

**BLZP 5.00HC/20/180 SN OR BX****Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

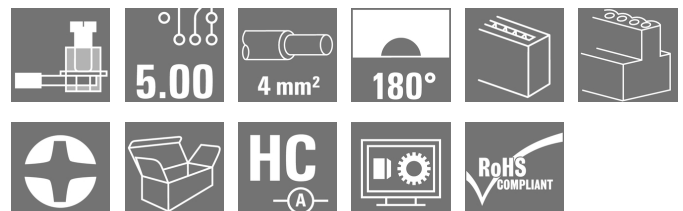
32760 Detmold

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**Product image**

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**

|              |                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 20, 180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box |
| Order No.    | <a href="#">1954300000</a>                                                                                                          |
| Type         | BLZP 5.00HC/20/180 SN OR BX                                                                                                         |
| GTIN (EAN)   | 4032248633029                                                                                                                       |
| Qty.         | 18 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                                                                                                                                 |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 20.1 mm | Depth (inches)  | 0.791 inch |
| Height     | 16 mm   | Height (inches) | 0.63 inch  |
| Width      | 100 mm  | Width (inches)  | 3.937 inch |
| Net weight | 32.1 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                              | 20                                     |                   |                            |
| L1 in mm                                     | 95 mm                                  |                   |                            |
| L1 in inches                                 | 3.743 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                 |                   |                            |
| Protection degree                            | IP20                                   |                   |                            |
| Volume resistance                            | ≤5 mΩ                                  |                   |                            |
| Can be coded                                 | Yes                                    |                   |                            |
| Stripping length                             | 7 mm                                   |                   |                            |
| 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                                    |                   |                            |
| Tightening torque                            | Torque type                            | Wire connection   |                            |
|                                              | Usage information                      | Tightening torque | min. 0.4 Nm<br>max. 0.5 Nm |

## Material data

|                                       |          |                                       |                                            |
|---------------------------------------|----------|---------------------------------------|--------------------------------------------|
| Insulating material                   | PBT      | Colour                                | orange                                     |
| Colour chart (similar)                | RAL 2000 | Insulating material group             | IIIa                                       |
| Comparative Tracking Index (CTI)      | ≥ 200    | Insulation strength                   | ≥ 10 <sup>&lt;sup&gt;8&lt;/sup&gt;</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.                    | 0.13 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>  |

Creation date September 17, 2022 7:51:51 PM CEST

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**Technical data**

|                                                                                                                                                                        |                                        |                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------|
| Solid, max. H05(07) V-U                                                                                                                                                | 4 mm <sup>2</sup>                      |                                                      |
| Stranded, min. H07V-R                                                                                                                                                  | 0.2 mm <sup>2</sup>                    |                                                      |
| Stranded, max. H07V-R                                                                                                                                                  | 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.                                                                                                                              | 2.5 mm <sup>2</sup>                    |                                                      |
| 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>  |
| Reference text                                                                                                                                                         | 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> |
| 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)                         | 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 |

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**Technical data****Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

www.weidmueller.com

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.

Reference to approval values

Specifications are maximum values, details - see approval certificate.

AWG 12

**Packing**

Packaging

Box

VPE length

338 mm

VPE width

130 mm

VPE height

27 mm

**Classifications**

ETIM 6.0

EC002638

ETIM 7.0

EC002638

ETIM 8.0

EC002638

ECLASS 9.0

27-44-03-09

ECLASS 9.1

27-44-03-09

ECLASS 10.0

27-44-03-09

ECLASS 11.0

27-46-02-02

ECLASS 12.0

27-46-02-02

**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
- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

**Approvals**

Approvals



ROHS

Conform

Certificate No. (cURus)

E60693

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[info@weidmueller.com](mailto:info@weidmueller.com)[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Downloads**

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</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><br><a href="#">PO OMNIMATE EN</a> |

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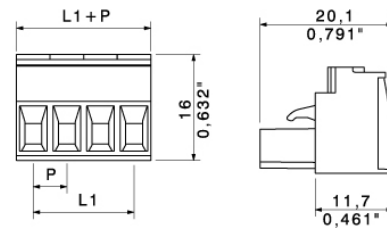
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# Drawings

