

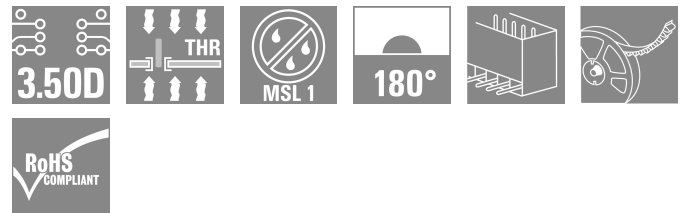
## S2L-SMT 3.50/12/180G 3.5SN BK RL

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

[www.weidmueller.com](http://www.weidmueller.com)

Do not use product for  
new developments

### Product image



Similar to illustration

High-temperature-resistant, double-row pin header for all common soldering methods. Optimised for automatic assembly. Packed in box or tape. Solder pin 3.2 mm long, suitable for reflow and wave soldering. The male connectors provide space for labelling and can be coded.

### General ordering data

Version	PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.50 mm, Number of poles: 12, 180°, Solder pin length (l): 3.5 mm, tinned, black, Tape
Order No.	<a href="#">1807810000</a>
Type	S2L-SMT 3.50/12/180G 3.5SN BK RL
GTIN (EAN)	4032248279517
Qty.	175 items
Product data	IEC: 160 V / 10 A UL: 150 V / 10 A
Packaging	Tape
Delivery status	This article will no longer be available in the future.
Available until	2028-12-31T00:00:00+01:00
Alternative part no.	<a href="#">250220263034N043MEZ/12/180G 3.5SN BK RL</a>

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## Technical data

## Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (UR)	E60693

## Dimensions and weights

Depth	10.8 mm	Depth (inches)	0.4252 inch
Height	14.3 mm	Height (inches)	0.563 inch
Height of lowest version	14.2 mm	Width	22.4 mm
Width (inches)	0.8819 inch	Net weight	5.62 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/THR solder connection	Pitch in mm (P)	3.50 mm
Pitch in inches (P)	0.138 "	Outgoing elbow	180°
Number of poles	12	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
Outside diameter of solder pad	2.1 mm	Template aperture diameter	1.9 mm
L1 in mm	17.50 mm	L1 in inches	0.689 "
Number of rows	2	Pin series quantity	2
Touch-safe protection acc. to DIN VDE 57 106	finger-safe unplugged/ back-of-hand-safe plugged	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Can be coded	Yes	Plugging force/pole, max.	3 N
Pulling force/pole, max.	6 N		

## Material data

Insulating material	LCP GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIb
Comparative Tracking Index (CTI)	≥ 175	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	2...3 µm Ni / 5...7 µm Sn glossy
Layer structure of plug contact	2...5 µm Sn / 1...3 µm Ni	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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### 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	160 V
Rated voltage for surge voltage class / pollution degree III/2	125 V	Rated voltage for surge voltage class / pollution degree III/3	50 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	1.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	1.5 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)	200039-1176845
Rated voltage (Use group B / CSA)	50 V	Rated voltage (Use group C / CSA)	50 V
Rated voltage (Use group D / CSA)	150 V	Rated current (Use group B / CSA)	5 A
Rated current (Use group C / CSA)	9.5 A	Rated current (Use group D / CSA)	9.5 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

ESD Level packaging	static dissipative	Packaging	Tape
VPE length	330.00 mm	VPE width	330.00 mm
VPE height	49.00 mm	Tape depth (T2)	19.80 mm
Tape width (W)	44 mm	Tape pocket depth (K0)	19.30 mm
Tape pocket height (A0)	11.10 mm	Tape pocket width (B0)	33.30 mm
Tape pocket separation (P1)	20.00 mm	Tape hole separation (E)	1.75 mm
Tape pocket separation (F)	20.20 mm	Tape reel diameter $\phi$ (A)	330 mm
Surface resistance	Rs = 109 - 1012 $\Omega$	Width Pick & Place Pad (WPPP)	10 mm
Length Pick & Place Pad (LPPP)	15.6 mm	Diameter of the withdrawal surface ( $\phi$ Dmax)	9 mm
Protrusion 1 Pick & Place Pad (LO1 (PPP))	7.8 mm	Protrusion 2 Pick & Place Pad (PO2 (PPP))	7.8 mm

### 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	<ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Spacing between rows: see hole layout</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• P on drawing = pitch</li> </ul>

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## Technical data

- 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.
- 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

ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

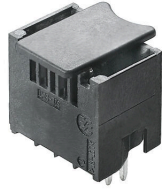
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Drawings

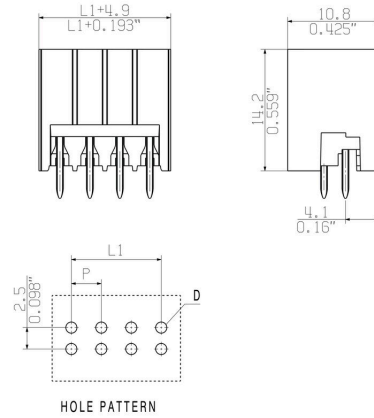
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Product image



Similar to illustration

Dimensional drawing



Dimensional drawing



Dimensional drawing



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**Drawings**

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**Product benefits**



Optimised for the SMT process  
Safe board-to-board connection

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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
Order No.	<a href="#">1849740000</a>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4032248378203	of poles: 1
Qty.	100 ST	
Type	B2L/S2L 3.50 KO OR BX	Version
Order No.	<a href="#">1849730000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4032248378197	of poles: 1
Qty.	100 ST	