

**BLZP 5.08HC/24/180 SN OR BX PRT**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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**

|              |                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24, 180°, Clamping yoke connection, Clamping range, max.: 4 mm², Box |
| Order No.    | <a href="#">2018830000</a>                                                                                                         |
| Type         | BLZP 5.08HC/24/180 SN OR BX PRT                                                                                                    |
| GTIN (EAN)   | 4050118402216                                                                                                                      |
| 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                                                              |
| Packaging    | Box                                                                                                                                |

Creation date April 15, 2021 7:58:13 PM CEST

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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  |
| Net weight     | 35.672 g | Width           | 121.92 mm  |
| Width (inches) | 4.8 inch |                 |            |

## System Parameters

|                                              |                                        |                   |                            |
|----------------------------------------------|----------------------------------------|-------------------|----------------------------|
| Product family                               | OMNIMATE Signal - series BL/SL 5.08    |                   |                            |
| Type of connection                           | Field connection                       |                   |                            |
| Wire connection method                       | Clamping yoke connection               |                   |                            |
| Pitch in mm (P)                              | 5.08 mm                                |                   |                            |
| Pitch in inches (P)                          | 0.2 inch                               |                   |                            |
| Conductor outlet direction                   | 180°                                   |                   |                            |
| Number of poles                              | 24                                     |                   |                            |
| L1 in mm                                     | 116.84 mm                              |                   |                            |
| L1 in inches                                 | 4.6 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                            | ≤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>8</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>  |
| Solid, max. H05(07) V-U                 | 4 mm <sup>2</sup>    |

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|                                                                     |                                                                                                                                                                        |                              |                        |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|
| 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>                                                                                                                                                      |                              |                        |
| 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> |
| 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

23 mm

VPE width

135 mm

VPE height

350 mm

**Type tests**

Test: Durability of markings

Standard

DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96

Test

mark of origin, rated voltage, rated cross-section, type of material

Evaluation

available

Test

durability

Evaluation

passed

Test: Misengagement (Non-interchangeability)

Standard

DIN EN 60512-13-5 / 11.06, IEC 60512-13-5 / 02.06

Test

180° turned with coding elements

Evaluation

passed

Test

visual examination

Evaluation

passed

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**Technical data**

|                                                           |                |                                                                                    |                              |
|-----------------------------------------------------------|----------------|------------------------------------------------------------------------------------|------------------------------|
| Test: Clampable cross section                             | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | solid 0.2 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 0.2 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | solid 2.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 2.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 26/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 26/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00                                                 |                              |
|                                                           | Requirement    | 0.2 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 26/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 26/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.3 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | solid 0.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 0.5 mm <sup>2</sup> |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.9 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 12/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 12/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |

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| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00            |           |
|               | Requirement    | ≥10 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 26/1  |
|               |                | Type of conductor and conductor cross-section | AWG 26/19 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥20 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 |
|               |                | Type of conductor and conductor cross-section | H05V-K0.5 |
|               | Evaluation     | passed                                        |           |
|               | Requirement    | ≥60 N                                         |           |
|               | Conductor type | Type of conductor and conductor cross-section | H07V-U4.0 |
|               |                | Type of conductor and conductor cross-section | H07V-K4.0 |
|               |                | Type of conductor and conductor cross-section | AWG 12/1  |
|               |                | Type of conductor and conductor cross-section | AWG 12/19 |
|               | Evaluation     | passed                                        |           |

**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 | ECLASS 11.0 | 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 | <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> |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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### Approvals

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E60693  |

### Downloads

|                                             |                                                                 |
|---------------------------------------------|-----------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CB Certificate</a><br><a href="#">CB Testreport</a> |
| Brochure/Catalogue                          | <a href="#">Catalogues in PDF-format</a>                        |

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# Drawings

## Dimensional drawing



## Graph



## Graph

