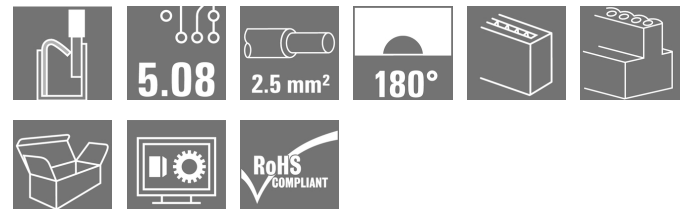


OMNIMATE Signal - series BL/SL 5.08 BLDF 5.08/03/180 SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

The powerful daisy-chain solution for high-performance signal bus applications is also suitable for 400V auxiliary power chains with 18.5A current-carrying capacity. The large clamping capacity (up to 2.5mm² wire cross-sections) is particularly beneficial for long bus cables or high currents because of the low voltage drop. Four flange variations, including the patented release latch, allow for user-friendly unplugging designs.

General ordering data

| | |
|--------------|--|
| Type | BLDF 5.08/03/180 SN OR BX |
| Order No. | 1001160000 |
| Version | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 3, 180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm ² , Box |
| GTIN (EAN) | 4032248817726 |
| Qty. | 80 pc(s). |
| Product data | IEC: 400 V / 20.8 A / 0.2 - 2.5 mm ² UL: 300 V / 18.5 A / AWG 12 - AWG 26 |
| Packaging | Box |

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Technical data**Dimensions and weights**

| | | | |
|------------|----------|-----------------|------------|
| Width | 15.24 mm | Width (inches) | 0.6 inch |
| Height | 24.7 mm | Height (inches) | 0.972 inch |
| Depth | 28.3 mm | Depth (inches) | 1.114 inch |
| Net weight | 8.7 g | | |

System Parameters

| | | | |
|--|-------------------------------------|--|---------------------|
| Product family | OMNIMATE Signal - series BL/SL 5.08 | Type of connection | Field connection |
| Wire connection method | PUSH IN, Spring connection | Pitch in mm (P) | 5.08 mm |
| Pitch in inches (P) | 0.2 inch | Conductor outlet direction | 180° |
| Number of poles | 3 | L1 in mm | 10.16 mm |
| L1 in inches | 0.4 inch | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 2.5 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 | ≤ 5mΩ | Can be coded | Yes |
| Stripping length | 10 mm | Screwdriver blade | 0.6 x 3.5 |
| Screwdriver blade standard | DIN 5264 | Plugging cycles | 25 |
| Plugging force/pole, max. | 9.5 N | Pulling force/pole, max. | 7.5 N |

Material data

| | | | |
|---------------------------------------|----------------------------|---------------------------------------|---------------------|
| Insulating material | PBT | Colour | orange |
| Colour of operational elements | black | Material of operational elements | PBT |
| Colour chart (similar) | RAL 2000 | Insulating material group | Illa |
| Comparative Tracking Index (CTI) | ≥ 200 | Insulation strength | ≥ 10 ⁸ Ω |
| UL 94 flammability rating | V-0 | GWFI | 960 °C |
| Contact material | CuSn | 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. | 0.13 mm ² |
| Clamping range, max. | 3.31 mm ² |
| 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 ² |
| Solid, max. H05(07) V-U | 2.5 mm ² |
| Flexible, min. H05(07) V-K | 0.2 mm ² |
| Flexible, max. H05(07) V-K | 2.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, 0.25 mm ² min. | |
| w. wire end ferrule, DIN 46228 pt 1, 2.5 mm ² max. | |

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Technical data

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.0 mm

| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
|--|--|------------------------------|------------------------------|
| | | nominal | 0.5 mm ² |
| wire end ferrule | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.5/16 OR |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.5/10 |
| Cross-section for conductor connection | | Type | fine-wired |
| | | nominal | 0.75 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| wire end ferrule | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| Cross-section for conductor connection | | Type | fine-wired |
| | | nominal | 1 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/10 |
| wire end ferrule | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| Cross-section for conductor connection | | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |
| wire end ferrule | | Stripping length | nominal 13 mm |
| | | Recommended wire-end ferrule | H2.5/16DS BL |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H2.5/10 |
| 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. | | |
| Max. clamping range | 3.31 mm ² | | |


