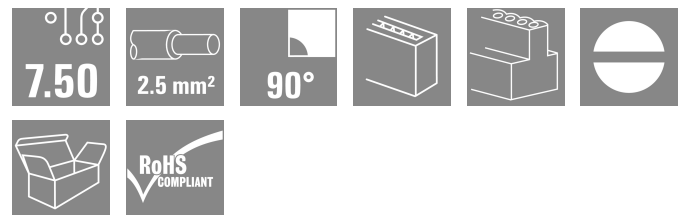
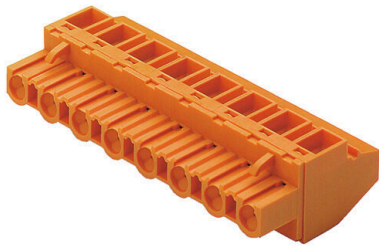


## BLZ 7.50/03/90 SN OR BX PRT

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### 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: 3, 90°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box |
| Order No.    | <a href="#">1248860000</a>                                                                                                           |
| Type         | BLZ 7.50/03/90 SN OR BX PRT                                                                                                          |
| GTIN (EAN)   | 4050118039146                                                                                                                        |
| Qty.         | 90 items                                                                                                                             |
| 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

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (UR) E60693

## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 26.8 mm | Depth (inches)  | 1.0551 inch |
| Height     | 14.3 mm | Height (inches) | 0.563 inch  |
| Net weight | 6.65 g  |                 |             |

## Environmental Product Compliance

RoHS Compliance Status Compliant without exemption

REACH SVHC No SVHC above 0.1 wt%

## System Parameters

|                                              |                                        |                            |                  |
|----------------------------------------------|----------------------------------------|----------------------------|------------------|
| Product family                               | OMNIMATE Signal - series<br>BL/SL 7.50 | Type of connection         | Field connection |
| Wire connection method                       | Clamping yoke connection               | Pitch in mm (P)            | 7.50 mm          |
| Pitch in inches (P)                          | 0.295 "                                | Conductor outlet direction | 90°              |
| Number of poles                              | 3                                      | L1 in mm                   | 15.00 mm         |
| L1 in inches                                 | 0.591 "                                | 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 standard | DIN 5264         |
| Plugging cycles                              | 25                                     | 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    | Moisture Level (MSL)                  |          |
| UL 94 flammability rating             | V-0      | Contact material                      | Cu-alloy |
| 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>  |

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**Technical data**

|                                                                     |                                        |                              |                                        |      |
|---------------------------------------------------------------------|----------------------------------------|------------------------------|----------------------------------------|------|
| 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                |                              |                                        |      |
| 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 |
|                                                                     |                                        | 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 |
|                                                                     |                                        | 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 |
|                                                                     |                                        | 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 |
|                                                                     |                                        | 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**

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| 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 |

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**Technical data**

**Rated data acc. to UL 1059**

|                                       |                                                                        |                                       |        |
|---------------------------------------|------------------------------------------------------------------------|---------------------------------------|--------|
| Institute (UR)                        | 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 | 347.00 mm |
| VPE width | 135.00 mm | VPE height | 32.00 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                                                                                                                                  |                               |  |
| Test: Misengagement (Non-interchangeability)              | Evaluation     | passed                                                                                                                                      |                               |  |
|                                                           | 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                                                                                                            |                               |  |
| Test: Clampable cross section                             | Evaluation     | passed                                                                                                                                      |                               |  |
|                                                           | 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                                                                                                                                      |                               |  |
| 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                      |  |

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|               |                |                                               |                              |
|---------------|----------------|-----------------------------------------------|------------------------------|
|               |                | 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                                        |                              |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 12/1                     |
|               |                | Type of conductor and conductor cross-section | AWG 12/19                    |
|               | Evaluation     | passed                                        |                              |
| Pull-out test | 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         |                                               |                              |

**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
- Additional variants on request
  - Gold-plated contact surfaces on request
  - Rated current related to rated cross-section & min. No. of poles.

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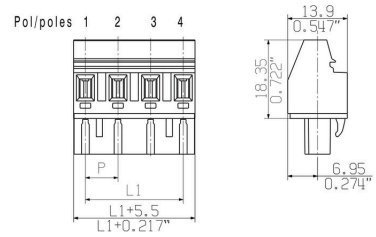
## Technical data

- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- P on drawing = pitch
- Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ETIM 10.0   | EC002638    | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 |             |             |

**Dimensional drawing**



**Derating curve**

BLZ 7.50/./90 & 270 - SL 7.50

