

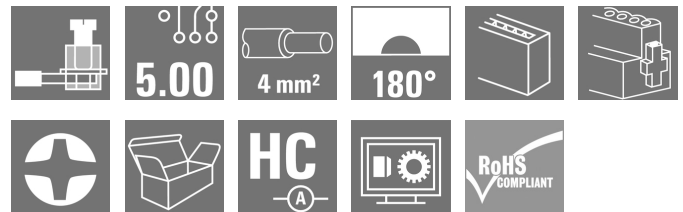
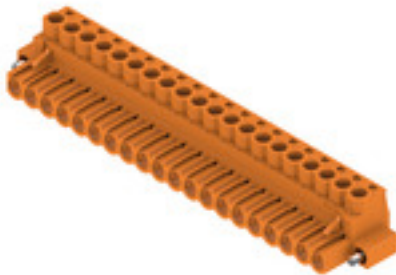
BLZP 5.00HC/20/180F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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. | 1955620000 |
| Type | BLZP 5.00HC/20/180F SN OR BX |
| GTIN (EAN) | 4032248634156 |
| Qty. | 12 pc(s). |
| Product data | IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12 |
| Packaging | Box |

Creation date June 2, 2024 12:34:17 AM CEST

Catalogue status 18.05.2024 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Depth | 20.1 mm | Depth (inches) | 0.791 inch |
| Height | 16.1 mm | Height (inches) | 0.634 inch |
| Width | 110 mm | Width (inches) | 4.331 inch |
| Net weight | 35.94 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 " | | |
| Conductor outlet direction | 180° | | |
| Number of poles | 20 | | |
| L1 in mm | 95 mm | | |
| L1 in inches | 3.743 " | | |
| Number of rows | 1 | | |
| Pin series quantity | 1 | | |
| Rated cross-section | 4 mm ² | | |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | | |
| Touch-safe protection acc. to DIN VDE 0470 | IP20 plugged/ IP10 unplugged | | |
| 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 |
| | | | max. 0.5 Nm |
| | Torque type | Screw flange | |
| | Usage information | Tightening torque | min. 0.2 Nm |
| | | | max. 0.25 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>8</sup>} Ω |
| UL 94 flammability rating | V-0 | Contact material | Cu-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 ² |
| Clamping range, max. | 4 mm ² |

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Technical data

| | | | | |
|---|--|------------------------------|-------------------------|------|
| Wire connection cross section AWG, min. | AWG 30 | | | |
| Wire connection cross section AWG, max. | AWG 12 | | | |
| Solid, min. H05(07) V-U | 0.2 mm² | | | |
| Solid, max. H05(07) V-U | 4 mm² | | | |
| Flexible, min. H05(07) V-K | 0.2 mm² | | | |
| Flexible, max. H05(07) V-K | 4 mm² | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm² min. | | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm² max. | | | | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.2 mm² | | | |
| w. wire end ferrule, DIN 46228 pt 1, max. | 4 mm² | | | |
| 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 mm² | |
| | wire end ferrule | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H0.5/6 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1 mm² | |
| | wire end ferrule | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H1.0/6 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1.5 mm² | |
| | wire end ferrule | Stripping length | nominal | 7 mm |
| | | Recommended wire-end ferrule | H1.5/7 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 2.5 mm² | |
| | wire end ferrule | Stripping length | nominal | 7 mm |
| | | Recommended wire-end ferrule | H2.5/7 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 0.75 mm² | |
| | wire end ferrule | Stripping length | nominal | 6 mm |
| | | Recommended wire-end ferrule | H0.75/6 | |

| | |
|----------------|--|
| 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) | 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)

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

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 | 338 mm |
| VPE width | 130 mm | VPE height | 27 mm |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | 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 | ECLASS 13.0 | 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"> • 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. • 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 |

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Product Change Notification | 20220106 BLT and BLZP in pitch 5.0x – Addition of a screw locking 20220106 BLT und BLZP im Raster 5.0x – Ergänzung einer Schraubensicherung |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL BASE STATION EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN |

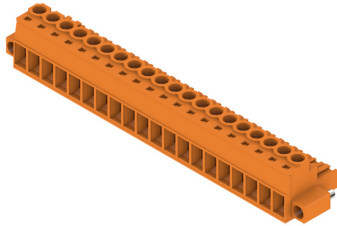
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Drawings
Product image

Dimensional drawing

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

Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

General ordering data

| Type | SDS 0.6X3.5X100 | Version |
|------------|----------------------------|---|
| Order No. | 2749340000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

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www.weidmueller.com**Accessories****Crosshead screwdriver Pozidriv**

Crosshead screwdriver, Pozidriv, SDK PZ DIN 5262, ISO 8764/2-PZ, output to ISO 8764/1-PZ, ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDK PZ1 X 80 | Version |
| Order No. | 2749440000 | Screwdriver, Blade width (B): 80 mm, Blade thickness (A): |
| GTIN (EAN) | 4050118895667 | |
| Qty. | 1 pc(s). | |

Crosshead screwdriver Phillips

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDK PH1 X 80 | Version |
| Order No. | 2749410000 | Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): |
| GTIN (EAN) | 4050118895636 | |
| Qty. | 1 pc(s). | |

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

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www.weidmueller.com**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDIS 0.6X3.5X100 | Version |
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118897012 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

Strain reliefs**For frequent load changes: the "trailer coupling" for plug-in connectors.**

The strain relief can do more than just relieve the strain on conductors:

Simply clip onto the plug and

- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.

User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

General ordering data

| | | | | |
|------------|----------------------------|--|--------------|-----------|
| Type | BLZ 5.00 ZE08 OR BX | Version | Product data | Packaging |
| Order No. | 1652040000 | PCB plug-in connector, Accessories, Strain relief, orange, Number of | | Box |
| GTIN (EAN) | 4008190401719 | poles: 8 | | |
| Qty. | 50 pc(s). | | | |
| Type | BLZ 5.00 ZE04 OR BX | Version | Product data | Packaging |
| Order No. | 1652100000 | PCB plug-in connector, Accessories, Strain relief, orange, Number of | | Box |
| GTIN (EAN) | 4008190401771 | poles: 4 | | |
| Qty. | 50 pc(s). | | | |

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

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: DIN ISO 2768-m | | 78305/4 10.06.15 HERTEL_S 01 | | CAT.NO.: | |
| | | MODIFICATION | | Weidmüller | |
| | | DATE | NAME | BLZP 5.00HC/././180.. BUCHSENLEISTE 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 7157 | |
| SUPERSEDES: . | | APPROVED | LANG_T | | |