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Technical data**Rated data acc. to IEC**

| | | | |
|---|------------------------|---|-------------------|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 20.8 A |
| Rated current, max. number of poles (Tu=20°C) | 17.4 A | Rated current, min. number of poles (Tu=40°C) | 17.9 A |
| Rated current, max. number of poles (Tu=40°C) | 14.9 A | Rated current cross-connector, min. number of poles (Ta=20°C) | 28.1 A |
| Rated current cross-connector, max. number of poles (Ta=20°C) | 23.3 A | Rated current cross-connector, min. number of poles (Ta=40°C) | 24.2 A |
| Rated current cross-connector, max. number of poles (Ta=40°C) | 19.9 A | Rated voltage for surge voltage class / pollution degree II/2 | 400 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 V | Rated voltage for surge voltage class / pollution degree III/3 | 250 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 4 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 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) | 18.5 A | Rated current (Use group D / CSA) | 10 A |
| Wire cross-section, AWG, min. | AWG 12 | Wire cross-section, AWG, max. | AWG 26 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

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 D / UL 1059) | 300 V |
| Rated current (Use group B / UL 1059) | 18.5 A | Rated current (Use group D / UL 1059) | 10 A |
| Wire cross-section, AWG, min. | AWG 12 | Wire cross-section, AWG, max. | AWG 26 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 40 mm |
| VPE width | 135 mm | VPE height | 350 mm |

Cross-connector rated data according to DIN IEC

| | | | |
|---|--------|---|--------|
| Rated current cross-connector, min. number of poles (Ta=20°C) | 28.1 A | Rated current cross-connector, max. number of poles (Ta=20°C) | 23.3 A |
| Rated current cross-connector, min. number of poles (Ta=40°C) | 24.2 A | Rated current cross-connector, max. number of poles (Ta=40°C) | 19.9 A |

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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 | | |

Notes

| | |
|----------------|---|
| Notes | <ul style="list-style-type: none"> • Additional colours on request • Gold-plated contact surfaces on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • P on drawing = pitch • Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended. • The test point can only be used as potential-pickup point. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months |
| 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



ROHS

Conform

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Brochure/Catalogue | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FL INDUSTR.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN |
| Engineering Data | EPLAN_WSCAD |
| Engineering Data | STEP |
| White paper PUSH IN wire connection | Download Whitepaper |

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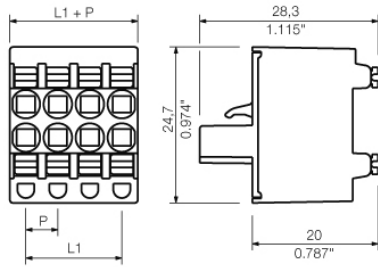
Data sheet

**OMNIMATE Signal - series BL/SL 5.08
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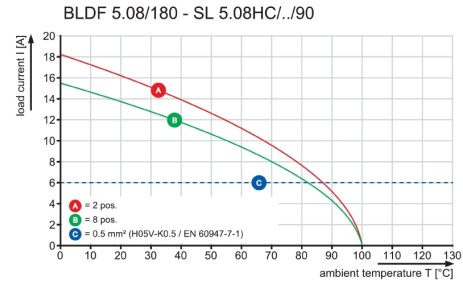
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Drawings

