



Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

### **Product image**





















Similar to illustration

Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

### **General ordering data**

Version	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 5, 90°, Clamping yoke connec- tion, Clamping range, max. : 3.31 mm², Box
Order No.	<u>1701820000</u>
Туре	BLZ 7.50/05/90 SN OR BX
GTIN (EAN)	4008190908409
Qty.	48 items
Product data	IEC: 800 V / 15 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 12
Packaging	Вох





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# **Technical data**

### **Approvals**

Approvals



ROHS	Conform	
UL File Number Search	<u>UL Website</u>	
Certificate No. (UR)	E60693	

### **Dimensions and weights**

Depth	26.8 mm	Depth (inches)	1.0551 inch
Height	14.3 mm	Height (inches)	0.563 inch
Net weight	11.12 g		

### **Environmental Product Compliance**

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

### **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)	7.50 mm
Pitch in inches (P)	0.295 "	Conductor outlet direction	90°
Number of poles	5	L1 in mm	30.00 mm
L1 in inches	1.181 "	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
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 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	Illa
Comparative Tracking Index (CTI)	≥ 200	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.	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>

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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 mm²	
min.		
w. plastic collar ferrule, DIN 46228 pt	4, 2.5 mm²	
max.		
w. wire end ferrule, DIN 46228 pt 1,	0.2 mm <sup>2</sup>	
min.		
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>	
Plug gauge in accordance with EN	2.8 mm x 2.0 mm; 2.4 mm	
60999 a x b; ø	2.8 11111 X 2.0 111111, 2.4 111111	
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- H0,5/6
		end ferrule
	Cross-section for conductor connection	Type fine-wired
		nominal 1 mm <sup>2</sup>
	wire end ferrule	Stripping length nominal 6 mm
		Recommended wire- H1,0/6 end ferrule
	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- H1,5/7
		end ferrule
	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- H2,5/7
		end ferrule
	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- H0,75/6 end ferrule
Reference text	The outside diameter of the plastic collar sho is to be chosen depending on the product an	uld not be larger than the pitch (P), Length of ferr

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)	15 A
Rated current, max. number of poles (Tu=20°C)	13 A	Rated current, min. number of poles (Tu=40°C)	12.5 A
Rated current, max. number of poles (Tu=40°C)	11 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	800 V	Rated voltage for surge voltage class / pollution degree III/3	500 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	8 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 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)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V

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# **Technical data**

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.		

### Rated data acc. to UL 1059

Institute (UR)	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)	10 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	348.00 mm
VPE width	136.00 mm	VPE height	32.00 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, rated cross-	
		section, rated voltage, pitch, type of material, approval marking UL, approval marking CSA	
	Evaluation	available	
	Test	durability	
	Evaluation		
		passed	
est: Misengagement (Non- nterchangeability)	Standard	draft DIN VDE 0627 section 5.9.1 / 09.91, DIN IEC 60512 part 7 section 5 / 05.94	
	Test	180° turned with coding elements	
	Evaluation	passed	
Test: Clampable cross section	Standard	DIN EN 60999 section 6 and 8.1 / 04.94, EN 60947-1 section 8.2.4.5.1 / 07.98	
	Conductor type	Type of conductor solid 0.08 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 0.08 mm <sup>2</sup> and conductor cross-section	
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 2.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor AWG 28/1 and conductor cross-section	
		Type of conductor AWG 28/19 and conductor cross-section	
		Type of conductor AWG 12/1 and conductor cross-section	
		Type of conductor AWG 12/19 and conductor cross-section	





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Test for damage to and accidental	Standard	DIN EN 60999 section 8.4 / 04.94		
loosening of conductors	Requirement	0.2 kg		
	Conductor type	Type of conductor AWG 28/1 and conductor cross-section		
		Type of conductor AWG 28/7 and conductor cross-section		
	Evaluation	passed		
	Requirement	0.3 kg		
	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		
	Evaluation	passed		
	Requirement	0.7 kg		
	Conductor type	Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section		
		Type of conductor stranded 2.5 mm <sup>2</sup> and conductor cross-section		
	Evaluation	passed		
	Requirement	0.9 kg		
	Conductor type	Type of conductor AWG 12/1 and conductor cross-section		
		Type of conductor AWG 12/19 and conductor cross-section		
	Evaluation passed			
Pull-out test	Standard	DIN EN 60999 section 8.5 / 04.94		
	Requirement	≥5 N		
	Conductor type	Type of conductor AWG 28/1 and conductor cross-section		
		Type of conductor AWG 28/7 and conductor cross-section		
	Evaluation	passed		
	Requirement	≥50 N		
	Conductor type	Type of conductor H05V-U2.5 and conductor cross-section		
		Type of conductor H05V-K2.5 and conductor cross-section		
	Evaluation	passed		
	Requirement	≥60 N		
	Conductor type	Type of conductor AWG 12/1 and conductor cross-section		
		Type of conductor AWG 12/19 and conductor cross-section		
	Evaluation	passed		



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Im	no	rta	nŧ	note
	มน	rta	HL	HOLE

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	Additional variants on request

- 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

	<u> </u>		
ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	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	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		



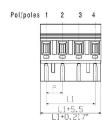
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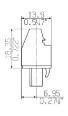
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# **Drawings**

### **Dimensional drawing**





### **Derating curve**

