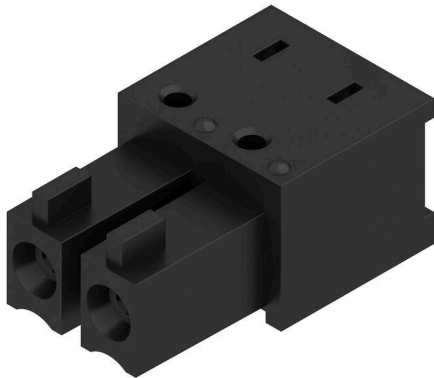


## BCL-SMT 3.81/02/90 1.5SN BK RL

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

www.weidmueller.com

### Product image



The inverted BCL-SMT socket block for the PCB offers three significant advantages:

- The BCL-SMT offers touch-safe security on the PCB which makes it ideal for live, current-carrying outputs.
- The BCL-SMT widens the range of applications with board-to-board connections between component assemblies.
- The BCL-SMT is reflow-compatible and can be seamlessly integrated into the automatic assembly and soldering process.

Two outlet directions give you a choice of position and thus more design flexibility.

- 180° standing
- 90° recumbent

Two housing variants are available for the BCL-SMT:

- Without flange
- With inverted solder flange ("LFI", with nut)
  - Fastened to PCB without additional screw
  - Fastened with screw to the SCZ FI

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of customary connectors and offer space for labelling and coding.

### General ordering data

Version	PCB plug-in connector, female header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 90°, Solder pin length (l): 1.5 mm, tinned, black, Tape
Order No.	<a href="#">1991660000</a>
Type	BCL-SMT 3.81/02/90 1.5SN BK RL
GTIN (EAN)	4050118376234
Qty.	390 items
Product data	IEC: 320 V / 17.5 A UL: 300 V / 10 A
Packaging	Tape

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## Technical data

## Approvals

ROHS	Conform
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## Dimensions and weights

Net weight	1.02 g
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## Environmental Product Compliance

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

## System specifications

Product family	OMNIMATE Signal - series BC/SC 3.81	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	3.81 mm
Pitch in inches (P)	0.150 "	Outgoing elbow	90°
Number of poles	2	Number of solder pins per pole	2
Solder pin length (l)	1.5 mm	Solder pin length tolerance	0 / -0,02 mm
Solder pin dimensions	d = 0.8 mm	Solder pin dimensions = d tolerance	+0,05 / -0,05 mm
Solder eyelet hole diameter (D)	1.2 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Outside diameter of solder pad	1.9 mm	Template aperture diameter	1.6 mm
L1 in mm	3.81 mm	L1 in inches	0.150 "
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	Volume resistance	≤5 mΩ
Can be coded	Yes	Plugging force/pole, max.	9.5 N
Pulling force/pole, max.	6 N		

## Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
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.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

## Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	15.4 A	Rated current, min. number of poles (Tu=40°C)	17.5 A
Rated current, max. number of poles (Tu=40°C)	13.7 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/3	160 V

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## Technical data

Rated impulse voltage for surge voltage class/ pollution degree II/2 2.5 kV  
 Rated impulse voltage for surge voltage class/ contamination degree III/3 2.5 kV

Rated impulse voltage for surge voltage class/ pollution degree III/2 2.5 kV  
 Short-time withstand current resistance 3 x 1s with 76 A

### Rated data acc. to CSA

Rated voltage (Use group B / CSA) 300 V  
 Rated current (Use group B / CSA) 11 A

Rated voltage (Use group C / CSA) 50 V  
 Rated current (Use group C / CSA) 11 A

### Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059) 300 V  
 Rated current (Use group B / UL 1059) 10 A

Rated voltage (Use group D / UL 1059) 300 V  
 Rated current (Use group D / UL 1059) 10 A

### Packing

ESD Level packaging static dissipative  
 VPE length 336.00 mm  
 VPE height 35.00 mm  
 Tape width (W) 24 mm  
 Tape pocket height (AO) 14.80 mm  
 Tape pocket separation (P1) 20.00 mm  
 Tape pocket separation (F) 11.50 mm  
 Surface resistance  $R_s = 109 - 1012 \Omega$

Packaging Tape  
 VPE width 333.00 mm  
 Tape depth (T2) 9.00 mm  
 Tape pocket depth (KO) 8.60 mm  
 Tape pocket width (BO) 16.40 mm  
 Tape hole separation (E) 1.75 mm  
 Tape reel diameter  $\varnothing$  (A) 330 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

- 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

### 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		

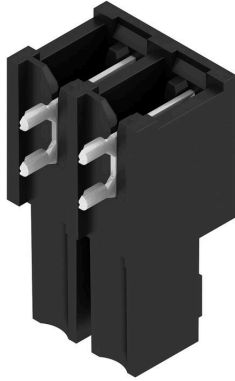
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Drawings

Product image

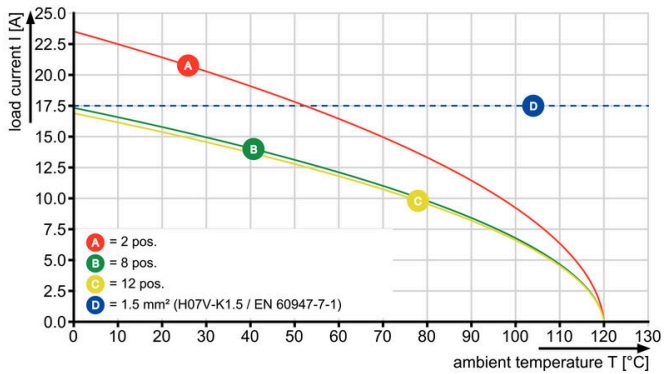


Dimensional drawing



Graph

BCL-SMT 3.81/./90 - SCZ 3.81/./180



Graph

BCL-SMT 3.81/./90 - SCZ 3.81/./180

