

**OMNIMATE Signal - series BL/SL 5.08  
BLZ 5.08/16/90 SN OR BX**

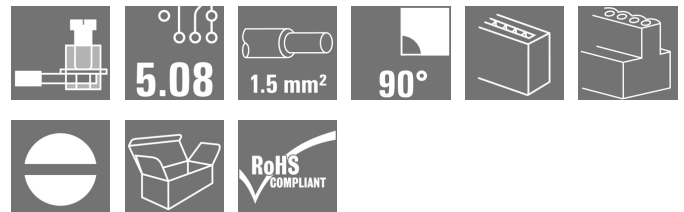
**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

**Product image**


Similar to illustration

Female plugs with clamping-yoke screw connection.  
The female plugs provide space for labelling and can be coded.

**Do not use product for new developments**


**General ordering data**

|                     |  |
|---------------------|--|
| Delivery status     | <b>This article will no longer be available in the future.</b>   |
| Available until     | 2019-12-31   |
| Type                | BLZ 5.08/16/90 SN OR BX  |
| Order No.           | <a href="#">1554160000</a>   |
| Version             | PCB plug-in connector, female plug, 5.08 mm, No. of poles: 16, 90°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box |
| GTIN (EAN)          | 4008190069452  |
| Qty.                | 18 pc(s).  |
| Product data        | IEC: 400 V / 15 A / 0.2 - 2.5 mm²<br>UL: 300 V / 10 A / AWG 26 - AWG 12  |
| Packaging           | Box  |
| Alternative product | <a href="#">1948150000</a>   |

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 81.28 mm | Width (inches)  | 3.2 inch   |
| Height     | 14.1 mm  | Height (inches) | 0.555 inch |
| Depth      | 26.9 mm  | Depth (inches)  | 1.059 inch |
| Net weight | 31.89 g  |                 |            |

**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 | 90°                 |
| No. of poles                                 | 16                                  | L1 in mm                   | 76.2 mm             |
| L1 in inches                                 | 3 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              | Volume resistance          | 5.00 mΩ             |
| Can be coded                                 | Yes                                 | Stripping length           | 7 mm                |
| Tightening torque, min.                      | 0.4 Nm                              | Tightening torque, max.    | 0.5 Nm              |
| Clamping screw                               | M 2.5                               | Screwdriver blade          | 0.6 x 3.5           |
| Screwdriver blade standard                   | DIN 5264                            | Plugging cycles            | 25                  |
| Plugging force/pole, max.                    | 8.5 N                               | Pulling force/pole, max.   | 6.5 N               |

**Material data**

|                                       |                          |                                       |                     |
|---------------------------------------|--------------------------|---------------------------------------|---------------------|
| Insulating material                   | PBT                      | Colour                                | orange              |
| Colour chart (similar)                | RAL 2000                 | Insulating material group             | IIIa                |
| CTI                                   | ≥ 200                    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0                      | GWFI                                  | 960 °C              |
| Contact material                      | Copper alloy             | Contact surface                       | tinned              |
| Layer structure of plug contact       | 4-8 μm Sn hot-dip tinned | Storage temperature, min.             | -25 °C              |
| Storage temperature, max.             | 55 °C                    | Max. relative humidity during storage | 80 %                |
| 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.  | 3.31 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.                             | AWG 26                  |
| 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   | 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, 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, 2.5 mm <sup>2</sup> max.       |                         |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.0 mm; 2.4 mm |

Creation date July 3, 2019 9:20:43 PM CEST

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**Technical data**


|                     |  |                      |                     |
|---------------------|--|----------------------|---------------------|
| Clampable conductor | Cross-section for conductor connection | Type                 | fine-wired          |
|                     |  | nominal              | 0.5 mm <sup>2</sup> |
|                     | AEH                                    | Stripping length     | nominal 6 mm        |
|                     | Cross-section for conductor connection | Type                 | fine-wired          |
|                     |  | nominal              | 1 mm <sup>2</sup>   |
|                     | AEH                                    | Stripping length     | nominal 6 mm        |
|                     | Cross-section for conductor connection | Type                 | fine-wired          |
|                     |  | nominal              | 1.5 mm <sup>2</sup> |
| AEH                 | Stripping length                       | nominal              | 7 mm                |
|                     | Cross-section for conductor connection | Type                 | fine-wired          |
|                     | nominal                                | 2.5 mm <sup>2</sup>  |                     |
| AEH                 | Stripping length                       | nominal              | 7 mm                |
|                     | Cross-section for conductor connection | Type                 | fine-wired          |
|                     | nominal                                | 0.75 mm <sup>2</sup> |                     |
| AEH                 | Stripping length                       | nominal              | 6 mm                |

