

BLL 5.08/19/180B 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG

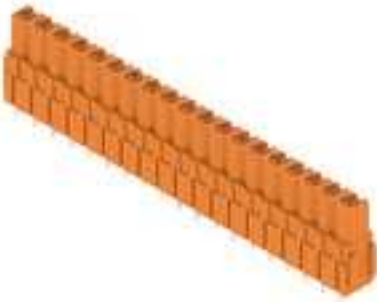
Klingenbergstraße 26

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: 19, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	1682900000
Type	BLL 5.08/19/180B 3.2SN OR BX
GTIN (EAN)	4008 190474669
Qty.	18 pc(s).
Product data	IEC: 400 V / 23 A UL: 300 V / 15 A
Packaging	Box

Creation date October 11, 2023 11:06:02 AM CEST

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Technical data
Dimensions and weights

Net weight	20.722 g
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Temperatures

Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
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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 inch	Outgoing elbow	180°
Number of poles	19	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	91.44 mm
L1 in inches	3.6 inch	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 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	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 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	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	347 mm
VPE width	136 mm	VPE height	31 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	27460201

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

- Additional variants on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- 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.
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Technical data

Approvals

Approvals



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

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Catalogues	Catalogues in PDF-format
Brochures	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 PO OMNIMATE EN

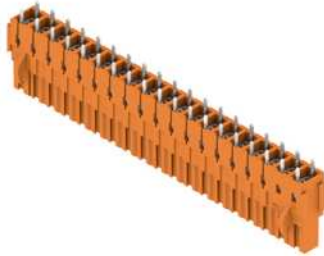
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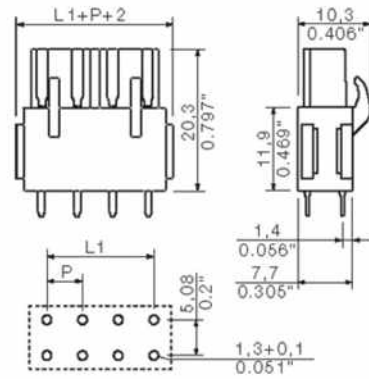
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Drawings

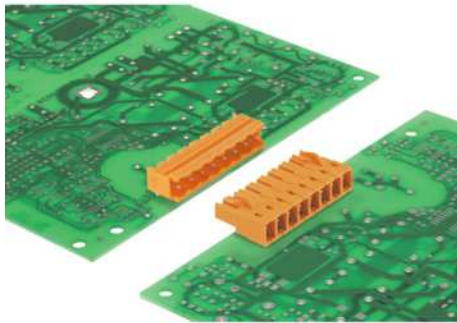
Product image



Dimensional drawing



Example of use



Example of use



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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 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).			
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 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 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).			
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 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 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).			

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Catalogue status 30.09.2023 / We reserve the right to make technical changes.

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Accessories

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 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 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 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 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).			

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.

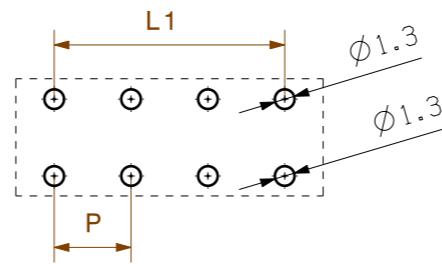
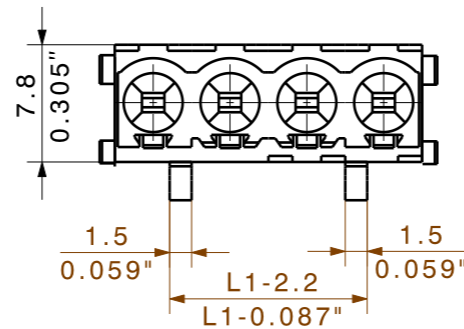
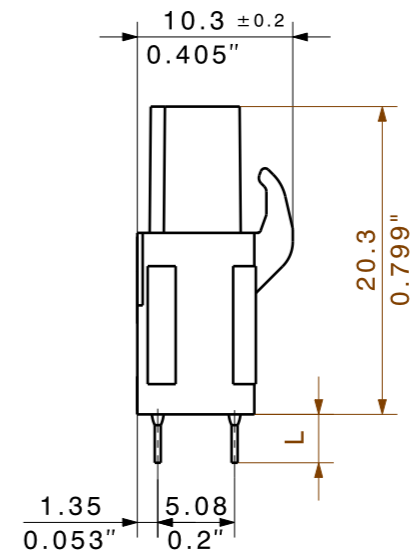
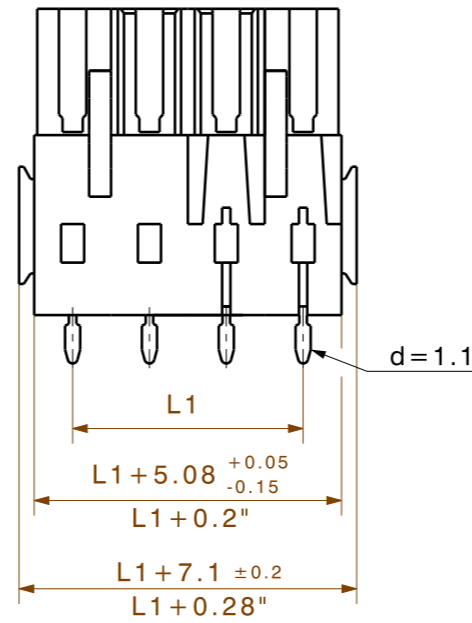
General ordering data

Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	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.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

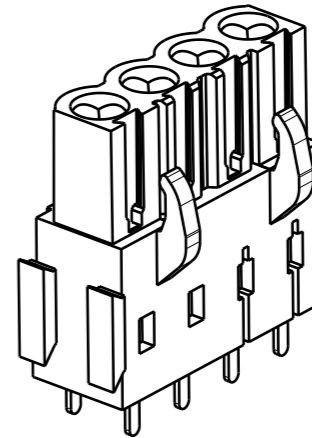
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.
 ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER-, ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.
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HOLE PATTERN



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]

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

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.

METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	58473/0 13.05.11 HOHLBEIN_K	01	CAT.NO.:	
	MODIFICATION		Weidmüller	
	DRAWN 24.09.2003 GROESCHL_A	DATE NAME	C 23110 10 DRAWING NO. ISSUE NO.	
SCALE: 2:1 SUPERSEDES: .	RESPONSIBLE HECKERT_S	CHECKED 13.05.2011 HECKERT_M	SHEET 02 OF 02 SHEETS	
APPROVED HECKERT_M	PRODUCT FILE: BLL 5.08		7138	

BLL 5.08/.../90B/180B
 BUCHSENLEISTE
 SOCKET BLOCK

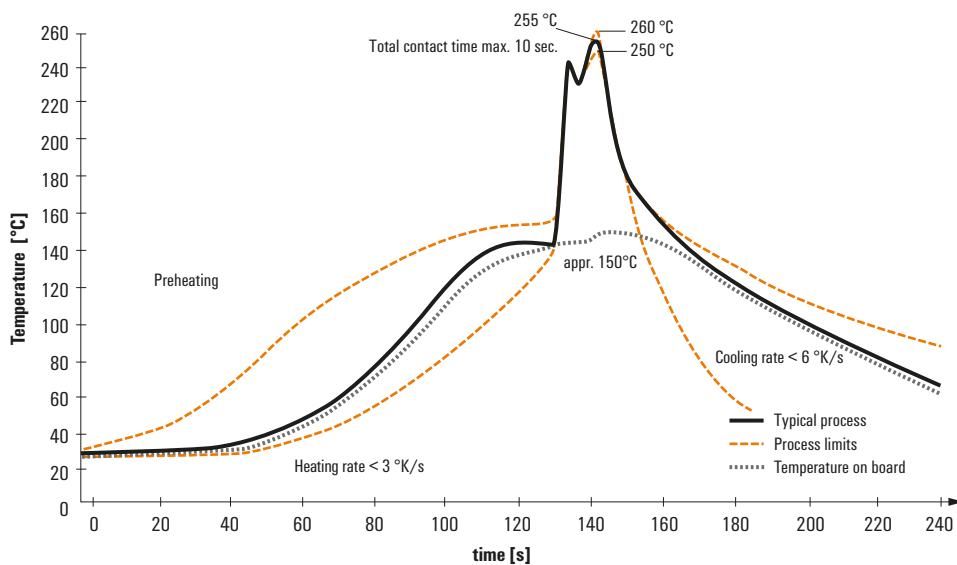
Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
 Klängenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 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.