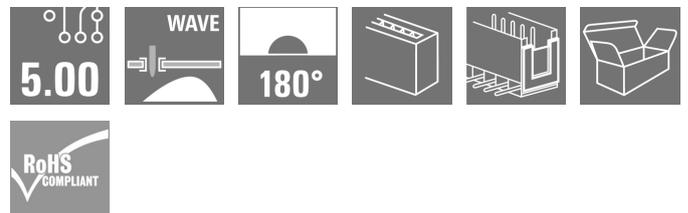
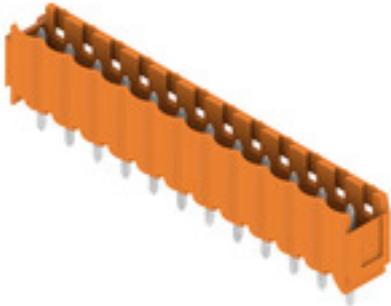


## SL 5.00/12/180B 4.5SN OR BX

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

www.weidmueller.com

### Product image



Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

### General ordering data

Version	PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.00 mm, Number of poles: 12, 180°, Solder pin length (l): 4.5 mm, tinned, orange, Box
Order No.	<a href="#">1582110000</a>
Type	SL 5.00/12/180B 4.5SN OR BX
GTIN (EAN)	4008190135232
Qty.	50 pc(s).
Product data	IEC: 400 V / 18 A UL: 300 V / 15 A
Packaging	Box

Creation date July 11, 2025 8:47:06 AM CEST

Catalogue status 04.07.2025 / We reserve the right to make technical changes.

## SL 5.00/12/180B 4.5SN OR BX

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## Technical data

## Dimensions and weights

Depth	8.4 mm	Depth (inches)	0.331 inch
Height	16.5 mm	Height (inches)	0.65 inch
Height of lowest version	12 mm	Width	62 mm
Width (inches)	2.441 inch	Net weight	3.872 g

## System specifications

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 "	Outgoing elbow	180°
Number of poles	12	Number of solder pins per pole	1
Solder pin length (l)	4.5 mm	Solder pin length tolerance	+0.1 / -0.2 mm
Solder pin dimensions	d = 1.2 mm, Octagonal	Solder pin dimensions = d tolerance	0 / -0,03 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	55 mm	L1 in inches	2.165 "
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	finger-safe unplugged/ back-of-hand-safe plugged	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20	Volume resistance	≤5 mΩ
Can be coded	Yes	Plugging force/pole, max.	10 N
Pulling force/pole, max.	8 N		

## Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	Cu-alloy	Contact surface	tinned
Layer structure of solder connection	1...3 μm Ni / 2...4 μm Sn matt	Layer structure of plug contact	1...3 μm Ni / 2...4 μm Sn matt
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)	18 A
Rated current, max. number of poles (Tu=20°C)	14.5 A	Rated current, min. number of poles (Tu=40°C)	15 A
Rated current, max. number of poles (Tu=40°C)	12 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	168 mm
VPE width	119 mm	VPE height	38 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		

**Approvals**

Approvals			
Approvals MAMID	<a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319262/-T1z1mm-S800/</a>		
ROHS	Conform		
UL File Number Search	UL Website		
Certificate No. (UR)	E60693		

**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	<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>

**Downloads**

Engineering Data	<a href="#">CAD data – STEP</a> <a href="#">CAD data – DWG</a> <a href="#">CAD data – DXF</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">FL DRIVES DE</a>

**Data sheet**

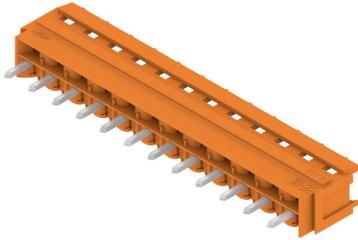
**SL 5.00/12/180B 4.5SN OR BX**

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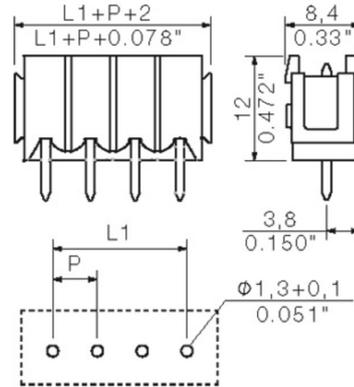
[www.weidmueller.com](http://www.weidmueller.com)

