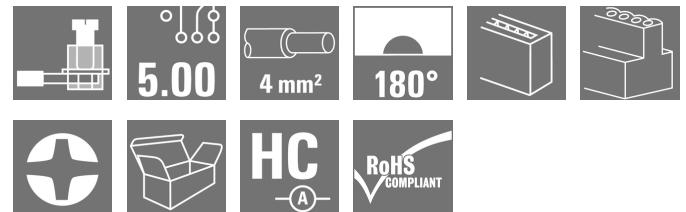


## OMNIMATE Signal - series BL/SL 5.00 BLZP 5.00HC/06/180 SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



Similar to illustration

Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

### General ordering data

|              |   |
|--------------|---|
| Type         | BLZP 5.00HC/06/180 SN OR BX   |
| Order No.    | <a href="#">1954450000</a>  |
| Version      | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box |
| GTIN (EAN)   | 4032248633166   |
| Qty.         | 60 pc(s).   |
| Product data | IEC: 400 V / 23 A / 0.2 - 4 mm²<br>UL: 300 V / 20 A / AWG 26 - AWG 12   |
| Packaging    | Box   |

Creation date May 17, 2020 6:14:29 PM CEST

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 30       | Width (inches)  | 1.181 inch |
| Height     | 16 mm    | Height (inches) | 0.63 inch  |
| Depth      | 20.1 mm  | Depth (inches)  | 0.791 inch |
| Net weight | 10.244 g |                 |            |

**System Parameters**

|  |  |                            |                       |
|--|--|----------------------------|-----------------------|
| Product family                               | OMNIMATE Signal - series BL/SL 5.00    | Type of connection         | Field connection      |
| Wire connection method                       | Clamping yoke connection               | Pitch in mm (P)            | 5 mm                  |
| Pitch in inches (P)                          | 0.197 inch                             | Conductor outlet direction | 180°                  |
| Number of poles                              | 6                                      | L1 in mm                   | 25 mm                 |
| L1 in inches                                 | 0.985 inch                             | Number of rows             | 1                     |
| Pin series quantity                          | 1                                      | Rated cross-section        | 4 mm <sup>2</sup>     |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch                 | Volume resistance          | ≤ 5mΩ                 |
| Can be coded                                 | Yes                                    | Stripping length           | 7 mm                  |
| Tightening torque, min.                      | 0.4 Nm                                 | Tightening torque, max.    | 0.5 Nm                |
| Clamping screw                               | M 2.5                                  | Screwdriver blade          | 0.6 x 3.5, PH 1, PZ 1 |
| Screwdriver blade standard                   | DIN 5264, ISO 8764/2-PH, ISO 8764/2-PZ | Plugging cycles            | 25                    |
| Plugging force/pole, max.                    | 10 N                                   | Pulling force/pole, max.   | 9 N                   |

**Material data**

|                                       |                          |                                       |                     |
|---------------------------------------|--------------------------|---------------------------------------|---------------------|
| Insulating material                   | PBT                      | Colour                                | orange              |
| Colour chart (similar)                | RAL 2000                 | Insulating material group             | Illa                |
| Comparative Tracking Index (CTI)      | ≥ 200                    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0                      | GWFI                                  | 960 °C              |
| Contact material                      | Copper alloy             | Contact surface                       | tinned              |
| Layer structure of plug contact       | 4-8 μm Sn hot-dip tinned | Storage temperature, min.             | -25 °C              |
| Storage temperature, max.             | 50 °C                    | Max. relative humidity during storage | 70 %                |
| 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.  | 0.13 mm <sup>2</sup> |
| Clamping range, max.  | 4 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.                             | AWG 30               |
| Wire connection cross section AWG, max.                             | AWG 12               |
| Solid, min. H05(07) V-U   | 0.2 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U   | 4 mm <sup>2</sup>    |
| Flexible, min. H05(07) V-K  | 0.2 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K  | 4 mm <sup>2</sup>    |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 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.                           | 0.2 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 4 mm <sup>2</sup>    |