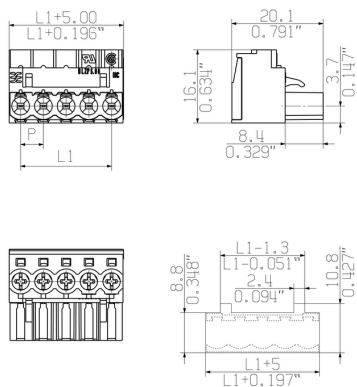
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## Product image

## Dimensional drawing

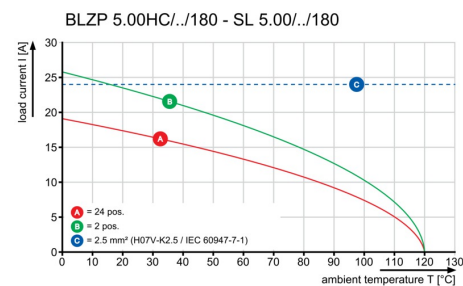


## Dimensional drawing



MIN. FRONT PLATE CUT-OUT

## Graph

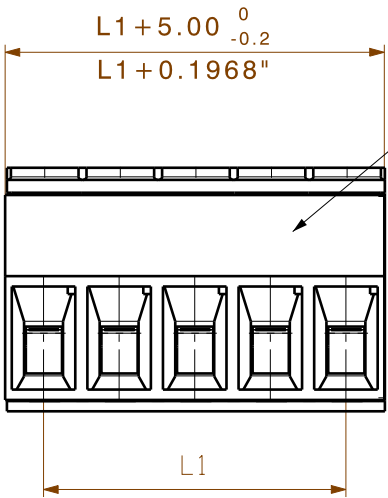


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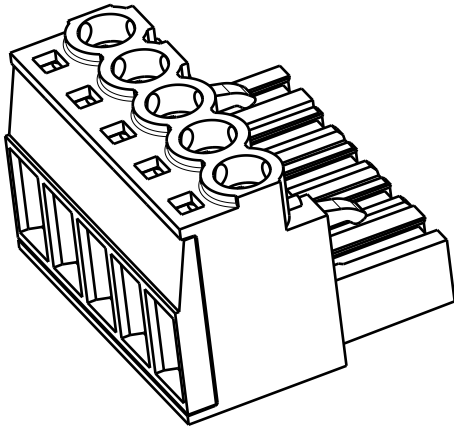
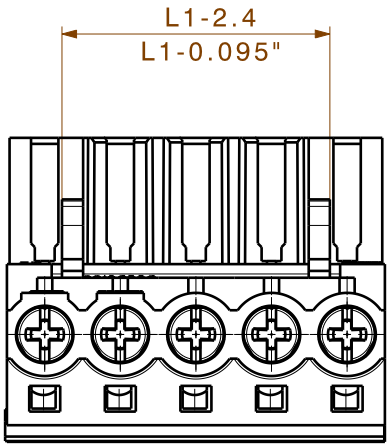
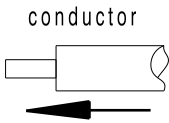
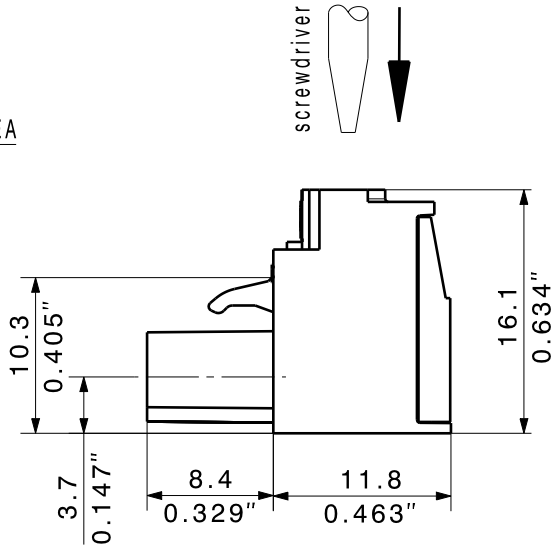
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DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



PRINTING AREA



|    |         |           |
|----|---------|-----------|
| 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.

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

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