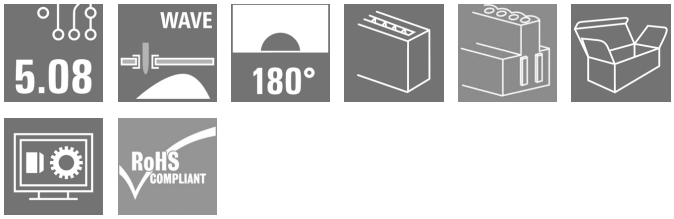
BLL 5.08/02/180B 3.2SN OR BX

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.	1682730000
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 May 11, 2025 6:57:59 PM CEST

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Technical data

Dimensions and weights

Net weight	1.691 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 "	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	10^8 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
ETIM 10.0	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	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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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	• 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. • 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 • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Approvals

Approvals	
Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/
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 FL INDUSTR.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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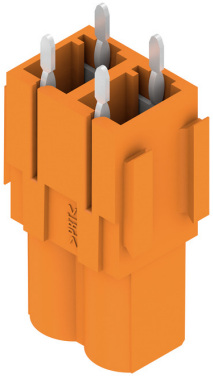
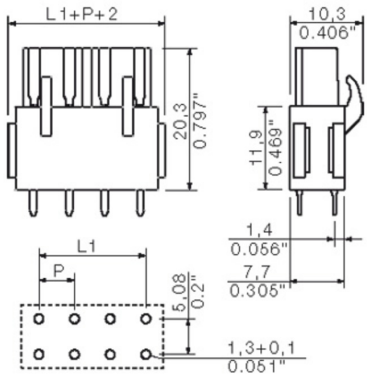
Drawings

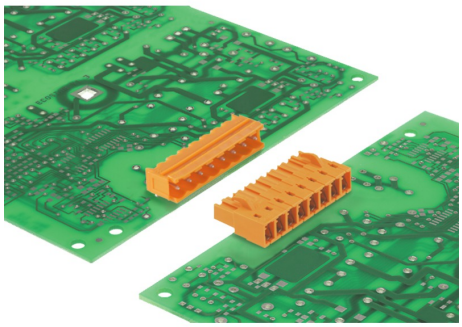
Product image



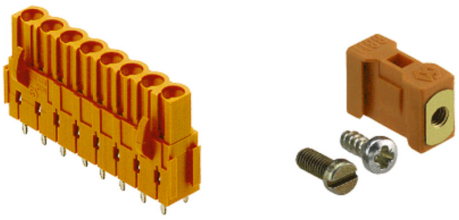
Dimensional drawing



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 BB12R SW	Version	Product data	Packaging
Order No.	1626880000	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190198213	poles: 0		
Qty.	100 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: 0		
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: 0		
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: 0		
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: 0		
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: 0		
Qty.	100 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: 0		
Qty.	20 pc(s).			

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Accessories

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: 0		
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: 0		
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: 0		
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: 0		
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: 0		
Qty.	20 pc(s).			

Coding elements

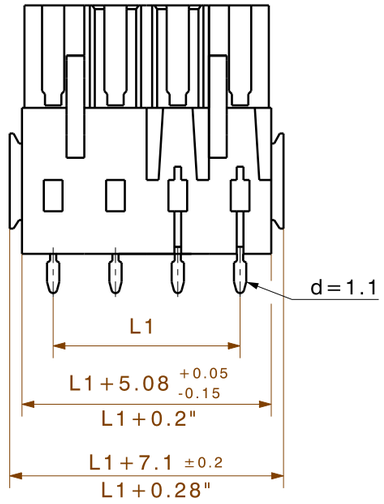
Only connects what is supposed to be connected: the right connection at the right place.
Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation
The coding elements and locking devices are inserted prior to assembly or during the cable assembly 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.

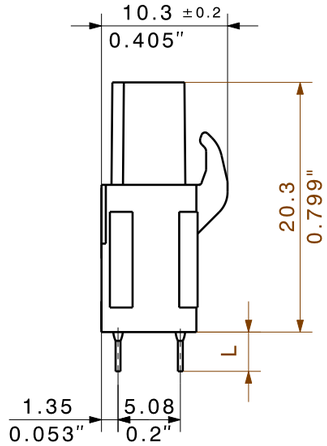
General ordering data

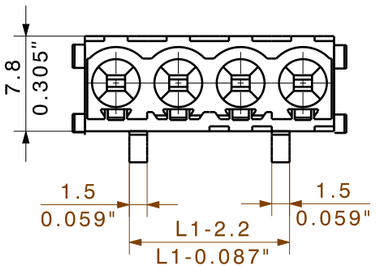
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			
Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

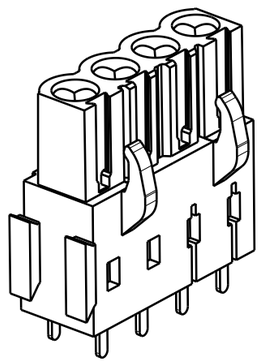
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

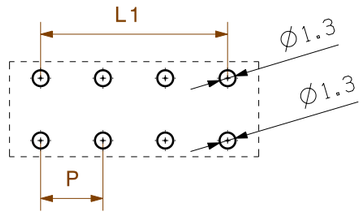
DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING











HOLE PATTERN

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

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

n	L1 [mm]	L1 [Inch]
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

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
The neccessary 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

RoHS COMPLIANT

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

58473/0 01
13.05.11
HOHLBEIN_K
MODIFICATION

CAT.NO.: .

