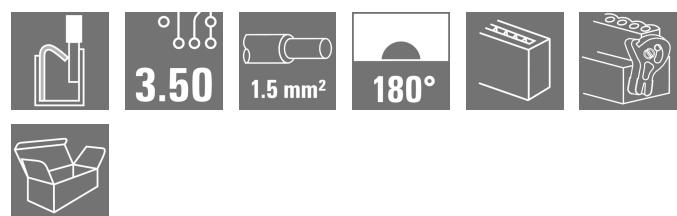


BLF 3.50/12/180LR SN OR BX SO

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

www.weidmueller.com

Product image

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: 12, 180°, PUSH IN with actuator, Clamping range, max. : 1.5 mm ² , Box
Order No.	2685500000
Type	BLF 3.50/12/180LR SN OR BX SO
GTIN (EAN)	4050118695458
Qty.	36 items
Product data	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 16
Packaging	Box

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Technical data

Approvals

RoHS	Conform
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Dimensions and weights

Depth	30.05 mm	Depth (inches)	1.1831 inch
Height	15.08 mm	Height (inches)	0.5937 inch
Width	48.9 mm	Width (inches)	1.9252 inch
Net weight	9.25 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	Cradle to gate 0,682 kg CO2 eq.

System Parameters

Product family	OMNIMATE Signal - series BL/SL 3.50
Type of connection	Field connection
Wire connection method	PUSH IN with actuator
Pitch in mm (P)	3.50 mm
Pitch in inches (P)	0.138 "
Conductor outlet direction	180°
Number of poles	12
L1 in mm	38.50 mm
L1 in inches	1.516 "
Number of rows	1
Pin series quantity	1
Rated cross-section	1.5 mm ²
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20, when fully mounted
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

Material data

Insulating material	PA GF	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 400, ≤ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-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		

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Conductors suitable for connection

Clamping range, min.	0.14 mm ²		
Clamping range, max.	1.5 mm ²		
Wire connection cross section AWG, min.	AWG 26		
Wire connection cross section AWG, max.	AWG 16		
Solid, min. H05(07) V-U	0.14 mm ²		
Solid, max. H05(07) V-U	1.5 mm ²		
Flexible, min. H05(07) V-K	0.14 mm ²		
Flexible, max. H05(07) V-K	1.5 mm ²		
w. plastic collar ferrule, DIN 46228 pt 4, 0.28 mm ² min.			
w. plastic collar ferrule, DIN 46228 pt 4, 1 mm ² max.			
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 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		
Clampable conductor	Cross-section for conductor connection		
	nominal	fine-wired	0.25 mm ²
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,25/12 HBL
	Cross-section for conductor connection	Type	fine-wired
	nominal	0.34 mm ²	
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,34/12 TK
	Cross-section for conductor connection	Type	fine-wired
	nominal	0.5 mm ²	
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,5/14 OR
	Cross-section for conductor connection	Type	fine-wired
	nominal	0.75 mm ²	
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,75/14T HBL
	Cross-section for conductor connection	Type	fine-wired
	nominal	1 mm ²	
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H1,0/14 GE

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

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Technical data

Rated impulse voltage for surge voltage 2.5 kV
class/ pollution degree II/2

Rated impulse voltage for surge voltage 2.5 kV
class/ contamination degree III/3

Rated impulse voltage for surge voltage 2.5 kV
class/ pollution degree III/2

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 D / CSA) 300 V
Rated current (Use group D / CSA) 10 A
Wire cross-section, AWG, max. AWG 26

Rated voltage (Use group C / CSA) 50 V
Rated current (Use group B / CSA) 10 A
Wire cross-section, AWG, min. AWG 16

Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059) 300 V
Rated voltage (Use group D / UL 1059) 300 V
Rated current (Use group D / UL 1059) 10 A
Wire cross-section, AWG, max. AWG 16

Rated voltage (Use group C / UL 1059) 50 V
Rated current (Use group B / UL 1059) 10 A
Wire cross-section, AWG, min. AWG 26

Packing

Packaging	Box	VPE length	350.00 mm
VPE width	141.00 mm	VPE height	40.00 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
	Evaluation	passed
	Test: Durability of markings	IEC 60068-2-70:1995-12 test Xb
Test: Misengagement (Non-interchangeability)	Test	mark of origin, type identification, pitch, type of material, date clock, approval marking UL, approval marking CSA
	Evaluation	available
	Test	durability
	Evaluation	passed
	Test	IEC 60512-13-5:2006-02
Test: Clampable cross section	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 for damage to and accidental loosening of conductors	Type of conductor and conductor cross-section	stranded 1.5 mm ²
	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
	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
Pull-out test	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
	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

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Technical data

	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	

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"> Additional variants 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. 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

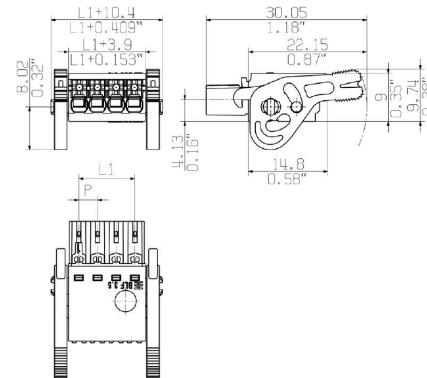
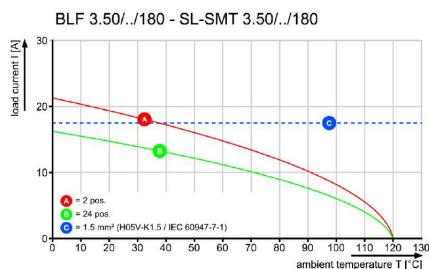
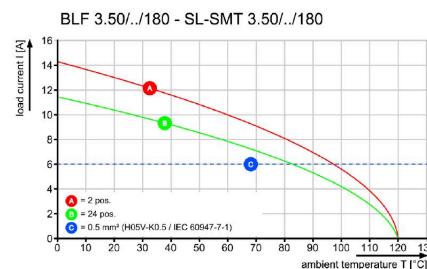
Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

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Drawings**Product image****Dimensional drawing****Derating curve****Derating curve****Product benefits**

Solid PUSH IN contactSafe and durable