Reference text The outside diameter of the plastic collar should not be larger than the pitch (P).  
 Max. clamping range 3.31 mm<sup>2</sup>


**Rated data acc. to IEC**

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Tu=20°C)                            | 15 A              |
| Rated current, max. no. of poles (Tu=20°C)                                | 12 A                   | Rated current, min. no. of poles (Tu=40°C)                            | 12 A              |
| Rated current, max. no. of poles (Tu=40°C)                                | 10 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 400 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 250 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV                   | Short-time withstand current resistance                               | 3 x 1s with 120 A |

**Rated data acc. to CSA**

|                                   |   |                                   |                |
|-----------------------------------|---|-----------------------------------|----------------|
| Institute (CSA)                   |  | Certificate No. (CSA)             | 200039-1301847 |
| Rated voltage (Use group B / CSA) | 300 V   | Rated voltage (Use group D / CSA) | 300 V          |
| Rated current (Use group B / CSA) | 10 A  | Rated current (Use group D / CSA) | 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.              |                                   |                |

**Rated data acc. to UL 1059**

|                                       |   |                                       |        |
|---------------------------------------|---|---------------------------------------|--------|
| Institute (UR)                        |  | Certificate No. (UR)                  | 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) | 10 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.              |                                       |        |

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## Technical data

### Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 30 mm  |
| VPE width | 135 mm | VPE height | 350 mm |

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001284    | ETIM 4.0   | EC002637    |
| ETIM 5.0   | EC002637    | ETIM 6.0   | EC002638    |
| UNSPSC     | 30-21-18-10 | eClass 5.1 | 27-26-07-04 |
| eClass 6.2 | 27-26-07-04 | eClass 7.1 | 27-44-04-02 |
| eClass 8.1 | 27-44-04-02 | eClass 9.0 | 27-44-03-09 |
| eClass 9.1 | 27-44-03-09 |            |             |

### Notes

|       |   |
|-------|---|
| Notes | <ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> </ul> |
|-------|---|

|                |  |
|----------------|--|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. |
|----------------|--|

### Approvals

|           |   |
|-----------|---|
| Approvals |  |
|-----------|---|

|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

**Data sheet****OMNIMATE Signal - series BL/SL 5.08  
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**Technical data****Downloads**

Approval/Certificate/Document of  
Conformity

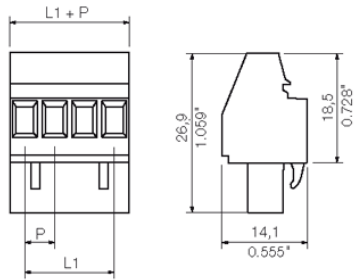
[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FLIndustr.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](#)

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**Drawings****Dimensional drawing**

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

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

**Technical Data**

| Rev. | Material data                          |                        |
|------|--|------------------------|
|      | Insulation material type               | PBT                    |
|      | Insulation material colors             | orange                 |
|      | Insulation material flammability class | V-0                    |
|      | Insulation resistance                  | > 10 <sup>5</sup> MOhm |
|      | Contact base material                  | Cu-alloy               |
|      | Contact plating                        | tin-plated             |

| System characteristic values                                  |                 |                         |
|---|-----------------|-------------------------|
| Pitch P   | mm/inch         | 5.08/0.2                |
| Number of rows  |                 | 1                       |
| Dielectric strength (r.m.s withstand voltage)                 | kV              | >2.21                   |
| Mechanical operating cycles                                   | acc. to IEC 512 | >25                     |
| Plug in force (max.)  | N/pole          | 10                      |
| Pull out force (max.I)  | N/pole          | 8                       |
| Through resistance (typical)                                  | mOhm            | 3.6                     |
| Operating temperatur range                                    | °C              | -55...+100              |
| Degree of protection acc. to VDE 0106 (plugged/unplugged)     |                 | finger safe/finger safe |
| Degree of protection acc. to DIN EN 60529 (plugged/unplugged) |                 | IP20/IP20               |
| Conductor connection method                                   |                 | clamping yoke           |
| Screw size  |                 | M2.5                    |
| Screw torque  | Nm              | 0.4                     |
| Screw driver type   |                 | 0.6 x 3.5               |

