

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

### **Product image**















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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**

PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 28, 180°, Solder pin length (I): 3.5 mm, tinned, black, Box
<u>1729700000</u>
S2L 3.50/28/180F 3.5SN BK BX
4032248041107
30 items
IEC: 250 V / 10 A UL: 150 V / 10 A
Вох



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# **Technical data**

### **Approvals**

Approvals



ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (UR)	E60693

### **Dimensions and weights**

Depth	10.5 mm	Depth (inches)	0.4134 inch
Height	17.7 mm	Height (inches)	0.6968 inch
Height of lowest version	14.2 mm	Width	56 mm
Width (inches)	2.2047 inch	Net weight	8.9 g

#### **Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

#### **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)	3.50 mm			
Pitch in inches (P)	0.138 "			
Outgoing elbow	180°			
Number of poles	28			
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 (D	0)+ 0,1 mm			
L1 in mm	45.50 mm			
L1 in inches	1.791 "			
Number of rows	1			
Pin series quantity	2			
Touch-safe protection acc. to DIN VDE 57 106	finger-safe unplugged/ back-of-hand-safe p	olugged		
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged			
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	PTSC KA
			number	2.2X4.5
				<u>WN1412</u>

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Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-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

#### 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)	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)	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	341.00 mm
VPE width	134.00 mm	VPE height	20.00 mm

### Important note

important noto	
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
	<ul> <li>Gold-plated contact surfaces on request</li> </ul>

- Spacing between rows: see hole layout
- Rated current related to rated cross-section & min. No. of poles.
- Diameter of solder eyelet D = 1.3+0.1 mm

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# **Technical data**

- 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

#### Classifications

	<u>'</u>		<u>'</u>
ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	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
ECLASS 13.0	27-46-02-01	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		





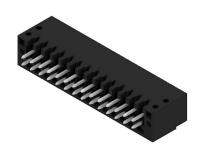
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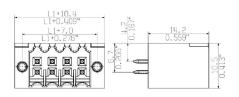
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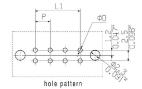
# **Drawings**

### **Product image**



## **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**

Туре	B2L/S2L 3.50 KO BK BX	Version
Order No.	<u>1849740000</u>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4032248378203	of poles: 1
Qty.	100 ST	
Туре	B2L/S2L 3.50 KO OR BX	Version
Type Order No.	B2L/S2L 3.50 KO OR BX 1849730000	Version PCB plug-in connector, Accessories, Coding element, orange, Number
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#### **Additional accessories**



No task is too small when creating the perfect solution. 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 clipon connection or mounting for male and female connectors

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

#### **General ordering data**

Туре	PTSC KA 2.2X4.5 WN1412	Version
Order No.	<u>1610740000</u>	PCB plug-in connector, Accessories, Mounting screw, Number of
GTIN (EAN)	4008190039523	poles: 1
Qty.	100 ST	

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