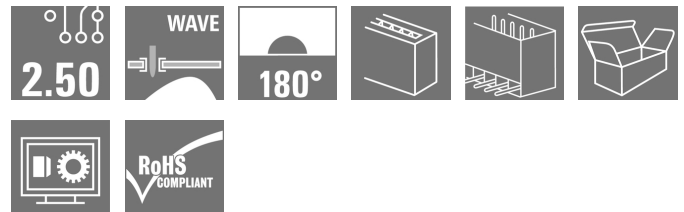


**OMNIMATE Signal - series BL/SL 2.50  
SL 2.50/10/180G 3.2SN BK BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



Male header for wave soldering in 2.50 mm pitch.

- Plugging direction is straight (180°) to the PCB
- Housing variant: Closed (G)
- Packaged in a cardboard box (BX)

**General ordering data**

|              |  |
|--------------|--|
| Type         | SL 2.50/10/180G 3.2SN BK BX  |
| Order No.    | <a href="#">2439990000</a>   |
| Version      | PCB plug-in connector, male header, THT solder connection, Pitch in mm (P): 2.50 mm, No. of poles: 10, 180°, Box |
| GTIN (EAN)   | 4050118455168  |
| Qty.         | 100 pc(s).   |
| Product data | IEC: 320 V / 6 A<br>UL: 150 V / 5 A  |
| Packaging    | Box  |

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**Technical data****Dimensions and weights**

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Width                    | 26.9 mm    | Width (inches)  | 1.059 inch |
| Height                   | 13.3 mm    | Height (inches) | 0.524 inch |
| Height of lowest version | 10.1 mm    | Depth           | 8.1 mm     |
| Depth (inches)           | 0.319 inch | Net weight      | 2.7 g      |

**System specifications**

|  |                                     |  |  |
|--|-------------------------------------|--|--|
| Product family                             | OMNIMATE Signal - series BL/SL 2.50 | Type of connection                           | Solder connection                                |
| Mounting onto the PCB                      | THT solder connection               | Pitch in mm (P)                              | 2.5 mm   |
| Pitch in inches (P)                        | 0.984 inch                          | Outgoing elbow                               | 180°   |
| No. of poles                               | 10                                  | Number of solder pins per pole               | 1  |
| Solder pin length (l)                      | 3.2 mm                              | Solder pin length tolerance                  | +0.1 / -0.1 mm                                   |
| Tolerance of solder pin position           | ± 0.15 mm                           | Solder pin dimensions                        | 0.8 x 0.8 mm                                     |
| Solder pin dimensions = d tolerance        | +0,02 / -0,02 mm                    | Solder eyelet hole diameter (D)              | 1.3 mm   |
| Solder eyelet hole diameter tolerance (D)  | + 0,1 mm                            | L1 in mm                                     | 22.5 mm  |
| L1 in inches                               | 8.856 inch                          | Number of rows                               | 1  |
| Pin series quantity                        | 1                                   | Touch-safe protection acc. to DIN VDE 57 106 | Finger-safe plugged/ back-of-hand-safe unplugged |
| Touch-safe protection acc. to DIN VDE 0470 | IP 00                               | Plugging cycles                              | 25   |
| Packaging                                  | Box                                 |  |  |

**Material data**

|                                      |                            |                             |              |
|--------------------------------------|----------------------------|-----------------------------|--------------|
| Insulating material                  | PA 66                      | Colour                      | Black        |
| Colour chart (similar)               | RAL 9011                   | CTI                         | ≥ 600        |
| UL 94 flammability rating            | V-0                        | Contact material            | Copper alloy |
| Contact surface                      | tinned                     | Tinning type                | matt         |
| Layer structure of solder connection | 1-3 µm Ni / 4-6 µm Sn matt | Operating temperature, min. | -40 °C       |
| Operating temperature, max.          | 105 °C                     |                             |              |

**Rated data acc. to IEC**

|   |           |   |        |
|---|-----------|---|--------|
| tested acc. to standard   | IEC 61984 | Rated current, min. no. of poles (Tu=20°C)                            | 6 A    |
| Rated current, min. no. of poles (Tu=40°C)                                | 6 A       | Rated voltage for surge voltage class / pollution degree II/2         | 320 V  |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V     | Rated voltage for surge voltage class / pollution degree III/3        | 80 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    |   |        |

**Rated data acc. to CSA**

|                             |       |                             |     |
|-----------------------------|-------|-----------------------------|-----|
| Rated voltage (Use group B) | 150 V | Rated current (use group B) | 5 A |
|-----------------------------|-------|-----------------------------|-----|

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**Technical data**

**Rated data acc. to UL 1059**

|                              |   |                             |        |
|------------------------------|---|-----------------------------|--------|
| Institute (cURus)            |  | Certificate No. (cURus)     | E60693 |
| Rated voltage (use group B)  | 150 V   | Rated current (use group B) | 5 A    |
| Reference to approval values | Specifications are maximum values, details - see approval certificate.            |                             |        |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 6.0   | EC002637    | eClass 6.2 | 27-26-07-04 |
| eClass 9.1 | 27-44-04-02 |            |             |

**Notes**

|                |  |
|----------------|--|
| 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> </ul> |
| 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.                   |

**Approvals**

|           |   |
|-----------|---|
| Approvals |  |
|-----------|---|

**Downloads**

|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>   |

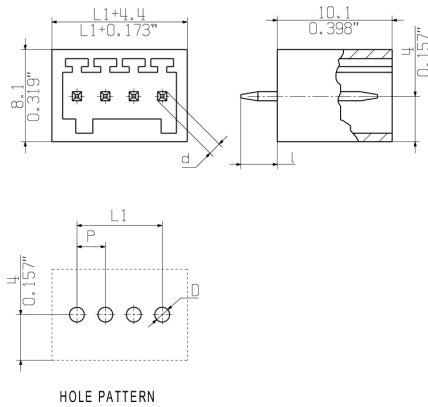
**Data sheet**

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**Drawings**

**Dimensional drawing**



## 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.