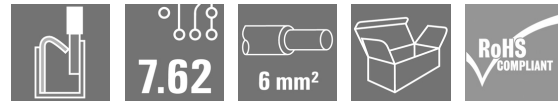


**BVFL 7.62HP/02/180 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

180° female plug with PUSH IN connection system with adjustable actuator (pusher) for field wiring 6 mm<sup>2</sup> in a 7.62 pitch. Meets the requirements of UL 1059 600 V Class C and IEC 61800-5-1. Also ideal as a touch-safe solution for the power output. The self-locking middle flange which can optionally also be screwed, reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with snap-on mechanism and optionally additional screw mount

**General ordering data**

|              |   |
|--------------|---|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 2, 180°, PUSH IN with actuator, Clamping range, max.: 6 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2548870000</a>  |
| Type         | BVFL 7.62HP/02/180 SN BK BX   |
| GTIN (EAN)   | 4050118558340   |
| Qty.         | 120 pc(s).  |
| Product data | IEC: 1000 V / 41 A / 0.5 - 6 mm <sup>2</sup><br>UL: 600 V / 39 A / AWG 24 - AWG 8   |
| Packaging    | Box   |

Creation date August 29, 2024 5:23:52 AM CEST

Catalogue status 17.08.2024 / We reserve the right to make technical changes.

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 52.1 mm  | Depth (inches)  | 2.051 inch |
| Height     | 20.6 mm  | Height (inches) | 0.811 inch |
| Net weight | 11.218 g |                 |            |

**System Parameters**

|  |                                      |  |                   |
|--|--------------------------------------|--|-------------------|
| Product family                               | OMNIMATE Power - series BV/SV 7.62HP | Type of connection                         | Field connection  |
| Wire connection method                       | PUSH IN with actuator                | Pitch in mm (P)                            | 7.62 mm           |
| Pitch in inches (P)                          | 0.3 "                                | Conductor outlet direction                 | 180°              |
| Number of poles                              | 2                                    | L1 in mm                                   | 7.62 mm           |
| L1 in inches                                 | 0.3 "                                | Number of rows                             | 1                 |
| Pin series quantity                          | 1                                    | Rated cross-section                        | 6 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                                 | Volume resistance                          | 4.50 mΩ           |
| Can be coded                                 | Yes                                  | Stripping length                           | 12 mm             |
| Screwdriver blade                            | 0.6 x 3.5                            | Plugging cycles                            | 25                |

**Material data**

|                                       |                    |                                       |        |
|---------------------------------------|--------------------|---------------------------------------|--------|
| Insulating material                   | PA GF              | Colour                                | black  |
| Colour chart (similar)                | RAL 9011           | Insulating material group             | II     |
| Comparative Tracking Index (CTI)      | ≥ 600              | UL 94 flammability rating             | V-0    |
| Contact material                      | Cu-alloy           | Contact surface                       | tinned |
| Layer structure of plug contact       | 6...8 µm Sn glossy | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C              | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 125 °C             | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 125 °C             |                                       |        |

**Conductors suitable for connection**

|   |                     |
|---|---------------------|
| Clamping range, min.  | 0.5 mm <sup>2</sup> |
| Clamping range, max.  | 6 mm <sup>2</sup>   |
| Solid, min. H05(07) V-U   | 0.5 mm <sup>2</sup> |
| Solid, max. H05(07) V-U   | 6 mm <sup>2</sup>   |
| Flexible, min. H05(07) V-K  | 0.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K  | 6 mm <sup>2</sup>   |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm <sup>2</sup> min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.   |                     |
| w. wire end ferrule, DIN 46228 pt 1, 0.5 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm <sup>2</sup> max.         |                     |

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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 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H0.5/12 OR</a>  |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 0.75 mm <sup>2</sup>        |
| wire end ferrule                       |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H0.75/18 W</a>  |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 1 mm <sup>2</sup>           |
| wire end ferrule                       |  | Stripping length             | nominal 15 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</a>  |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 1.5 mm <sup>2</sup>         |
| wire end ferrule                       |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |
|  |  | Stripping length             | nominal 15 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 2.5 mm <sup>2</sup>         |
| wire end ferrule                       |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H2.5/12</a>     |
|  |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 4 mm <sup>2</sup>           |
| wire end ferrule                       |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H4.0/12</a>     |
|  |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H4.0/20D GR</a> |
| Cross-section for conductor connection |  | Type                         | fine-wired                  |
|  |  | nominal                      | 6 mm <sup>2</sup>           |
| wire end ferrule                       |  | Stripping length             | nominal 12 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H6.0/12</a>     |
|  |  | Stripping length             | nominal 14 mm               |
|  |  | Recommended wire-end ferrule | <a href="#">H6.0/20 SW</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. |                              |                             |

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**Technical data****Rated data acc. to IEC**