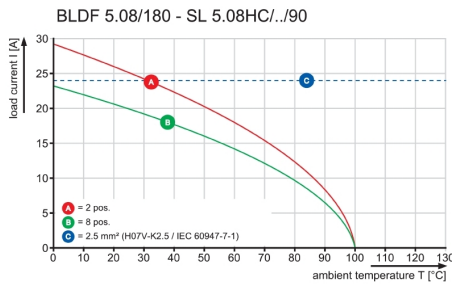
Dimensional drawing



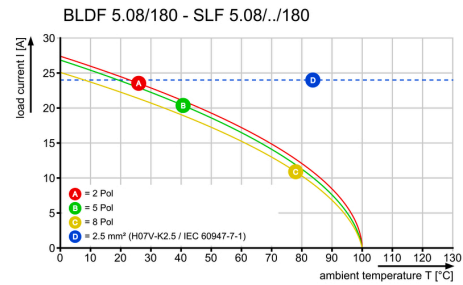
Graph



Graph



Graph

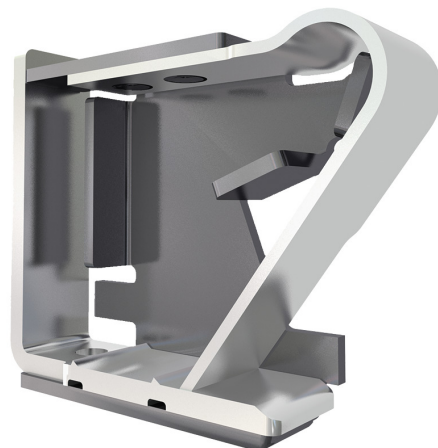


Product benefits



Uncompromising functionality
High vibration resistance

Product benefits



Solid PUSH IN contact
Safe and durable

**OMNIMATE Signal - series BL/SL 5.08
BLDF 5.08/03/180 SN OR BX**

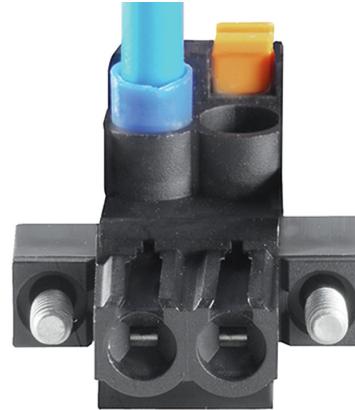
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Product benefits



