

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: 42, 90°, Solder pin length (I): 3.5 mm, tinned, orange, Box
Order No.	<u>2559430000</u>
Туре	S2L 3.50/42/90F 3.5SN OR BX
GTIN (EAN)	4050118669022
Qty.	18 pc(s).
Product data	IEC: 250 V / 10 A
	UL: 150 V / 10 A
Packaging	Box

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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	10.929 g
Width	80.5 mm	Width (inches)	3.169 inch

### **System specifications**

Oystein specimentions					
Product family	OMNIMATE Signal - series B2L/S	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	42				
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	70 mm				
L1 in inches	2.758 inch				
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
					0.15 Nm
			Recommended screw	Part	PTSC KA
				number	2.2X4.5
					<u>WN1412</u>

### **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	tinned
Layer structure of solder connection	23 μm Ni / 57 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			
Rated voltage (Use group B / CSA)	150 V	Rated current (Use group B / CSA)	5 A
Rated data acc. to UL 1059			
Rated voltage (Use group B / UL 1059)	150 V	Rated current (Use group B / UL 1059)	10 A
Packing			
Packaging	Вох	VPE length	338 mm
VPE width	130 mm	VPE height	27 mm
Classifications			
ETIM 6.0	EC002637	ETIM 7.0	EC002637
ECLASS 9.0 ECLASS 10.0	27-44-04-02 27-44-04-02	ECLASS 9.1 ECLASS 11.0	27-44-04-02 27-46-02-01
	27-44-04-02	ECLASS 11.0	27-46-02-01
Important note			
PC 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	Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months		
Downloads			
Engineering Data	STEP		
Brochure/Catalogue	Catalogues in PDF-format		



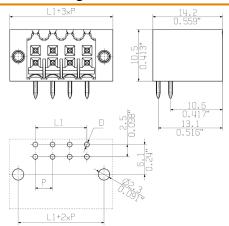
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# **Drawings**

# **Dimensional drawing**





# Recommended wave solderding 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.