	204 pc(s).
Product data	IEC: 400 V / 23 A UL: 300 V / 15 A
Packaging	Box

Creation date July 7, 2024 5:48:51 PM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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

Net weight	1.691 g
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**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 "	Outgoing elbow	180°
Number of poles	2	Number of solder pins per pole	2
Solder pin length (l)	3.2 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	0.4 x 1.00 mm	Solder eyelet hole diameter (D)	1.3 mm
Solder eyelet hole diameter tolerance (D)+ 0,1 mm		L1 in mm	5.08 mm
L1 in inches	0.2 "	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged	Protection degree	IP20
Volume resistance	≤5 mΩ	Can be coded	Yes
Plugging cycles	25	Plugging force/pole, max.	5 N
Pulling force/pole, max.	5 N		

**Material data**

Insulating material	PBT GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of solder connection	4...6 µm Sn hot-dip tinned
Layer structure of plug contact	4...6 µm Sn hot-dip tinned	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	23 A
Rated current, max. number of poles (Tu=20°C)	16 A	Rated current, min. number of poles (Tu=40°C)	20 A
Rated current, max. number of poles (Tu=40°C)	14 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 V	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	Short-time withstand current resistance	3 x 1s with 120 A

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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 349 mm

VPE width 137 mm

VPE height 32 mm

**Classifications**

ETIM 6.0 EC002637

ETIM 7.0 EC002637

ETIM 8.0 EC002637

ETIM 9.0 EC002637

ECLASS 9.0 27-44-04-02

ECLASS 9.1 27-44-04-02

ECLASS 10.0 27-44-04-02

ECLASS 11.0 27-46-02-01

ECLASS 12.0 27-46-02-01

ECLASS 13.0 27-46-02-01

**Environmental Product Compliance**

REACH SVHC

/

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## Technical data

## Important note

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.
Notes	<ul style="list-style-type: none"> <li>• Additional variants 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> <li>• In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

## Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

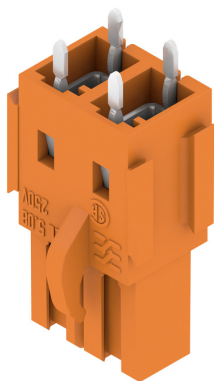
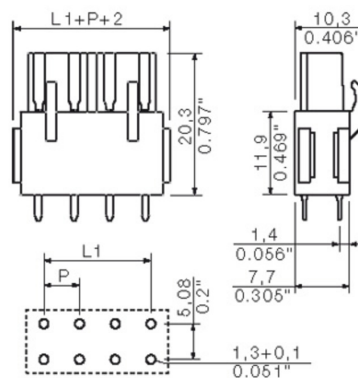
## Downloads

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FL INDUSTR.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> <a href="#">PO OMNIMATE EN</a>

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**Drawings**
**Product image**

**Dimensional drawing**

**Example of use**

**Example of use**


## BLL 5.08/02/180B 3.2SN OR 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 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).			
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).			

### 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 BB6R OR	Version	Product data	Packaging
Order No.	<a href="#">1723470000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190366025	of poles: 1		
Qty.	20 pc(s).			

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## Accessories

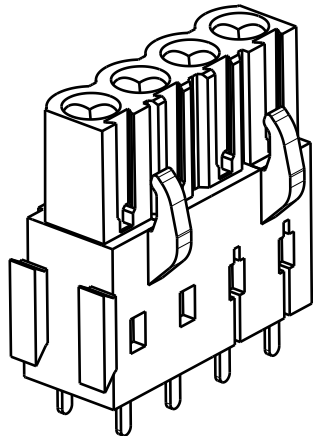
Type	SLA BB1R OR	Version	Product data	Packaging
Order No.	<a href="#">1723430000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365981	of poles: 1		
Qty.	20 pc(s).			
Type	SLA BB2R OR	Version	Product data	Packaging
Order No.	<a href="#">1723440000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365998	of poles: 1		
Qty.	20 pc(s).			
Type	SLA BB5R SW	Version	Product data	Packaging
Order No.	<a href="#">1723510000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366063	poles: 1		
Qty.	20 pc(s).			
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 BB6R SW	Version	Product data	Packaging
Order No.	<a href="#">1723520000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366070	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).			
Type	SLA BB1R SW	Version	Product data	Packaging
Order No.	<a href="#">1723480000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366032	poles: 1		
Qty.	20 pc(s).			
Type	SLA BB12R SW	Version	Product data	Packaging
Order No.	<a href="#">1626880000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190198213	poles: 1		
Qty.	100 pc(s).			
Type	SLA BB5R OR	Version	Product data	Packaging
Order No.	<a href="#">1723460000</a>	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.	<a href="#">1723490000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366049	poles: 1		
Qty.	20 pc(s).			
Type	SLA BB12R OR	Version	Product data	Packaging
Order No.	<a href="#">1593450000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190122164	of poles: 1		
Qty.	100 pc(s).			

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
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WEIDMUELLER INTERFACE GmbH & Co.KG

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

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



P=PITCH/RASTER  
SHOWN: BLL 5.08/04/90B

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.

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

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]

<b>RoHS COMPLIANT</b>		METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05		58473/0 13.05.11 HOHLBEIN_K MODIFICATION		01		CAT.NO.: .	
		DRAWN		DATE		NAME		DRAWING NO.	
SCALE: 2:1		RESPONSIBLE		13.05.2011		HECKERT_M		SHEET 02 OF 02 SHEETS	
SUPERSEDES: .		APPROVED		HECKERT_M		PRODUCT FILE: BLL 5.08		7138	
								C 23110 10	
								BUCHSENLEISTE SOCKET BLOCK	



## 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.