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 41 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 41 A                   | Rated current, min. number of poles (Tu=40°C)                         | 41 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 38 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 1,000 V           |
| Rated voltage for surge voltage class / pollution degree III/2            | 1,000 V                | Rated voltage for surge voltage class / pollution degree III/3        | 800 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 | 8 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV                   | Short-time withstand current resistance                               | 3 x 1s with 420 A |
| Clearance, min.   | 10.4 mm                | Creepage distance, min.   | 12.7 mm           |

**Rated data acc. to CSA**

|                                   |        |                                   |       |
|-----------------------------------|--------|-----------------------------------|-------|
| 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) | 33 A  |
| Rated current (Use group C / CSA) | 33 A   | Rated current (Use group D / CSA) | 5 A   |
| Wire cross-section, AWG, min.     | AWG 24 | Wire cross-section, AWG, max.     | AWG 8 |

**Rated data acc. to UL 1059**

|                                       |        |                                       |       |
|---------------------------------------|--------|---------------------------------------|-------|
| 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) | 39 A  |
| Rated current (Use group C / UL 1059) | 39 A   | Rated current (Use group D / UL 1059) | 5 A   |
| Wire cross-section, AWG, min.         | AWG 24 | Wire cross-section, AWG, max.         | AWG 8 |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 352 mm |
| VPE width | 136 mm | VPE height | 60 mm  |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | 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 |             |             |

**Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| REACH SVHC             | /                           |
| RoHS Compliance Status | Compliant without exemption |

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**Technical data****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>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</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>• Additional pole combinations on request</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> |

**Approvals**

|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

**Downloads**

|                             |   |
|-----------------------------|---|
| Engineering Data            | <a href="#">CAD data – STEP</a>   |
| Product Change Notification | <a href="#">2018, March - BVF 7.62HP 2-pole version, fixed coding at pole 1</a><br><a href="#">EN - Change of isolation material</a><br><a href="#">DE - Werkstoffänderung Pusher</a><br><a href="#">20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors</a><br><a href="#">20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder</a> |
| User Documentation          | <a href="#">Operating Instruction BVFL</a><br><a href="#">QR-Code product handling video</a>  |
| Catalogues                  | <a href="#">Catalogues in PDF-format</a>  |

## BVFL 7.62HP/02/180 SN BK BX

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

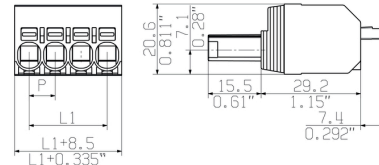
[www.weidmueller.com](http://www.weidmueller.com)

## Drawings

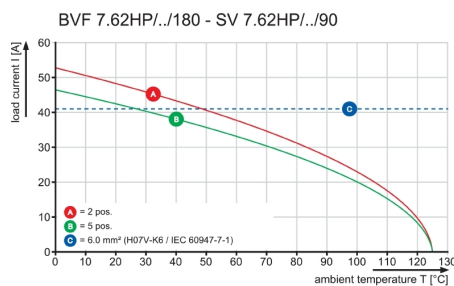
## Product image



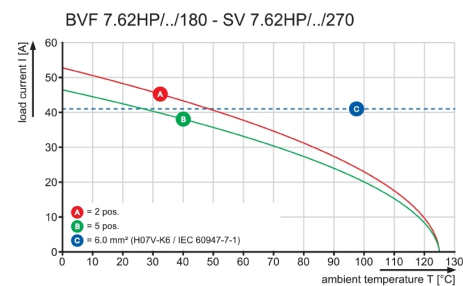
## Dimensional drawing



## Graph



## Graph



## Graph



## Product benefits



Secure connection of small conductors  
 PUSH IN WIRE READY

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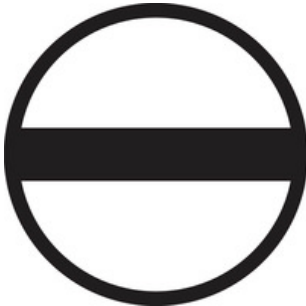
Germany

[www.weidmueller.com](http://www.weidmueller.com)**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 pc(s).                   |  |

**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 pc(s).                   |                          |

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## Accessories

## Coding elements



**The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.**

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

## General ordering data

| Type       | BV/SV 7.62HP KO            | Version   | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No.  | <a href="#">1937590000</a> | PCB plug-in connector, Accessories, Coding element, black, Number |              | Box       |
| GTIN (EAN) | 4032248608881              | of poles: 1   |              |           |
| Qty.       | 50 pc(s).                  |   |              |           |

## Coupling set



With the aid of the SVF/BVF 7.62HP COUPLE SET the two plug-in elements can be connected back-to-back to form a 2-row connector with a maximum of 2 x 4 poles.

