

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG

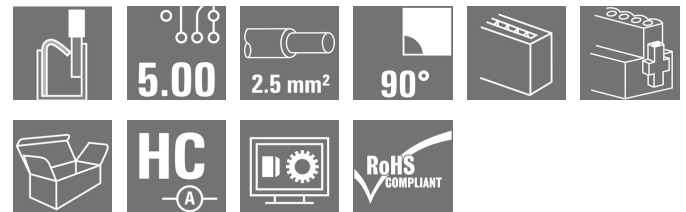
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.00HC PUSH IN version of the BLZ 5.00HC female connector features a new connection system and a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current. In terms of versatility, the BLF 5.00HC offers just as much as the older versions:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 5.00 mm, Number of poles: 17, 90°, PUSH IN with actuator, Tension-clamp connection, Clamping range, max. : 3.31 mm², Box |
| Order No. | 1980800000 |
| Type | BLF 5.00HC/17/90F SN OR BX |
| GTIN (EAN) | 4032248675944 |
| Qty. | 18 pc(s). |
| Product data | IEC: 400 V / 24 A / 0.2 - 2.5 mm² UL: 300 V / 18.5 A / AWG 26 - AWG 12 |
| Packaging | Box |

Creation date January 29, 2022 5:46:57 PM CET

BLF 5.00HC/17/90F SN OR BX
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data
Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 26.2 mm | Depth (inches) | 1.031 inch |
| Height | 20.8 mm | Height (inches) | 0.819 inch |
| Width | 94.8 mm | Width (inches) | 3.732 inch |
| Net weight | 32.05 g | | |

System Parameters

| | | | |
|--|---|-------------------|-----------------------------|
| Product family | OMNIMATE Signal - series BL/SL 5.00 | | |
| Type of connection | Field connection | | |
| Wire connection method | PUSH IN with actuator, Tension-clamp connection | | |
| Pitch in mm (P) | 5 mm | | |
| Pitch in inches (P) | 0.197 inch | | |
| Conductor outlet direction | 90° | | |
| Number of poles | 17 | | |
| L1 in mm | 80 mm | | |
| L1 in inches | 3.152 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 | | |
| Protection degree | IP20 | | |
| Volume resistance | ≤5 mΩ | | |
| 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. | 7 N | | |
| Pulling force/pole, max. | 5.5 N | | |
| Tightening torque | Torque type | Screw flange | |
| | Usage information | Tightening torque | min. 0.2 Nm max. 0.25 Nm |

Material data

| | | | |
|---------------------------------------|----------------------------|---------------------------------------|--------|
| Insulating material | PBT | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | IIIa |
| Comparative Tracking Index (CTI) | ≥ 200 | UL 94 flammability rating | V-0 |
| 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 |

Creation date January 29, 2022 5:46:57 PM CET

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data

| | |
|---|----------------------|
| 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, min. | 0.25 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 2.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |
| 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 | 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 | wire end ferrule | Type | fine-wired |
| | | nominal | 0.75 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W |
| Cross-section for conductor connection | wire end ferrule | Type | fine-wired |
| | | nominal | 1 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R |
| Cross-section for conductor connection | wire end ferrule | Type | fine-wired |
| | | nominal | 1.5 mm ² |
| | | Stripping length | nominal 10 mm |
| | | Recommended wire-end ferrule | H1.5/10 |
| Cross-section for conductor connection | wire end ferrule | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/16 R |
| Cross-section for conductor connection | wire end ferrule | Type | fine-wired |
| | | nominal | 2.5 mm ² |
| | | 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.

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

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) | 24 A |
| Rated current, max. number of poles (Tu=20°C) | 19 A | Rated current, min. number of poles (Tu=40°C) | 21 A |
| Rated current, max. number of poles (Tu=40°C) | 16.5 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) | 10 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 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 | 338 mm |
| VPE width | 130 mm | VPE height | 27 mm |

Type tests

| | | |
|------------------------------|------------|--|
| Test: Durability of markings | Standard | IEC 61984 section 6.2 and 7.3.2 / 10.08 taking pattern from IEC 60068-2-70 / 12.95 |
| | Test | mark of origin, type identification, pitch, type of material, date clock |
| | Evaluation | available |
| | Test | durability |
| | Evaluation | passed |

