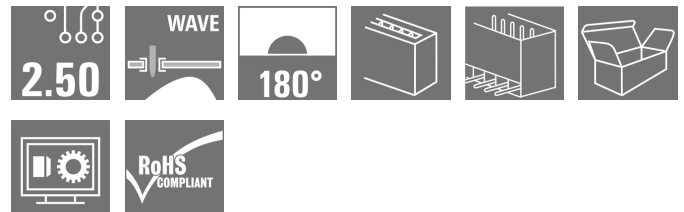


**OMNIMATE Signal - series BL/SL 2.50  
SL 2.50/04/180G 3.2SN BK BX**

**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 2.50/04/180G 3.2SN BK BX
Order No.	<a href="#">2439930000</a>
Version	PCB plug-in connector, male header, THT solder connection, Pitch in mm (P): 2.50 mm, No. of poles: 4, 180°, Box
GTIN (EAN)	4050118455106
Qty.	250 pc(s).
Product data	IEC: 320 V / 6 A UL: 150 V / 5 A
Packaging	Box

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

Width	11.9 mm	Width (inches)	0.469 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	0.82 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	4	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	7.5 mm
L1 in inches	2.952 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**

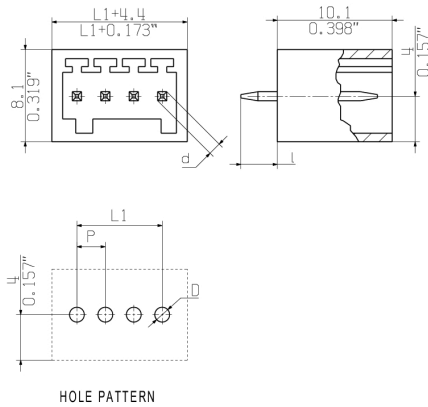
Approvals	
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**Downloads**

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

**Data sheet****OMNIMATE Signal - series BL/SL 2.50  
SL 2.50/04/180G 3.2SN BK BX**

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**Drawings****Dimensional drawing**

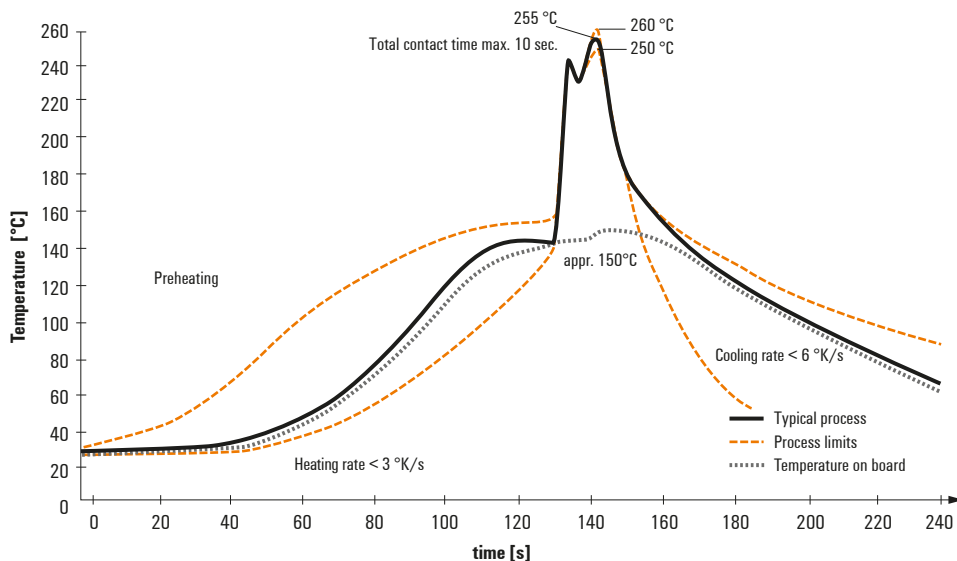
## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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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.