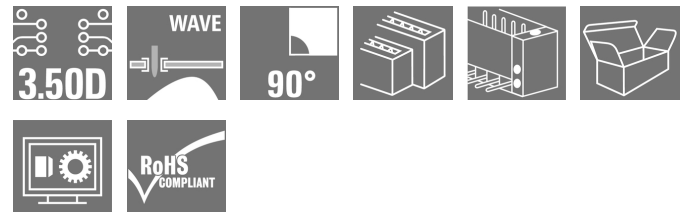


**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
S2L 3.50/06/90F 3.5SN OR BX**

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

Product image

Similar to illustration

Angled, two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin headers provide space for labelling and can be coded.

General ordering data

Type	S2L 3.50/06/90F 3.5SN OR BX
Order No.	1728470000
Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 6, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Box
GTIN (EAN)	4032248039968
Qty.	102 pc(s).
Product data	IEC: 250 V / 10 A UL: 150 V / 10 A
Packaging	Box

Creation date August 7, 2020 11:52:18 PM CEST

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Technical data**Dimensions and weights**

Width	17.5	Width (inches)	0.689 inch
Height	14 mm	Height (inches)	0.551 inch
Height of lowest version	10.5 mm	Depth	14.2 mm
Depth (inches)	0.559 inch	Net weight	2.57 g

System specifications

Product family	OMNIMATE Signal - series B2L/S2L 3.50 - 2-row		
Type of connection	Board connection		
Mounting onto the PCB	THT solder connection		
Pitch in mm (P)	3.5 mm		
Pitch in inches (P)	0.138 inch		
Outgoing elbow	90°		
Number of poles	6		
Number of solder pins per pole	1		
Solder pin length (l)	3.5 mm		
Tolerance of solder pin position	± 0.1 mm		
Solder pin dimensions	d = 1.0 mm, Octagonal		
Solder eyelet hole diameter (D)	1.3 mm		
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm		
L1 in mm	7 mm		
L1 in inches	0.276 inch		
Number of rows	1		
Pin series quantity	2		
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch		
Touch-safe protection acc. to DIN VDE 0470	IP 10		
Can be coded	Yes		
Plugging cycles	25		
Plugging force/pole, min.	2 N		
Plugging force/pole, max.	5 N		
Pulling force / pole, min.	2 N		
Pulling force/pole, max.	4 N		
Tightening torque	Torque type	PCB, Screw flange	
	Usage information	Tightening torque	min. 0.2 Nm max. 0.25 Nm
		Recommended screw	Part number PTSC KA 2.2X4.5 WN1412

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of solder connection	2...3 µm Ni / 5...7 µm Sn glossy	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		


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Technical data**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	10 A
Rated current, max. number of poles (Tu=20°C)	10 A	Rated current, min. number of poles (Tu=40°C)	9 A
Rated current, max. number of poles (Tu=40°C)	8.5 A	Rated voltage for surge voltage class / pollution degree II/2	250 V
Rated voltage for surge voltage class / pollution degree III/2	125 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	Short-time withstand current resistance	3 x 1s with 77 A

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1488444
Rated voltage (Use group B / CSA)	150 V	Rated current (Use group B / CSA)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	150 V	Rated voltage (Use group C / UL 1059)	50 V
Rated current (Use group B / UL 1059)	10 A	Rated current (Use group C / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	30 mm
VPE width	135 mm	VPE height	350 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	UNSPSC	30-21-18-10

Data sheet

OMNIMATE Signal - series B2L/S2L 3.50 - 2-row S2L 3.50/06/90F 3.5SN OR BX

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Technical data

Notes

Notes	<ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Spacing between rows: see hole layout • 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. • For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 1481-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C – see Accessories). Cable gland only permitted before soldering. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months
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

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.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	S2L-SMT.zip STEP

