

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

### **Product image**



















#### Similar to illustration

High-performance female header with solder connection. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity, protection against faulty wiring and 4-point contact.

### **General ordering data**

Version	PCB plug-in connector, female header, Screw/clip- on flange, reversed, THT solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (I): 3.5 mm, tinned, black, Box
Order No.	<u>1928500000</u>
Туре	BVL 7.62HP/02/90SFI 3.5SN BK BX
GTIN (EAN)	4032248577729
Qty.	100 pc(s).
Product data	IEC: 1000 V / 56.8 A UL: 300 V / 35 A
Packaging	Вох

Creation date March 26, 2021 9:08:18 AM CET



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# **Technical data**

### **Dimensions and weights**

### **System Parameters**

Product family	OMNIMATE Power - series	Type of connection	
	BV/SV 7.62HP		Board connection
Pitch in mm (P)	7.62 mm	Pitch in inches (P)	0.3 inch
Number of poles	2	L1 in mm	7.62 mm
L1 in inches	0.3 inch	Number of rows	1
Pin series quantity		Touch-safe protection acc. to DIN VDE	Safe from finger touch,
	1	57 106	plugged
Touch-safe protection acc. to D	IN VDE	Volume resistance	
0470	IP 20		$2.00~\text{m}\Omega$
Can be coded	Yes	Tightening torque for screw flange, min	. 0.2 Nm
Tightening torque for screw flar	nge, max. 0.3 Nm	Plugging force/pole, max.	7 N
Pulling force/pole, max.	4 N		

### **Material data**

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	tinned
Layer structure of solder connection	46 µm Sn matt	Layer structure of plug contact	46 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	130 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	130 °C

### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	56.8 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	41 A	(Tu=40°C)	41 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	41 A	pollution degree II/2	1,000 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	630 V	pollution degree III/3	630 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	6 kV	class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	6 kV		3 x 1s with 420 A

### Rated data acc. to CSA

Institute (CSA)	€£:	Certificate No. (CSA)	
			200039-1534443
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	35 A
Rated current (Use group C / CSA)	35 A	Rated current (Use group D / CSA)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		



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# **Technical data**

### Rated data acc. to UL 1059

Institute (cURus)	<b>100 10 10</b>	Certificate No. (cURus)	
	. 41		
	C TAPE IIS		
	<u> </u>		E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	35 A
Rated current (Use group C / UL 1059)	35 A	Rated current (Use group D / UL 1059)	5 A
Clearance distance, min.	6.9 mm	Creepage distance, min.	9.66 mm
Reference to approval values	Specifications are maximum values, details - see approval certificate.		
Packing			
Packaging	Вох	VPE length	100 mm
VPE width	105 mm	VPE height	215 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
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non- interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512-7 section 5 / 05.94
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed



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# **Technical data**

Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00 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 and conductor cross-section stranded 0.5 mm <sup>2</sup>		
		Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section		
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section		
		Type of conductor AWG 24/1 and conductor cross-section		
		Type of conductor AWG 24/19 and conductor cross-section		
		Type of conductor AWG 10/1 and conductor cross-section		
		Type of conductor AWG 10/19 and conductor cross-section		
	Evaluation	passed		
est for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00		
osening of conductors	Requirement	0.2 kg		
	Conductor type	Type of conductor AWG 24/1 and conductor cross-section		
		Type of conductor AWG 24/19 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	1.4 kg		
	Conductor type	Type of conductor AWG 10/1 and conductor cross-section		
		Type of conductor AWG 10/19 and conductor cross-section		



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# **Technical data**

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥10 N	
	Conductor type	Type of conductor AWG 24/1 and conductor cross-section	
		Type of conductor AWG 24/19 and conductor cross-section	
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor H05V-U0.5 and conductor cross- section	
		Type of conductor H05V-K0.5 and conductor cross-section	
	Evaluation	passed	
	Requirement	≥80 N	
	Conductor type	Type of conductor H07V-U6 and conductor cross-section	
		Type of conductor H07V-K6 and conductor cross-section	
		Type of conductor AWG 10/1 and conductor cross-section	
		Type of conductor AWG 10/19 and conductor cross-section	
	Evaluation	passed	

#### Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01

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	Additional colours on request
	Rated current related to rated cross-section & min. No. of poles.
	• P on drawing = pitch
	<ul> <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>
	<ul> <li>Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>



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# **Technical data**

### **Approvals**

Approvals

OF C SUS III

ROHS	Conform
UL File Number Search	E60693

#### **Downloads**

Approval/Certificate/Document of	
Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD



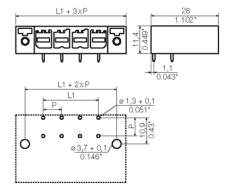
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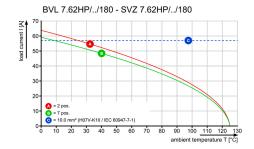
www.weidmueller.com

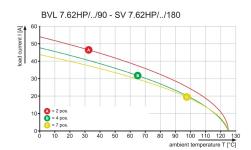
# **Drawings**

### **Dimensional drawing**

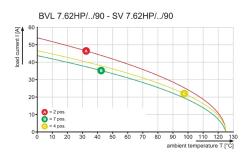


Graph Graph





### Graph



Dimensions without tolerances are no check dimensions

Φ

0

0

 $\emptyset$  1.3 +0.1

HOLE PATTERN 180°

 $\phi$  1.3 + 0.1  $\Phi 2.11 + 0.1$ 

shown:BVL7.62HP/04/90/(270/180) FI

 $(n+1) \times 7.62 = (4+1) \times 7.62 = 38.1$ 

HOLE PATTERN 90°/270°

0

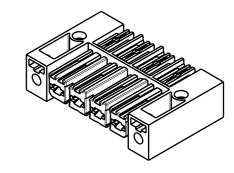
0

 $(n+1+1) \times 7.62 = 6 \times 7.62 = 45.72$ 

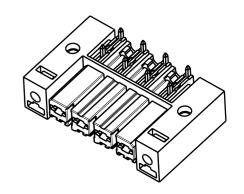
 $(n+1) \times 7.62 = (4+1) \times 7.62 = 38.1$ 

The English version is binding 180°TYPE 28 270°TYPE 11.490°TYPE വ

Topview 90° type



SCALE: 1:1



Bottomview 90° type

Cat.no.:

Sheet 01 of 02 sheets

Drawing no.

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary 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 IEC 60326 part 3 very fine.

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

General tolerance: 103219/5 29.03.18 HELIS\_MA 01 DIN ISO 2768-mK Weidmüller 🐔 Modification Name Date 08.12.2006 | HECKERT\_M Drawn KRUG\_M Responsible Checked 23.04.2018 | HELIS\_MA Scale: 2:1 Supersedes: Approved LANG\_T

BVL7.62HP/02..07/...FI

BUCHSENLEISTE-LOETANSCHLUSS SOCKET CONNECTOR WITH SOLDER CONNECTION 7167

Product file: BVL 7.62

P = 7.62 Raster Pitch

 $D = { 0.051 + 0.01 \atop 0.051 + 0.004 }$ 

 $d = \frac{1.28}{0.05}$ "



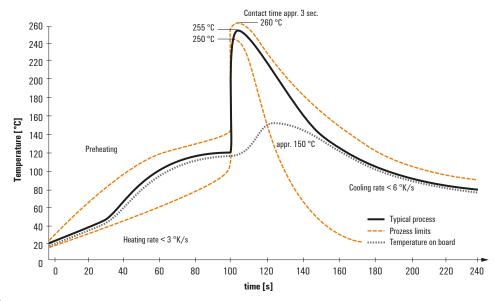
### Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

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Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### Single Wave:



#### **Double Wave:**



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.