

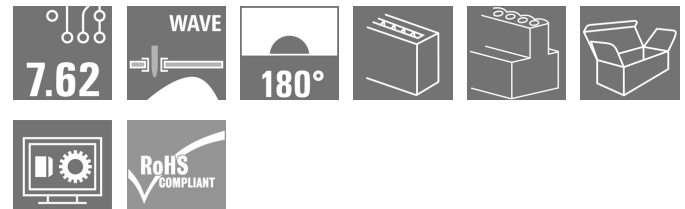
**BLL 7.62HP/05/180 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

180° female header for the PCB with a pitch of 7.62.  
Meets IEC 61800-5-1 requirements and enables UL approval as per UL840 600 V. Ideal touch-safe solution for the power output and intermediate circuit applications.  
The mating profile guarantees touch safety of >3 mm as per IEC61800-5-1.  
Variants: without flange, with screw flange or with soldered flange.

**General ordering data**

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, female header, closed side, THT solder connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box |
| Order No.    | <a href="#">1122100000</a>   |
| Type         | BLL 7.62HP/05/180 3.2SN BK BX  |
| GTIN (EAN)   | 4032248903009  |
| Qty.         | 48 pc(s).  |
| Product data | IEC: 630 V / 24 A<br>UL: 300 V / 20 A  |
| Packaging    | Box  |

Creation date May 19, 2024 1:33:33 PM CEST

Catalogue status 04.05.2024 / We reserve the right to make technical changes.

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 10.4 mm  | Depth (inches)  | 0.409 inch |
| Height     | 27.7 mm  | Height (inches) | 1.091 inch |
| Width      | 37.28 mm | Width (inches)  | 1.468 inch |
| Net weight | 7.687 g  |                 |            |

**System Parameters**

|  |                                      |  |                        |
|--|--------------------------------------|--|------------------------|
| Product family                             | OMNIMATE Power - series BL/SL 7.62HP | Type of connection                           | Board connection       |
| Pitch in mm (P)                            | 7.62 mm                              | Pitch in inches (P)                          | 0.3 "                  |
| Number of poles                            | 5                                    | L1 in mm                                     | 30.48 mm               |
| L1 in inches                               | 1.2 "                                | Number of rows                               | 1                      |
| Pin series quantity                        | 1                                    | 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                    |
| Plugging force/pole, max.                  | 10 N                                 | Pulling force/pole, max.                     | 7 N                    |

**Material data**

|                                       |                                |                                       |                            |
|---------------------------------------|--------------------------------|---------------------------------------|----------------------------|
| Insulating material                   | PA GF                          | Colour                                | black                      |
| Colour chart (similar)                | RAL 9011                       | Insulating material group             | IIIa                       |
| Comparative Tracking Index (CTI)      | ≥ 200                          | UL 94 flammability rating             | V-0                        |
| Contact material                      | Cu-alloy                       | Contact surface                       | tinned                     |
| Layer structure of solder connection  | 2...3 µm Ni / 2...4 µm Sn matt | 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                     |

**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)                         | 24 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 21 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 630 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 630 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 400 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 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 180 A |
| Clearance, min.   | 7.2 mm                 | Creepage distance, min.   | 7.8 mm            |

**Rated data acc. to CSA**

|                                   |       |                                   |       |
|-----------------------------------|-------|-----------------------------------|-------|
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group C / CSA) | 150 V |
| Rated voltage (Use group D / CSA) | 300 V | Rated current (Use group B / CSA) | 20 A  |
| Rated current (Use group C / CSA) | 20 A  | Rated current (Use group D / CSA) | 10 A  |

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**Technical data****Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group C / UL 1059) 150 V

Rated voltage (Use group D / UL 1059) 300 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) 10 A