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### Technical data

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.4 mm

|                     |  |                              |                         |
|---------------------|--|------------------------------|-------------------------|
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |  | nominal                      | 0.5 mm <sup>2</sup>     |
| wire end ferrule    |  | Stripping length             | nominal 6 mm            |
|                     |  | Recommended wire-end ferrule | <a href="#">H0.5/6</a>  |
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |  | nominal                      | 1 mm <sup>2</sup>       |
| wire end ferrule    |  | Stripping length             | nominal 6 mm            |
|                     |  | Recommended wire-end ferrule | <a href="#">H1.0/6</a>  |
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |  | nominal                      | 1.5 mm <sup>2</sup>     |
| wire end ferrule    |  | Stripping length             | nominal 7 mm            |
|                     |  | Recommended wire-end ferrule | <a href="#">H1.5/7</a>  |
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |  | nominal                      | 2.5 mm <sup>2</sup>     |
| wire end ferrule    |  | Stripping length             | nominal 7 mm            |
|                     |  | Recommended wire-end ferrule | <a href="#">H2.5/7</a>  |
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |  | nominal                      | 0.75 mm <sup>2</sup>    |
| wire end ferrule    |  | Stripping length             | nominal 6 mm            |
|                     |  | Recommended wire-end ferrule | <a href="#">H0.75/6</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.

Max. clamping range 4 mm<sup>2</sup>

### Rated data acc. to IEC

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 23 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 18 A                   | Rated current, min. number of poles (Tu=40°C)                         | 21 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 16 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 400 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 250 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 | 4 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV                   | Short-time withstand current resistance                               | 3 x 1s with 120 A |

### Rated data acc. to CSA

|                                   |   |                                   |  |
|-----------------------------------|---|-----------------------------------|--|
| Institute (CSA)                   |  | Certificate No. (CSA)             | 200039-1121690   |
| Rated voltage (Use group B / CSA) | 300 V   | Rated voltage (Use group C / CSA) | 50 V   |
| Rated voltage (Use group D / CSA) | 300 V   | Rated current (Use group B / CSA) | 20 A   |
| Rated current (Use group D / CSA) | 20 A  | Wire cross-section, AWG, min.     | AWG 30   |
| Wire cross-section, AWG, max.     | AWG 12  | Reference to approval values      | Specifications are maximum values, details - see approval certificate. |

**Data sheet**

**OMNIMATE Signal - series BL/SL 5.00  
BLZP 5.00HC/06/180 SN OR BX**

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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 D / UL 1059) | 300 V  |
| Rated current (Use group B / UL 1059) | 20 A   | Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 26   | 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 |

**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 | UNSPSC     | 30-21-18-01 |

**Notes**

Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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.

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.

**Approvals**

Approvals



ROHS

Conform

**Data sheet****OMNIMATE Signal - series BL/SL 5.00  
BLZP 5.00HC/06/180 SN OR BX**

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**Technical data****Downloads**

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>   |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL BASE STATION EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">STEP</a>  |

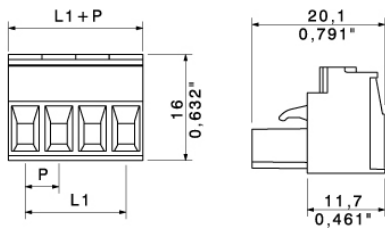
**Data sheet**

**OMNIMATE Signal - series BL/SL 5.00  
BLZP 5.00HC/06/180 SN OR BX**

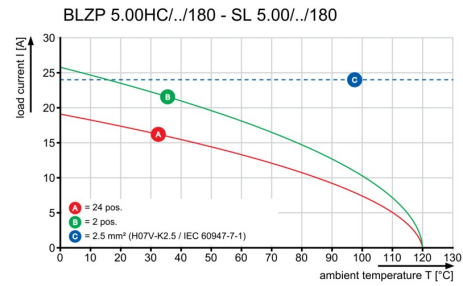
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**Drawings**

