

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com





Similar to illustration

Pin headers with solder pin length optimised for wave flow soldering. The male connectors provide space for labelling and can be coded. HC = High Current.

General ordering data

Туре	SLD 5.08V/42/90 3.2 SN OR BX
Order No.	<u>1725360000</u>
Version	PCB plug-in connector, male header, open side, THT solder connection, 5.08 mm, Number of poles: 42, 90°, Solder pin length (I): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4032248060764
Qty.	10 pc(s).
Product data	IEC: 400 V / 17 A UL: 300 V / 10 A
Packaging	Box

Creation date May 3, 2020 11:00:12 AM CEST

Technical data



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Dimensions	and weights
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Width	109.22 mm	Width (inches)	4.3 inch
Height	29.4 mm	Height (inches)	1.157 inch
Height of lowest version	26.2 mm	Depth	22.2 mm
Depth (inches)	0.874 inch	Net weight	34.692 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 5.08
Mounting onto the PCB	THT solder connection
Pitch in inches (P)	0.2 inch
Number of poles	42
Solder pin length (I)	3.2 mm
Tolerance of solder pin position	± 0.20 mm
Solder pin dimensions = d tolerance	0 / -0,03 mm
Solder eyelet hole diameter tolerance (D)+ 0,1 mm
L1 in inches	4 inch
Pin series quantity	2
Can be coded	Yes

Type of connection	
	Board connection
Pitch in mm (P)	5.08 mm
Outgoing elbow	90°
Number of solder pins per pole	1
Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.3 mm
L1 in mm	101.6 mm
Number of rows	2
Volume resistance	≤ 5mΩ
Plugging cycles	25

Material data

Insulating material	РВТ
Colour chart (similar)	RAL 2000
Comparative Tracking Index (CTI)	≥ 200
UL 94 flammability rating	V-0
Contact material	CuSn
Layer structure of solder connection	1-3 μm Ni / 2-4 μm Sn
	matt
Storage temperature, min.	-25 °C
Max. relative humidity during storage	70 %
Operating temperature, max.	100 °C
Temperature range, installation, max.	100 °C

Colour	orange
Insulating material group	Illa
Insulation strength	≥ 10 ⁸ Ω
GWFI	960 °C
Contact surface	tinned
Layer structure of plug contact	1-3 μm Ni / 2-4 μm Sn matt
Storage temperature, max.	50 °C
Operating temperature, min.	-50 °C
Temperature range, installation, min.	-25 °C
Contact surface Layer structure of plug contact Storage temperature, max. Operating temperature, min.	tinned 1-3 μm Ni / 2-4 μm Sn matt 50 °C -50 °C

Rated data acc. to IEC

tested acc. to standard	
	IEC 60664-1, IEC 61984
Rated current, min. number of poles (Tu=40°C)	15 A
Rated voltage for surge voltage class / pollution degree III/2	320 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV

Rated current, min. number of poles (Tu=20°C)	17 A
Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV

Technical data

Rated data acc. to CSA



Weidmüller Interface GmbH & Co. KG

Institute (CSA)	A	Certificate No. (CSA)	
	(S₽∗		
			200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 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)	A L	Certificate No. (UR)	
			E60693
Rated voltage (Use group B / UL 1059)		Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)		Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		
Packing			
Packaging	Вох	VPE length	50 mm
VPE width	120 mm	VPE height	175 mm
Classifications			
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	Additional colours on request		
	·		
	Rated current related to rated	cross-section & min. No. of poles.	
	Spacing between rows: see h	ole layout	
	• P on drawing = pitch		
	,	omponent itself. Clearance and creepage distand it the relevant application standards.	ces to other components are to
IPC conformity	Conformity: The products are de standards and norms and comp	veloped, manufactured and delivered according ly with the assured properties in the data sheet i class 2". Further claims on the products can be e	esp. fulfill decorative propertie

Technical data

Approvals

Approvals



Downloads

ROHS

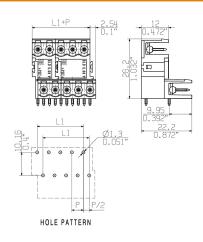
Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN
	MB DEVICE MANUF. EN
	FL DRIVES DE
	CAT 2 PORTFOLIOGUIDE EN
	FL BUILDING SAFETY EN
	FL APPL LED LIGHTING EN
	FL INDUSTR.CONTROLS EN
	FL MACHINE SAFETY EN
	FL HEATING ELECTR EN
	FL APPL_INVERTER EN
	FL BASE STATION EN
	FL ELEVATOR EN
	FL POWER SUPPLY EN
	FL 72H SAMPLE SER EN
	PO OMNIMATE EN
Engineering Data	STEP



