

## BLL 5.08/13/180 3.2 SN OR BX

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

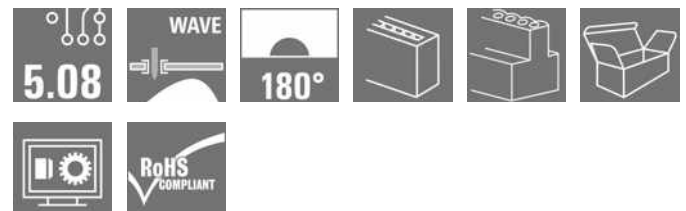
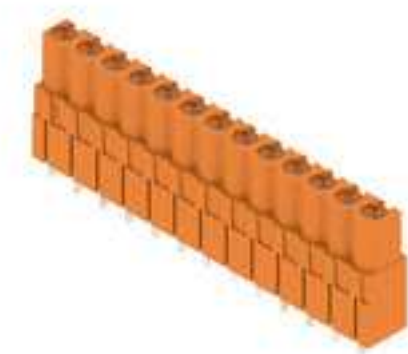
Tel. +49 5231 14-0

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### 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, closed side, THT solder connection, 5.08 mm, Number of poles: 13, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	<a href="#">1648900000</a>
Type	BLL 5.08/13/180 3.2 SN OR BX
GTIN (EAN)	4008190293383
Qty.	24 pc(s).
Product data	IEC: 400 V / 23 A UL: 300 V / 15 A
Packaging	Box

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

Net weight 13.96 g

**Temperatures**

Operating temperature, min. -50 °C Operating temperature, max. 100 °C

**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	13	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	60.96 mm
L1 in inches	2.4 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)	www.weidmueller.com
			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	135 mm	VPE height	31 mm

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	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

**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>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

**Data sheet**

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**Technical data**

**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>
Engineering Data	<a href="#">WSCAD</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="#">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>	
<a href="#">PO OMNIMATE EN</a>	

**Data sheet**

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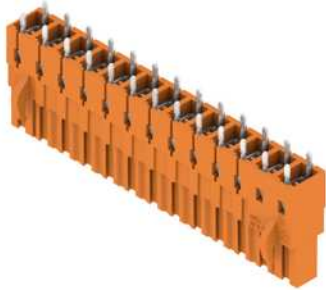
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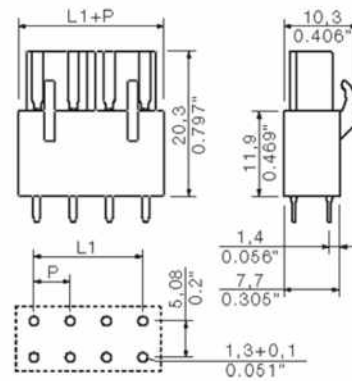
Fax. +49 5231 14-2083

**Drawings**

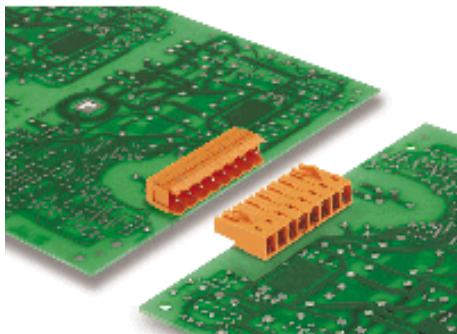
**Product image**



**Dimensional drawing** [info@weidmueller.com](mailto:info@weidmueller.com)

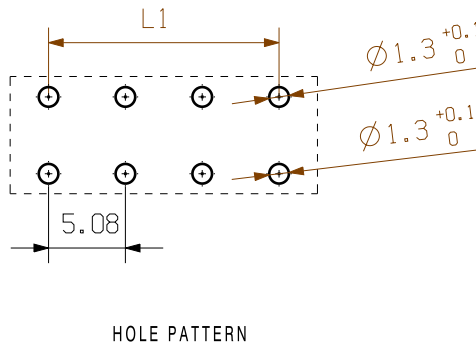
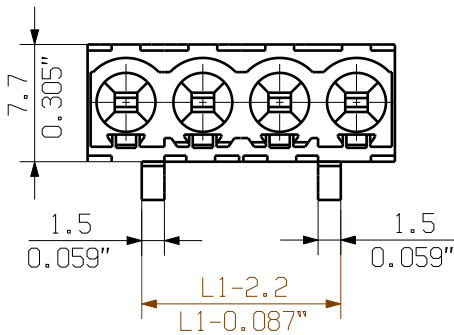
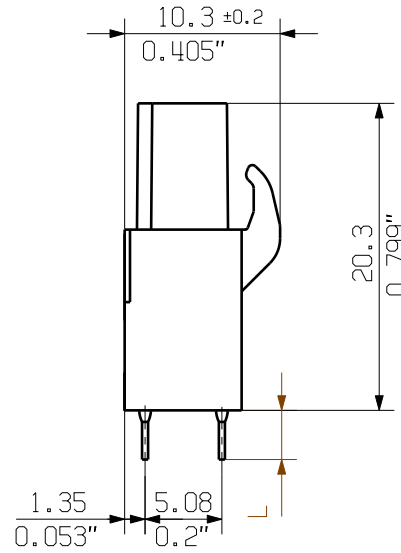
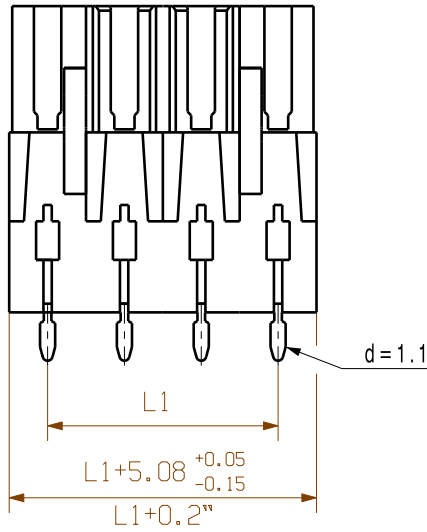


**Example of use**



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

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



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]

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.

SHOWN: BLL 5.08/04/180

3,2	0,1
	-0,3
4,5	0,1
	-0,3
<b>PINLÄNGE L</b>	<b>TOLERANZ</b>
<b>PIN LENGTH L</b>	<b>TOLERANCE</b>

	METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	53948/5 08.11.10 HOHLBEIN_K MODIFICATION	CAT.NO.:	C 21265 22
	DRAWN: 19.09.2003 GROESCHL_A RESPONSIBLE: HERTEL_S CHECKED: 26.11.2010 HECKERT_M APPROVED: HECKERT_M	DATE: 19.09.2003 NAME: GROESCHL_A HERTEL_S HECKERT_M	SHEET 02 OF 02 SHEETS	BLL 5.08/.../... BUCHSENLEISTE SOCKET BLOCK

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 WEIDMUELLER INTERFACE GmbH & Co.KG

## Recommended wave soldering profiles

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 D-32758 Detmold  
 Germany  
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 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.