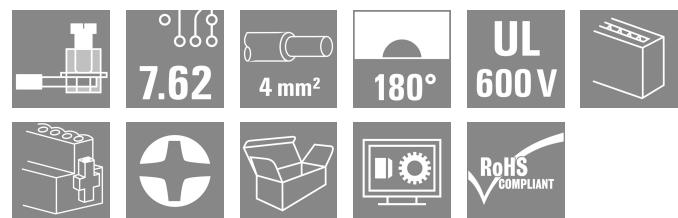
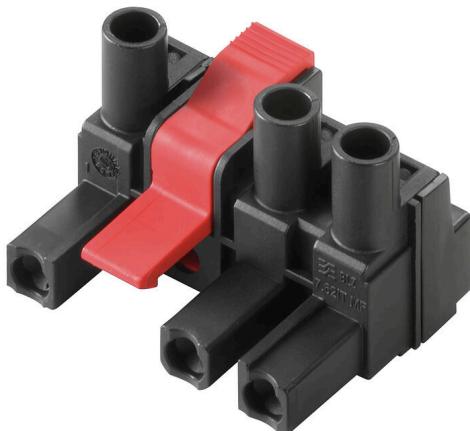


## BLZ 7.62IT/03/180MF3 SN BK BX

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

[www.weidmueller.com](http://www.weidmueller.com)



180° female plug with a 7.62 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SL 7.62 IT.... With leading contact. Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth. The self-locking middle flange which can optionally be screwed, reduces space requirements by one pitch width in comparison with conventional solutions.

On request also available without middle flange interlock.

## General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 4 mm <sup>2</sup> , Box
Order No.	<a href="#">1173510000</a>
Type	BLZ 7.62IT/03/180MF3 SN BK BX
GTIN (EAN)	4032248966097
Qty.	50 items
Product data	IEC: 630 V / 29 A / 0.08 - 4 mm <sup>2</sup> UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

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## Technical data

## Approvals

## Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E60693

## Dimensions and weights

Depth	23.4 mm	Depth (inches)	0.9213 inch
Height	21.2 mm	Height (inches)	0.8346 inch
Width	30.48 mm	Width (inches)	1.2 inch
Net weight	7.22 g		

## Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

## System Parameters

Product family	OMNIMATE Power - series BL/SL 7.62IT	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	22.86 mm
L1 in inches	0.900 "	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Protection degree	IP20, when fully mounted	Volume resistance	5.00 mΩ
Can be coded	Yes	Stripping length	7 mm
Tightening torque, min.	0.4 Nm	Tightening torque, max.	0.5 Nm
Clamping screw	M 2.5	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Plugging force/pole, max.	9.5 N	Pulling force/pole, max.	8.5 N

## Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation resistance	≥ 10 <sup>8</sup> Ω
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.	-25 °C
Temperature range, installation, max.	100 °C		

