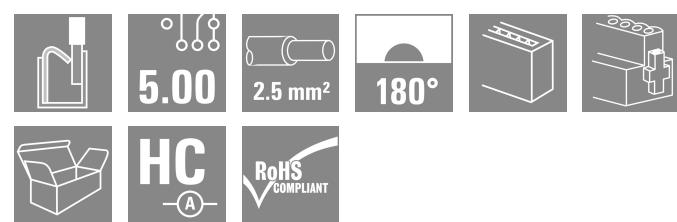


BLF 5.00HC/04/180F SN BK BX

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

www.weidmueller.com

Product image

Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.00HC PUSH IN version of the BLZ 5.00HC female connector features a new connection system and a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.00HC offers just as much as the older versions:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user

General ordering data

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 4, 180°, PUSH IN with actuator, Clamping range, max. : 3.31 mm ² , Box
Order No.	1017260000
Type	BLF 5.00HC/04/180F SN BK BX
GTIN (EAN)	4032248728251
Qty.	60 items
Product data	IEC: 400 V / 23 A / 0.2 - 2.5 mm ² UL: 300 V / 18.5 A / AWG 26 - AWG 12
Packaging	Box

BLF 5.00HC/04/180F SN BK BX

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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Dimensions and weights

Depth	27.6 mm	Depth (inches)	1.0866 inch
Height	14.2 mm	Height (inches)	0.5591 inch
Width	25.1 mm	Width (inches)	0.9882 inch
Net weight	8.26 g		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%
Product Carbon Footprint	Cradle to gate 0.74 kg CO2 eq.

System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.00		
Type of connection	Field connection		
Wire connection method	PUSH IN with actuator		
Pitch in mm (P)	5.00 mm		
Pitch in inches (P)	0.197 "		
Conductor outlet direction	180°		
Number of poles	4		
L1 in mm	15.00 mm		
L1 in inches	0.591 "		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	2.5 mm ²		
Touch-safe protection acc. to DIN VDE 57 106	Safe from back-of-hand touch		
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged		
Protection degree	IP20		
Volume resistance	≤5 mΩ		
Can be coded	Yes		
Stripping length	10 mm		
Screwdriver blade	0.6 x 3.5		
Screwdriver blade standard	DIN 5264		
Plugging cycles	25		
Plugging force/pole, max.	7 N		
Pulling force/pole, max.	5.5 N		
Tightening torque	Torque type	Screw flange	
	Usage information	Tightening torque	min. 0.2 Nm
			max. 0.25 Nm

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Technical data

Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of plug contact	4...8 µm Sn hot-dip 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.	0.13 mm ²
Clamping range, max.	3.31 mm ²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	2.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal	0.5 mm ²	
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H0,5/16 OR
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,5/10
	Cross-section for conductor connection	Type	fine-wired
	nominal	0.75 mm ²	
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H0,75/16 W
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H0,75/10
	Cross-section for conductor connection	Type	fine-wired
	nominal	1 mm ²	
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H1,0/16D R
		Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H1,0/10
	Cross-section for conductor connection	Type	fine-wired
	nominal	1.5 mm ²	
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-end ferrule	H1,5/10

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	Stripping length	nominal	12 mm
	Recommended wire-end ferrule		H1.5/16 R
Cross-section for conductor connection	Type	fine-wired	
	nominal	2.5 mm ²	
wire end ferrule	Stripping length	nominal	10 mm
	Recommended wire-end ferrule		H2.5/10

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.
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Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	23 A
Rated current, max. number of poles (Tu=20°C)	18 A	Rated current, min. number of poles (Tu=40°C)	21 A
Rated current, max. number of poles (Tu=40°C)	16 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 kV	Short-time withstand current resistance	3 x 1s with 120 A

Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 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 12	Wire cross-section, AWG, max.	AWG 26
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (cURus)	CURUS	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	18.5 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	353.00 mm
	143.00 mm	VPE height	38.00 mm

Type tests

Test: Durability of markings	Standard	IEC 61984 section 6.2 and 7.3.2 / 10.08 taking pattern from IEC 60068-2-70 / 12.95
	Test	mark of origin, type identification, pitch, type of material, date clock
	Evaluation	available
	Test	durability
	Evaluation	passed

