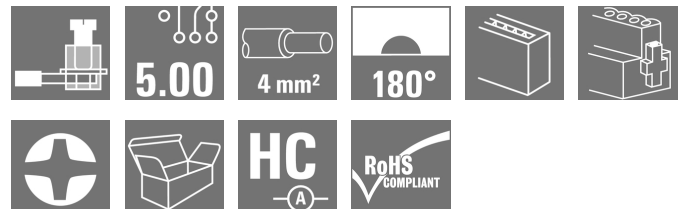


**OMNIMATE Signal - series BL/SL 5.00**  
**BLZP 5.00HC/19/180F SN BK BX**

**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**

|                 |                                                                                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------|
| Delivery status | Discontinued                                                                                                                       |
| Available until | 2016-04-08                                                                                                                         |
| Type            | BLZP 5.00HC/19/180F SN BK BX                                                                                                       |
| Order No.       | <a href="#">1955860000</a>                                                                                                         |
| Version         | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 19, 180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box |
| GTIN (EAN)      | 4032248634415                                                                                                                      |
| Qty.            | 12 pc(s).                                                                                                                          |
| Product data    | IEC: 400 V / 23 A / 0.2 - 4 mm²<br>UL: 300 V / 20 A / AWG 26 - AWG 12                                                              |

Creation date August 09, 2020 1:22:14 AM CEST

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

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 105     | Width (inches)  | 4.134 inch |
| Height     | 16.1 mm | Height (inches) | 0.634 inch |
| Depth      | 20.1 mm | Depth (inches)  | 0.791 inch |
| Net weight | 38.25 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                              | 19                                     | L1 in mm                                 | 90 mm                 |
| L1 in inches                                 | 3.546 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 for screw flange, min.     | 0.15 Nm                                | Tightening torque for screw flange, max. | 0.2 Nm                |
| 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                                | 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                        | 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.             | -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.                                                | 0.13 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>  |      |
|                     | 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>  |      |
|                     | 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>  |      |
|                     | 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>  |      |
|                     | 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. |

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

|                                       |                                                                                   |                                       |        |
|---------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------|--------|
| Institute (UR)                        |  | Certificate No. (UR)                  | E60693 |
| 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 | 22 mm  |
| VPE width | 175 mm | VPE height | 300 mm |

**Classifications**

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

**Notes**

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |
| 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                                                                              |

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## Technical data

### Downloads

Approval/Certificate/Document of  
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

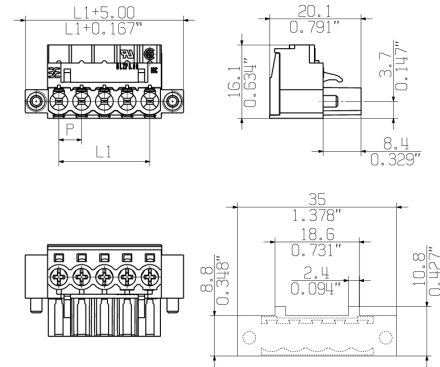
[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[CAT 2 PORTFOLIOGUIDE EN](#)  
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[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

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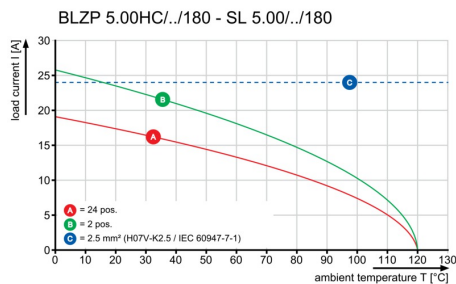
# Drawings

