

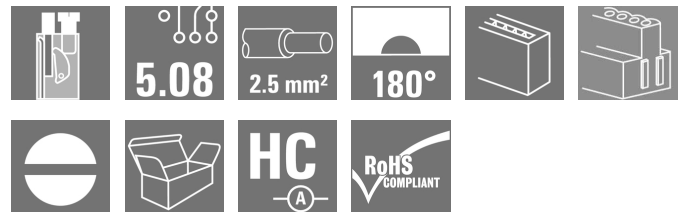
**BLT 5.08HC/03/180B SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

|              |                                                                                                                            |
|--------------|----------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 3, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box |
| Order No.    | <a href="#">1501910000</a>                                                                                                 |
| Type         | BLT 5.08HC/03/180B SN BK BX                                                                                                |
| GTIN (EAN)   | 4008190863661                                                                                                              |
| Qty.         | 102 pc(s).                                                                                                                 |
| Product data | IEC: 400 V / 27 A / 0.2 - 2.5 mm²<br>UL: 300 V / 17 A / AWG 26 - AWG 14                                                    |
| Packaging    | Box                                                                                                                        |

Creation date September 16, 2022 6:42:55 AM CEST

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 31.8 mm  | Depth (inches)  | 1.252 inch |
| Height     | 12.2 mm  | Height (inches) | 0.48 inch  |
| Width      | 17.26 mm | Width (inches)  | 0.68 inch  |
| Net weight | 9.34 g   |                 |            |

**System Parameters**

|                                              |                                     |                   |                            |
|----------------------------------------------|-------------------------------------|-------------------|----------------------------|
| Product family                               | OMNIMATE Signal - series BL/SL 5.08 |                   |                            |
| Type of connection                           | Field connection                    |                   |                            |
| Wire connection method                       | TOP connection                      |                   |                            |
| Pitch in mm (P)                              | 5.08 mm                             |                   |                            |
| Pitch in inches (P)                          | 0.2 inch                            |                   |                            |
| Conductor outlet direction                   | 180°                                |                   |                            |
| Number of poles                              | 3                                   |                   |                            |
| L1 in mm                                     | 10.16 mm                            |                   |                            |
| L1 in inches                                 | 0.4 inch                            |                   |                            |
| Number of rows                               | 1                                   |                   |                            |
| Pin series quantity                          | 1                                   |                   |                            |
| Rated cross-section                          | 2.5 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                             | 13 mm                               |                   |                            |
| Clamping screw                               | M 2.5                               |                   |                            |
| Screwdriver blade                            | 0.6 x 3.5                           |                   |                            |
| Screwdriver blade standard                   | DIN 5264                            |                   |                            |
| Plugging cycles                              | 25                                  |                   |                            |
| Plugging force/pole, max.                    | 8 N                                 |                   |                            |
| Pulling force/pole, max.                     | 7 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                                | black  |
| Colour chart (similar)                | RAL 9011                   | Insulating material group             | IIIa   |
| Comparative Tracking Index (CTI)      | ≥ 200                      | UL 94 flammability rating             | V-0    |
| Contact material                      | CuSn                       | 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.                    | 2.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min. | AWG 28               |
| Wire connection cross section AWG, max. | AWG 14               |
| Solid, min. H05(07) V-U                 | 0.2 mm <sup>2</sup>  |

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|                                                                     |                                                                                                                                                                        |                              |                             |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| Solid, max. H05(07) V-U                                             | 2.5 mm <sup>2</sup>                                                                                                                                                    |                              |                             |
| Flexible, min. H05(07) V-K                                          | 0.2 mm <sup>2</sup>                                                                                                                                                    |                              |                             |
| Flexible, max. H05(07) V-K                                          | 2.5 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, 1.5 mm <sup>2</sup> max. |                                                                                                                                                                        |                              |                             |
| w. wire end ferrule, DIN 46228 pt 1, 0.2 mm <sup>2</sup> min.       |                                                                                                                                                                        |                              |                             |
| w. wire end ferrule, DIN 46228 pt 1, 1.5 mm <sup>2</sup> max.       |                                                                                                                                                                        |                              |                             |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.4 mm x 1.5 mm ; 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 14 mm               |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |
|                                                                     |                                                                                                                                                                        | nominal                      | 1 mm <sup>2</sup>           |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal 15 mm               |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</a>  |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |
|                                                                     |                                                                                                                                                                        | nominal                      | 1.5 mm <sup>2</sup>         |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal 15 mm               |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |
|                                                                     |                                                                                                                                                                        | Stripping length             | nominal 12 mm               |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.5/12</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)                         | 27 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 19 A                   | Rated current, min. number of poles (Tu=40°C)                         | 24 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 100 A |