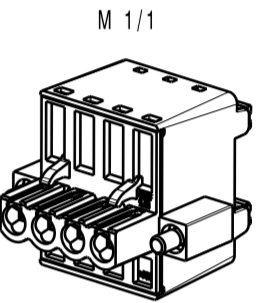
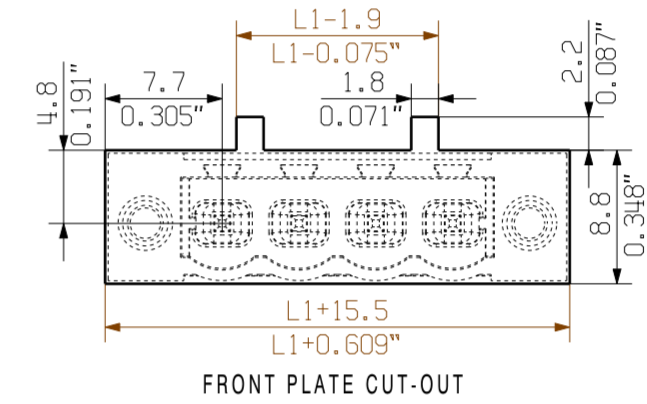
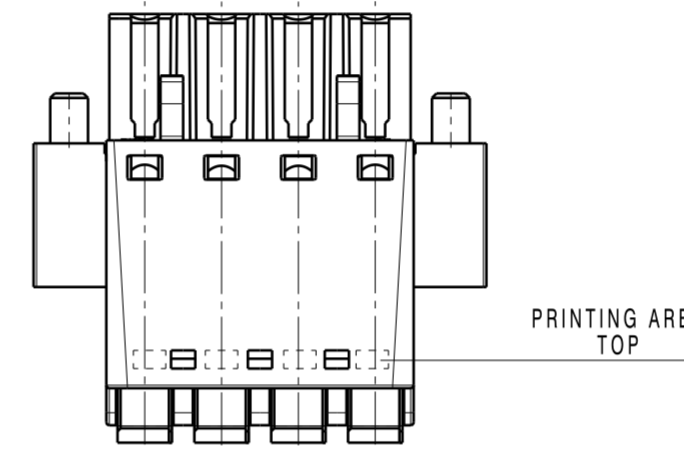
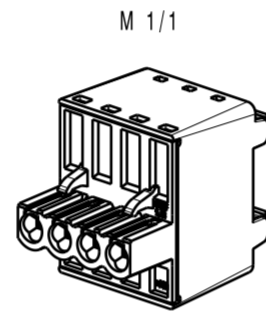
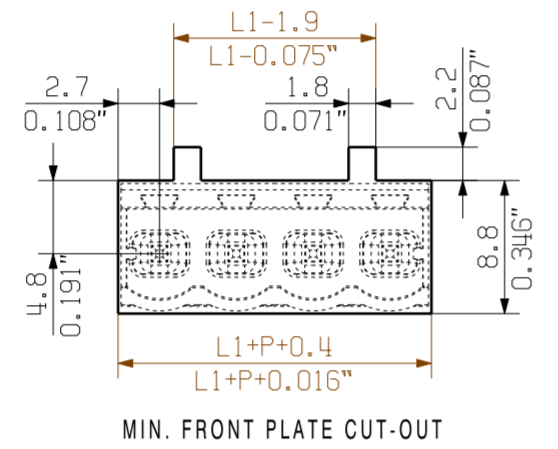
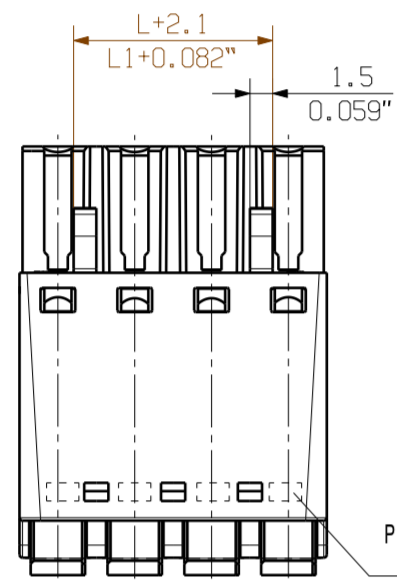
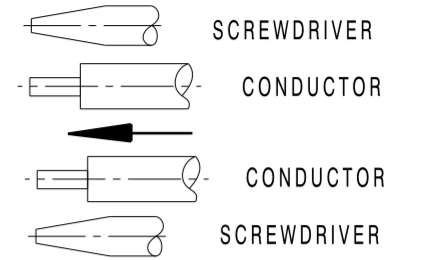
