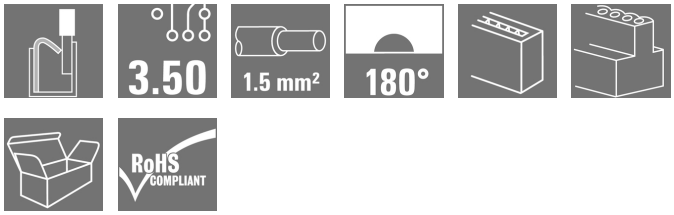
OMNIMATE Signal - series BL/SL 3.50
BLF 3.50/12/180 SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com





Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

General ordering data

Type	BLF 3.50/12/180 SN OR BX
Order No.	2459150000
Version	PCB plug-in connector, female plug, 3.50 mm, No. of poles: 12, 180°, PUSH IN, Tension-clamp connection, Clamping range, max. : 1.5 mm², Box
GTIN (EAN)	4050118474503
Qty.	42 pc(s).
Product data	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm² UL: 300 V / AWG 26 - AWG 16
Packaging	Box

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Technical data

Dimensions and weights

Width	42 mm	Width (inches)	1.654 inch
Height	9 mm	Height (inches)	0.354 inch
Depth	22.7 mm	Depth (inches)	0.894 inch
Net weight	9.762 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	12	L1 in mm	38.5 mm
L1 in inches	1.516 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	1.5 mm²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Volume resistance	≤ 5mΩ	Can be coded	Yes
Stripping length	8 mm	Screwdriver blade	0.4 x 2.5
Screwdriver blade standard	DIN 5264-A	Plugging cycles	25
Plugging force/pole, max.	6 N	Pulling force/pole, max.	6 N

Material data

Insulating material	PA GF	Colour	orange
Colour of operational elements	black	Material of operational elements	PA 66/6
Colour chart (similar)	RAL 2000	Insulating material group	II
CTI	≥ 400, ≤ 600	Insulation strength	10^6 Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C
Temperature range, installation, min.	-30 °C	Temperature range, installation, max.	100 °C

Conductors suitable for connection

Clamping range, min.	0.14 mm²
Clamping range, max.	1.5 mm²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 16
Solid, min. H05(07) V-U	0.14 mm²
Solid, max. H05(07) V-U	1.5 mm²
Flexible, min. H05(07) V-K	0.14 mm²
Flexible, max. H05(07) V-K	1.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	1 mm²
w. wire end ferrule, DIN 46228 pt 1, min	0.25 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	1 mm²
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.25 mm²	
	AEH	Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.34 mm²	
	AEH	Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm²	
	AEH	Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm²	
	AEH	Stripping length	nominal	10 mm
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm²	
	AEH	Stripping length	nominal	10 mm
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P).			
Max. clamping range	1.5 mm²			

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Tu=20°C)	17.5 A
Rated current, max. no. of poles (Tu=20°C)	14.7 A	Rated current, min. no. of poles (Tu=40°C)	17.1 A
Rated current, max. no. of poles (Tu=40°C)	13.1 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 voltage for surge voltage class / pollution degree III/3	160 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	1 x 1s with 120 A

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	50 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	Wire cross-section, AWG, min.	AWG 26
Wire cross-section, AWG, max.	AWG 16		

Rated data acc. to UL 1059

Institute (cURus)	c UL us	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	50 V
Rated voltage (Use group D / UL 1059)	300 V	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 16
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	350 mm
VPE width	140 mm	VPE height	30 mm

Creation date May 27, 2019 2:11:55 PM CEST

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Classifications

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002638	eClass 6.2	27-26-07-04
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09

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 without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • 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.
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	c UL us
ROHS	Conform

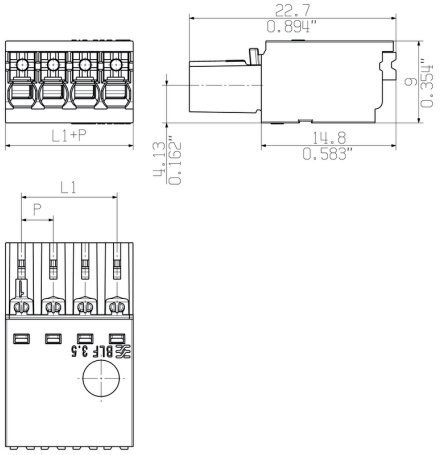
Downloads

Engineering Data	STEP STEP
White Paper wire connection	Download Whitepaper

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Drawings



Product benefits



Solid PUSH IN contact
Safe and durable