## General ordering data

| Type       | SVF/BVF 7.62HP COUPLE S ... | Version   | Product data | Packaging |
|------------|-----------------------------|---|--------------|-----------|
| Order No.  | <a href="#">1440850000</a>  | PCB plug-in connector, Accessories, Mounting block, black |              | Box       |
| GTIN (EAN) | 4050118247060               |   |              |           |
| Qty.       | 20 pc(s).                   |   |              |           |



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## Drawings

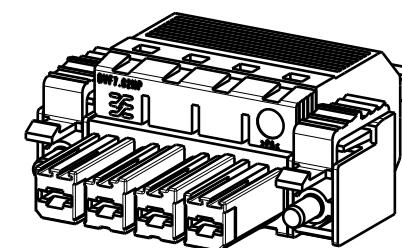
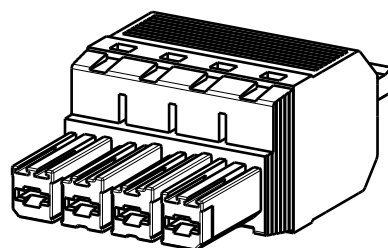
### Product benefits



Installation without tools  
Outlet direction: 90° und 180°

SHOWN: BVFL 7.62HP/04/180(S)F

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

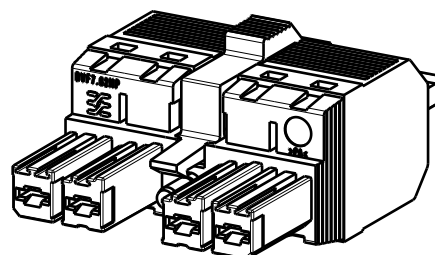


For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.


The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

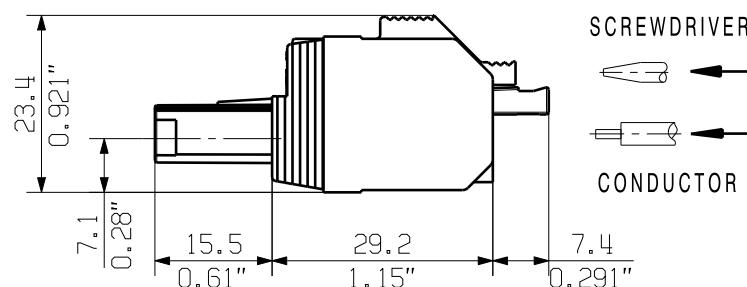
Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.



SCREWDRIVER






CONDUCTOR



F= Flansch / flange  
SF=Schraubflansch / screw flange  
MF=Mittelflansch / middle flange  
MSF=Mittelschraubflansch / middle screw flange  
P= Raster / pitch  
n= Polzahl/no of poles

|           |   |       |       |       |   |   |   |
|-----------|---|-------|-------|-------|---|---|---|
| 6 M(S)F 4 | P | P     | P     | M(S)F | P | P | P |
| 5 M(S)F 4 | P | P     | P     | M(S)F | P | P |   |
| 5 M(S)F 3 | P | P     | M(S)F | P     | P | P |   |
| 4 M(S)F 4 | P | P     | P     | M(S)F | P |   |   |
| 4 M(S)F 3 | P | P     | M(S)F | P     | P |   |   |
| 3 M(S)F 3 | P | P     | M(S)F | P     |   |   |   |
| 3 M(S)F 2 | P | M(S)F | P     | P     |   |   |   |
| 2 M(S)F 2 | P | M(S)F | P     |       |   |   |   |
| POS.      | 1 | 2     | 3     | 4     | 5 | 6 | 7 |

|                     |         |           |
|---------------------|---------|-----------|
| 7                   | 45,72   | 1,8       |
| 6                   | 38,10   | 1,5       |
| 5                   | 30,48   | 1,2       |
| 4                   | 22,86   | 0,9       |
| 3                   | 15,24   | 0,6       |
| 2                   | 7,62    | 0,3       |
| POLE<br>NO OF POLES | L1 (mm) | L1 (Inch) |

|  |                              |            |          |  |                                      |             |
|--|------------------------------|------------|----------|--|--------------------------------------|-------------|
| <div>DIN ISO 2768-m</div> | 97120/0<br>18.08.17 HELIS_MA |            | 00       | <div><b>Weidmüller</b> </div> | CAT.NO.:<br><b>C 60714</b> <b>03</b> |             |
|  | MODIFICATION                 |            |          |  | DRAWING NO.                          | ISSUE N     |
|  |                              |            |          |  | SHEET 01                             | OF 01 SHEET |
| <div></div>               |                              | DATE       | NAME     | <div><b>BVFL 7.62HP/.../180...</b><br/>BUCHENSTECKER<br/>FEMALE PLUG</div>   |                                      |             |
|  | DRAWN                        | 23.09.2014 | HELIS_MA |  |                                      |             |
|  | RESPONSIBLE                  |            | KRUG_M   |  |                                      |             |
| SCALE: 2:1   | CHECKED                      | 18.08.2017 | HELIS_MA |  |                                      |             |
| SUPERSEDES: .  | APPROVED                     |            | LANG_T   | PRODUCT FILE: BVF 7.62HP   |                                      |             |
|  |                              |            |          | 7390   |                                      |             |