

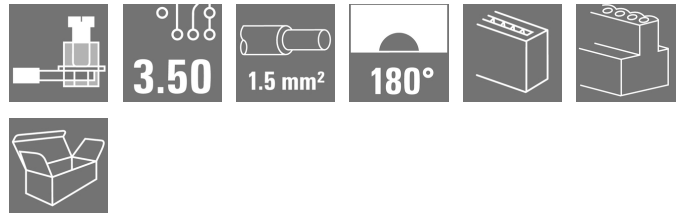
**BL 3.50/03/180 SN DKGN BX PRT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

|              |                                                                                                                                      |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 3.50 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box |
| Order No.    | <a href="#">2571450000</a>                                                                                                           |
| Type         | BL 3.50/03/180 SN DKGN BX PRT                                                                                                        |
| GTIN (EAN)   | 4050118581959                                                                                                                        |
| Qty.         | 174 pc(s).                                                                                                                           |
| Product data | IEC: 320 V / 17 A / 0.2 - 1.5 mm²<br>UL: 300 V / 10 A / AWG 28 - AWG 14                                                              |
| Packaging    | Box                                                                                                                                  |

Creation date June 13, 2025 5:16:49 AM CEST

Catalogue status 07.06.2025 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 18.5 mm | Depth (inches)  | 0.728 inch |
| Height     | 13 mm   | Height (inches) | 0.512 inch |
| Width      | 10.5 mm | Width (inches)  | 0.413 inch |
| Net weight | 2.65 g  |                 |            |

## System Parameters

|                                              |                                     |                   |                                                |
|----------------------------------------------|-------------------------------------|-------------------|------------------------------------------------|
| Product family                               | OMNIMATE Signal - series BL/SL 3.50 |                   |                                                |
| Type of connection                           | Field connection                    |                   |                                                |
| Wire connection method                       | Clamping yoke connection            |                   |                                                |
| Pitch in mm (P)                              | 3.5 mm                              |                   |                                                |
| Pitch in inches (P)                          | 0.138 "                             |                   |                                                |
| Conductor outlet direction                   | 180°                                |                   |                                                |
| Number of poles                              | 3                                   |                   |                                                |
| L1 in mm                                     | 7 mm                                |                   |                                                |
| L1 in inches                                 | 0.276 "                             |                   |                                                |
| Number of rows                               | 1                                   |                   |                                                |
| Pin series quantity                          | 1                                   |                   |                                                |
| Rated cross-section                          | 1.5 mm <sup>2</sup>                 |                   |                                                |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch              |                   |                                                |
| Touch-safe protection acc. to DIN VDE 0470   | IP20 plugged/ IP10 unplugged        |                   |                                                |
| Protection degree                            | IP20, when fully mounted            |                   |                                                |
| Volume resistance                            | ≤5 mΩ                               |                   |                                                |
| Can be coded                                 | Yes                                 |                   |                                                |
| Stripping length                             | 6 mm                                |                   |                                                |
| Clamping screw                               | M 2                                 |                   |                                                |
| Screwdriver blade                            | 0.4 x 2.5                           |                   |                                                |
| Screwdriver blade standard                   | DIN 5264                            |                   |                                                |
| Plugging cycles                              | 25                                  |                   |                                                |
| Plugging force/pole, max.                    | 7 N                                 |                   |                                                |
| Pulling force/pole, max.                     | 5 N                                 |                   |                                                |
| Tightening torque                            | Torque type                         | Wire connection   |                                                |
|                                              | Usage information                   | Tightening torque | <div>min. 0.2 Nm</div> <div>max. 0.25 Nm</div> |

## Material data

|                                       |          |                                       |                            |
|---------------------------------------|----------|---------------------------------------|----------------------------|
| Insulating material                   | PBT      | Colour                                | Signal green               |
| Colour chart (similar)                | RAL 6032 | Insulating material group             | IIIa                       |
| Comparative Tracking Index (CTI)      | ≥ 200    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω        |
| UL 94 flammability rating             | V-0      | Contact material                      | Cu-alloy                   |
| Contact surface                       | tinned   | Layer structure of plug contact       | 4...8 µm Sn hot-dip tinned |
| Storage temperature, min.             | -40 °C   | Storage temperature, max.             | 70 °C                      |
| Operating temperature, min.           | -50 °C   | Operating temperature, max.           | 100 °C                     |
| Temperature range, installation, min. | -30 °C   | Temperature range, installation, max. | 100 °C                     |

