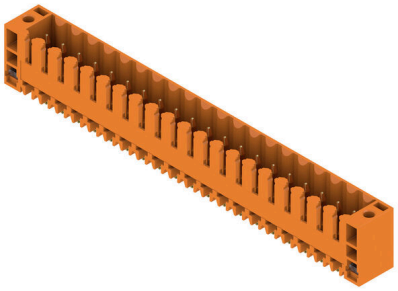
Data sheet

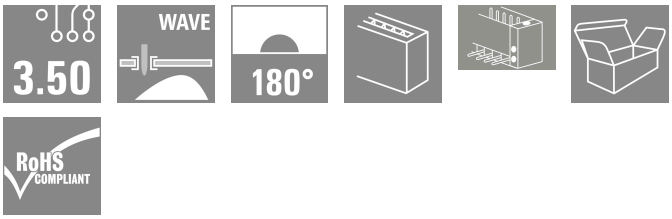
SL 3.50/20/180F 3.2AU OR BX

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

www.weidmueller.com

Product image





Pin headers for wave soldering in 3.50 mm pitch
- Plugging direction is parallel (90°), straight 180° or angled (135°) to the PCB
- Housing variant: screw flange (F)
- Packed in a cardboard box (BX)
- Pin header can be coded

General ordering data

Version	PCB plug-in connector, male header, Flange, THT solder connection, 3.50 mm, Number of poles: 20, 180°, Solder pin length (l): 3.2 mm, Gold-plated, orange, Box
Order No.	1051320000
Type	SL 3.50/20/180F 3.2AU OR BX
GTIN (EAN)	4032248790241
Qty.	20 items
Product data	IEC: 320 V / 17 A UL: 300 V / 10 A
Packaging	Box
Delivery status	Discontinued
Available until	2025-08-31T00:00:00+02:00

Creation date 23.02.2026 03:20:26 MEZ

Data sheet

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Dimensions and weights

Depth	7.5 mm	Depth (inches)	0.2953 inch
Height	14.3 mm	Height (inches)	0.563 inch
Height of lowest version	11.1 mm	Width	77 mm
Width (inches)	3.0315 inch	Net weight	6.3 g

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption	
REACH SVHC	No SVHC above 0.1 wt%	
Product Carbon Footprint	Cradle to gate	0.038 kg CO2eq.

System specifications

Product family	OMNIMATE Signal - series BL/SL 3.50			
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	20			
Number of solder pins per pole	1			
Solder pin length (l)	3.2 mm			
Solder pin length tolerance	+0.1 / -0.3 mm			
Solder pin dimensions	d = 1.2 mm, Octagonal			
Solder pin dimensions = d tolerance	0 / -0,03 mm			
Solder eyelet hole diameter (D)	1.4 mm			
Solder eyelet hole diameter tolerance (D)	+ 0,1 mm			
L1 in mm	66.50 mm			
L1 in inches	2.618 "			
Number of rows	1			
Pin series quantity	1			
Touch-safe protection acc. to DIN VDE 57 106	finger-safe plugged/ back-of-hand-safe unplugged			
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged			
Volume resistance	6.00 mΩ			
Can be coded	Yes			
Plugging force/pole, max.	10 N			
Pulling force/pole, max.	10 N			
Tightening torque	Torque type	Mounting screw, PCB		
	Usage information	Tightening torque	min.	0.1 Nm
			max.	0.15 Nm
		Recommended screw	Part number	PTSC KA 2.2X4.5 WN1412

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Technical data

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact base material	CuSn
Contact material	Cu-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

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17 A
Rated current, max. number of poles (Tu=20°C)	12 A	Rated current, min. number of poles (Tu=40°C)	14.5 A
Rated current, max. number of poles (Tu=40°C)	10 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated impulse voltage for surge voltage class/ pollution degree II/2	2500 V
Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV		

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	154685-1318353
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 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)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	10 A	Rated current (Use group D / UL 1059)	10 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	95.00 mm
VPE width	90.00 mm	VPE height	40.00 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	• Additional variants on request • Gold-plated contact surfaces on request • 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.

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Technical data

- 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

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		

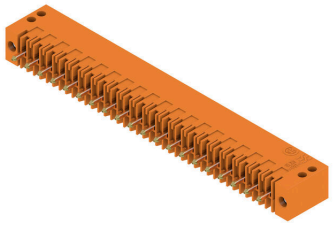
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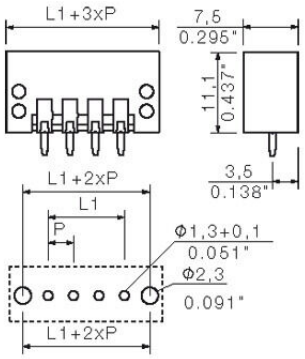
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Drawings

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

Type	BL SL 3.5 KO OR	Version
Order No.	1693430000	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190867447	of poles: 1
Qty.	100 ST	
Type	BL SL 3.5 KO SW	Version
Order No.	1610100000	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190187637	of poles: 1
Qty.	100 ST	