Clearance distance, min. 7.2 mm

Creepage distance, min. 7.8 mm

Reference to approval values  
Specifications are maximum values, details - see approval certificate.**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 349 mm |
| VPE width | 137 mm | VPE height | 33 mm  |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | EC002637    | ETIM 9.0    | 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 |
| ECLASS 12.0 | 27-46-02-01 | ECLASS 13.0 | 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 variants on request
- Gold-plated contact surfaces on request
- Spacing between rows: see hole layout
- Rated current related to rated cross-section & min. No. of poles.
- 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

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



ROHS Conform

UL File Number Search UL Website

Certificate No. (cURus) E60693

**Downloads**Approval/Certificate/Document of Con-  
formity[Declaration of the Manufacturer](#)

Engineering Data

[CAD data – STEP](#)

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## BLL 7.62HP/05/180 3.2SN BK BX

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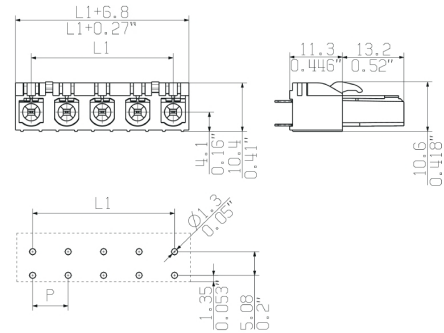
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## Drawings

## Product image



## Dimensional drawing



## Graph



## Graph



## Graph



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## Accessories

## Coding elements

**Only connects what is supposed to be connected:  
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

| Type       | BLZ/SL KO OR BX            | Version  | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No.  | <a href="#">1573010000</a> | PCB plug-in connector, Accessories, Coding element, orange, Number |              | Box       |
| GTIN (EAN) | 4008190048396              | of poles: 1  |              |           |
| Qty.       | 100 pc(s).                 |  |              |           |
| Type       | BLZ/SL KO BK BX            | Version  | Product data | Packaging |
| Order No.  | <a href="#">1545710000</a> | PCB plug-in connector, Accessories, Coding element, black, Number  |              | Box       |
| GTIN (EAN) | 4008190087142              | of poles: 1  |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |

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Dimensions without tolerances are no check dimensions

The English version is binding

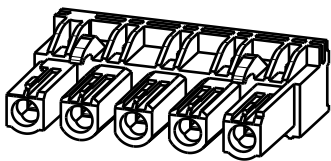
SHOWN: BLL7.62HP/05/180 3.2 SN



HOLE PATTERN



M 1:1



KUNDENZEICHNUNG  
CUSTOMER DRAWING

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.

|                 |
|-----------------|
| 3,2             |
| 4,5             |
| pin length<br>l |

|    |         |           |
|----|---------|-----------|
| 12 | 83,82   | 3,30      |
| 11 | 76,20   | 3,00      |
| 10 | 68,58   | 2,70      |
| 9  | 60,96   | 2,40      |
| 8  | 53,34   | 2,10      |
| 7  | 45,72   | 1,80      |
| 6  | 38,10   | 1,50      |
| 5  | 30,48   | 1,20      |
| 4  | 22,86   | 0,90      |
| 3  | 15,24   | 0,60      |
| 2  | 7,62    | 0,30      |
| n  | L1 (mm) | L1 (inch) |

|  |                |                              |            |           |                       |                         |
|--|----------------|------------------------------|------------|-----------|-----------------------|-------------------------|
|  | DIN ISO 2768-m | 94360/4<br>11.05.17 HELIS_MA | 00         |           | Cat.no.: .            | 3 50817 05              |
|  |                | Modification                 |            |           |                       |                         |
|  | Scale: 2:1     | Drawn                        | 21.09.2009 | HECKERT_M | Sheet 01              | of 03 sheets            |
|  | Supersedes: .  | Responsible                  |            | KRUG_M    | BLL 7.62HP/.. /180... | 7373                    |
|  |                | Checked                      | 08.06.2018 | HELIS_MA  |                       |                         |
|  |                |                              | Approved   |           | LANG_T                | Product file: BLL7.62HP |

## Recommended wave soldering profiles

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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.

We reserve the right to make technical changes.