Data sheet

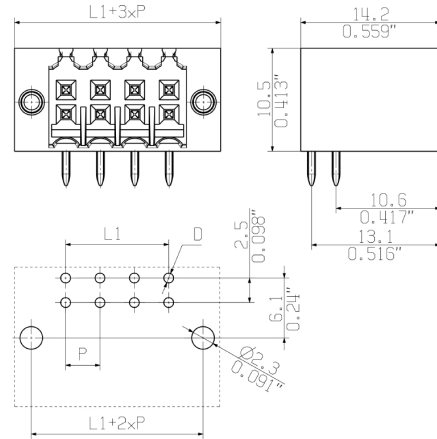
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Drawings

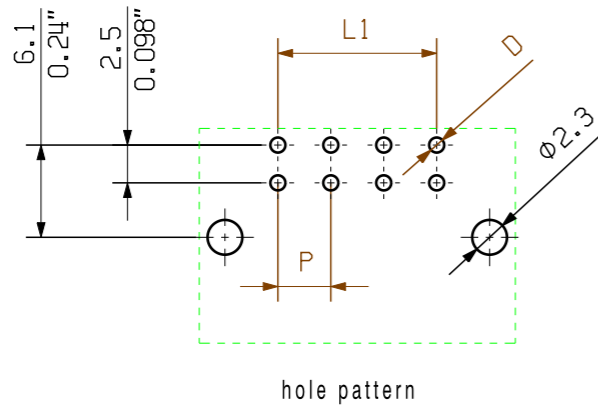
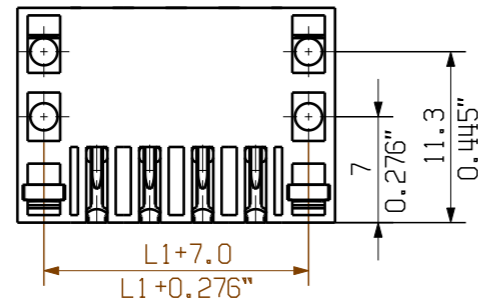
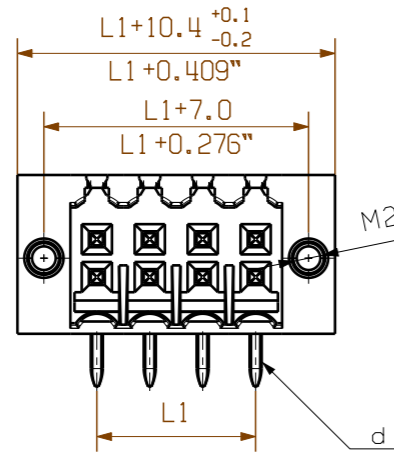
Dimensional drawing

Dimensional drawing



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optional fixing screw
order no.: 161074 0000

P = 3.50 Raster Pitch
D = Ø1,3^{+0.1}
Ø0.051^{+0.1}
d = 1mm oktagon
0.039" octagonal

shown: S2L 3.50/08/90F

pin length l	tolerance
3,5	0,2 -0,2
2,6	0,2 -0,2

n	Polzahl/ no of poles	L1	Toleranz/ tolerance L1
46		77.0	
44		73.5	
42		70.0	
40		66.5	
38		63.0	+/-0.2
36		59.5	
34		56.0	
32		52.5	
30		49.0	
28		45.5	
26		42.0	
24		38.5	+/-0.15
22		35.0	
20		31.5	
18		28.0	
16		24.5	
14		21.0	
12		17.5	+/-0.1
10		14.0	
8		10.5	
6		7.0	
4		3.5	

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 with 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-mK		98746/5 29.11.17 HELIS_MA 01		Cat.no.: .	
		Modification			
		Drawn	Date	Name	3 25607 18 Drawing no. Issue no.
Scale: 5/1		Responsible	Checked	Sheet 03 of 06 sheets	
Supersedes: .		Approved	LANG_T	S2L 3.50/.../... STIFTLEISTE MALE HEADER	
Product file: S2L 3.50				7110	

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.