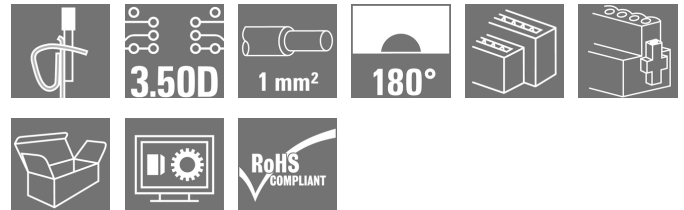


**OMNIMATE Signal - series B2L/S2L 3.50 - 2-row
B2L 3.50/34/180F SN BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com

Product image**Component density redefined: the future standard for signal connection**

A maximum number of connections requiring minimum space - the double-row B2L sets the bar for field connections of typical sensor cables up to 1 mm² very high and closes the gap between "less space" and "more functions".

The result is a connection solution for standard industrial cables in 1.75 pitch - 30% smaller than equivalent solutions in 2.5 pitch, and with the 140% robustness of the 3.5 pitch

Dimensions: double the connection density with a 3.5mm pitch size

Connection system: tried and tested maintenance-free Weidmüller tension clamp connection

The basic application advantages:

Efficient: maximum component density on the PCB

Suitable for industrial use - minimum dimensions, maximum robustness

Process-optimised - automatic assembly and reflow soldering, fast connection

User-friendly - patented release lever for the easy release of larger numbers of poles

Application-oriented: easy labelling and reliable coding despite compact dimensions

Miniaturisation is more than just a larger number of functions within a smaller space:

Each reduction in size decreases space requirements and so reduces overall system costs for the end customer. Thus, Weidmüller fulfils a growing demand in the engineering and industrial automation sectors.

General ordering data

Type	B2L 3.50/34/180F SN BK BX
Order No.	1748310000
Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 34, 180°, Tension-clamp connection, Clamping range, max. : 1 mm ² , Box
GTIN (EAN)	4032248198795
Qty.	24 pc(s).
Product data	IEC: 250 V / 10.3 A / 0.2 - 1 mm ² UL: 300 V / 10 A / AWG 28 - AWG 16
Packaging	Box

Creation date September 7, 2020 10:42:32 AM CEST

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Technical data**Dimensions and weights**

Width	66.3 mm	Width (inches)	2.61 inch
Height	15.7 mm	Height (inches)	0.618 inch
Depth	20.6 mm	Depth (inches)	0.811 inch
Net weight	16.33 g		

System Parameters

Product family	OMNIMATE Signal - series B2L/S2L 3.50 - 2-row	Type of connection	Field connection
Wire connection method	Tension-clamp connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Conductor outlet direction	180°
Number of poles	34	L1 in mm	56 mm
L1 in inches	2.205 inch	Number of rows	1
Pin series quantity	2	Rated cross-section	1 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Can be coded	Yes	Stripping length	7 mm
Tightening torque for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max.	0.25 Nm
Screwdriver blade	0.4 x 2.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25	Plugging force/pole, max.	5 N
Pulling force/pole, max.	4 N		

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
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

Conductors suitable for connection

Clamping range, min.	0.08 mm ²
Clamping range, max.	1 mm ²
Wire connection cross section AWG, min.	AWG 28
Wire connection cross section AWG, max.	AWG 18
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	1 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	1 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.14 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	0.34 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.14 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	0.34 mm ²

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.14 mm ²
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	HO.14/12 GR SV
Cross-section for conductor connection	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.25 mm ²
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	HO.25/12 HBL
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage.		
Max. clamping range	1 mm ²		


Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984		
Rated current, max. number of poles (Tu=20°C)	8.7 A	Rated current, min. number of poles (Tu=20°C)	10.3 A
Rated current, max. number of poles (Tu=40°C)	7.4 A	Rated current, min. number of poles (Tu=40°C)	8.9 A
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree II/2	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	2.5 kV	Rated voltage for surge voltage class / pollution degree III/3	80 V
Rated impulse voltage for surge voltage class/ contamination degree III/3	2.5 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
		Short-time withstand current resistance	3 x 1s with 77 A

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1488444
Rated voltage (Use group B / CSA)	300 V	Rated current (Use group B / CSA)	5 A
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 18
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	300 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
Wire cross-section, AWG, min.	AWG 28	Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	65 mm
VPE width	80 mm	VPE height	100 mm

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Catalogue status 05.09.2020 / We reserve the right to make technical changes.

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Technical data

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09	UNSPSC	30-21-18-10

Notes

- Notes
- Additional colours on request
 - Gold-plated contact surfaces on request
 - Rated current related to rated cross-section & min. No. of poles.
 - Wire end ferrule with plastic collar to DIN 46228/4
 - Wire end ferrule without plastic collar to DIN 46228/1
 - P on drawing = pitch
 - Crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for larger wire cross-sections recommended.
 - 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.
 - Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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.

Approvals

Approvals



ROHS Conform

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP

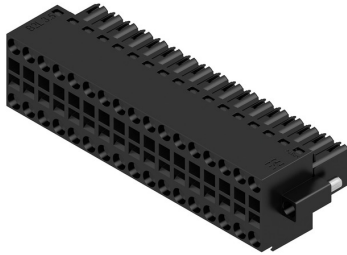
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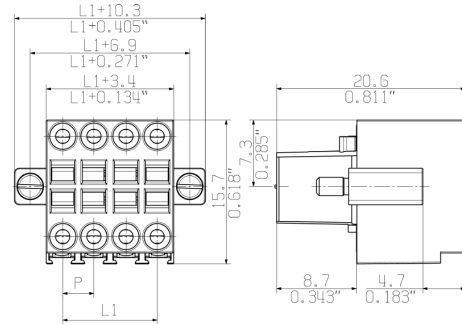
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Drawings

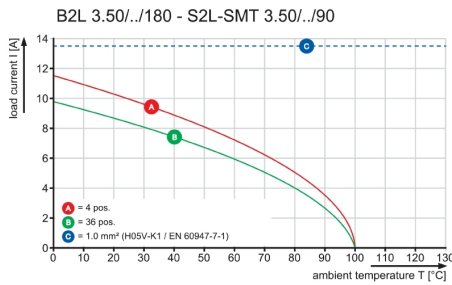
Product image



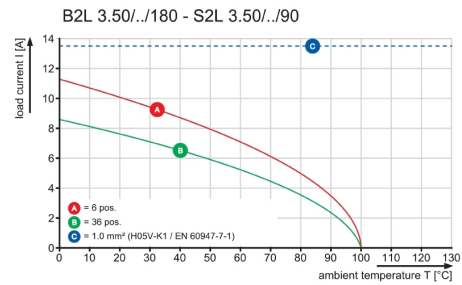
Dimensional drawing



Graph



Graph



Graph

