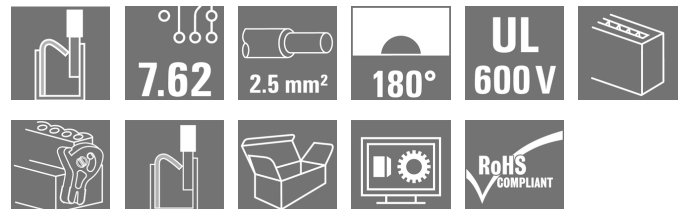


**BLF 7.62HP/09/180LR SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

Similar to illustration

180° female header with PUSH-IN connection technology for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1

Variants: without flange, external flange, release latch.

**General ordering data**

|              |                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 9, PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1227450000</a>                                                                                                |
| Type         | BLF 7.62HP/09/180LR SN BK BX                                                                                              |
| GTIN (EAN)   | 4050118011586                                                                                                             |
| Qty.         | 18 pc(s).                                                                                                                 |
| Product data | IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup><br>UL: 600 V / 20 A / AWG 20 - AWG 12                                      |
| Packaging    | Box                                                                                                                       |

Creation date March 23, 2021 9:59:56 AM CET

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 30.1 mm  | Depth (inches)  | 1.185 inch |
| Height     | 15.3 mm  | Height (inches) | 0.602 inch |
| Net weight | 26.778 g |                 |            |

**System Parameters**

|                                            |                                      |                                              |                        |
|--------------------------------------------|--------------------------------------|----------------------------------------------|------------------------|
| Product family                             | OMNIMATE Power - series BL/SL 7.62HP | Type of connection                           | Field connection       |
| Wire connection method                     | PUSH IN                              | Pitch in mm (P)                              | 7.62 mm                |
| Pitch in inches (P)                        | 0.3 inch                             | Number of poles                              | 9                      |
| L1 in mm                                   | 60.96 mm                             | L1 in inches                                 | 2.4 inch               |
| Number of rows                             | 1                                    | Pin series quantity                          | 1                      |
| Rated cross-section                        | 2.5 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                                | Can be coded                                 | Yes                    |
| Stripping length                           | 10 mm                                | Screwdriver blade                            | 0.6 x 3.5              |
| Plugging cycles                            | 25                                   | Plugging force/pole, max.                    | 8.5 N                  |
| Pulling force/pole, max.                   | 6 N                                  |                                              |                        |

**Material data**

|                                       |          |                                       |                            |
|---------------------------------------|----------|---------------------------------------|----------------------------|
| Insulating material                   | PBT      | Colour                                | black                      |
| Colour chart (similar)                | RAL 9011 | Insulating material group             | IIIa                       |
| Comparative Tracking Index (CTI)      | ≥ 200    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω        |
| UL 94 flammability rating             | V-0      | Contact material                      | Copper alloy               |
| Contact surface                       | tinned   | Layer structure of plug contact       | 4...8 µm Sn hot-dip 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.                                                | 0.08 mm <sup>2</sup> |
| Clamping range, max.                                                | 2.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min.                             | AWG 20               |
| Wire connection cross section AWG, max.                             | AWG 12               |
| Solid, min. H05(07) V-U                                             | 0.5 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U                                             | 1.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                          | 0.5 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K                                          | 2.5 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 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, min.                           | 0.5 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 2.5 mm <sup>2</sup>  |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.0 mm      |

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## Technical data

|                     |                                                                                                                                                                        |                              |                            |       |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|-------|--|
| Clampable conductor | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |  |
|                     |                                                                                                                                                                        | nominal                      | 0.5 mm²                    |       |  |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/16 OR</a> |       |  |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/10</a>    |       |  |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |  |
|                     |                                                                                                                                                                        | nominal                      | 0.75 mm²                   |       |  |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/16 W</a> |       |  |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/10</a>   |       |  |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |  |
|                     |                                                                                                                                                                        | nominal                      | 1 mm²                      |       |  |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 12 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/16D R</a> |       |  |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 10 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/10</a>    |       |  |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |  |
|                     |                                                                                                                                                                        | nominal                      | 1.5 mm²                    |       |  |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 10 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/10</a>    |       |  |
|                     |                                                                                                                                                                        | Stripping length             | nominal                    | 12 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/16 R</a>  |       |  |
|                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                 |       |  |
|                     |                                                                                                                                                                        | nominal                      | 2.5 mm²                    |       |  |
|                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                    | 10 mm |  |
|                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/10</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. |                              |                            |       |  |

## Rated data acc. to IEC

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 24 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 24 A                   | Rated current, min. number of poles (Tu=40°C)                         | 23.8 A            |
| Rated current, max. number of poles (Tu=40°C)                             | 21 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        | 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 | 8 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   | Short-time withstand current resistance                               | 3 x 1s with 180 A |

