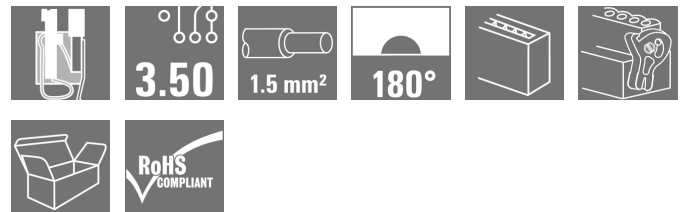


OMNIMATE Signal - series BL/SL 3.50 BL-I/O 3.50/10/180LR SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
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Germany
Fon: +49 5231 14-0
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Product image



Similar to illustration

Female plugs with spring connection (PUSH IN) as a plug-in connection level for decentralised I/O electronic components; used together with male headers in a 3.50-mm pitch.

General ordering data

Type	BL-I/O 3.50/10/180LR SN BK BX
Order No.	1531180000
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 10, 180°, PUSH IN, Tension-clamp connection, Clamping range, max.: 1.5 mm², Box
GTIN (EAN)	4050118336245
Qty.	20 pc(s).
Product data	IEC: 200 V / 2.2 A / 0.2 - 1.5 mm² UL: 50 V / 5 A / AWG 24 - AWG 16
Packaging	Box

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Technical data**Dimensions and weights**

Width	42.3 mm	Width (inches)	1.665 inch
Height	14.5 mm	Height (inches)	0.571 inch
Depth	29.1 mm	Depth (inches)	1.146 inch
Net weight	5.705 g		

System parameters

Product family	OMNIMATE Signal - series BL/SL 3.50	Type of connection	Field connection
Wire connection method	PUSH IN, Tension-clamp connection	Pitch in mm (P)	3.5 mm
Pitch in inches (P)	0.138 inch	Conductor outlet direction	180°
No. of poles	10	L1 in mm	31.5 mm
L1 in inches	1.24 inch	Pin series quantity	1
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	8 mm	Screwdriver blade	0.4 x 2.5
Screwdriver blade standard	DIN 5264	Plugging force/pole, max.	6 N
Pulling force/pole, max.	6 N		

Material data

Insulating material	PBT	Colour code	black
Colour chart (similar)	RAL 9011	Insulating material group	Illa
CTI	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact base material	Copper alloy
Contact material	Copper alloy	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	Operating temperature, min.	-50 °C
Operating temperature, max.	75 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	75 °C		

Conductors suitable for connection

Clamping range, min.	0.2 mm ²	Clamping range, max.	1.5 mm ²
Wire connection cross section AWG, min.	AWG 24	Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.2 mm ²	Solid, max. H05(07) V-U	1.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²	Flexible, max. H05(07) V-K	1.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm ²	w. plastic collar ferrule, DIN 46228 pt 4, max.	0.75 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm ²	w. wire end ferrule, DIN 46228 pt 1, max.	1 mm ²
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm; 1.9mm		

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Technical data


Rated data acc. to IEC

tested acc. to standard		IEC 60664-1, IEC 61984	
Rated current, max. no. of poles (Tu=20°C)	2 A	Rated current, min. no. of poles (Tu=20°C)	2.2 A
Rated current, max. no. of poles (Tu=40°C)	2 A	Rated current, min. no. of poles (Tu=40°C)	2.2 A
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree II/2	200 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	50 V
Rated impulse voltage for surge voltage class/ contamination degree III/3	0.8 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	2.5 kV
		Short-time withstand current resistance	3 x 1s with 120 A

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	50 V	Rated voltage (Use group D / CSA)	50 V
Rated current (Use group B / CSA)	5 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 22	Wire cross-section, AWG, max.	AWG 16

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	50 V	Rated voltage (Use group D / UL 1059)	50 V
Rated current (Use group B / UL 1059)	5 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packaging

Packaging	Box	VPE length	35 mm
VPE width	105 mm	VPE height	140 mm

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002637
ETIM 5.0	EC002637	ETIM 6.0	EC002637
eClass 6.2	27-26-07-04	eClass 7.1	27-44-04-02
eClass 8.1	27-44-04-02	eClass 9.0	27-44-04-02
eClass 9.1	27-44-04-02		

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Technical data**Notes**

Notes

- Additional colours on request
- P on drawing = pitch
- Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.
- Total load-carrying capacity of the potential bridges when feeding with 1.5 mm² is max. 17.5 A (so the capacity is 2.18 A for poles 2 through 9)
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- Conductor < 0.2 mm² tinned
- Max. outer diameter of the conductor: 2.9 mm
- 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.

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](#)
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Engineering Data

[STEP](#)

White Paper wire connection

[Download Whitepaper](#)

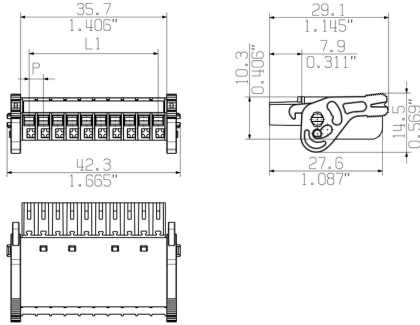
Data sheet

**OMNIMATE Signal - series BL/SL 3.50
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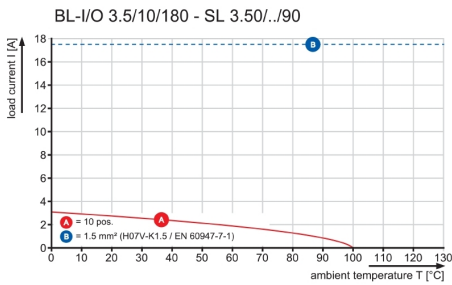
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Drawings

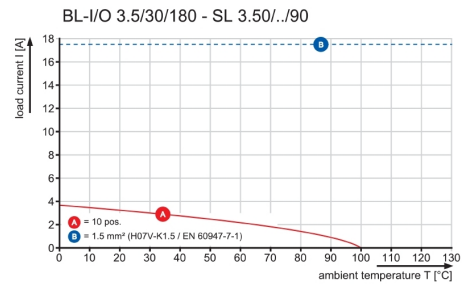
Dimensional drawing



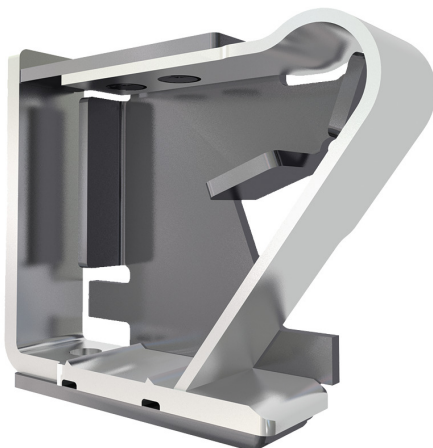
Graph



Graph



Product benefits



- Solid PUSH IN contact
- Safe and durable