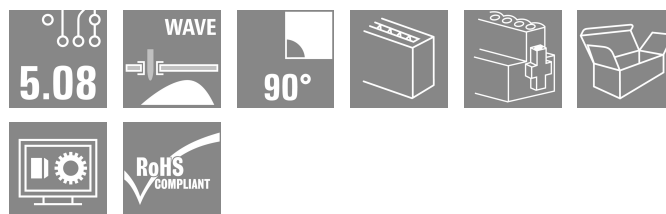
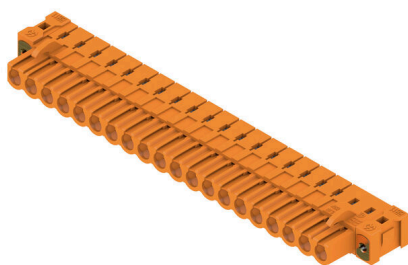


**BLL 5.08/20/90FI 3.2SN OR BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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, Inverted flange, THT solder connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box
Order No.	<a href="#">1843930000</a>
Type	BLL 5.08/20/90FI 3.2SN OR BX
GTIN (EAN)	4032248355686
Qty.	12 items
Product data	IEC: 400 V / 23 A UL: 300 V / 15 A
Packaging	Box

## BLL 5.08/20/90FI 3.2SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

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## Technical data

## Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (UR)	E60693

## Dimensions and weights

Net weight	19.96 g
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## Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	0b9f9fbb-9843-4953-ae55-e10a8ae27fe7

## 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)	0.200 "	Outgoing elbow	90°
Number of poles	20	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	96.52 mm
L1 in inches	3.800 "	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 resistance	108 Ω
Moisture Level (MSL)		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

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**Technical data**

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

**Rated data acc. to CSA**

Institute (CSA)	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)	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	170.00 mm
VPE width	70.00 mm	VPE height	42.00 mm

**Important note**

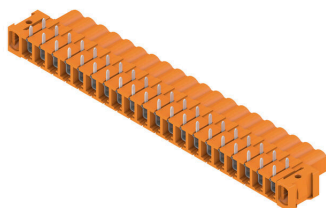
IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products 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>		

**Classifications**

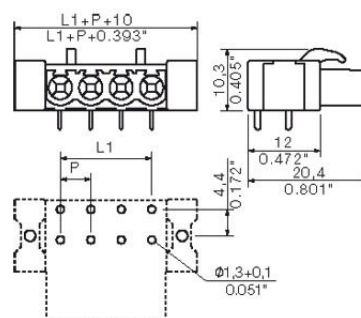
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

## Drawings

### Product image



### Dimensional drawing



### Example of use



**BLL 5.08/20/90FI 3.2SN OR BX**

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D-32758 Detmold  
Germany

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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
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 ST	
Type	BLZ/SL KO OR BX	Version
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	

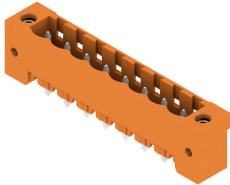
## BLL 5.08/20/90FI 3.2SN OR BX

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## Counterpart

## SL 5.08HC/180F

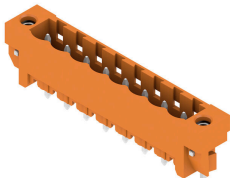


Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

## General ordering data

Type	SL 5.08HC/20/180F 3.2SN...	Version
Order No.	<a href="#">1149050000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248932450	5.08 mm, Number of poles: 20, 180°, Solder pin length (l): 3.2 mm,
Qty.	12 ST	tinned, black, Box
Type	SL 5.08HC/20/180F 3.2SN...	Version
Order No.	<a href="#">1147720000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248931385	5.08 mm, Number of poles: 20, 180°, Solder pin length (l): 3.2 mm,
Qty.	12 ST	tinned, orange, Box

## SL 5.08HC/180LF



Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

## General ordering data

Type	SL 5.08HC/20/180LF 3.2S...	Version
Order No.	<a href="#">1149820000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248932849	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	12 ST	(l): 3.2 mm, tinned, black, Box
Type	SL 5.08HC/20/180LF 3.2S...	Version
Order No.	<a href="#">1148380000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248931583	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	12 ST	(l): 3.2 mm, tinned, orange, Box