| Application notes           |        |                 |
|-----------------------------|--------|-----------------|
| Coding possibility          | yes/no | yes (accessory) |
| Joinable with loss of pitch | yes/no | yes             |
| Manual assembly of modules  | yes/no | no              |
| Max. number of poles        | n      | 24              |

| Conductor                                   |                 |               |
|---|-----------------|---------------|
| Clamping range                              | mm <sup>2</sup> | 0.08...2.5    |
| "e" solid H05(07) V-U                       | mm <sup>2</sup> | 0.5...2.5     |
| "f" flexible H05(07) V-K                    | mm <sup>2</sup> | 0.5...2.5     |
| "f" with ferrule acc. to DIN 46228/1        | mm <sup>2</sup> | 0.5...2.5     |
| ... with plastic collar acc. to DIN 46228/4 | mm <sup>2</sup> | 0.5...2.5     |
| Conductor insulation stripping length       | mm              | 7/0.276       |
| Conductor insulation diameter max.          | mm              | ---           |
| Two wire clamping range                     | mm <sup>2</sup> | 0.5...1.5     |
| Gauges to EN 60999 (a x b ; Ø)              | mm              | 2.8x2.4 ; 2.4 |

| VDE0110 (4.97) rated data                      |                 |                         |
|--|-----------------|-------------------------|
| Rated cross section acc. to EN 60999           | mm <sup>2</sup> | 2.5                     |
| Rated current @ 20°C ambient (together with)   | A               | 13 (SL5.08)             |
| Rated current @ 40°C ambient (together with)   | A               | 11 (SL5.08)             |
| <b>Overvoltage category / Pollution degree</b> |                 | <b>III/3 III/2 II/2</b> |
| Rated voltage                                  | V               | 250 320 400             |
| Rated impulse voltage                          | kV              | 4.0 4.0 4.0             |

| UL 1059 rated data                             |   |           |
|--|---|-----------|
| Rated voltage                                  | V | 300 - 300 |
| Rated current                                  | A | 15 - 10   |
| AWG wire range (field wiring / factory wiring) |   | 22...12   |

| CSA C22.2 rated data                           |   |           |
|--|---|-----------|
| Rated voltage                                  | V | 300 - 300 |
| Rated current                                  | A | 15 - 10   |
| AWG wire range (field wiring / factory wiring) |   | 26....12  |

