

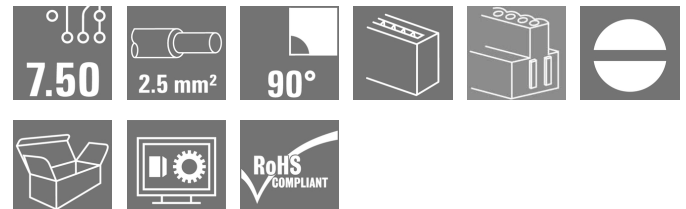
**BLZ 7.50/02/90B SN OR BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

Female plugs with clamping-yoke screw for wire connection with 90° outlet direction. The female plugs provide space for labelling and can be coded.

**General ordering data**

|              |                                                                                                                                      |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.50 mm, Number of poles: 2, 90°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box |
| Order No.    | <a href="#">1702010000</a>                                                                                                           |
| Type         | BLZ 7.50/02/90B SN OR BX                                                                                                             |
| GTIN (EAN)   | 4008190908485                                                                                                                        |
| Qty.         | 120 pc(s).                                                                                                                           |
| Product data | IEC: 800 V / 15 A / 0.2 - 2.5 mm²<br>UL: 300 V / 10 A / AWG 26 - AWG 12                                                              |
| Packaging    | Box                                                                                                                                  |

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

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 26.8 mm | Depth (inches)  | 1.055 inch |
| Height     | 14.3 mm | Height (inches) | 0.563 inch |
| Net weight | 4.43 g  |                 |            |

**System Parameters**

|                           |                                     |                                              |                        |
|---------------------------|-------------------------------------|----------------------------------------------|------------------------|
| Product family            | OMNIMATE Signal - series BL/SL 7.50 | Type of connection                           | Field connection       |
| Wire connection method    | Clamping yoke connection            | Pitch in mm (P)                              | 7.5 mm                 |
| Pitch in inches (P)       | 0.295 inch                          | Conductor outlet direction                   | 90°                    |
| Number of poles           | 2                                   | L1 in mm                                     | 7.5 mm                 |
| L1 in inches              | 0.295 inch                          | Number of rows                               | 1                      |
| Pin series quantity       | 1                                   | 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 force/pole, max. | 9 N                                 | Pulling force/pole, max.                     | 8.5 N                  |

**Material data**

|                                       |              |                                       |        |
|---------------------------------------|--------------|---------------------------------------|--------|
| Insulating material                   | PBT          | Colour                                | orange |
| Colour chart (similar)                | RAL 2000     | Insulating material group             | IIIa   |
| Comparative Tracking Index (CTI)      | ≥ 200        | UL 94 flammability rating             | V-0    |
| Contact material                      | Copper alloy | Contact surface                       | 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.                                                | 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, 0.2 mm <sup>2</sup> min.       |                         |
| 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 |

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## Technical data

|                     |                                        |                              |                         |
|---------------------|----------------------------------------|------------------------------|-------------------------|
| 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>  |
|                     | Cross-section for conductor connection | Type                         | fine-wired              |
|                     |                                        | nominal                      | 0.75 mm <sup>2</sup>    |
|                     | wire end ferrule                       | Stripping length             | nominal 6 mm            |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H0.75/6</a> |

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)                         | 15 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 13 A                   | Rated current, min. number of poles (Tu=40°C)                         | 12.5 A            |
| Rated current, max. number of poles (Tu=40°C)                             | 11 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 800 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 800 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 500 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 8 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 6 kV                   | Short-time withstand current resistance                               | 3 x 1s with 120 A |

## Rated data acc. to CSA

|                                   |                                                                                     |                                   |                |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|----------------|
| Institute (CSA)                   |  | Certificate No. (CSA)             | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 300 V                                                                               | Rated voltage (Use group D / CSA) | 300 V          |
| Rated current (Use group B / CSA) | 15 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.              |                                   |                |

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## Technical data

## 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.

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 30 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, type identification, rated cross-section, rated voltage, pitch, type of material, approval marking UL, approval marking CSA |                               |
|                                              | Evaluation     | available                                                                                                                                   |                               |
|                                              | Test           | durability                                                                                                                                  |                               |
|                                              | Evaluation     | passed                                                                                                                                      |                               |
| Test: Misengagement (Non-interchangeability) | Standard       | draft DIN VDE 0627 section 5.9.1 / 09.91, DIN IEC 60512 part 7 section 5 / 05.94                                                            |                               |
|                                              | Test           | 180° turned with coding elements                                                                                                            |                               |
|                                              | Evaluation     | passed                                                                                                                                      |                               |
| Test: Clampable cross section                | Standard       | DIN EN 60999 section 6 and 8.1 / 04.94, DIN EN 60947-1 section 8.2.4.5.1 / 07.98                                                            |                               |
|                                              | 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 28/1                      |
|                                              |                | Type of conductor and conductor cross-section                                                                                               | AWG 28/19                     |
|                                              |                | 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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|                                                           |                |                                               |                              |
|-----------------------------------------------------------|----------------|-----------------------------------------------|------------------------------|
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999 section 8.4 / 04.94              |                              |
|                                                           | Requirement    | 0.2 kg                                        |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section | AWG 28/1                     |
|                                                           |                | Type of conductor and conductor cross-section | AWG 28/7                     |
|                                                           | 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> |
|                                                           | Evaluation     | passed                                        |                              |
|                                                           | Requirement    | 0.9 kg                                        |                              |
| Pull-out test                                             | Conductor type | Type of conductor and conductor cross-section | AWG 12/1                     |
|                                                           |                | Type of conductor and conductor cross-section | AWG 12/19                    |
|                                                           | Evaluation     | passed                                        |                              |
|                                                           | Standard       | DIN EN 60999 section 8.5 / 04.94              |                              |
|                                                           | Requirement    | ≥5 N                                          |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section | AWG 28/1                     |
|                                                           |                | Type of conductor and conductor cross-section | AWG 28/7                     |
|                                                           | Evaluation     | passed                                        |                              |
|                                                           | Requirement    | ≥50 N                                         |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section | H05V-U2.5                    |
|                                                           |                | Type of conductor and conductor cross-section | H05V-K2.5                    |
|                                                           | Evaluation     | passed                                        |                              |
|                                                           | Requirement    | ≥60 N                                         |                              |
|                                                           | 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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**Technical data****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> |

**Approvals**

Approvals



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

**Downloads**

|                                             |                                                 |
|---------------------------------------------|-------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a> |
| Engineering Data                            | <a href="#">STEP</a>                            |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                    |

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# Drawings

## Dimensional drawing

