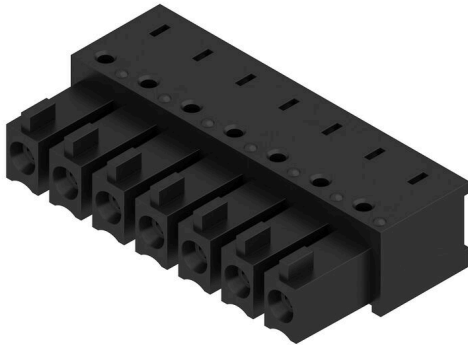


## BCL-SMT 3.81/07/90 1.5SN BK BX

**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: 7, 90°, Solder pin length (l): 1.5 mm, tinned, black, Box |
| Order No.    | <a href="#">1974840000</a>  |
| Type         | BCL-SMT 3.81/07/90 1.5SN BK BX  |
| GTIN (EAN)   | 4032248677269   |
| Qty.         | 50 items  |
| Product data | IEC: 320 V / 17.5 A<br>UL: 300 V / 10 A   |
| Packaging    | Box   |

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## Technical data

## Approvals

Approvals



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

## Dimensions and weights

|            |       |
|------------|-------|
| Net weight | 2.4 g |
|------------|-------|

## 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                              | 7                                   | 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                                     | 22.86 mm                            | L1 in inches                               | 0.900 "          |
| 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     |
| 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 |

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### Technical data

|   |        |   |                  |
|---|--------|---|------------------|
| 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            |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV           |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV | Short-time withstand current resistance                               | 3 x 1s with 76 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 C / CSA) | 50 V           |
| Rated current (Use group B / CSA) | 11 A   | Rated current (Use group C / CSA) | 11 A           |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |                                   |                |

#### Rated data acc. to UL 1059

|                                       |  |                                       |        |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus)                     | CURUS  | Certificate No. (cURus)               | 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) | 10 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 | 146.00 mm |
| VPE width | 116.00 mm | VPE height | 24.00 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>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 |             |             |

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Drawings

Product image

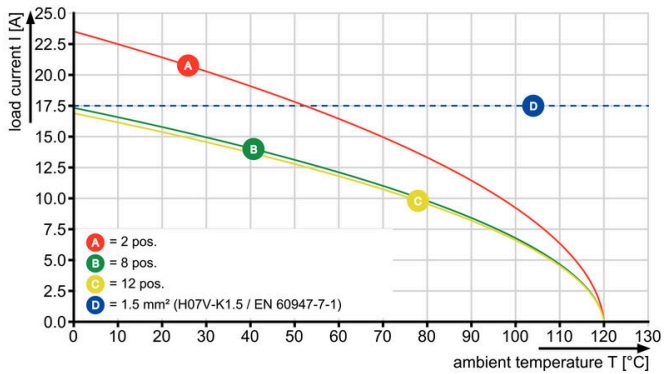


Dimensional drawing



Graph

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



Graph

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

