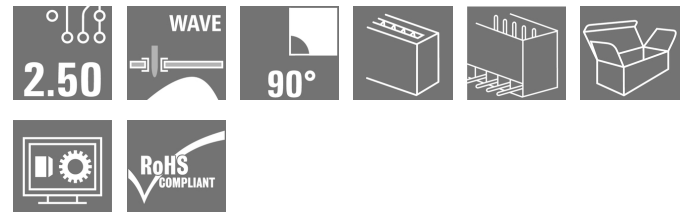


OMNIMATE Signal - series BL/SL 2.50 SL 2.50/04/90G 3.2SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

Male header for wave soldering in 2.50 mm pitch.

- Plugging direction is parallel (90°) to the PCB
- Housing variant: Closed (G)
- Packaged in a cardboard box (BX)

General ordering data

Type	SL 2.50/04/90G 3.2SN BK BX
Order No.	2439770000
Version	PCB plug-in connector, male header, THT solder connection, Pitch in mm (P): 2.50 mm, Number of poles: 4, 90°, Box
GTIN (EAN)	4050118454949
Qty.	250 pc(s).
Product data	IEC: 320 V / 6 A UL: 150 V / 5 A
Packaging	Box

Creation date May 2, 2020 4:01:04 PM CEST

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Technical data**Dimensions and weights**

Width	11.9 mm	Width (inches)	0.469 inch
Height	11.3 mm	Height (inches)	0.445 inch
Height of lowest version	8.1 mm	Depth	10.1 mm
Depth (inches)	0.398 inch	Net weight	1.224 g

System specifications

Product family	OMNIMATE Signal - series BL/SL 2.50	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	2.5 mm
Pitch in inches (P)	0.984 inch	Outgoing elbow	90°
Number 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

Material data

Insulating material	PA 66	Colour	black
Colour chart (similar)	RAL 9011	Comparative Tracking Index (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. number of poles (Tu=20°C)	6 A
Rated current, min. number 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 / CSA)	150 V	Rated current (Use group B / CSA)	5 A
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Data sheet

**OMNIMATE Signal - series BL/SL 2.50
SL 2.50/04/90G 3.2SN BK BX**

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Technical data

Rated data acc. to UL 1059

Institute (cURus)		Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	150 V	Rated current (Use group B / UL 1059)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	260 mm
VPE width	165 mm	VPE height	50 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

Notes

Notes	<ul style="list-style-type: none"> • 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.
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	
ROHS	Conform

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Technical data**Downloads**

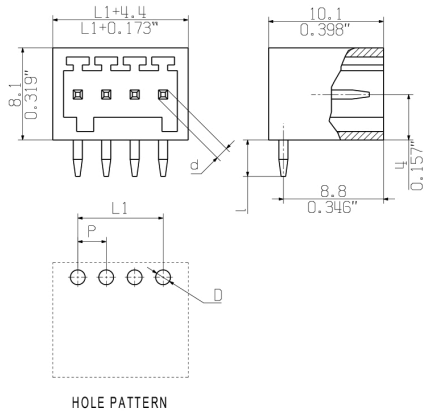
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR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

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Drawings

Dimensional drawing



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Mating connector (fully pluggable)
BLF 2.50/180


PUSH IN - Weidmüller's innovative connection system simplifies the wire connection process.

The benefits for users and applications:

- High component density because of small pitch. Simply insert the prepared wire - and you're done
- Simplified processing, thanks to integrated push buttons for opening the terminal point
- Intuitive handling – since the conductor entry and handling areas are clearly separated

General ordering data

Type	BLF 2.50/04/180 SN BK BX	Version	Product data	Packaging
Order No.	2439670000	PCB plug-in connector, female plug, Pitch in mm (P): 2.50 mm,	IEC: 320 V / 6 A / 0.08 - 0.5 mm ²	Box
GTIN (EAN)	4050118454741	Number of poles: 4, Box	UL: 150 V / 5 A / AWG 28 - AWG 20	
Qty.	250 pc(s).			

**OMNIMATE Signal - series BL/SL 2.50
SL 2.50/04/90G 3.2SN BK BX**

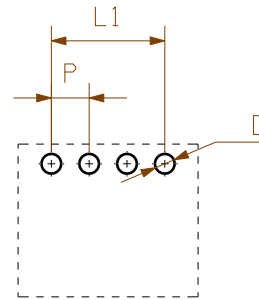
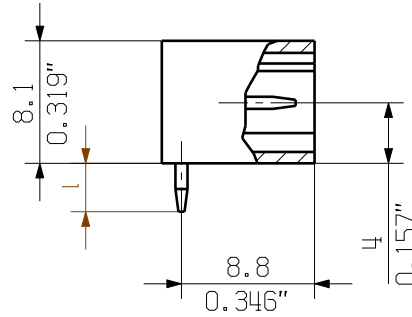
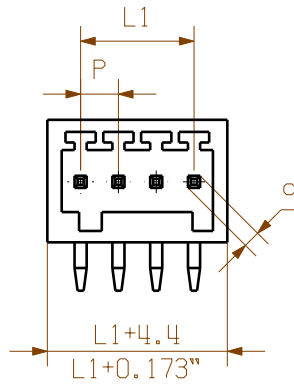
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Product benefits

Operating safety
Through PUSH IN connection system

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING



HOLE PATTERN



1:1

SHOWN: SL 2.50/04/90 3.2SN

n = POLZAHL/NO OF POLS

$$L1 = (n-1) \times P$$

P = 2.50mm RASTER
 0,098" PITCH

D = $\varnothing 1.3 + 0.1$
 0.051"

d = 1.0, OKTAGONAL
 0.039"

l = 3.2
 0.126"

n	L [mm]	L [Inch]
12	31,90	1,256
11	29,40	1,157
10	26,90	1,059
9	24,40	0,961
8	21,90	0,862
7	19,40	0,764
6	16,90	0,665
5	14,40	0,567
4	11,90	0,469
3	9,40	0,370
2	6,90	0,272

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

GENERAL TOLERANCE:
 DIN ISO 2768-mH



MAX. NRN./NOS.

86511/0
 02.03.16 AMANN_A 00

MODIFICATION

Weidmüller

CAT.NO.:
4 63328

00

DRAWING NO. SHEET 00 OF 00 SHEETS
 ISSUE NO.



DATE NAME

DRAWN 22.02.2016 AMANN_A

RESPONSIBLE AMANN_A

CHECKED 02.03.2016 HELIS_MA

APPROVED LANG_T

SL 2.50/2-12/90..
 STIFTFLEISTE
 MALE HEADER

SCALE: 2:1

SUPERSEDES: .

PRODUCT FILE: SL/BLF 2.50

7414

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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.