OMNIMATE Signal - series B2L/S2L 3.50 - 2-row S2L 3.50/40/90F 3.5SN OR BX

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 3.50/40/90F 3.5SN OR BX
Order No.	2559420000
Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 40, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Box
GTIN (EAN)	4050118599190
Qty.	24 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

Width	77 mm		Width (inches)	3.031 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	10.539 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	40
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	66.5 mm
L1 in inches	2.62 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 cycles	25
Plugging force/pole, max.	5 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	$\geq 10^8\ \Omega$
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.	-25 °C
Storage temperature, max.	50 °C		Max. relative humidity during storage	70 %
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	Box	VPE length	348 mm
VPE width	135 mm	VPE height	30 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		

Notes

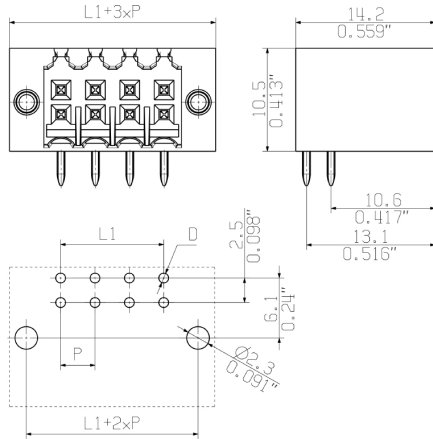|	
IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Downloads

Engineering Data	STEP

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Drawings

Dimensional drawing

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Accessories

LED Light guides

Effective: the link between LED and front panel.
Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.
The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.
The advantages compared to conventional solutions:

• No additional LED circuit board required behind the front panel
• No "long-legged" LEDs with separate mounting required
• Bent fibre-optic cable line for maximum light efficiency
• Uncomplicated front plate bore holes due to circular shape of outgoing light beam
• Easy to maintain correct clearance and creepage distance
• Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

Type	S2L/S2C 3.5 FLA 20/10 S ...	Version		Product data	Packaging
Order No.	1814590000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4032248302826	Number of poles: 10			
Qty.	50 pc(s).				
Type	S2L/S2C 3.5 FLA 20/10	Version		Product data	Packaging
Order No.	1699580000	PCB plug-in connector, Accessories, Flood-light display, Transparent,			Box
GTIN (EAN)	4008190891350	Number of poles: 10			
Qty.	100 pc(s).				

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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 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).				
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).				

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Accessories

Additional accessories

No task is too small when creating the perfect solution. br />
Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:
- Test plugs - ensure reliable pick-up from diagnostic sockets
- Cross-connectors - ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements - divide a large number of male connectors into several separate socket connector channels
- Locks and clips - optional vibration-resistant clip-on connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

General ordering data

Type	PTSC KA 2.2X4.5 WN1412	Version	Product data
Order No.	1610740000	PCB plug-in connector, Accessories, Mounting screw, Number of poles: 1	
GTIN (EAN)	4008190039523		
Qty.	100 pc(s).		

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Recommended wave solderding profiles

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.

We reserve the right to make technical changes.