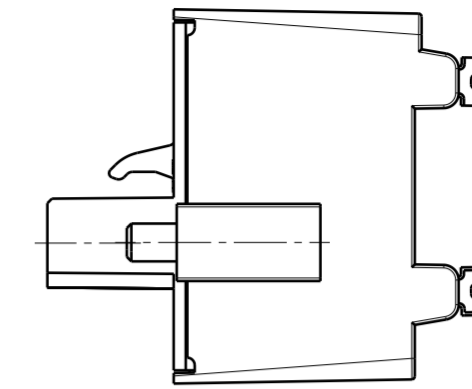
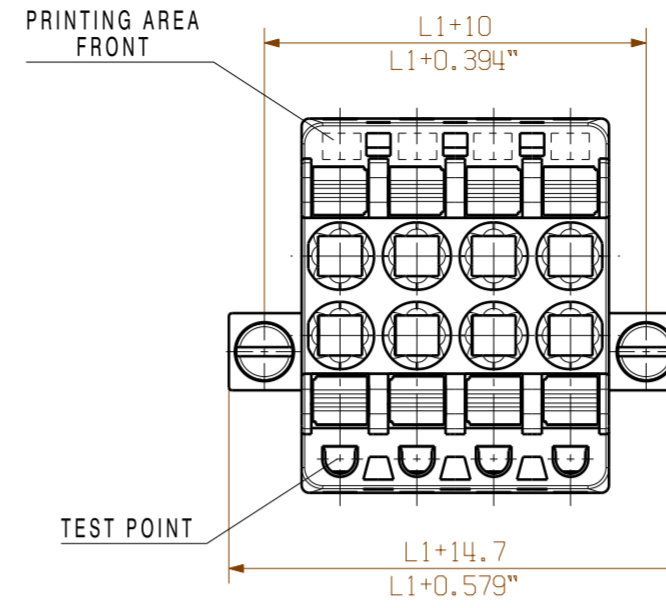
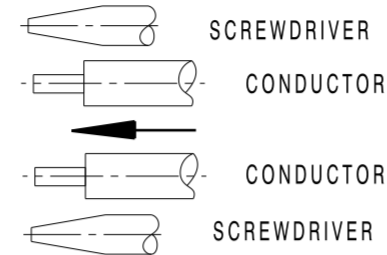
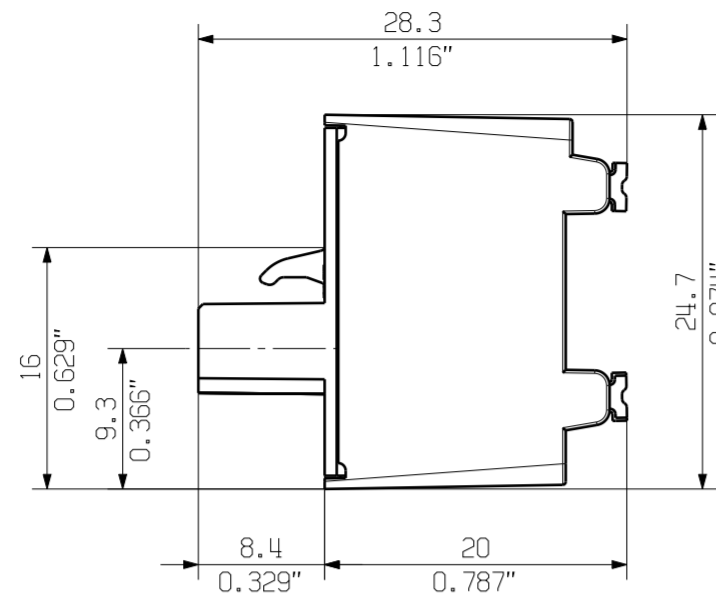
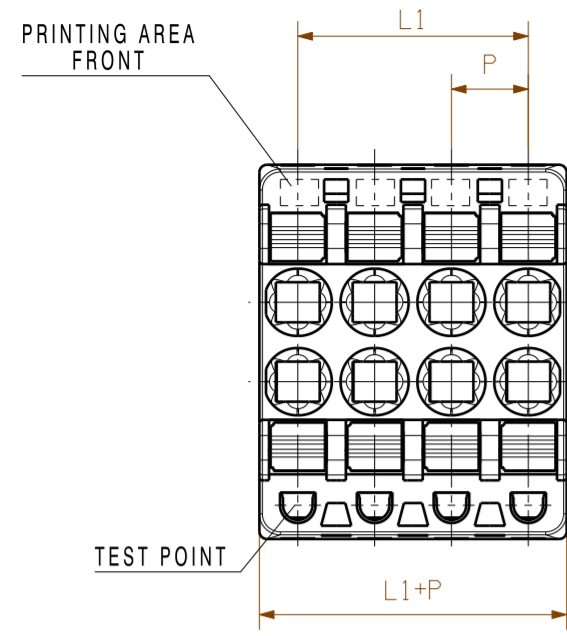
Cost-effective wiring
Quick and intuitive operation

