

S2L 3.50/32/180G 3.5SN BK BX

Weidmüller Interface GmbH & Co. KG

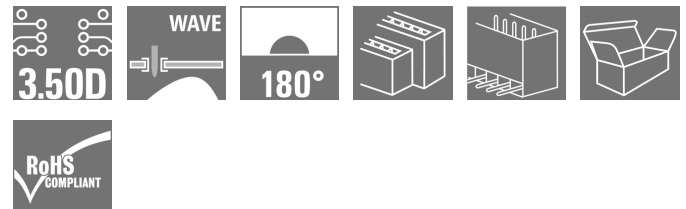
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

Straight, double-row pin header available in closed-sided or flange version (open-sided pin headers on request). The male headers with a pin length of 3.5mm are designed for wave soldering and are packed in a box. They can be screwed on to the PCB. The male headers provide space for labelling and can be coded.

General ordering data

Version	PCB plug-in connector, male header, closed side, THT solder connection, 3.50 mm, Number of poles: 32, 180°, Solder pin length (l): 3.5 mm, tinned, black, Box
Order No.	1729080000
Type	S2L 3.50/32/180G 3.5SN BK BX
GTIN (EAN)	4032248040513
Qty.	30 pc(s).
Product data	IEC: 250 V / 10 A UL: 150 V / 10 A
Packaging	Box

Creation date January 27, 2022 10:52:28 AM CET

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Technical data**Dimensions and weights**

Depth	10.5 mm	Depth (inches)	0.413 inch
Height	17.7 mm	Height (inches)	0.697 inch
Height of lowest version	14.2 mm	Width	57.4 mm
Width (inches)	2.26 inch	Net weight	8.55 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	180°
Number of poles	32	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	52.5 mm	L1 in inches	2.067 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		

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	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		

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

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Technical data**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	55 mm
VPE width	70 mm	VPE height	110 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		

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 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.

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Technical data**Approvals**

Approvals



ROHS	Conform
UL File Number Search	E60693

Downloads

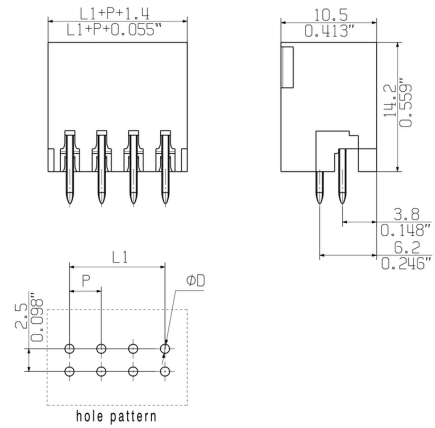
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN

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Dimensional drawing



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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

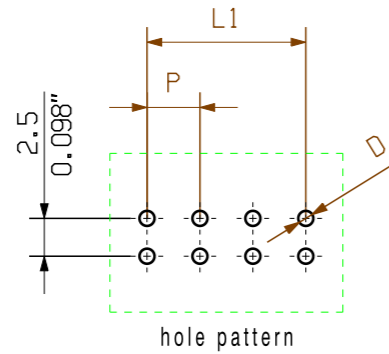
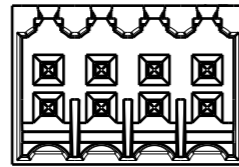
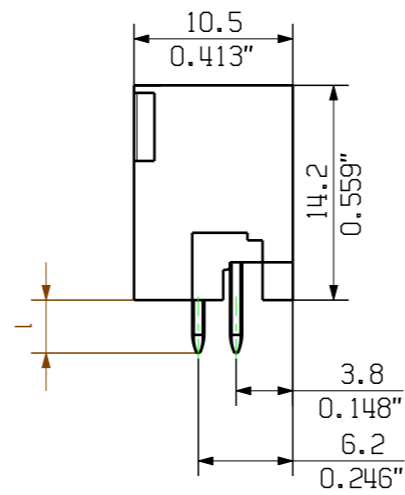
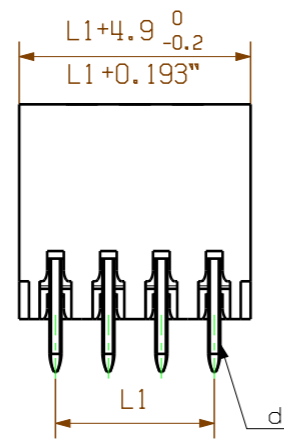
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	B2L/S2L 3.50 KO BK BX	Version	Product data	Packaging
Order No.	1849740000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248378203	of poles: 1		
Qty.	100 pc(s).			
Type	B2L/S2L 3.50 KO OR BX	Version	Product data	Packaging
Order No.	1849730000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4032248378197	of poles: 1		
Qty.	100 pc(s).			

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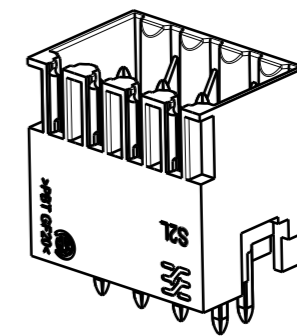
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hole pattern

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

shown: S2L 3.50/08/180G



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

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	
n Polzahl/ no of poles	L1	Toleranz/ tolerance L1

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, thermal and corrosive stress will be satisfied.

General tolerance: DIN ISO 2768-mK		98746/5 29.11.17 HELIS_MA 01		Cat.no.: .											
		Modification													
		<table border="1"> <tr><td>Drawn</td><td>28.11.2008</td><td>HELIS_MA</td></tr> <tr><td>Responsible</td><td></td><td>AMANN_A</td></tr> <tr><td>Checked</td><td>04.12.2017</td><td>HELIS_MA</td></tr> <tr><td>Approved</td><td></td><td>LANG_T</td></tr> </table>		Drawn	28.11.2008	HELIS_MA	Responsible		AMANN_A	Checked	04.12.2017	HELIS_MA	Approved		LANG_T
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/.../... STIFTLISTE 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.

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