

**OMNIMATE Signal - series BL/SL 2.50**  
**SL 2.50/03/180G 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

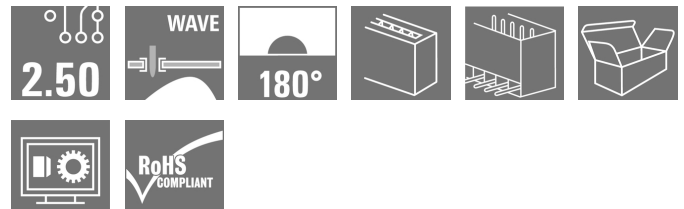
D-32758 Detmold

Germany

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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 2.50/03/180G 3.2SN BK BX                                                                                     |
| Order No.    | <a href="#">2439920000</a>                                                                                      |
| Version      | PCB plug-in connector, male header, THT solder connection, Pitch in mm (P): 2.50 mm, No. of poles: 3, 180°, Box |
| GTIN (EAN)   | 4050118454697                                                                                                   |
| Qty.         | 250 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**

Net weight 1 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                               | 3                                   | 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           | ± 0.1 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                                     | 5 mm                                             |
| L1 in inches                               | 1.968 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 | The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.                                                                                                                           |

### Approvals

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

### Downloads

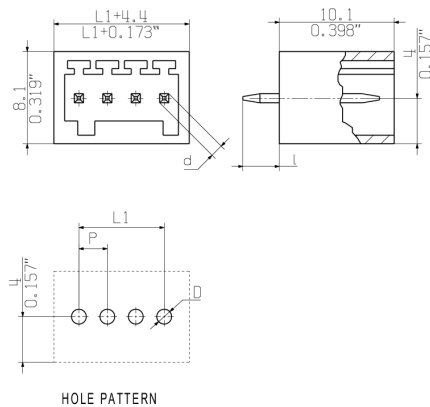
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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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.

We reserve the right to make technical changes.