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Test: Misengagement (Non-interchangeability)	Standard	IEC 61984 section 6.3 and 6.9.1 / 10.08, IEC 60512-13-5 / 02.06																															
	Test	180° turned with coding elements																															
	Evaluation	passed																															
	Test	visual examination																															
	Evaluation	passed																															
Test: Clampable cross section	Standard	IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 06.07																															
	Conductor type	<table border="1"> <tr><td>Type of conductor</td><td>solid 0.2 mm²</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>stranded 0.2 mm²</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>solid 2.5 mm²</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>stranded 2.5 mm²</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 26/1</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 26/19</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 14/1</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 14/19</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> </table>	Type of conductor	solid 0.2 mm ²	and conductor cross-section		Type of conductor	stranded 0.2 mm ²	and conductor cross-section		Type of conductor	solid 2.5 mm ²	and conductor cross-section		Type of conductor	stranded 2.5 mm ²	and conductor cross-section		Type of conductor	AWG 26/1	and conductor cross-section		Type of conductor	AWG 26/19	and conductor cross-section		Type of conductor	AWG 14/1	and conductor cross-section		Type of conductor	AWG 14/19	and conductor cross-section
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Evaluation	passed																																
Standard	IEC 60999-1 section 9.4 / 11.99																																
Requirement	0.2 kg																																
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Evaluation	passed																																
Requirement	0.3 kg																																
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Evaluation	passed																																
Test for damage to and accidental loosening of conductors	Requirement	0.7 kg																															
	Conductor type	<table border="1"> <tr><td>Type of conductor</td><td>H07V-U2.5</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>H07V-K2.5</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 14/1</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> <tr><td>Type of conductor</td><td>AWG 14/19</td></tr> <tr><td>and conductor cross-section</td><td></td></tr> </table>	Type of conductor	H07V-U2.5	and conductor cross-section		Type of conductor	H07V-K2.5	and conductor cross-section		Type of conductor	AWG 14/1	and conductor cross-section		Type of conductor	AWG 14/19	and conductor cross-section																
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Evaluation	passed																																

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Technical data

Pull-out test	Evaluation	passed	
	Standard	IEC 60999-1 section 9.5 / 11.99	
	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	≥ 50 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-U2.5
		Type of conductor and conductor cross-section	H07V-K2.5
		Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	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 Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended. The test point can only be used as potential-pickup point. 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

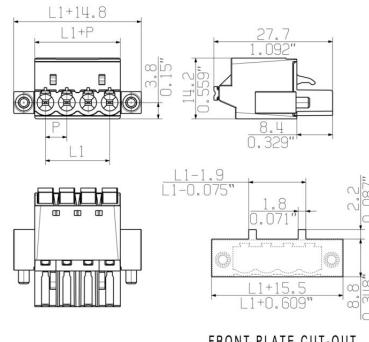
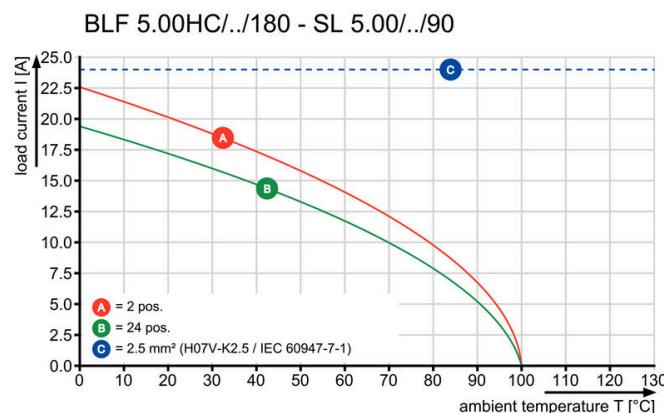
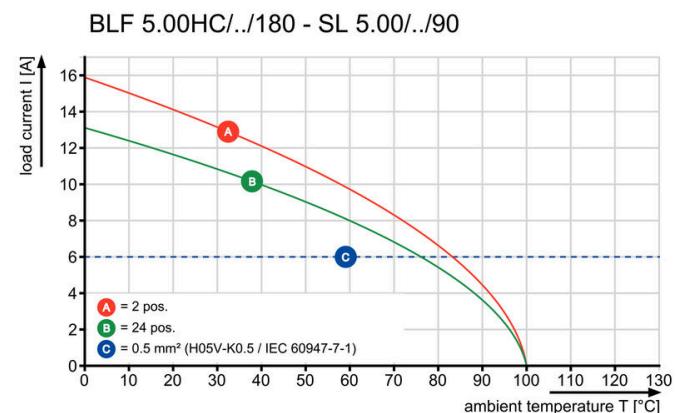
Classifications