## Conductors suitable for connection

Clamping range, min.	0.08 mm <sup>2</sup>
Clamping range, max.	4 mm <sup>2</sup>

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## Technical data

Wire connection cross section AWG, min.	AWG 28																																																															
Wire connection cross section AWG, max.	AWG 12																																																															
Solid, min. H05(07) V-U	0.08 mm <sup>2</sup>																																																															
Solid, max. H05(07) V-U	4 mm <sup>2</sup>																																																															
Flexible, min. H05(07) V-K	0.08 mm <sup>2</sup>																																																															
Flexible, max. H05(07) V-K	4 mm <sup>2</sup>																																																															
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min.																																																																
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w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>																																																															
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>																																																															
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm																																																															
Clampable conductor	<table border="1"> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>0.25 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 10 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H0,25/12 HBL</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>0.34 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 10 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H0,34/12 TK</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>0.5 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 6 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H0,5/6</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>0.75 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 6 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H0,75/6</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>1 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 6 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H1,0/6</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>1.5 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 7 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H1,5/7</a></td> </tr> <tr> <td>Cross-section for conductor connection</td> <td>nominal</td> <td>2.5 mm<sup>2</sup></td> </tr> <tr> <td>wire end ferrule</td> <td>Stripping length</td> <td>nominal 7 mm</td> </tr> <tr> <td></td> <td>Recommended wire-end ferrule</td> <td><a href="#">H2,5/7</a></td> </tr> </table>	Cross-section for conductor connection	nominal	0.25 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 10 mm		Recommended wire-end ferrule	<a href="#">H0,25/12 HBL</a>	Cross-section for conductor connection	nominal	0.34 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 10 mm		Recommended wire-end ferrule	<a href="#">H0,34/12 TK</a>	Cross-section for conductor connection	nominal	0.5 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 6 mm		Recommended wire-end ferrule	<a href="#">H0,5/6</a>	Cross-section for conductor connection	nominal	0.75 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 6 mm		Recommended wire-end ferrule	<a href="#">H0,75/6</a>	Cross-section for conductor connection	nominal	1 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 6 mm		Recommended wire-end ferrule	<a href="#">H1,0/6</a>	Cross-section for conductor connection	nominal	1.5 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 7 mm		Recommended wire-end ferrule	<a href="#">H1,5/7</a>	Cross-section for conductor connection	nominal	2.5 mm <sup>2</sup>	wire end ferrule	Stripping length	nominal 7 mm		Recommended wire-end ferrule	<a href="#">H2,5/7</a>
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	Recommended wire-end ferrule	<a href="#">H2,5/7</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)	29 A
Rated current, max. number of poles (Tu=20°C)	26.5 A	Rated current, min. number of poles (Tu=40°C)	25 A
Rated current, max. number of poles (Tu=40°C)	23 A	Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	500 V	Rated voltage for surge voltage class / pollution degree III/3	400 V

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## Technical data

Rated impulse voltage for surge voltage 4 kV class/ pollution degree II/2	Rated impulse voltage for surge voltage 6 kV class/ pollution degree III/2
Rated impulse voltage for surge voltage 6 kV class/ contamination degree III/3	Short-time withstand current resistance 3 x 1s with 180 A
Creepage distance, min. 11.3 mm	Clearance, min. 9.8 mm

## Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group C / CSA)	20 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12
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)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	20 A
Rated current (Use group C / UL 1059)	20 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## Packing

Packaging	Box	VPE length	348.00 mm
VPE width	135.00 mm	VPE height	30.00 mm

## Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, pitch, type of material, date clock
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02
	Conductor type	Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section

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## Technical data

Test for damage to and accidental loosening of conductors	Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
	Type of conductor and conductor cross-section	AWG 20/1
	Type of conductor and conductor cross-section	AWG 20/19
	Type of conductor and conductor cross-section	AWG 12/1
	Type of conductor and conductor cross-section	AWG 12/19
	Evaluation	passed
	Standard	DIN EN 60999-1 section 9.4 / 12.00
	Requirement	0.2 kg
	Conductor type	Type of conductor and conductor cross-section
		AWG 28/1
Pull-out test	Type of conductor and conductor cross-section	AWG 28/19
	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	0.7 kg
	Conductor type	Type of conductor and conductor cross-section
		AWG 14/1
	Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed
	Requirement	0.9 kg
	Conductor type	Type of conductor and conductor cross-section
		H07V-U4.0
	Type of conductor and conductor cross-section	H07V-K4.0
	Evaluation	passed
	Requirement	≥5 N
	Conductor type	Type of conductor and conductor cross-section
		AWG 28/1
	Type of conductor and conductor cross-section	AWG 28/19
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and conductor cross-section
		H05V-U0.5
	Type of conductor and conductor cross-section	
	Evaluation	
	Requirement	
	Conductor type	

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## Technical data

	Type of conductor and conductor cross-section	H05V-K0.5
Evaluation	passed	
Requirement	≥50 N	
Conductor type	Type of conductor and conductor cross-section	AWG 14/1
	Type of conductor and conductor cross-section	AWG 14/19
	Type of conductor and conductor cross-section	H07V-K4.0
Evaluation	passed	
Requirement	≥60 N	
Conductor type	Type of conductor and conductor cross-section	H07V-U4.0
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"> <li>Additional variants 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>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</li> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