**Drawings**

**Product image**



**Dimensional drawing**



## SL 5.00/12/180B 4.5SN OR BX

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## Accessories

## 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 clip-on connection or mounting for male and female connectors

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

## General ordering data

Type	SL AT OR	Version	Product data	Packaging
Order No.	<a href="#">1598300000</a>	PCB plug-in connector, Accessories, Spacer, orange, Number of poles:		Box
GTIN (EAN)	4008190189266	1		
Qty.	100 pc(s).			
Type	SL AT SW	Version	Product data	Packaging
Order No.	<a href="#">1770240000</a>	PCB plug-in connector, Accessories, Spacer, black, Number of poles: 1		Box
GTIN (EAN)	4032248117710			
Qty.	100 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.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

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## Accessories

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

## 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.	<a href="#">1723440000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365998	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB6R OR	Version	Product data	Packaging
Order No.	<a href="#">1723470000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190366025	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB1R SW	Version	Product data	Packaging
Order No.	<a href="#">1723480000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366032	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB6R SW	Version	Product data	Packaging
Order No.	<a href="#">1723520000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366070	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB12R OR	Version	Product data	Packaging
Order No.	<a href="#">1593450000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190122164	of poles: 0		
Qty.	100 pc(s).			
Type	SLA BB11R SW	Version	Product data	Packaging
Order No.	<a href="#">1692340000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190864965	poles: 0		
Qty.	20 pc(s).			

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## SL 5.00/12/180B 4.5SN OR BX

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## Accessories

Type	SLA BB5R OR	Version	Product data	Packaging
Order No.	<a href="#">1723460000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190366018	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB1R OR	Version	Product data	Packaging
Order No.	<a href="#">1723430000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190365981	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB11R OR	Version	Product data	Packaging
Order No.	<a href="#">1604120000</a>	PCB plug-in connector, Accessories, Mounting block, orange, Number		Box
GTIN (EAN)	4008190182977	of poles: 0		
Qty.	20 pc(s).			
Type	SLA BB2R SW	Version	Product data	Packaging
Order No.	<a href="#">1723490000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366049	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB5R SW	Version	Product data	Packaging
Order No.	<a href="#">1723510000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190366063	poles: 0		
Qty.	20 pc(s).			
Type	SLA BB12R SW	Version	Product data	Packaging
Order No.	<a href="#">1626880000</a>	PCB plug-in connector, Accessories, Mounting block, black, Number of		Box
GTIN (EAN)	4008190198213	poles: 0		
Qty.	100 pc(s).			

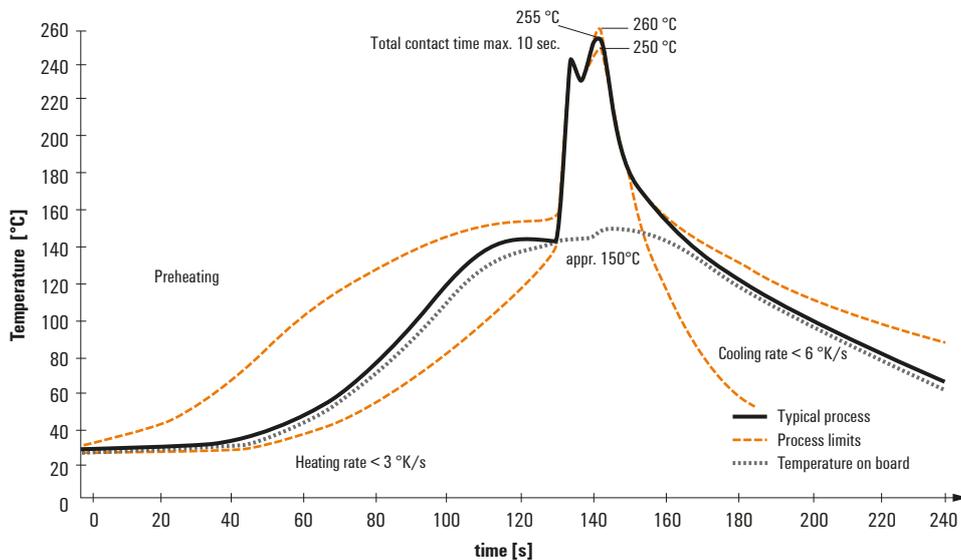
## Recommended wave soldering profiles

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### 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.