**Dimensional drawing**



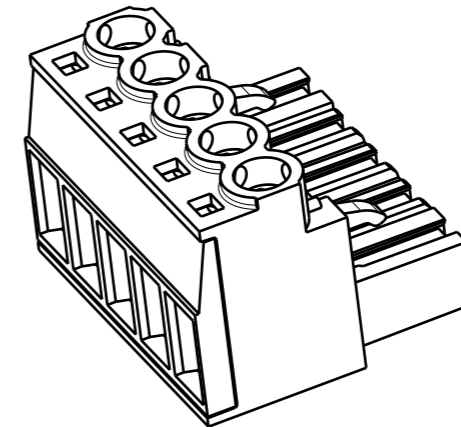
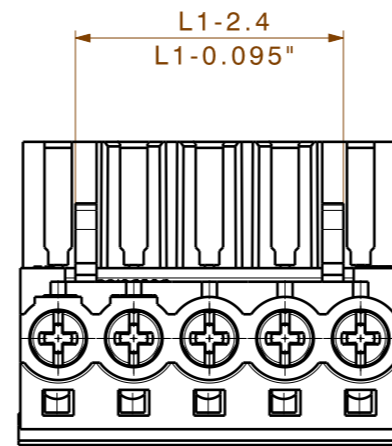
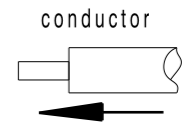
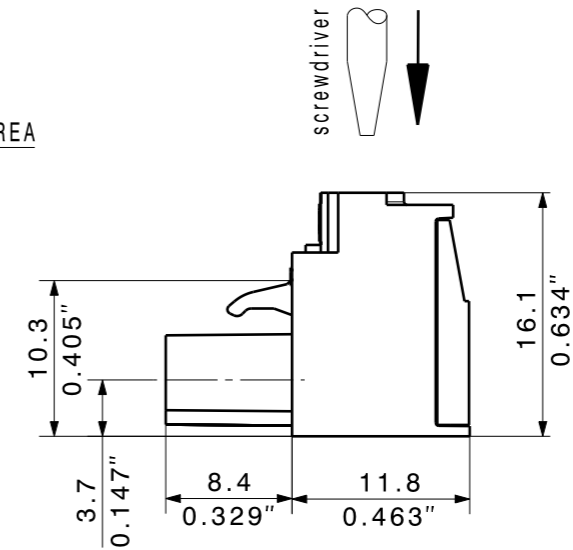
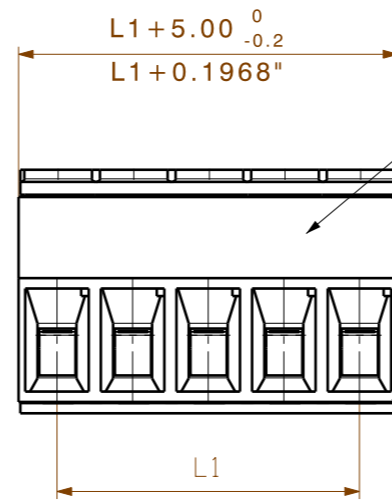
**Graph**



MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
 THE GERMAN VERSION IS BINDING

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
 ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.  
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|    |         |           |
|----|---------|-----------|
| 24 | 115,00  | 4,530     |
| 23 | 110,00  | 4,333     |
| 22 | 105,00  | 4,136     |
| 21 | 100,00  | 3,939     |
| 20 | 95,00   | 3,742     |
| 19 | 90,00   | 3,545     |
| 18 | 85,00   | 3,348     |
| 17 | 80,00   | 3,151     |
| 16 | 75,00   | 2,954     |
| 15 | 70,00   | 2,757     |
| 14 | 65,00   | 2,560     |
| 13 | 60,00   | 2,363     |
| 12 | 55,00   | 2,166     |
| 11 | 50,00   | 1,969     |
| 10 | 45,00   | 1,772     |
| 9  | 40,00   | 1,575     |
| 8  | 35,00   | 1,378     |
| 7  | 30,00   | 1,181     |
| 6  | 25,00   | 0,984     |
| 5  | 20,00   | 0,787     |
| 4  | 15,00   | 0,590     |
| 3  | 10,00   | 0,393     |
| 2  | 5,00    | 0,196     |
| n  | L1 [mm] | L1 [Inch] |

P = 5.00 RASTER/PITCH  
 n = POLZAHL/NO OF POLES

SHOWN: BLZP 5.00HC/05/180

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.

|   |  |                                 |            |  |   |
|---|--|---------------------------------|------------|--|---|
| <b>GENERAL TOLERANCE:</b><br>DIN ISO 2768-m |  | 78305/4<br>10.06.15 HERTEL_S 01 |            | CAT.NO.:                                   |   |
|   |  | <b>MODIFICATION</b>             |            |  |   |
|   |  | DATE                            | NAME       | <b>C 42480 09</b><br>DRAWING NO. ISSUE NO. |   |
| SCALE: 2:1                                  |  | DRAWN                           | 10.06.2015 | HERTEL_S                                   | <b>BLZP 5.00HC/././180..</b><br>BUCHSENLEISTE<br>SOCKET BLOCK |
| SUPERSEDES: .                               |  | RESPONSIBLE                     |            | KRUG_M                                     |   |
|   |  | CHECKED                         | 15.06.2015 | HELIŞ_MA                                   |   |
|   |  | APPROVED                        |            | LANG_T                                     | PRODUCT FILE: BLZP 5.0X WG 180 7157                           |

SHEET 01 OF 03 SHEETS