

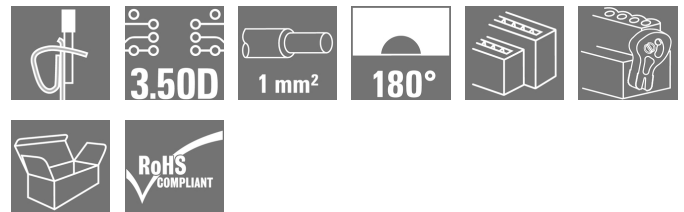
**B2L 3.50/16/180LH SN BK BX SO****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Female connectors with tension clamp connection system enable quick and simple wiring. These female header can be mounted side by side and therefore have a high connection density. The release lever simplifies the separation of the connection in confined spaces. The socket blocks provide space for labelling and can be coded.

**General ordering data**

|              |                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 3.50 mm, Number of poles: 16, 180°, Tension-clamp connection, Clamping range, max.: 1 mm², Box |
| Order No.    | <a href="#">1189380000</a>                                                                                                         |
| Type         | B2L 3.50/16/180LH SN BK BX SO                                                                                                      |
| GTIN (EAN)   | 4032248972821                                                                                                                      |
| Qty.         | 48 pc(s).                                                                                                                          |
| Product data | IEC: 250 V / 10.3 A / 0.2 - 1 mm²<br>UL: 300 V / 10 A / AWG 28 - AWG 16                                                            |
| Packaging    | Box                                                                                                                                |

Creation date March 23, 2021 7:49:47 AM CET

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

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 20.6 mm   | Depth (inches)  | 0.811 inch |
| Height         | 15.7 mm   | Height (inches) | 0.618 inch |
| Net weight     | 9 g       | Width           | 34.3 mm    |
| Width (inches) | 1.35 inch |                 |            |

**System Parameters**

|                                              |                                               |                                            |                   |
|----------------------------------------------|-----------------------------------------------|--------------------------------------------|-------------------|
| Product family                               | OMNIMATE Signal - series B2L/S2L 3.50 - 2-row | Type of connection                         | Field connection  |
| Wire connection method                       | Tension-clamp connection                      | Pitch in mm (P)                            | 3.5 mm            |
| Pitch in inches (P)                          | 0.138 inch                                    | Conductor outlet direction                 | 180°              |
| Number of poles                              | 16                                            | L1 in mm                                   | 24.5 mm           |
| L1 in inches                                 | 0.965 inch                                    | Number of rows                             | 1                 |
| Pin series quantity                          | 2                                             | Rated cross-section                        | 1 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 | IP 20             |
| Can be coded                                 | Yes                                           | Stripping length                           | 7 mm              |
| Screwdriver blade                            | 0.4 x 2.5                                     | Screwdriver blade standard                 | DIN 5264          |
| Plugging cycles                              | 25                                            | Plugging force/pole, max.                  | 5 N               |
| Pulling force/pole, max.                     | 4 N                                           |                                            |                   |

**Material data**

|                                       |          |                                       |                     |
|---------------------------------------|----------|---------------------------------------|---------------------|
| Insulating material                   | PBT      | Colour                                | black               |
| Colour chart (similar)                | RAL 9011 | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| 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. | -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 mm <sup>2</sup>    |
| Wire connection cross section AWG, min.         | AWG 28               |
| Wire connection cross section AWG, max.         | AWG 18               |
| Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>  |
| Solid, max. H05(07) V-U                         | 1 mm <sup>2</sup>    |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>  |
| Flexible, max. H05(07) V-K                      | 1 mm <sup>2</sup>    |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.14 mm <sup>2</sup> |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 0.34 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.14 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, max.       | 0.34 mm <sup>2</sup> |

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**Technical data**

|                              |                                                                                                                                                                        |                              |                                |       |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|-------|
| Clampable conductor          | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                     |       |
|                              |                                                                                                                                                                        | nominal                      | 0.14 mm <sup>2</sup>           |       |
|                              | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                        | 10 mm |
|                              |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.14/12 GR SV</a> |       |
|                              |                                                                                                                                                                        |                              |                                |       |
|                              | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                     |       |
|                              |                                                                                                                                                                        | nominal                      | 0.25 mm <sup>2</sup>           |       |
|                              | wire end ferrule                                                                                                                                                       | Stripping length             | nominal                        | 10 mm |
| Recommended wire-end ferrule |                                                                                                                                                                        | <a href="#">H0.25/12 HBL</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)                         | 10.3 A           |
| Rated current, max. number of poles (Tu=20°C)                             | 8.7 A                  |  | Rated current, min. number of poles (Tu=40°C)                         | 8.9 A            |
| Rated current, max. number of poles (Tu=40°C)                             | 7.4 A                  |  | Rated voltage for surge voltage class / pollution degree II/2         | 250 V            |
| Rated voltage for surge voltage class / pollution degree III/2            | 160 V                  |  | Rated voltage for surge voltage class / pollution degree III/3        | 80 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 77 A |

**Rated data acc. to CSA**

|                                   |                                                                                     |                                   |                |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|----------------|
| Institute (CSA)                   |  | Certificate No. (CSA)             | 200039-1488444 |
| Rated voltage (Use group B / CSA) | 300 V                                                                               | Rated current (Use group B / CSA) | 5 A            |
| Wire cross-section, AWG, min.     | AWG 28                                                                              | Wire cross-section, AWG, max.     | AWG 18         |
| 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 C / UL 1059) | 50 V   |
| Rated current (Use group B / UL 1059) | 10 A                                                                                | Rated current (Use group C / UL 1059) | 10 A   |
| Wire cross-section, AWG, min.         | AWG 28                                                                              | Wire cross-section, AWG, max.         | AWG 16 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate.              |                                       |        |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 60 mm  |
| VPE width | 110 mm | VPE height | 140 mm |

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|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 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>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  |

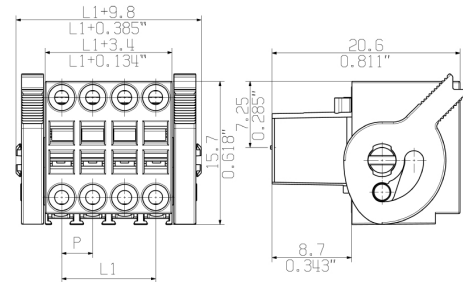
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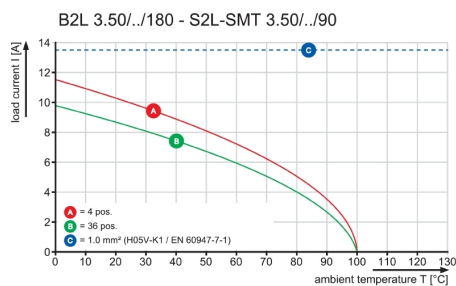
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# Drawings

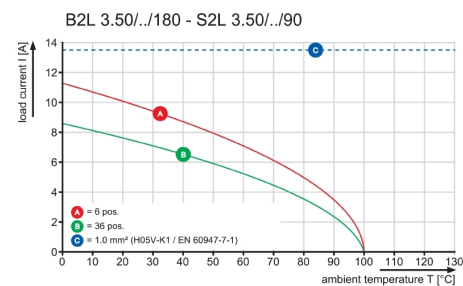
## Dimensional drawing



## Graph



## Graph



## Graph