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## Technical data

## 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) | 21 A   |
| Rated current (Use group C / CSA) | 21 A   | Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 20 | Wire cross-section, AWG, max.     | AWG 12 |

## Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

|                                       |                                                                        |                                       |        |
|---------------------------------------|------------------------------------------------------------------------|---------------------------------------|--------|
| 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) | 20 A   |
| Rated current (Use group C / UL 1059) | 20 A                                                                   | Rated current (Use group D / UL 1059) | 5 A    |
| Wire cross-section, AWG, min.         | AWG 20                                                                 | Wire cross-section, AWG, max.         | AWG 12 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |                                       |        |

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 30 mm  |
| VPE width | 135 mm | VPE height | 350 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, date clock         |
|                                              | Evaluation | available                                                                        |
|                                              | Test       | durability                                                                       |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed                                                                           |
|                                              | Standard   | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08            |
|                                              | 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, DIN EN 60947-1 section 8.2.4.5.1 / 04.08 |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | solid 0.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 0.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | solid 2.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 2.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/19                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 14/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 12/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00                                                 |                              |
|                                                           | Requirement    | 0.3 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | H05V-U0.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | H05V-K0.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.7 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | H07V-U2.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | H07V-K2.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 14/1                     |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.9 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 12/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |

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**Technical data**

|               |                |                                               |           |
|---------------|----------------|-----------------------------------------------|-----------|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00            |           |
|               | Requirement    | ≥20 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 |
|               |                | Type of conductor and conductor cross-section | H05V-K0.5 |
|               |                | Type of conductor and conductor cross-section | AWG 20/1  |
|               |                | Type of conductor and conductor cross-section | AWG 20/19 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥50 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 |
|               |                | Type of conductor and conductor cross-section | H07V-K2.5 |
|               |                | Type of conductor and conductor cross-section | AWG 14/1  |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥60 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 12/19 |
|               | Evaluation     | passed                                        |           |

**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 | ECLASS 11.0 | 27-46-02-02 |

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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 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> <li>• Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E60693  |

**Downloads**

|                                             |                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                             |
| Engineering Data                            | <a href="#">STEP</a>                                                                        |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                |
| User Documentation                          | <a href="#">Operating Instruction BLF</a><br><a href="#">QR-Code product handling video</a> |

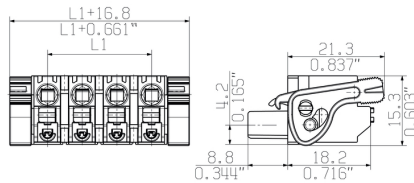
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## Drawings

### Dimensional drawing



### Graph



### Graph



### Product benefits



Vibration-proof connection

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Dimensions without tolerances are no check dimensions

The English version is binding

SHOWN: BLF7.62HP/04/ 180F

SHOWN: BLF7.62HP/04/ 180LR



M 1:1



M 1:1



SHOWN: BLF7.62HP/04/ 180



M 1:1



2-POL. VERSION NUR DIESER HAKEN  
2-POS. VERSION THIS HOOK ONLY

TEST POINT



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.

|    |         |           |
|----|---------|-----------|
| 12 | 83,82   | 3,300     |
| 11 | 76,20   | 3,000     |
| 10 | 68,58   | 2,700     |
| 9  | 60,96   | 2,400     |
| 8  | 53,34   | 2,100     |
| 7  | 45,72   | 1,800     |
| 6  | 38,10   | 1,500     |
| 5  | 30,48   | 1,200     |
| 4  | 22,86   | 0,900     |
| 3  | 15,24   | 0,600     |
| 2  | 7,62    | 0,300     |
| n  | L1 [mm] | L1 [Inch] |

|               |                                      |            |              |                            |            |                       |
|---------------|--------------------------------------|------------|--------------|----------------------------|------------|-----------------------|
|               | 97601/5<br>20.09.17 HELIS_MA 00      |            | Cat.no.: .   |                            |            |                       |
|               | GENERAL TOLERANCES<br>DIN ISO 2768-m |            | Modification |                            |            |                       |
|               | Drawn                                | 24.04.2017 | HELIS_MA     |                            | 3 46060 07 | Drawing no. Issue no. |
|               | Responsible                          |            | KRUG_M       |                            |            |                       |
|               | Checked                              | 20.09.2017 | HERTEL_S     |                            |            |                       |
| Scale: 2:1    | Approved                             |            | LANG_T       | Product file: BLF/SLF 7.62 |            |                       |
| Supersedes: . |                                      |            |              |                            | 7381       |                       |

**BLF 7.62HP/./180**  
BUCHSENLEISTE  
SOCKET BLOCK