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data

| | | | | |
|--|----------------|--|------------------------------|--|
| Test: Misengagement (Non-interchangeability) | Standard | IEC 61984 section 6.3 and 6.9.1 / 10.08, IEC 60512-13-5 / 02.06 | | |
| | Test | 180° turned with coding elements | | |
| | Evaluation | passed | | |
| | Test | visual examination | | |
| Test: Clampable cross section | Evaluation | passed | | |
| | Standard | IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 06.07 | | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.2 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 0.2 mm ² | |
| | | Type of conductor and conductor cross-section | solid 2.5 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 2.5 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 14/1 | |
| | | Type of conductor and conductor cross-section | AWG 14/19 | |
| Evaluation | passed | | | |

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data

| | | | | |
|---|----------------|---|-----------|--|
| Test for damage to and accidental loosening of conductors | Standard | IEC 60999-1 section 9.4 / 11.99 | | |
| | 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 | | |
| | 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 | 0.7 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 | |
| | | Type of conductor and conductor cross-section | H07V-K2.5 | |
| | | Type of conductor and conductor cross-section | AWG 14/1 | |
| Type of conductor and conductor cross-section | | AWG 14/19 | | |
| Evaluation | passed | | | |
| Pull-out test | Standard | IEC 60999-1 section 9.5 / 11.99 | | |
| | 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 | | |
| | 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 | ≥50 N | | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 | |
| | | Type of conductor and conductor cross-section | H07V-K2.5 | |
| | | Type of conductor and conductor cross-section | AWG 14/1 | |
| Type of conductor and conductor cross-section | | AWG 14/19 | | |
| Evaluation | passed | | | |

BLF 5.00HC/17/90F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data**Classifications**

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | 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"> • 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. |

Approvals

Approvals



| | |
|-----------------------|---------|
| ROHS | Conform |
| UL File Number Search | E60693 |

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Engineering Data | EPLAN, WSCAD |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE 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 PO OMNIMATE EN |

Creation date January 29, 2022 5:46:57 PM CET

Catalogue status 14.01.2022 / We reserve the right to make technical changes.

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

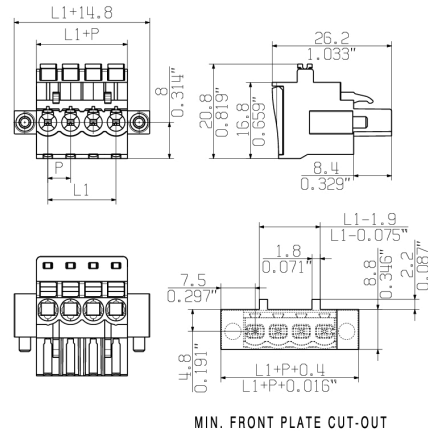
www.weidmueller.com

Drawings

Product image



Dimensional drawing

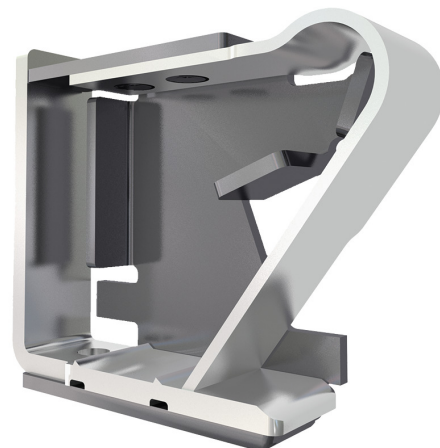


Product benefits



Uncompromising functionality
 High vibration resistance

Uncompromising functionality
 High vibration resistance
Product benefits



Solid PUSH IN contact
 Safe and durable

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Accessories

Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

| | | | |
|------------|----------------------------|---|--|
| Type | SDIS 0.6X3.5X100 | Version | |
| Order No. | 2749810000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm | |
| GTIN (EAN) | 4050118897012 | | |
| Qty. | 1 pc(s). | | |

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.

The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible.