Product benefits

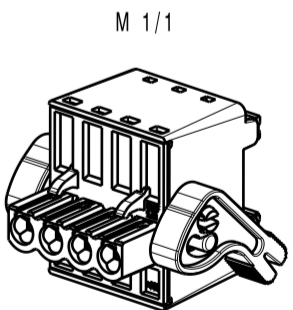
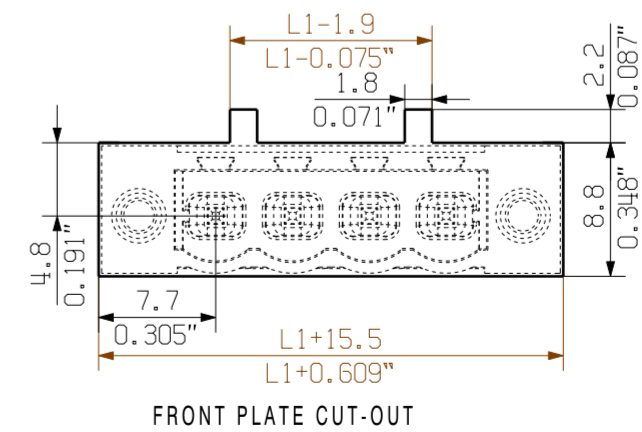
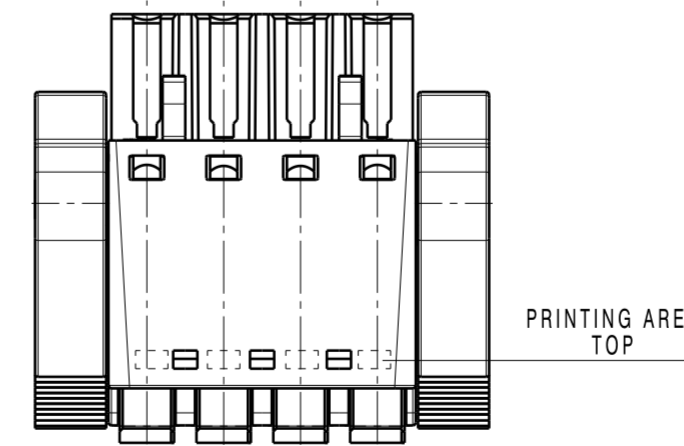
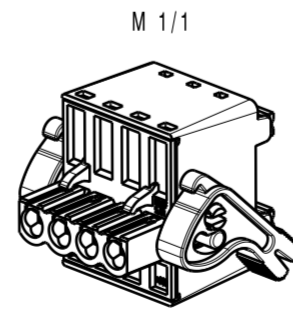
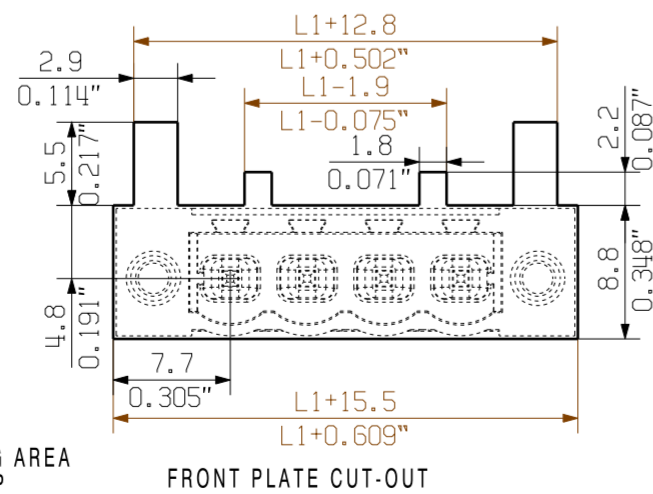
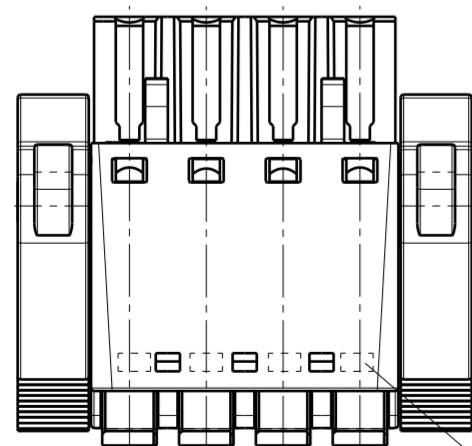
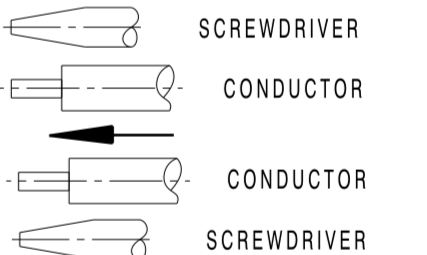
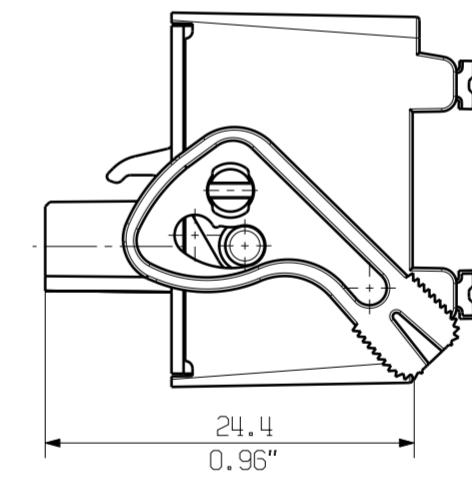
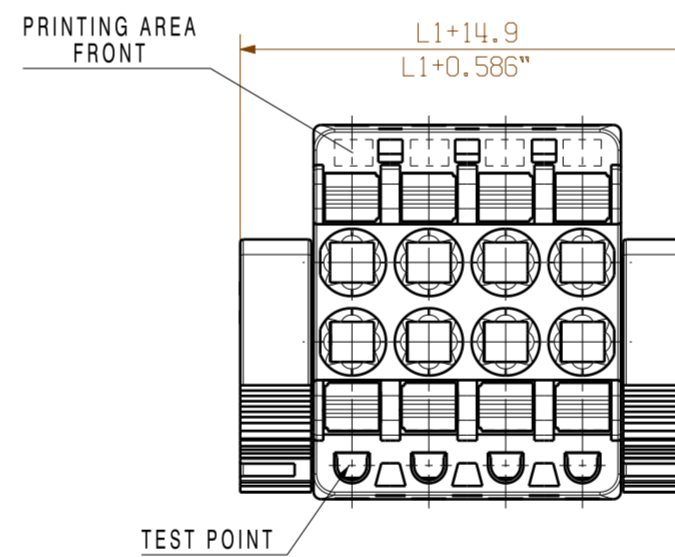
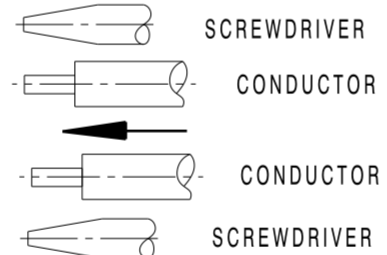
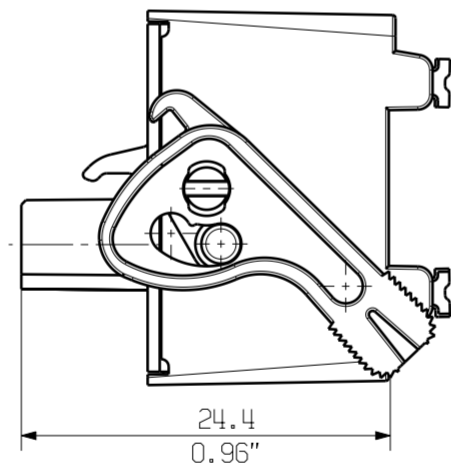
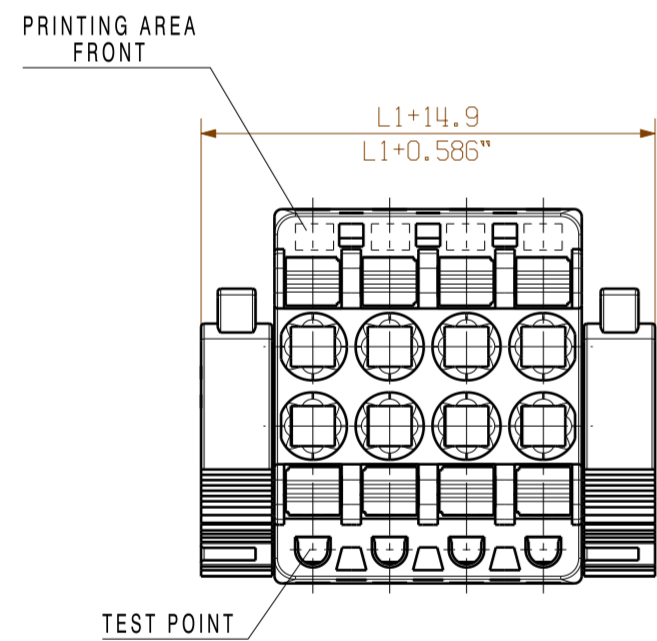