## Conductors suitable for connection

|                                         |                      |
|-----------------------------------------|----------------------|
| Clamping range, min.                    | 0.08 mm <sup>2</sup> |
| Clamping range, max.                    | 1.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min. | AWG 28               |

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|                                                                     |                                                                                                                                                                        |                              |                              |      |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|------|
| Wire connection cross section AWG, max.                             | AWG 14                                                                                                                                                                 |                              |                              |      |
| Solid, min. H05(07) V-U                                             | 0.2 mm <sup>2</sup>                                                                                                                                                    |                              |                              |      |
| Solid, max. H05(07) V-U                                             | 1.5 mm <sup>2</sup>                                                                                                                                                    |                              |                              |      |
| Flexible, min. H05(07) V-K                                          | 0.2 mm <sup>2</sup>                                                                                                                                                    |                              |                              |      |
| Flexible, max. H05(07) V-K                                          | 1.5 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, min.                           | 0.2 mm <sup>2</sup>                                                                                                                                                    |                              |                              |      |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 1.5 mm <sup>2</sup>                                                                                                                                                    |                              |                              |      |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.4 mm x 1.5 mm                                                                                                                                                        |                              |                              |      |
| Clampable conductor                                                 | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                   |      |
|                                                                     |                                                                                                                                                                        | nominal                      | 0.5 mm <sup>2</sup>          |      |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                      | 8 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/12 OR</a>   |      |
|                                                                     |                                                                                                                                                                        | Stripping length             | nominal                      | 6 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/6</a>       |      |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                   |      |
|                                                                     |                                                                                                                                                                        | nominal                      | 0.75 mm <sup>2</sup>         |      |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                      | 8 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/12 W</a>   |      |
|                                                                     |                                                                                                                                                                        | Stripping length             | nominal                      | 6 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/6</a>      |      |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                   |      |
|                                                                     |                                                                                                                                                                        | nominal                      | 1 mm <sup>2</sup>            |      |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                      | 8 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/12 GE</a>   |      |
|                                                                     |                                                                                                                                                                        | Stripping length             | nominal                      | 6 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/6</a>       |      |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                   |      |
|                                                                     |                                                                                                                                                                        | nominal                      | 0.25 mm <sup>2</sup>         |      |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                      | 8 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.25/10 HBL</a> |      |
|                                                                     |                                                                                                                                                                        | Stripping length             | nominal                      | 5 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.25/5</a>      |      |
|                                                                     | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                   |      |
|                                                                     |                                                                                                                                                                        | nominal                      | 0.34 mm <sup>2</sup>         |      |
|                                                                     | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                      | 8 mm |
|                                                                     |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.34/10 TK</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. |                              |                              |      |

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## Rated data acc. to IEC

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 17 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 12 A                   | Rated current, min. number of poles (Tu=40°C)                         | 14.5 A            |
| Rated current, max. number of poles (Tu=40°C)                             | 10 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 320 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 160 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 160 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV                 | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV            |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV                 | Short-time withstand current resistance                               | 3 x 1s with 100 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) | 10 A   | Rated current (Use group D / CSA) | 10 A   |
| Wire cross-section, AWG, min.     | AWG 28 | Wire cross-section, AWG, max.     | AWG 14 |

## Rated data acc. to UL 1059

|                                       |        |                                       |        |
|---------------------------------------|--------|---------------------------------------|--------|
| 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 28 | Wire cross-section, AWG, max.         | AWG 14 |

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 351 mm |
| VPE width | 137 mm | VPE height | 25 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, approval marking SEV, approval marking CSA    |
|                                              | Evaluation | available                                                                          |
|                                              | Test       | durability                                                                         |
|                                              | Evaluation | passed                                                                             |
| Test: Misengagement (Non-interchangeability) | Standard   | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512 part 7 section 5 / 05.94 |
|                                              | Test       | 180° turned with coding elements                                                   |
|                                              | Evaluation | passed                                                                             |

