

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: 8, 90°, Solder pin length (I): 3.5 mm, Gold-plated, orange, Box
Order No.	<u>1756010000</u>
Туре	S2L 3.50/08/90F 3.5AU OR BX
GTIN (EAN)	4032248041800
Qty.	84 pc(s).
Product data	IEC: 250 V / 10 A
	UL: 150 V / 10 A
Packaging	Box

Creation date March 25, 2021 3:12:04 AM CET



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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	Net weight	2.08 g
Width	21 mm	Width (inches)	0.827 inch

## **System specifications**

e you on a poor loan one					
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	8				
Number of solder pins per pole	1				
Solder pin length (I)	3.5 mm				
Solder pin dimensions	d = 1.0 mm, Octagonal				
Solder eyelet hole diameter (D)	1.3 mm				
Solder eyelet hole diameter tolerance (I	D)+ 0,1 mm				
L1 in mm	10.5 mm				
L1 in inches	0.413 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	1	Tightening torque	min.	0.1 Nm
					0.15 Nm
		F	Recommended screw	Part	PTSC KA
		.		number	2.2X4.5
					WN1412

#### **Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	Illa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	Gold-plated
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		Rated current, min. number of poles		
	IEC 60664-1, IEC 61984	(Tu=20°C)	10 A	
Rated current, max. number of poles		Rated current, min. number of poles		
(Tu=20°C)	10 A	(Tu=40°C)	9 A	
Rated current, max. number of poles		Rated voltage for surge voltage class /		
(Tu=40°C)	8.5 A	pollution degree II/2	250 V	
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /		
pollution degree III/2	125 V	pollution degree III/3	80 V	
Rated impulse voltage for surge voltage	9	Rated impulse voltage for surge voltage		
class/ pollution degree II/2	2.5 kV	class/ pollution degree III/2	2.5 kV	
Rated impulse voltage for surge voltage	9	Short-time withstand current resistance		
class/ contamination degree III/3	2.5 kV		3 x 1s with 77 A	

#### Rated data acc. to CSA

Rated voltage (Use group B / CSA) 150 V Reference to approval values Specifications are

maximum values, details - see approval certificate.

#### Rated data acc. to UL 1059

Institute (UR) Certificate No. (UR)

Rated voltage (Use group B / UL 1059) 150 V
Rated current (Use group B / UL 1059) 10 A
Reference to approval values

E60693

Rated voltage (Use group C / UL 1059) 50 V
Rated current (Use group C / UL 1059) 10 A

maximum values, details - see approval certificate.

**Packing** 

 Packaging
 Box
 VPE length
 58 mm

 VPE width
 72 mm
 VPE height
 113 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	ECLASS 11.0	27-46-02-01



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## **Technical data**

#### 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.
- 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	E60693	

#### **Downloads**

Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	STEP



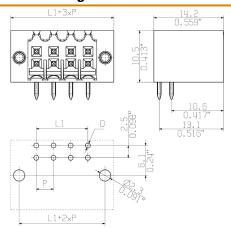
Weidmüller Interface GmbH & Co. KG

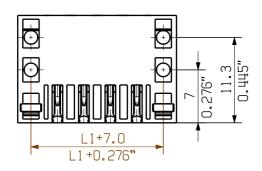
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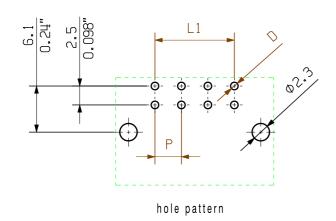
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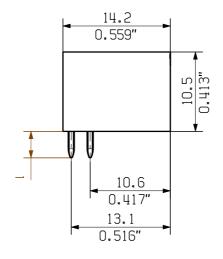
# **Drawings**

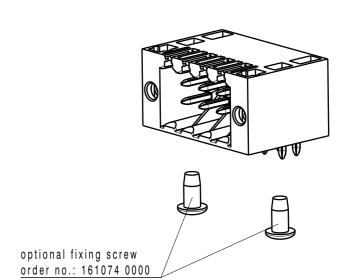
## **Dimensional drawing**











P = 3.50 Raster Pitch

 $D = 01, 3 + 0.1 \\ 00.051" + 0.1$ 

d = 1mm oktogonal 0.039" octogonal

Supersedes:

shown: S2L 3.50/08/90F

3,5 2,6

LANG\_T

pin length

		4 6	77.0		
		4 4	73.5		
		42	70.0		
		4 0	66.5		
		38	63.0	+/-0.2	
		36	59.5		
		3 4	56.0		
		32	52.5		
		3 0	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 6 4		10.5		
			7.0		
			3.5		
	IN .	lzahl/ of poles	L1	Toleranz/ tolerance L1	
	Cat.no.:.				

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.

corrosive stress will be satisfied.

General tolerance: DIN ISO 2768-mK

98746/5 29.11.17 HELIS\_MA 01 Modification Name Date 28.11.2008 | HELIS\_MA Drawn AMANN\_A Responsible

Approved

(18) Weidmüller 🐔 Drawing no. Issue no Sheet 03 of 06 sheets S2L 3.50/../...

MALE HEADER

tolerance

0,2

-0,2

0,2

-0,2

Product file: S2L 3.50

7110

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 Scale: 5/1 Checked 04.12.2017 | HELIS\_MA



## Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

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Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

## 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.