## BLT 5.08HC/03/180B SN BK BX

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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 current (Use group B / CSA) | 15 A                                                                   |
| Wire cross-section, AWG, min.     | AWG 26                                                                 |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |

|                                   |        |
|-----------------------------------|--------|
| Rated voltage (Use group D / CSA) | 300 V  |
| Rated current (Use group D / CSA) | 15 A   |
| Wire cross-section, AWG, max.     | AWG 14 |

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 338 mm |
| VPE width | 130 mm | VPE height | 33 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, type of material, date clock                                       |                               |
|                                              | Evaluation     | available                                                                          |                               |
|                                              | Test           | durability                                                                         |                               |
| Test: Misengagement (Non-interchangeability) | Evaluation     | passed                                                                             |                               |
|                                              | Standard       | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06              |                               |
|                                              | Test           | 180° turned with coding elements                                                   |                               |
|                                              | Evaluation     | passed                                                                             |                               |
| Test: Misengagement (Non-interchangeability) | Test           | visual examination                                                                 |                               |
|                                              | Evaluation     | passed                                                                             |                               |
| 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 0.08 mm <sup>2</sup>    |
|                                              |                | Type of conductor and conductor cross-section                                      | stranded 0.08 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                     |
|                                              |                | Type of conductor and conductor cross-section                                      | AWG 14/1                      |
|                                              |                | Type of conductor and conductor cross-section                                      | AWG 14/19                     |
|                                              | Evaluation     | passed                                                                             |                               |

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**Technical data**

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 28/1                     |
|                | 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    | 0.7 kg                                        |                              |
| Conductor type | 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 14/1                     |
|                | Type of conductor and conductor cross-section | AWG 14/19                    |
| Evaluation     | passed                                        |                              |

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|               |                |                                               |                              |
|---------------|----------------|-----------------------------------------------|------------------------------|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00            |                              |
|               | Requirement    | ≥5 N                                          |                              |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 28/1                     |
|               | Evaluation     | passed                                        |                              |
|               | Requirement    | ≥10 N                                         |                              |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 26/19                    |
|               | Evaluation     | passed                                        |                              |
|               | Requirement    | ≥20 N                                         |                              |
|               | 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    | ≥40 N                                         |                              |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 14/1                     |
|               |                | Type of conductor and conductor cross-section | AWG 14/19                    |
|               | Evaluation     | passed                                        |                              |
|               | Requirement    | ≥50 N                                         |                              |
|               | Conductor type | 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> |
|               | Evaluation     | passed                                        |                              |

**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 |

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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"> <li>• Additional variants 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>• Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.</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> |

**Approvals**

Approvals



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

**Downloads**

|                                             |                                                                 |
|---------------------------------------------|-----------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CB Certificate</a><br><a href="#">CB Testreport</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                 |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                        |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">FL DRIVES DE</a>    |

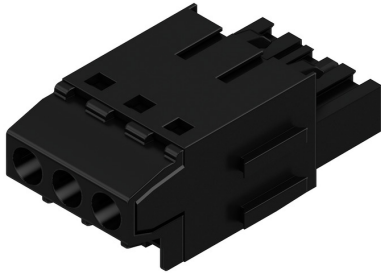
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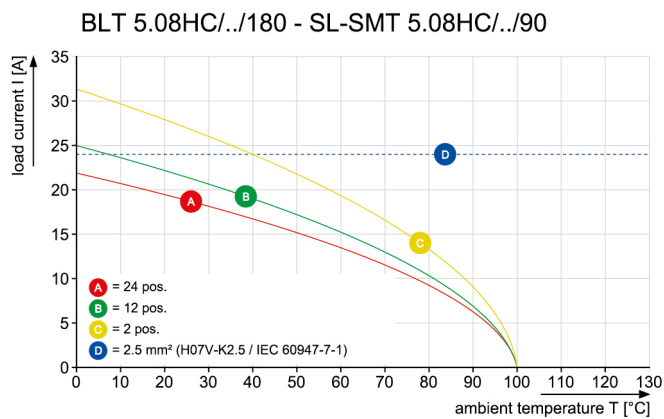
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## Drawings

### Product image



### Graph

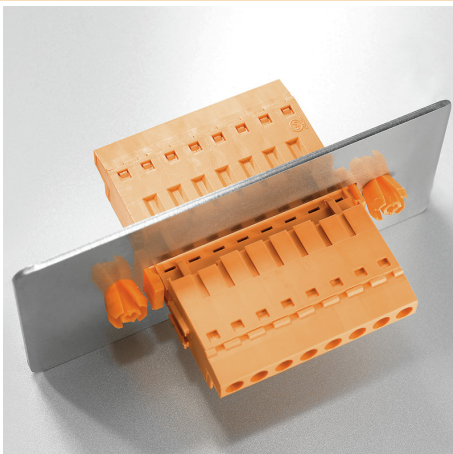


### Product benefits



Lower assembly costs  
Secure in a matter of seconds

### Product benefits



Guaranteed secure fixing  
For wall thickness from 0.5 to 2 mm