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Drawings

Dimensional drawing





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Mating connector (fully pluggable)

BLZP 5.08HC/225 SN





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Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/21/225 SN 0	Version	Product data	Packaging
Order No.	<u>1946440000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248622214	225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/21/225 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/21/225 SN B <u>1946750000</u>	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,		Packaging Box
			IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box

BLF 5.08HC/180 SN



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

General ordering data

Туре	BLF 5.08HC/21/180 SN OR	Version	Product data	Packaging
Order No.	<u>1013890000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	Box
GTIN (EAN)	4032248721993	180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm ²	, UL: 300 V / 18.5 A / AWG 26 - AWG	
Qty.	12 pc(s).	Box	12	
Туре	BLF 5.08HC/21/180 SN BK	Version	Product data	Packaging
Type Order No.	BLF 5.08HC/21/180 SN BK 1013640000	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,		Packaging Box
	-, , -		IEC: 400 V / 24 A / 0.2 - 2.5 mm ²	00

Creation date May 3, 2020 11:00:12 AM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

Mating connector (fully pluggable)

BLZP 5.08HC/180 SN



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/21/180 SN 0	Version	Product data	Packaging
Order No.	<u>1943770000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248617784	180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/21/180 SN B	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/21/180 SN B <u>1944000000</u>	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,		Packaging Box
<i>·</i> ·			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

BLL 5.08/180



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

General ordering data

Туре	BLL 5.08/21/180 3.2 SN	Version	Product data	Packaging
Order No.	<u>1648980000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190293468	connection, 5.08 mm, Number of poles: 21, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	12 pc(s).	(I): 3.2 mm, tinned, orange, Box		



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Mating connector (fully pluggable)

BLL 5.08/90





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

General ordering data

Туре	BLL 5.08/21/90 3.2 SN O	Version	Product data	Packaging
Order No.	<u>1648500000</u>	PCB plug-in connector, female header, closed side, THT solder	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190292973	connection, 5.08 mm, Number of poles: 21, 90°, Solder pin length (I): UL: 300 V / 15 A	
Qty.	12 pc(s).	3.2 mm, tinned, orange, Box		

BLL 5.08/180B



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

General	ordering data			
Туре	BLL 5.08/21/180B 3.2SN	Version	Product data	Packaging
Order No.	<u>1682920000</u>	PCB plug-in connector, female header, Dovetails for fixing blocks, THT	IEC: 400 V / 23 A	Box
GTIN (EAN)	4008190474683	solder connection, 5.08 mm, Number of poles: 21, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	12 pc(s).	length (I): 3.2 mm, tinned, orange, Box		

Mating connector (fully pluggable)

BLZP 5.08HC/225B SN



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Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/21/225B SN	Version	Product data	Packaging
Order No.	<u>1945940000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248621460	225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box	UL: 300 V / 15 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/21/225B SN	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/21/225B SN <u>1946170000</u>	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,		Packaging Box
			IEC: 400 V / 17.5 A / 0.2 - 4 mm ²	Box

BLZP 5.08HC/270 SN



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/21/270 SN O	Version	Product data	Packaging
Order No.	<u>1948980000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248626434	$270^\circ\!,$ Clamping yoke connection, Clamping range, max. : $4\ mm^2,$ Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
	1 ()			
Туре	BLZP 5.08HC/21/270 SN B	Version	Product data	Packaging
-				Packaging Box
Туре	BLZP 5.08HC/21/270 SN B		IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

Mating connector (fully pluggable)

BLZP 5.08HC/90 SN



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Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

General ordering data

Туре	BLZP 5.08HC/21/90 SN OR	Version	Product data	Packaging
Order No.	<u>1948200000</u>	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,	IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box
GTIN (EAN)	4032248624720	$90^\circ,$ Clamping yoke connection, Clamping range, max. : 4 $mm^2,$ Box	UL: 300 V / 20 A / AWG 26 - AWG 12	2
Qty.	12 pc(s).			
Туре	BLZP 5.08HC/21/90 SN BK	Version	Product data	Packaging
Type Order No.	BLZP 5.08HC/21/90 SN BK <u>1948430000</u>	Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 21,		Packaging Box
			IEC: 400 V / 23 A / 0.2 - 4 mm ²	Box

