

BLF 3.50/16/180 SN OR BX

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

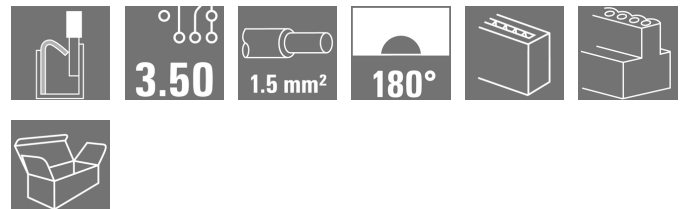
Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

www.weidmueller.com

Product image



similar to illustration

Connect efficiently - in a small space: female header with spring connection (PUSH IN) as a plug-in connection level; used together with male headers in 3.50 mm pitch.

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 3.50 mm, Number of poles: 16, 180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm², Box |
| Order No. | 2459 190000 |
| Type | BLF 3.50/16/180 SN OR BX |
| GTIN (EAN) | 4050118474541 |
| Qty. | 30 pc(s). |
| Product data | IEC: 320 V / 17.5 A / 0.14 - 1.5 mm² UL: 300 V / AWG 26 - AWG 16 |
| Packaging | Box |

Creation date November 23, 2020 8:14:41 AM CET

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Technical data

Dimensions and weights

| | | | |
|----------------|------------|-----------------|------------|
| Depth | 22.7 mm | Depth (inches) | 0.894 inch |
| Height | 9 mm | Height (inches) | 0.354 inch |
| Net weight | 10.97 g | Width | 56 mm |
| Width (inches) | 2.205 inch | | |

System Parameters

| | | | |
|--|-------------------------------------|------|--|
| Product family | OMNIMATE Signal - series BL/SL 3.50 | | |
| Type of connection | Field connection | | |
| Wire connection method | PUSH IN, Spring 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 | 52.5 mm | | |
| L1 in inches | 2.067 inch | | |
| Number of rows | 1 | | |
| Pin series quantity | 1 | | |
| Rated cross-section | 1.5 mm ² | | |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | | |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | | |
| Volume resistance | ≤5 mΩ | | |
| Can be coded | Yes | | |
| Stripping length | 8 mm | | |
| Stripping length tolerance | min. | 0 mm | |
| | max. | 1 mm | |
| Screwdriver blade | 0.4 x 2.5 | | |
| Screwdriver blade standard | DIN 5264-A | | |
| Plugging cycles | 25 | | |
| Plugging force/pole, max. | 6 N | | |
| Pulling force/pole, max. | 6 N | | |

Material data

| | | | |
|---------------------------------------|--------------|---------------------------------------|-------------------|
| Insulating material | PA GF | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 400, ≤ 600 | Insulation strength | 10 ⁶ 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. | 120 °C | Temperature range, installation, min. | -30 °C |
| Temperature range, installation, max. | 100 °C | | |

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max. AWG 16

Solid, max. H05(07) V-U 1.5 mm²Flexible, max. H05(07) V-K 1.5 mm²w. plastic collar ferrule, DIN 46228 pt 4, max. 1 mm²w. wire end ferrule, DIN 46228 pt 1, max. 1 mm²

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.

Conductors suitable for connection

| | |
|---|----------------------|
| Clamping range, min. | 0.14 mm ² |
| Wire connection cross section AWG, min. | AWG 26 |
| Solid, min. H05(07) V-U | 0.14 mm ² |
| Flexible, min. H05(07) V-K | 0.14 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | |

2.4 mm x 1.5 mm


Rated data acc. to IEC

| | | | |
|---|------------------------|---|-------------------|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 17.5 A |
| Rated current, max. number of poles (Tu=20°C) | 14.7 A | Rated current, min. number of poles (Tu=40°C) | 17.1 A |
| Rated current, max. number of poles (Tu=40°C) | 13.1 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 | 1 x 1s with 120 A |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group C / CSA) | 50 V |
| Rated voltage (Use group D / CSA) | 300 V | Rated current (Use group B / CSA) | 10 A |
| Rated current (Use group D / CSA) | 10 A | Wire cross-section, AWG, min. | AWG 26 |
| Wire cross-section, AWG, max. | AWG 16 | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|---|---------------------------------------|--------|
| Institute (cURus) |  | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V | Rated voltage (Use group C / UL 1059) | 50 V |
| Rated voltage (Use group D / UL 1059) | 300 V | Rated current (Use group D / UL 1059) | 10 A |
| Wire cross-section, AWG, min. | AWG 26 | Wire cross-section, AWG, max. | AWG 16 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----|------------|-----|
| Packaging | Box | VPE length | 0 m |
| VPE width | 0 m | VPE height | 0 m |

Creation date November 23, 2020 8:14:41 AM CET

Catalogue status 21.11.2020 / We reserve the right to make technical changes.

