

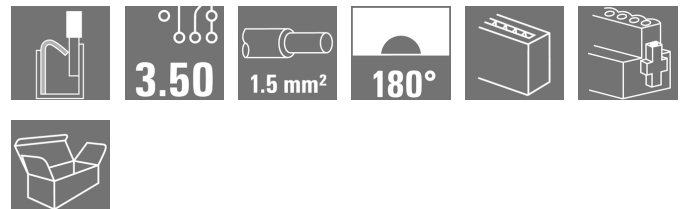
**BLF 3.50/11/180F SN OR BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

similar to illustration

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**

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 11, 180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm², Box
Order No.	<a href="#">2459480000</a>
Type	BLF 3.50/11/180F SN OR BX
GTIN (EAN)	4050118474398
Qty.	36 pc(s).
Product data	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm² UL: 300 V / AWG 26 - AWG 16
Packaging	Box

Creation date July 21, 2021 11:54:28 AM CEST

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## Technical data

## Dimensions and weights

Depth	22.7 mm	Depth (inches)	0.894 inch
Height	9 mm	Height (inches)	0.354 inch
Width	45.5 mm	Width (inches)	1.791 inch
Net weight	8.127 g		

## System Parameters

Product family	OMNIMATE Signal - series BL/SL 3.50			
Type of connection	Field connection			
Wire connection method	PUSH IN, Spring connection			
Pitch in mm (P)	3.5 mm			
Pitch in inches (P)	0.138 inch			
Conductor outlet direction	180°			
Number of poles	11			
L1 in mm	35 mm			
L1 in inches	1.378 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	≤5 mΩ			
Can be coded	Yes			
Stripping length	8 mm			
Stripping length tolerance	min.	0 mm		
	max.	1 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			
Tightening torque	Torque type	Screw flange		
	Usage information	Tightening torque	min.	0.15 Nm
			max.	0.2 Nm

## Material data

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 400, ≤ 600	Insulation strength	10 <sup>6</sup> Ω
UL 94 flammability rating	V-0	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.	120 °C	Temperature range, installation, min.	-30 °C
Temperature range, installation, max.	100 °C		

## Conductors suitable for connection

Clamping range, min.	0.14 mm <sup>2</sup>
Clamping range, max.	1.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26

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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		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.25 mm²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.25/12 HBL</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.34 mm²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.34/12 TK</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.5/14 OR</a>
	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	<a href="#">H0.75/14T HBL</a>
Cross-section for conductor connection	Type	fine-wired	
	nominal	1 mm²	
wire end ferrule	Stripping length	nominal 10 mm	
	Recommended wire-end ferrule	<a href="#">H1.0/14 GE</a>	
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.		

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	14.7 A	Rated current, min. number of poles (Tu=40°C)	17.1 A
Rated current, max. number 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

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## 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)



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	338 mm
VPE width	130 mm	VPE height	27 mm

## Type tests

Visual and dimensional test	Standard	IEC 60512-1-1:2002-02
	Test	dimensional inspection
	Evaluation	passed
	Standard	IEC 60512-1-2:2002-02
	Test	weight check
	Evaluation	passed
	Standard	IEC 61984:2001-10 section 6.2
	Test	visual examination
Test: Durability of markings	Evaluation	passed
	Standard	IEC 60068-2-70:1995-12 test Xb
	Test	mark of origin, type identification, pitch, type of material, date clock, approval marking UL, approval marking CSA
	Evaluation	available
	Test	durability
Test: Misengagement (Non-interchangeability)	Evaluation	passed
	Standard	IEC 60512-13-5:2006-02
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed
	Test	visual examination
	Evaluation	passed

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Test: Clampable cross section	Standard	IEC 60999-1:1999-11 section 9.1, IEC 60947-1:2011-03 section 8.2.4.5.1	
	Conductor type	Type of conductor and conductor cross-section	solid 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.14 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1:1999-11 section 9.4 bzw. section 8.10	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
		Type of conductor and conductor cross-section	H05V-K0.5
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-U1.5
		Type of conductor and conductor cross-section	H07V-K1.5
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	

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**Technical data**

Pull-out test	Standard	IEC 60999-1:1999-11 section 9.5	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
		Type of conductor and conductor cross-section	H05V-K0.5
	Evaluation	passed	
	Requirement	≥40 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-U1.5
		Type of conductor and conductor cross-section	H07V-K1.5
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02		

**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 colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

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## Technical data

### Approvals

Approvals



UL File Number Search

E60693

### Downloads

Engineering Data

[STEP](#)

Catalogues

[Catalogues in PDF-format](#)

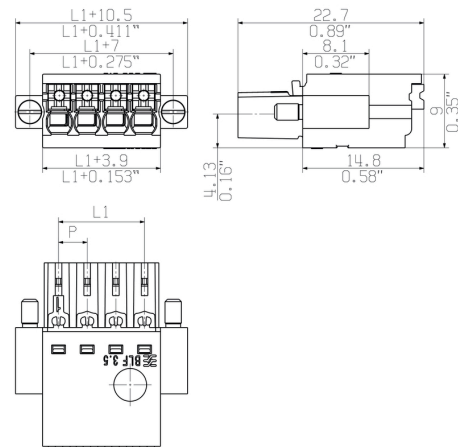
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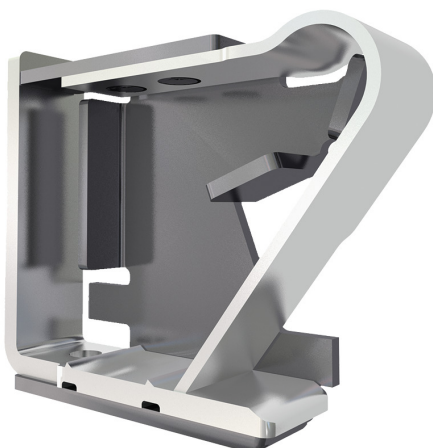
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# Drawings

## Dimensional drawing



## Product benefits



Solid PUSH IN contact  
Safe and durable