Accessories

Blocks for PCB mounting





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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

Туре	SLA BB14 OR	Version	Product data	Packaging
Order No.	<u>1594200000</u>	PCB plug-in connector, Accessories, Mounting block, ora	nge, Number	Box
GTIN (EAN)	4008190184988	of poles: 1		
Qty.	20 pc(s).			
Туре	SLA BB14 SW	Version	Product data	
Type Order No.	SLA BB14 SW <u>1774460000</u>	Version PCB plug-in connector, Accessories, Mounting block, blac		

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

	•			
Туре	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<u>1573010000</u>	PCB plug-in connector, Accessories, Coding element, orange, Number	r	Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

Creation date May 3, 2020 11:00:12 AM CEST

Accessories



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Туре	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<u>1545710000</u>	PCB plug-in connector, Accessories, Coding eler	nent, black, Number	Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

Additional accessories



No task is too small when creating the perfect solution. br />

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.

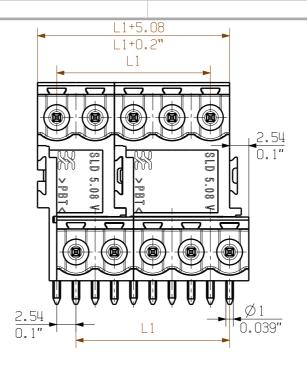
A system is not a system without small but useful details:

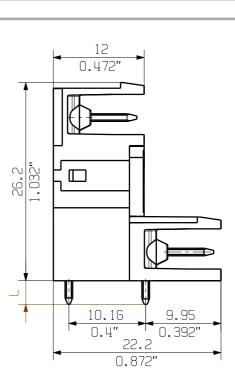
- Test plugs ensure reliable pick-up from diagnostic sockets
- Cross-connectors ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements divide a large number of male connectors into several separate socket connector channels
- · Locks and clips optional vibration-resistant clipon connection or mounting for male and female connectors

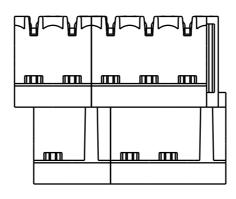
In tandem with the manufacturing process and application - more accessories = smaller workload

General	ordering data			
Туре	SL AT SW	Version	Product data	Packaging
Order No.	<u>1770240000</u>	PCB plug-in connector, Accessories, Spacer, black,	, Number of poles: 1	Box
GTIN (EAN)	4032248117710			
Qty.	100 pc(s).			
Туре	SL AT OR	Version	Product data	Packaging
Type Order No.	SL AT OR <u>1598300000</u>	Version PCB plug-in connector, Accessories, Spacer, orang		Packaging Box

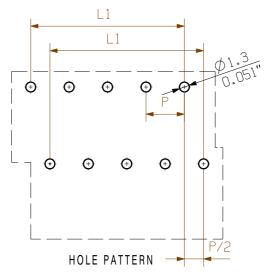
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.















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.

Œ	sumuner 🔊					SSUE NO.				
		SHEET	01	0 F	03	SHEETS				
	SLD 5.08V//90(B)									
	PIN HEADER									
	PRODUCT FILE: SLD 5.08V				7305	•				

			-						
		24	55,88	2,200					
		22	50,80	2,000					
		20	45,72	1,800					
		18	40,64	1,600					
	16	35,56	1,400						
		14	30,48	1,200					
STIFTLÄNGE L	TOLERANZ TOLERANCE	12	25,40	1,000					
PIN LENGTH L		10	20,32	0,800					
	0,1	8	15,24	0,600					
3,2 4,5	-0,3	6	10,16	0,400					
	0,1	4	5,08	0,200					
	-0,3	n	L1 [mm]	L1 [Inch]					
- CAT NO -									



DIE DEUTSCHE VERSION IST VERBINDLICH THE GERMAN VERSION IS BINDING

116,84

111,76

106,68

101,60 96,52

91,44

86,36

81,28

76,20

71,12

66,04

60,96

C 26660 13

48 46

44

42

40

38

36

34

32

30

28 26 4,600

4,400

4,200

4,000

3,800

3,600

3,400

3,200

3,000

2,800

2,600

2,400

Wave Solder Profile

Recommended wave solderding profiles

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Double Wave:

Single 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.