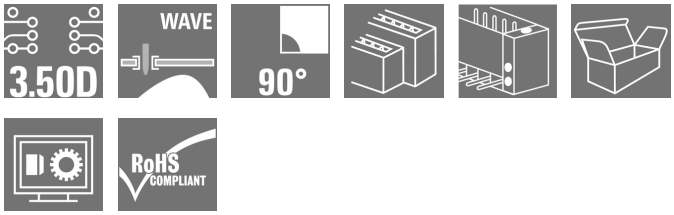
S2L 3.50/22/90F 3.5SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

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

Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 22, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Box
Order No.	1728550000
Type	S2L 3.50/22/90F 3.5SN OR BX
GTIN (EAN)	4032248040018
Qty.	36 pc(s).
Product data	IEC: 250 V / 10 A UL: 150 V / 10 A
Packaging	Box

Creation date September 16, 2022 10:12:54 AM CEST

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Technical data

Dimensions and weights

Depth	14.2 mm	Depth (inches)	0.559 inch
Height	14 mm	Height (inches)	0.551 inch
Height of lowest version	10.5 mm	Width	45.5 mm
Width (inches)	1.791 inch	Net weight	4.17 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	22
Number of solder pins per pole	1
Solder pin length (l)	3.5 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	35 mm
L1 in inches	1.378 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 force/pole, max.	5 N
Pulling force/pole, max.	4 N
Tightening torque	Torque type: Mounting screw, PCB Usage information Tightening torque: min. 0.1 Nm; max. 0.15 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	UL 94 flammability rating	V-0
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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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.		

Packing

Packaging	Box	VPE length	55 mm
VPE width	70 mm	VPE height	108 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ECLASS 9.0	27-44-04-02
ECLASS 9.1	27-44-04-02	ECLASS 10.0	27-44-04-02
ECLASS 11.0	27-46-02-01	ECLASS 12.0	27-46-02-01

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Important note

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.
Notes	• Additional variants 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

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE 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 PO OMNIMATE EN

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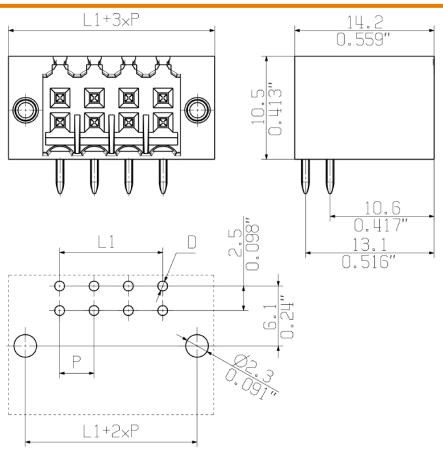
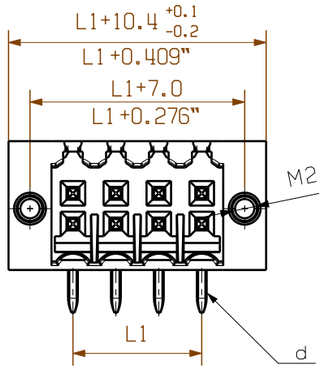
Drawings

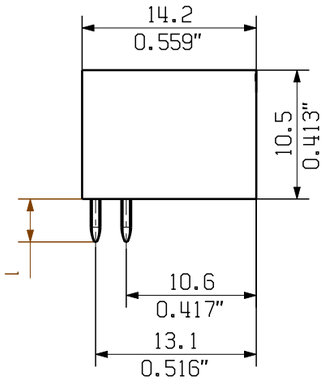
Dimensional drawing

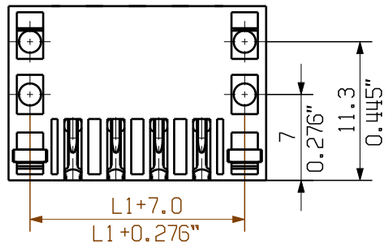


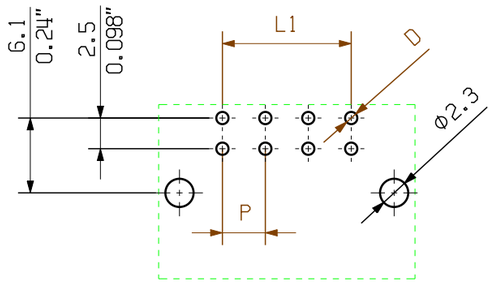
Dimensions without tolerances are no check dimensions

The English version is binding

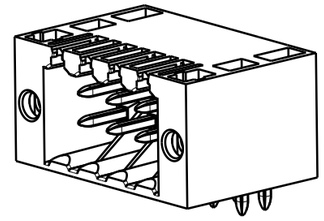


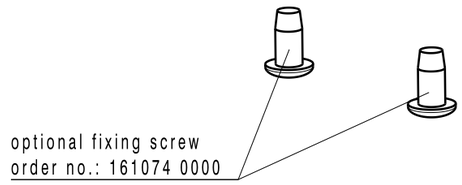






hole pattern





optional fixing screw
order no.: 161074 0000

P = 3.50 Raster Pitch

D = Ø1, 3 +0.1 / Ø0.051" +0.1

d = 1mm oktogonal
0.039" octogonal

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 neccessary 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.

