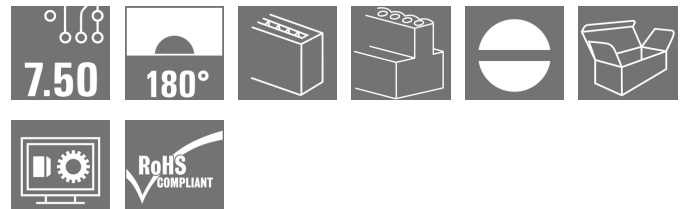


## OMNIMATE Signal - series BL/SL 7.50 BLZ 7.50/06/180 SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com



Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

### General ordering data

Type	BLZ 7.50/06/180 SN OR BX
Order No.	<a href="#">1627960000</a>
Version	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 6, 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm <sup>2</sup> , Box
GTIN (EAN)	4008 190200763
Qty.	50 pc(s).
Product data	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 15 A / AWG 26 - AWG 12
Packaging	Box

Creation date May 3, 2020 8:04:28 PM CEST

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**Technical data****Dimensions and weights**

Height	15.2 mm	Height (inches)	0.598 inch
Depth	20.1 mm	Depth (inches)	0.791 inch
Net weight	10.79 g		

**System Parameters**

Product family	OMNIMATE Signal - series BL/SL 7.50	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.5 mm
Pitch in inches (P)	0.295 inch	Conductor outlet direction	180°
Number of poles	6	L1 in mm	37.5 mm
L1 in inches	1.476 inch	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Volume resistance	4.50 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 force/pole, max.	9 N	Pulling force/pole, max.	8.5 N

**Material data**

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 <sup>8</sup> 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.	50 °C
Max. relative humidity during storage	70 %	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.	0.13 mm <sup>2</sup>
Clamping range, max.	3.31 mm <sup>2</sup>
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 <sup>2</sup>
Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>
Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, 0.2 mm <sup>2</sup> min.	
w. wire end ferrule, DIN 46228 pt 1, 2.5 mm <sup>2</sup> max.	
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm

Creation date May 3, 2020 8:04:28 PM CEST

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

2

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**Technical data**

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H1.0/6</a>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		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>
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.		
Max. clamping range	3.31 mm <sup>2</sup>		

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	18.5 A
Rated current, max. number of poles (Tu=20°C)	17 A	Rated current, min. number of poles (Tu=40°C)	15 A
Rated current, max. number of poles (Tu=40°C)	14.5 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	500 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

**Rated data acc. to CSA**

Institute (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)	15 A	Rated current (Use group D / CSA)	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.		


**Data sheet**

**OMNIMATE Signal - series BL/SL 7.50  
BLZ 7.50/06/180 SN OR BX**

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**Technical data**

**Rated data acc. to UL 1059**

Institute (UR)		Certificate No. (UR)	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)	15 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	96 mm
VPE width	119 mm	VPE height	134 mm

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09	UNSPSC	30-21-18-10

**Notes**

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> </ul>
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	
ROHS	Conform

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**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FLIndustr.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>

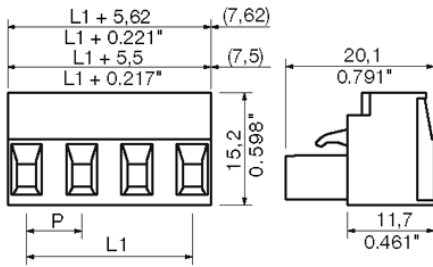
**Data sheet**

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**Drawings**

**Dimensional drawing**



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**Mating connector (conditionally pluggable)**
**SL 7.50/90B**


Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/06/90B 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1628510000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201319	solder connection, 7.50 mm, Number of poles: 6, 90°, Solder pin	UL: 300 V / 15 A	
Qty.	50 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

**SL 7.50/180B**


Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/06/180B 3.2SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1629170000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201975	solder connection, 7.50 mm, Number of poles: 6, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	50 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

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BLZ 7.50/06/180 SN OR BX**

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**Mating connector (fully pluggable)**
**SL 7.50/90**


Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/06/90 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1628400000</a>	PCB plug-in connector, male header, open side, THT solder	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201203	connection, 7.50 mm, Number of poles: 6, 90°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

**SL 7.50/180**


Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/06/180 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1629060000</a>	PCB plug-in connector, male header, open side, THT solder	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201869	connection, 7.50 mm, Number of poles: 6, 180°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		



## OMNIMATE Signal - series BL/SL 7.50 BLZ 7.50/06/180 SN OR BX

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## Accessories

### Strain reliefs



#### For frequent load changes: the "trailer coupling" for plug-in connectors.

The strain relief can do more than just relieve the strain on conductors:

Simply clip onto the plug and

- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.