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Type tests

| | | | |
|--|----------------|---|-------------------------------|
| Visual and dimensional test | Standard | IEC 60512-1-2:2002-02 | |
| | Test | dimensional inspection | |
| | Evaluation | passed | |
| | Standard | IEC 60512-1-2:2002-02 | |
| | Test | weight check | |
| | Evaluation | passed | |
| | Standard | IEC 61984:2001-10 section 6.2 | |
| | Test | visual examination | |
| Test: Durability of markings | Standard | IEC 60068-2-70:1995-12 test Xb | |
| | Test | mark of origin, type identification, pitch, type of material, date clock, approval marking UL, approval marking CSA, durability | |
| | Evaluation | available | |
| Test: Misengagement (Non-interchangeability) | Standard | IEC 60512-13-5:2006-02 | |
| | Test | intentional plugging | |
| | Evaluation | passed | |
| | Test | 180° turned without coding elements | |
| | Evaluation | passed | |
| | Test | 180° turned with coding elements | |
| | Evaluation | passed | |
| | Test | visual examination | |
| Test: Clampable cross section | Standard | IEC 60999-1:1999-11 section 9.1, IEC 60947-1:2011-03 section 8.2.4.5.1 | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.14 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.14 mm ² |
| | | Type of conductor and conductor cross-section | solid 1.5 mm ² |
| | | Type of conductor and conductor cross-section | stranded 1.5 mm ² |
| | | Type of conductor and conductor cross-section | AWG 26/1 |
| | | Type of conductor and conductor cross-section | AWG 26/19 |
| | | Type of conductor and conductor cross-section | AWG 16/1 |
| | | Type of conductor and conductor cross-section | AWG 16/19 |
| | Evaluation | passed | |

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Test for damage to and accidental loosening of conductors

| | | |
|----------------|--|-----------|
| Standard | IEC 60999-1:1999-11 section 9.4 bzw. section 8.10 info@weidmueller.com | |
| Requirement | 0.3 kg | |
| Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 |
| | Type of conductor and conductor cross-section | H05V-K0.5 |
| Evaluation | passed | |
| Requirement | 0.4 kg | |
| Conductor type | Type of conductor and conductor cross-section | H07V-U1.5 |
| | Type of conductor and conductor cross-section | H07V-K1.5 |
| | Type of conductor and conductor cross-section | AWG 16/1 |
| | Type of conductor and conductor cross-section | AWG 16/19 |
| Evaluation | passed | |
| Requirement | 0.2 kg | |
| Conductor type | Type of conductor and conductor cross-section | AWG 26/1 |
| | Type of conductor and conductor cross-section | AWG 26/19 |
| Evaluation | passed | |

Pull-out test

| | | |
|----------------|---|-----------|
| Standard | IEC 60999-1:1999-11 section 9.5 | |
| Requirement | ≥20 N | |
| Conductor type | Type of conductor and conductor cross-section | H05V-U0.5 |
| | Type of conductor and conductor cross-section | H05V-K0.5 |
| Evaluation | passed | |
| Requirement | ≥40 N | |
| Conductor type | Type of conductor and conductor cross-section | H07V-U1.5 |
| | Type of conductor and conductor cross-section | H07V-K1.5 |
| | Type of conductor and conductor cross-section | AWG 16/1 |
| | Type of conductor and conductor cross-section | AWG 16/19 |
| Evaluation | passed | |
| Requirement | ≥10 N | |
| Conductor type | Type of conductor and conductor cross-section | AWG 26/1 |
| | Type of conductor and conductor cross-section | AWG 26/19 |
| Evaluation | passed | |

Data sheet

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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 | 27460202 |

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.

Approvals

Approvals



UL File Number Search E60693

Downloads

Engineering Data [STEP](#)

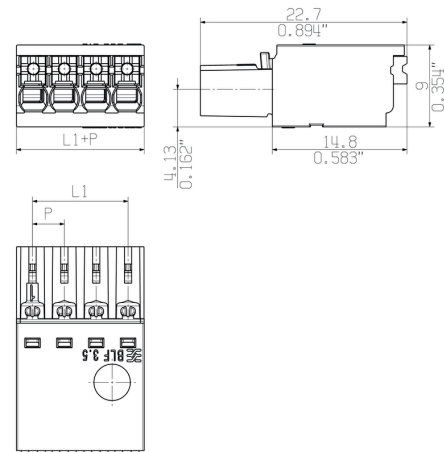
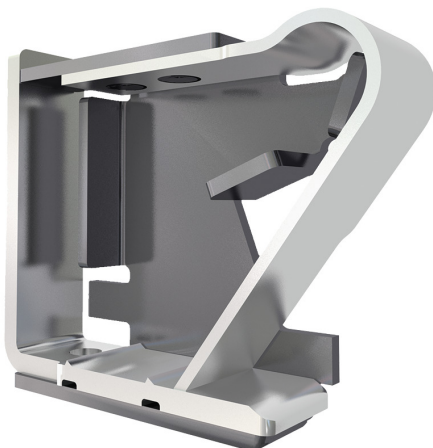
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Drawings**Dimensional drawing** info@weidmueller.com**Product benefits**

Solid PUSH IN contact
Safe and durable