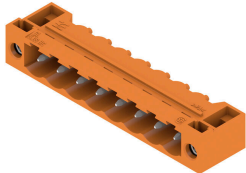
## BLL 5.08/20/90FI 3.2SN OR BX

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## Counterpart

## SL 5.08HC/90F

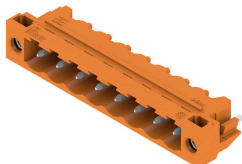


Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

## General ordering data

Type	SL 5.08HC/20/90F 3.2SN ...	Version
Order No.	<a href="#">1150290000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248105977	5.08 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm,
Qty.	12 ST	tinned, black, Box
Type	SL 5.08HC/20/90F 3.2SN ...	Version
Order No.	<a href="#">1149210000</a>	PCB plug-in connector, male header, Flange, THT solder connection,
GTIN (EAN)	4032248936427	5.08 mm, Number of poles: 20, 90°, Solder pin length (l): 3.2 mm,
Qty.	12 ST	tinned, orange, Box

## SL 5.08HC/90LF



Pin headers made from glass-fibre-reinforced plastic with 90° wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

## General ordering data

Type	SL 5.08HC/20/90LF 3.2SN...	Version
Order No.	<a href="#">1150540000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248936342	connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l):
Qty.	12 ST	3.2 mm, tinned, black, Box
Type	SL 5.08HC/20/90LF 3.2SN...	Version
Order No.	<a href="#">1149980000</a>	PCB plug-in connector, male header, Solder flange, THT solder
GTIN (EAN)	4032248936649	connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l):
Qty.	12 ST	3.2 mm, tinned, orange, Box

## BLL 5.08/20/90FI 3.2SN OR BX

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## Counterpart

## SL-SMT 5.08/180F Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

## General ordering data

Type	SL-SMT 5.08HC/20/180F 3...	Version
Order No.	<a href="#">1820810000</a>	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248317677	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	12 ST	(I): 3.2 mm, tinned, black, Box

## SL-SMT 5.08/180LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

## General ordering data

Type	SL-SMT 5.08HC/20/180LF ...	Version
Order No.	<a href="#">1776542001</a>	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248159420	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	12 ST	(I): 1.5 mm, tinned, black, Box
Type	SL-SMT 5.08HC/20/180LF ...	Version
Order No.	<a href="#">1838620000</a>	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248348688	connection, 5.08 mm, Number of poles: 20, 180°, Solder pin length
Qty.	12 ST	(I): 3.2 mm, tinned, black, Box

## SL-SMT 5.08HC/90F Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.



## BLL 5.08/20/90FI 3.2SN OR BX

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## Counterpart

## General ordering data

Type	SL-SMT 5.08HC/20/90F 3....	Version
Order No.	<a href="#">1837810000</a>	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248347629	connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l):
Qty.	12 ST	3.2 mm, tinned, black, Box

## SL-SMT 5.08HC/90LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

## General ordering data

Type	SL-SMT 5.08HC/20/90LF 3...	Version
Order No.	<a href="#">1780610000</a>	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248165919	connection, 5.08 mm, Number of poles: 20, 90°, Solder pin length (l):
Qty.	12 ST	3.2 mm, tinned, black, Box

## SLDV-THR 5.08/180F



High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

## General ordering data

Type	SLDV-THR 5.08/40/180F 3...	Version
Order No.	<a href="#">1889390000</a>	PCB plug-in connector, male header, Flange, THT/THR solder
GTIN (EAN)	4032248495733	connection, 5.08 mm, Number of poles: 40, 180°, Solder pin length
Qty.	8 ST	(l): 3.2 mm, tinned, black, Box

**BLL 5.08/20/90FI 3.2SN OR BX****Weidmüller Interface GmbH & Co. KG**

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D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Counterpart****SLDV-THR 5.08/180FLF**

High-temperature resistant, double level, laterally offset, male connector with flange or solder flange. 1.5 mm solder pin is suitable for reflow soldering. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SLDV-THR 5.08/40/180FLF...	Version
Order No.	<a href="#">1889290000</a>	PCB plug-in connector, male header, Flange / Solder flange, THT/THR
GTIN (EAN)	4032248495634	solder connection, 5.08 mm, Number of poles: 40, 180°, Solder pin
Qty.	8 ST	length (l): 3.2 mm, tinned, black, Box