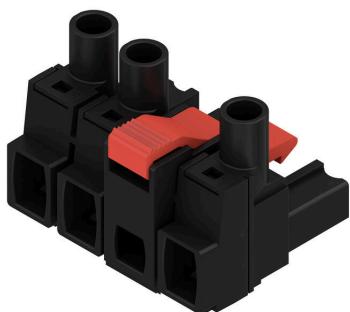
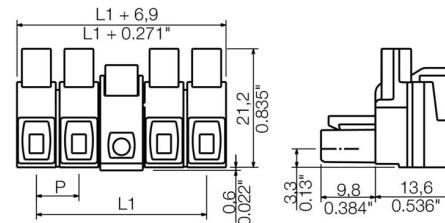
## Classifications

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		

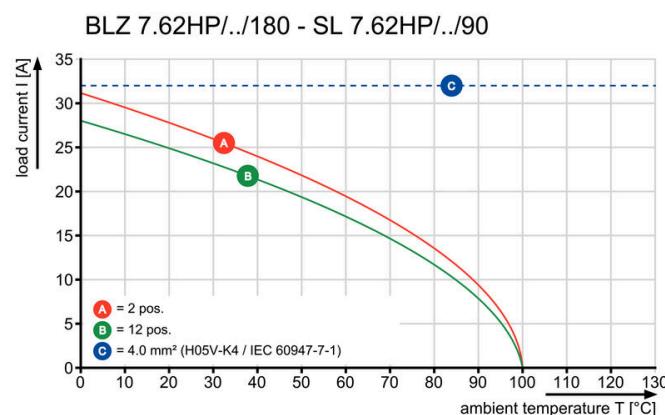
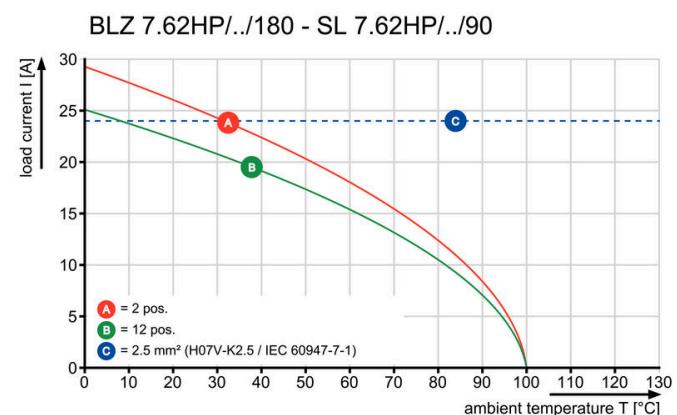
**BLZ 7.62IT/03/180MF3 SN BK BX**

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

Similar to illustration

**Graph****Graph**

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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

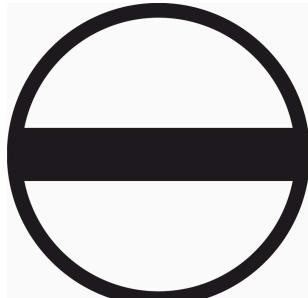
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

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 OR BX	Version
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number
GTIN (EAN)	4008190048396	of poles: 1
Qty.	100 ST	
Type	BLZ/SL KO BK BX	Version
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4008190087142	of poles: 1
Qty.	50 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.	<a href="#">9008330000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056286	
Qty.	1 ST	
Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">9008390000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 ST	

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## Accessories

### Crimping tools



Crimping tools for wire end ferrules, with and without plastic collars

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

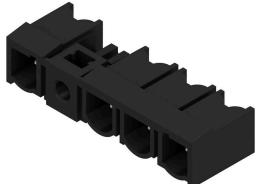
### General ordering data

Type	PZ 6/5	Version
Order No.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> ,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 ST	

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**Counterpart****SL 7.62IT/90MF SN**

90° male header with soldered flange fastening with 7.62 pitch for 400 V IT power networks according to IEC 61800-5-1. UL approval as per UL840 600 V with leading PE contact.

Meets the increased requirements on touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth, when combined with female header BLZ 7.62 IT.... Without a female header, the mating profile guarantees minimum touch safety of 1 mm with 20 N pressure on the test finger. The interlock in the middle flange reduces the space requirements in comparison with conventional solutions by one pitch width. On request: available with screw flange or without flange.

**General ordering data**

Type	SL 7.62IT/03/90MF3 3.2S...	Version
Order No.	<a href="#">1173690000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4032248966493	solder connection, 7.62 mm, Number of poles: 3, 90°, Solder pin
Qty.	60 ST	length (l): 3.2 mm, tinned, black, Box