## Dimensional drawing



MIN. FRONT PLATE CUT-OUT

## Graph

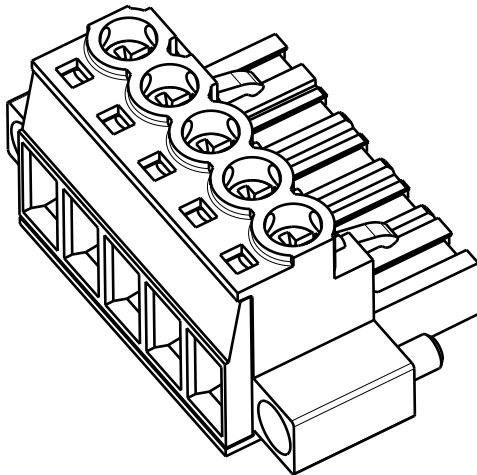
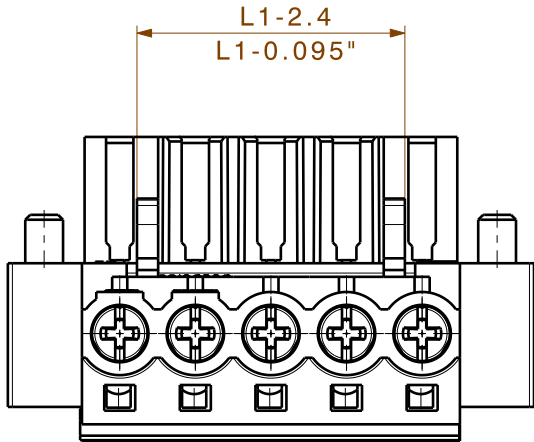
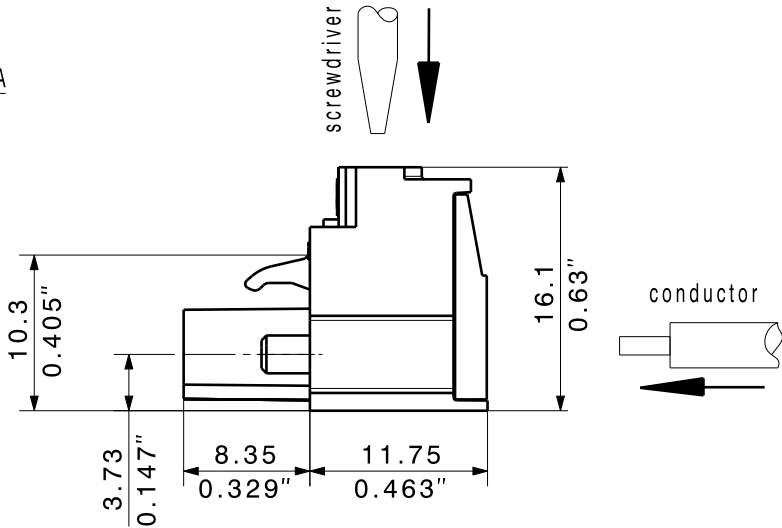
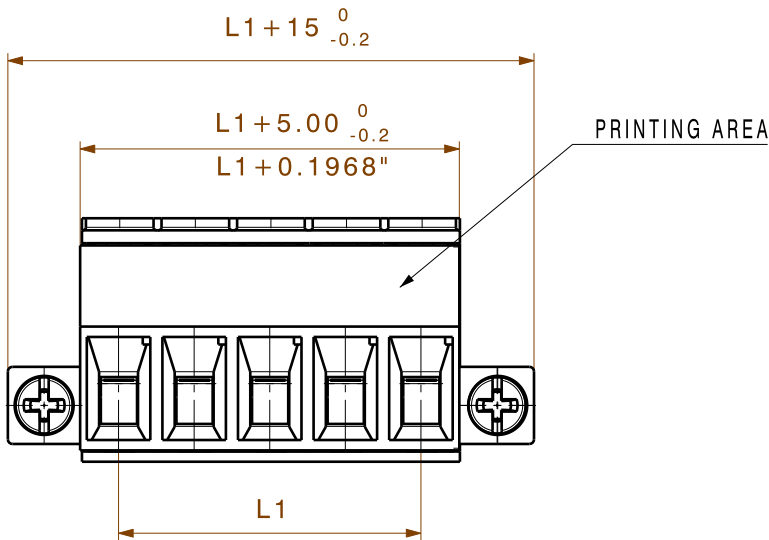


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DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



|    |         |           |
|----|---------|-----------|
| 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/05/180F

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.

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

C 42480 09  
DRAWING NO. SHEET 03 OF 03 SHEETS