User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

### General ordering data

Type	BLZ 7.50 ZE06 BK BX	Version	Product data	Packaging
Order No.	<a href="#">1652180000</a>	PCB plug-in connector, Accessories, Strain relief, black, Number of		Box
GTIN (EAN)	4008190401856	poles: 6		
Qty.	50 pc(s).			
Type	BLZ 7.50 ZE03 BK BX	Version	Product data	Packaging
Order No.	<a href="#">1652200000</a>	PCB plug-in connector, Accessories, Strain relief, black, Number of		Box
GTIN (EAN)	4008190401870	poles: 3		
Qty.	50 pc(s).			
Type	BLZ 7.50 ZE03 OR BX	Version	Product data	Packaging
Order No.	<a href="#">1652140000</a>	PCB plug-in connector, Accessories, Strain relief, orange, Number of		Box
GTIN (EAN)	4008190401818	poles: 3		
Qty.	50 pc(s).			
Type	BLZ 7.50 ZE06 OR BX	Version	Product data	Packaging
Order No.	<a href="#">1652160000</a>	PCB plug-in connector, Accessories, Strain relief, orange, Number of		Box
GTIN (EAN)	4008190401832	poles: 6		
Qty.	50 pc(s).			

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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.

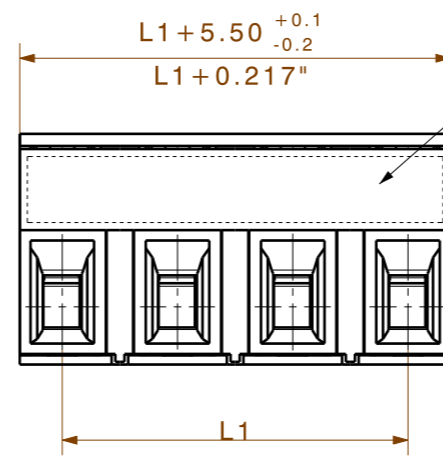
## General ordering data

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

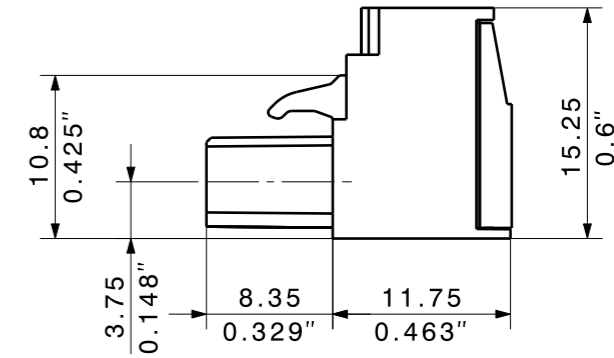
DIE DEUTSCHE VERSION IST VERBINDLICH  
 THE GERMAN VERSION IS BINDING

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
 ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.  
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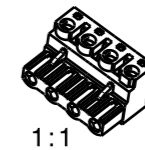
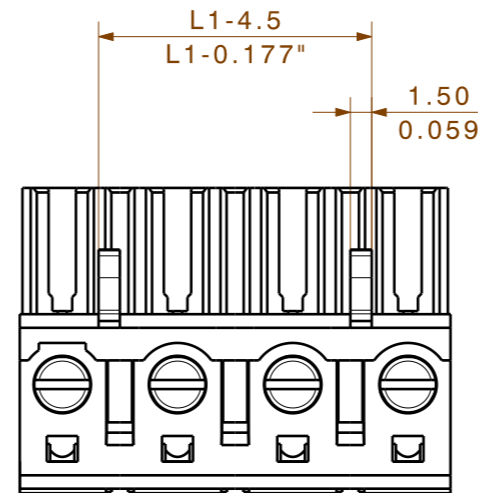


DRUCKBEREICH  
 PRINTING AREA

SCHRAUBENDREHER  
 SCREWDRIVER



LEITER  
 CONDUCTOR



12	82,50	3,248
11	75,00	2,953
10	67,50	2,657
9	60,00	2,362
8	52,50	2,067
7	45,00	1,772
6	37,50	1,476
5	30,00	1,181
4	22,50	0,886
3	15,00	0,591
2	7,50	0,295
n	L1 [mm]	L1 [Inch]

SHOWN: BLZ 7.50/04/180

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05		60233/5 09.11.11 HELIS_MA 01		CAT.NO.:	
	MODIFICATION				<b>C 21326 08</b> DRAWING NO. ISSUE NO. SHEET 01 OF 02 SHEETS	
		DATE 16.08.2010	NAME HOHLBEIN_K	<b>BLZ 7.50/././180...</b> BUCHSENLEISTE SOCKET BLOCK		
SCALE: 2:1		RESPONSIBLE LANG_T	CHECKED 11.11.2011 HECKERT_M			
SUPERSEDES: 21326/06		APPROVED HECKERT_M	PRODUCT FILE: BLZ/SL 7.50			