Weidmüller

C 23110 10
DRAWING NO. ISSUE NO.

SHEET 02 OF 02 SHEETS

	DATE	NAME
DRAWN	24.09.2003	GROESCHL_A
RESPONSIBLE		HERTEL_S
CHECKED	13.05.2011	HECKERT_M
APPROVED		HECKERT_M

SCALE: 2:1
SUPERSEDES: .

BLL 5.08/../90B/180B

BUCHSENLEISTE
SOCKET BLOCK

PRODUCT FILE: BLL 5.08 7138

Wave Solder Profile

Recommended wave solderding profiles

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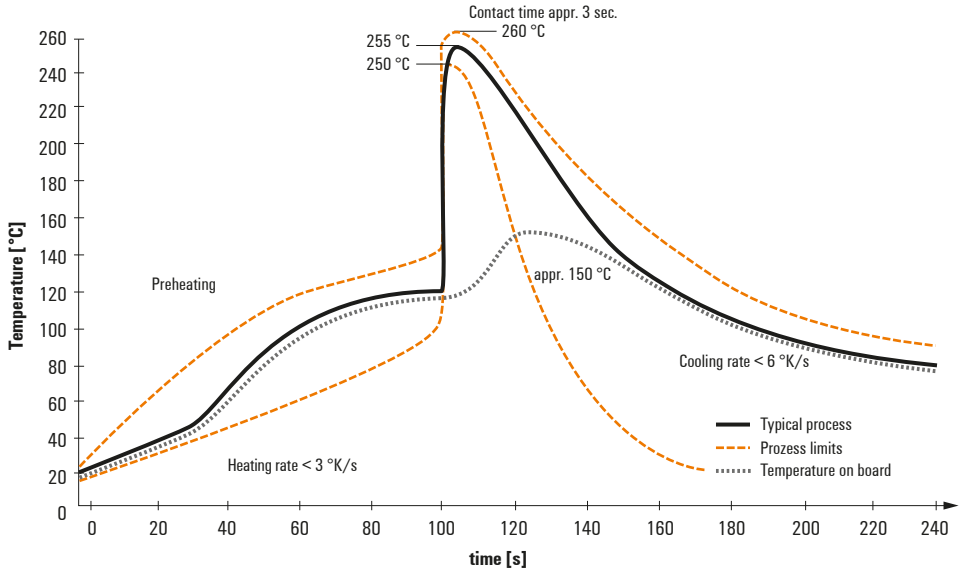
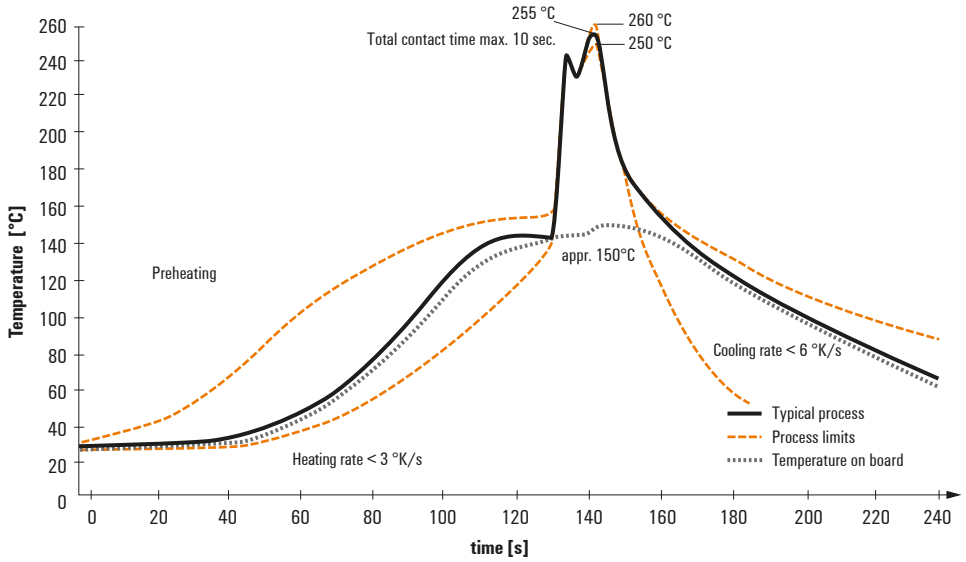
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

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.