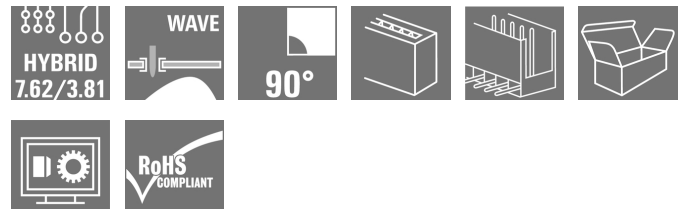


**OMNIMATE Power - series BV/SV 7.62HP
SV 7.62HP/04/90G SC/04R SN BK BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 1429-0
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Combined 90° male header with power and signal contacts in PUSH IN connection technology incl. self-locking middle flange interlock and (optional) pluggable shield connection with a 7.62 pitch.

Enables simultaneous connection of power, signals and (optional) EMC shielding. Ideal for connecting servo and asynchronous drives.

Meets the requirements of IEC 61800-5-1 and enables UL approval as per UL840 600 V when combined with female header BVF 7.62HP/...BCF..R...

Without a female header, the mating profile guarantees minimum power-contact touch-safety of >3 mm with 20 N pressure on the test finger.

The self-locking middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Optionally on request: without flange fastening, with additional screw mount or with soldered flange fastening.

General ordering data

Type	SV 7.62HP/04/90G SC/04R SN BK BX
Order No.	1090280000
Version	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, No. of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned, Black
GTIN (EAN)	4032248859412
Qty.	48 pc(s).
Product data	IEC: 1000 V / 41 A UL: 300 V / 35 A

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Technical data**Dimensions and weights**

Net weight 9.79 g

System specifications

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Solder connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Outgoing elbow	90°
No. of poles	4	Number of solder pins per pole	2
Solder pin length (l)	3.5 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Tolerance of solder pin position	± 0.1 mm	Solder pin dimensions	0.8 x 1.0 mm
Solder eyelet hole diameter (D)	1.3 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
L1 in mm	22.86 mm	L1 in inches	0.9 inch
Number of rows	1	Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch, plugged	Touch-safe protection acc. to DIN VDE 0470	IP 20
Volume resistance	2.00 mΩ	Can be coded	Yes
Plugging cycles	25	push-in force/pole	12 N
Withdrawal force per pole	7 N		

Material data

Insulating material	PA GF	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	II
CTI	≥ 500	Insulation resistance	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of solder connection	1-3 μm Ni / 4-6 μm Sn matt
Layer structure of plug contact	1-3 μm Ni / 4-6 μm Sn matt	Storage temperature, min.	-25 °C
Storage temperature, max.	55 °C	Max. relative humidity during storage	80 %
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	IEC 60664-1, IEC 61984	Rated current, min. no. of poles (Ta = 20°C)	41 A
Rated current, max. no. of poles (Ta = 20°C)	41 A	Rated current, min. no. of poles (Ta = 40°C)	41 A
Rated current, max. no. of poles (Ta = 40°C)	41 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	630 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 420 A


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Technical data**Rated data acc. to CSA**

Institute (CSA)		Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B)	300 V	Rated voltage (Use group C)	300 V
Rated voltage (use group D)	600 V	Rated current (use group B)	33 A
Rated current (use group C)	33 A	Rated current (use group D)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (cURus)		Certificate No. (cURus)	E60693
Rated voltage (use group B)	300 V	Rated voltage (use group C)	300 V
Rated voltage (use group D)	600 V	Rated current (use group B)	35 A
Rated current (use group C)	35 A	Rated current (use group D)	5 A
Clearance distance, min.	6.9 mm	Creepage distance, min.	9.6 mm
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Classifications

ETIM 4.0	EC002637	ETIM 5.0	EC002637
ETIM 6.0	EC002637	eClass 6.2	27-26-07-04
eClass 7.1	27-44-04-02	eClass 8.1	27-44-04-02
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02

Notes

Notes	<ul style="list-style-type: none"> • Technical specifications refer to the power contacts • Technical data of signal contacts: 50V / 5A, stripping length 8mm • Rated current related to rated cross-section & min. No. of poles. • Specifications of diagram: P1=7.62 mm; P2=3.81 mm • 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.
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IPC conformity The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

Approvals

Approvals	
ROHS	Conform

Data sheet**OMNIMATE Power - series BV/SV 7.62HP
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Technical data**Downloads**

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL HEATING ELECTR EN FL APPL. INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Motion controllers white paper	Download Whitepaper
White Paper UL 600 V	Download Whitepaper

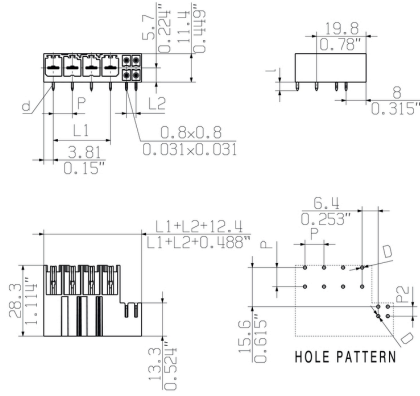
Data sheet

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Drawings

Dimensional drawing



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Mating connector (fully pluggable)
BVF 7.62HP SN / BCF 3.81 SN 180


Combined 180° female plug with power and signal contacts in PUSH IN connection technology incl. self-locking middle flange interlock, optionally with pluggable shield connection in 7.62 pitch.

Enables simultaneous connection of power, signals and (optional) shielding. Ideal for connecting servo and asynchronous drives.

Meets the requirements of IEC 61800-5-1 and UL 1059 class C 600 V for the power contacts. The self-locking middle flange reduces space requirements by one pitch width in comparison with conventional solutions.

The pluggable shield connection has a wide contact area on the device housing and does not have to be separately bolted. Optional on request: without shield connection, without flange fastening or middle flange with additional screw mount.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BVF 7.62HP/04/180 BCF/04R SN BK BX	1080510000	PCB plug-in connector, female plug, 7.62 mm, No. of poles: 4, 180°, PUSH IN, Clamping range, rated connection, max.: 10 mm ² , Box	4032248843008	40 pc(s).	IEC: 1000 V / 38 A / 0.5 - 10 mm ² UL: 600 V / 35 A / AWG 24 - AWG 8	Box

BVFL 7.62HP / BCF 3.81 SN 180


Connector combining a 180° female plug with power and signal contacts, with PUSH IN connection technology, with adjustable pusher, optionally with self-locking middle flange and pluggable shield connection in 7.62 pitch. Enables the simultaneous connection of power, signals and (optional) shielding. Ideal for connecting servo and asynchronous drives. Meets the requirements of IEC 61800-5-1 and UL 1059 Class C 600 V for power contacts. The self-locking middle flange reduces space requirements by one pitch width in comparison with conventional solutions. The pluggable shield connection has a wide contact area on the device housing and does not have to be bolted on separately. Optionally on request: with shield connection, without flange fastening or middle flange with additional screw mount.

General ordering data

Type	Order No.	Version	GTIN (EAN)	Qty.	Product data	Packaging
BVFL 7.62HP/04/180 BCF/04R SN BK BX	1547560000	PCB plug-in connector, female plug, 7.62 mm, No. of poles: 4, 180°, PUSH IN with actuator, Clamping	4050118353334	40 pc(s).	IEC: 1000 V / 38 A / 0.5 - 6 mm ² UL: 600 V / 35 A / AWG 24 - AWG 8	Box

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Mating connector (fully pluggable)

range, rated connection,
max.: 6 mm², Box

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
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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.