Weidmueller 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

General tolerance:
DIN ISO 2768-mK

RoHS COMPLIANT

98746/5
29.11.17 HELIS_MA 01
.
Modification

Weidmüller

Cat.no.: .

3 25607 18
Drawing no. Issue no.

Sheet 03 of 06 sheets

	Date	Name
Drawn	28.11.2008	HELIS_MA
Responsible		AMANN_A
Checked	04.12.2017	HELIS_MA
Approved		LANG_T

Scale: 5/1

Supersedes: .

S2L 3.50/../...
STIFTLEISTE
MALE HEADER

Product file: S2L 3.50 7110

Wave Solder Profile

Recommended wave solderding profiles

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Klingenbergstraße 16
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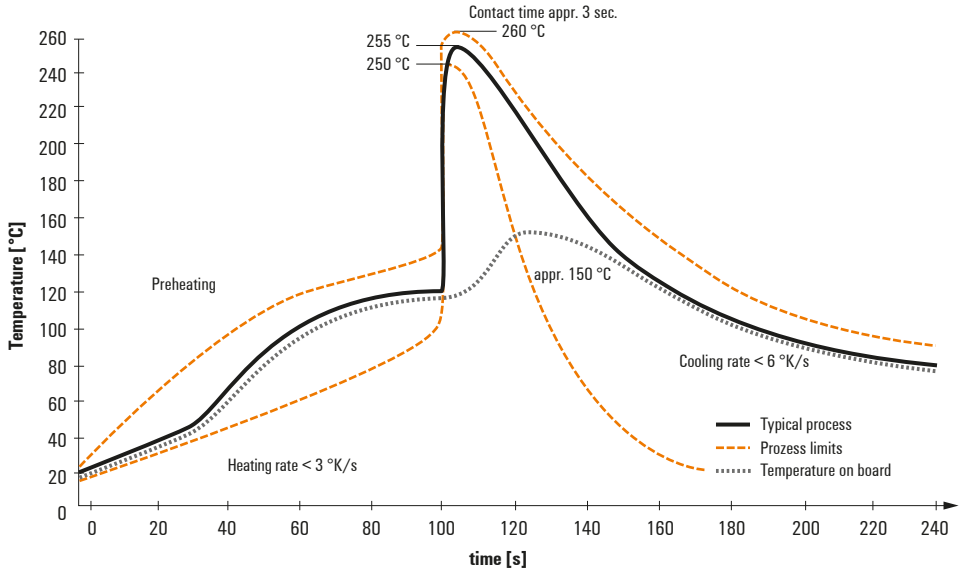
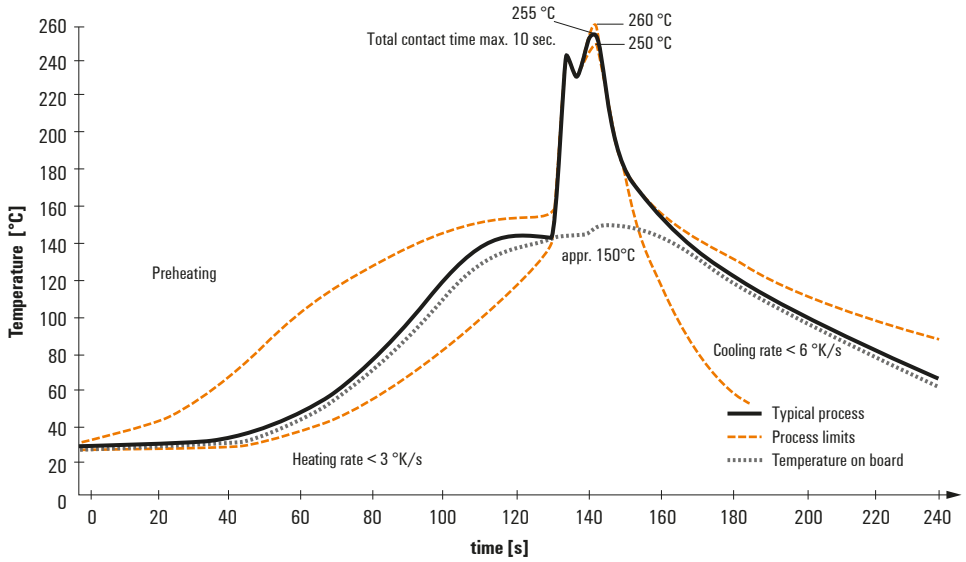
Single Wave:



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.

Mouser Electronics

Authorized Distributor

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Weidmuller:
1728550000