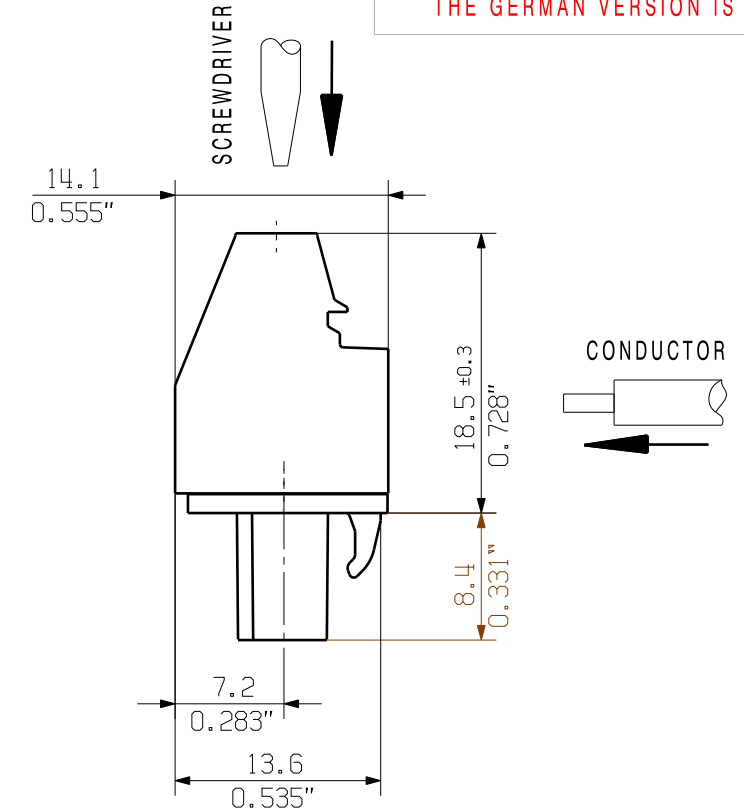
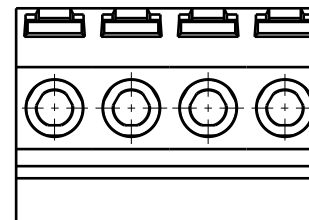
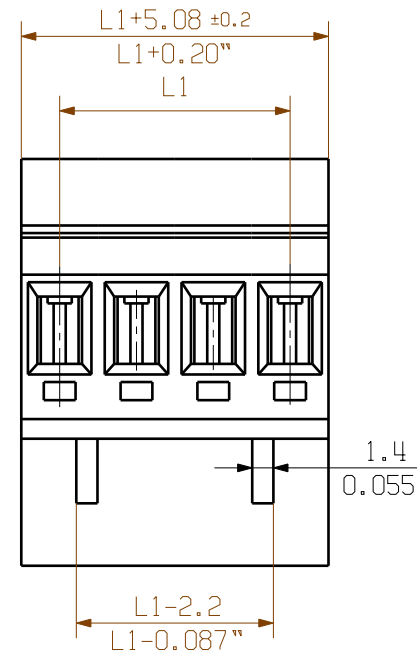
**Packaging** card box

**Downloads** [www.weidmueller.de](http://www.weidmueller.de)

- Without locking latches
- Sum of ambient temperature and temperature rise
- Referred to rated cross section and minimum pole number

n.a. = not applicable

Subject to technical changes



|          |                |                  |
|----------|----------------|------------------|
| 24       | 116,84         | 4,60             |
| 23       | 111,76         | 4,40             |
| 22       | 106,68         | 4,20             |
| 21       | 101,60         | 4,00             |
| 20       | 96,52          | 3,80             |
| 19       | 91,44          | 3,60             |
| 18       | 86,36          | 3,40             |
| 17       | 81,28          | 3,20             |
| 16       | 76,20          | 3,00             |
| 15       | 71,12          | 2,80             |
| 14       | 66,04          | 2,60             |
| 13       | 60,96          | 2,40             |
| 12       | 55,88          | 2,20             |
| 11       | 50,80          | 2,00             |
| 10       | 45,72          | 1,80             |
| 9        | 40,64          | 1,60             |
| 8        | 35,56          | 1,40             |
| 7        | 30,48          | 1,20             |
| 6        | 25,40          | 1,00             |
| 5        | 20,32          | 0,80             |
| 4        | 15,24          | 0,60             |
| 3        | 10,16          | 0,40             |
| 2        | 5,08           | 0,20             |
| <b>n</b> | <b>L1 [mm]</b> | <b>L1 [inch]</b> |

SHOWN: BLZ 5.08/4/90

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

|               |   |   |                       |
|---------------|---|---|-----------------------|
|               | METRIC TOLERANCES:<br>X. = ±0.3<br>X.X = ±0.1<br>X.XX = ±0.05 | 39998/0<br>21.04.08 HELIS_MA 00                           | CAT.NO.:              |
|               |   | <b>MODIFICATION</b>                                       | <b>C 16661 25</b>     |
|               | DRAWN 11.04.2008 HELIS_MA                                     |   | DRAWING NO. ISSUE NO. |
|               | RESPONSIBLE HEKTEL_S  |   | SHEET 02 OF 05 SHEETS |
| SCALE: 2/1    | CHECKED 24.04.2008 HECKERT_M                                  | <b>BLZ 5.08 / 90 (B)</b><br>BUCHSENLEISTE<br>SOCKET BLOCK |                       |
| SUPERSEDES: . | APPROVED HECKERT_M  |   |                       |

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
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