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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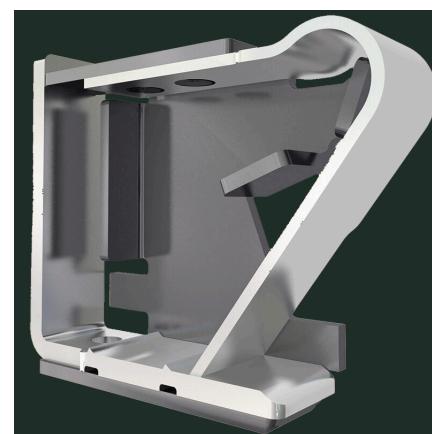
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Drawings**Product image****Dimensional drawing****Graph****Graph**

Uncompromising functionality High vibration resistance

Product benefits

Uncompromising functionality High vibration resistance

Product benefits

Solid PUSH IN contact Safe and durable

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Drawings

Product benefits



Cost-effective wiring Quick and intuitive operation

Product benefits



Wide clamping range Tool-free wire connection

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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

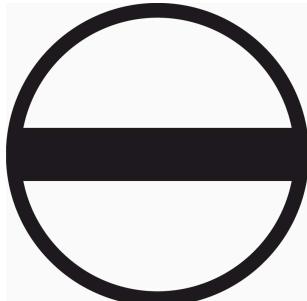
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	BLZ/SL KO BK BX	Version
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 ST	
Type	BLZ/SL KO OR BX	Version
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	

Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

Type	SDS 0.6X3.5X100	Version
Order No.	9008330000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 ST	
Type	SDS 0.6X3.5X200	Version
Order No.	9010110000	Screwdriver, Screwdriver
GTIN (EAN)	4032248300754	
Qty.	1 ST	
Type	SDIS 0.6X3.5X100	Version
Order No.	9008390000	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 ST	

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Counterpart

SL-SMT 5.00HC/180LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.00HC/04/180LF ...	Version
Order No.	1796800000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248237425	connection, 5.00 mm, Number of poles: 4, 180°, Solder pin length (l):
Qty.	60 ST	1.5 mm, tinned, black, Box
Type	SL-SMT 5.00HC/04/180LF ...	Version
Order No.	1841410000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248352319	connection, 5.00 mm, Number of poles: 4, 180°, Solder pin length (l):
Qty.	60 ST	3.2 mm, tinned, black, Box

SL-SMT 5.00HC/180LF Tape



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.00HC/04/180LF ...	Version
Order No.	1797950000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248239955	connection, 5.00 mm, Number of poles: 4, 180°, Solder pin length (l):
Qty.	250 ST	1.5 mm, tinned, black, Tape

SL-SMT 5.00HC/90LF Box



High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

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Counterpart**General ordering data**

Type	SL-SMT 5.00HC/04/90LF 3...	Version
Order No.	1840370000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248351213	connection, 5.00 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	60 ST	3.2 mm, tinned, black, Box

SL-SMT 5.00HC/90LF Tape

High-temperature-resistant pin header, packed in box or tape. On tape, with 1.5 mm solder pin, optimised for automatic assembly. 3.2 mm solder pin suitable for reflow and wave soldering. The pin headers provide space for labelling and can be coded. HC = High Current.

General ordering data

Type	SL-SMT 5.00HC/04/90LF 1...	Version
Order No.	1797770000	PCB plug-in connector, male header, Solder flange, THT/THR solder
GTIN (EAN)	4032248239771	connection, 5.00 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	350 ST	1.5 mm, tinned, black, Tape