Wide clamping range
Tool-free wire connection

SHOWN: BLDf 5.08/04/180 G



SHOWN: BLDf 5.08/04/180 LR



For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

GENERAL TOLERANCE: DIN ISO 2768-m

ALLGEMEINGUELTIGE KUNDENZEICHUNG, AKTUELLER STAND NUR AUF ANFRAGE
GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED

| | | | | | |
|--------------------------------|--|--|--|--|--|
| EC00002032 | | Prim PLM Part No.: 002876 | | Prim ERP Part No.: 1001170000 | |
| First Issue Date 01.03.2010 | | Max. nos. Modification | | 47786 Drawing no. Issue no. Sheet 02 of 02 sheets | |
| | | Date Name Drawn 22.07.2019 Helis, Maria Responsible Hertel, Suzann Approved 31.07.2019 Hertel, Suzann | | | |
| Scale: 2:1 | | Size: A2 | | BLDf 5.08/.../180... BUCHSENLEISTE SOCKET BLOCK Product file: 7379 BLF 5.08 180 | |

| POLES | MASS L1 DIM. [mm] | MASS L1 DIM. [Inch] |
|-------|-------------------|---------------------|
| 8 | 35.56 | 1.400 |
| 7 | 30.48 | 1.200 |
| 6 | 25.40 | 1.000 |
| 5 | 20.32 | 0.800 |
| 4 | 15.24 | 0.600 |
| 3 | 10.16 | 0.400 |
| 2 | 5.08 | 0.200 |

P=5.08 RASTER PITCH