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|                                                           |                |                                                                                    |  |
|-----------------------------------------------------------|----------------|------------------------------------------------------------------------------------|--|
| 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 / 12.99 |  |
|                                                           | Conductor type | Type of conductor and solid 0.2 mm <sup>2</sup> conductor cross-section            |  |
|                                                           |                | Type of conductor and stranded 0.2 mm <sup>2</sup> conductor cross-section         |  |
|                                                           |                | Type of conductor and solid 1.5 mm <sup>2</sup> conductor cross-section            |  |
|                                                           |                | Type of conductor and stranded 1.5 mm <sup>2</sup> conductor cross-section         |  |
|                                                           |                | Type of conductor and AWG 28/1 conductor cross-section                             |  |
|                                                           |                | Type of conductor and AWG 28/19 conductor cross-section                            |  |
|                                                           |                | Type of conductor and AWG 16/1 conductor cross-section                             |  |
|                                                           |                | Type of conductor and AWG 16/19 conductor cross-section                            |  |
|                                                           | Evaluation     | passed                                                                             |  |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00                                                 |  |
|                                                           | Requirement    | 0.2 kg                                                                             |  |
|                                                           | Conductor type | Type of conductor and AWG 28/1 conductor cross-section                             |  |
|                                                           |                | Type of conductor and AWG 28/19 conductor cross-section                            |  |
|                                                           | Evaluation     | passed                                                                             |  |
|                                                           | Requirement    | 0.3 kg                                                                             |  |
|                                                           | Conductor type | Type of conductor and 2 × AWG 24/1 conductor cross-section                         |  |
|                                                           |                | Type of conductor and 2 × AWG 24/19 with wire end ferrule conductor cross-section  |  |
|                                                           | Evaluation     | passed                                                                             |  |
|                                                           | Requirement    | 0.4 kg                                                                             |  |
|                                                           | Conductor type | Type of conductor and solid 1.5 mm <sup>2</sup> conductor cross-section            |  |
|                                                           |                | Type of conductor and stranded 1.5 mm <sup>2</sup> conductor cross-section         |  |
|                                                           |                | Type of conductor and AWG 16/7 conductor cross-section                             |  |
|                                                           | 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 AWG 28/1 conductor cross-section     |
|               |                | Type of conductor and AWG 28/19 conductor cross-section    |
|               | Evaluation     | passed                                                     |
|               | Requirement    | ≥10 N                                                      |
|               | Conductor type | Type of conductor and 2 × AWG 24/1 conductor cross-section |
|               |                | Type of conductor and 2 × AWG 24/19 with wire end ferrule  |
|               | Evaluation     | passed                                                     |
|               | Requirement    | ≥40 N                                                      |
|               | Conductor type | Type of conductor and H05V-U1.5 conductor cross-section    |
|               |                | Type of conductor and H05V-K1.5 conductor cross-section    |
|               |                | Type of conductor and AWG 16/7 conductor cross-section     |
|               | Evaluation     | passed                                                     |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ETIM 10.0   | 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 |
| ECLASS 13.0 | 27-46-02-02 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 |             |             |

**Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

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|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>• Max. outer diameter of the conductor: 2.9 mm</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>• 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</li><li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li></ul> |

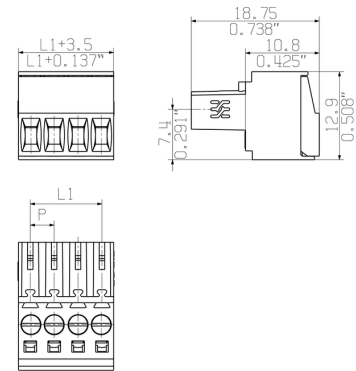
**Downloads**

|            |                                          |
|------------|------------------------------------------|
| Catalogues | <a href="#">Catalogues in PDF-format</a> |
|------------|------------------------------------------|

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**Drawings**
**Dimensional drawing**

**Graph**

**Graph**

**Graph**

**Graph**