The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

| Type | Version | Product data | Packaging |
|-----------------|----------------------------|--|-----------|
| BLZ/SL KO OR BX | | | |
| Order No. | 1573010000 | PCB plug-in connector, Accessories, Coding element, orange, Number | Box |
| GTIN (EAN) | 4008190048396 | of poles: 1 | |
| Qty. | 100 pc(s). | | |
| BLZ/SL KO BK BX | | | |
| Order No. | 1545710000 | PCB plug-in connector, Accessories, Coding element, black, Number | Box |
| GTIN (EAN) | 4008190087142 | of poles: 1 | |
| Qty. | 50 pc(s). | | |

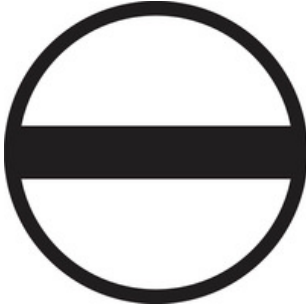
BLF 5.00HC/17/90F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Accessories**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265,
ISO 2380/2, output to DIN 5264, ISO 2380/1.
ChromTop tip, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDS 0.6X3.5X200 | Version |
| Order No. | 9010110000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248300754 | |
| Qty. | 1 pc(s). | |
| Type | SDS 0.6X3.5X100 | Version |
| Order No. | 2749340000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568 | thickness (A): 0.6 mm |
| Qty. | 1 pc(s). | |

BLF 5.00HC/17/90F SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

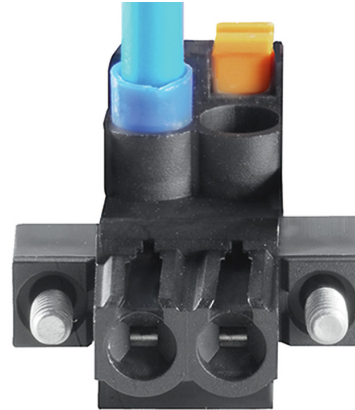
Drawings

Product benefits



Cost-effective wiring
Quick and intuitive operation

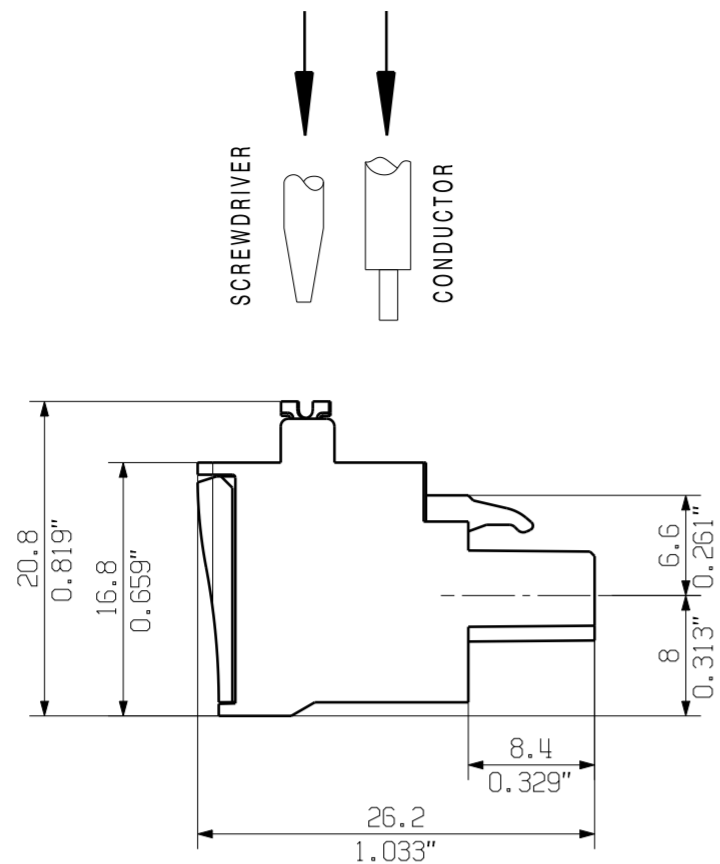
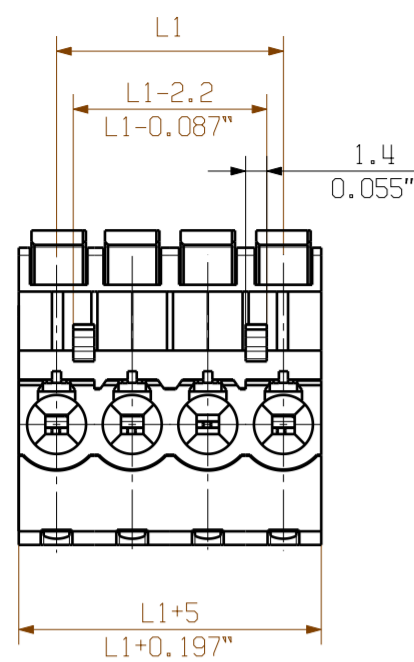
Product benefits



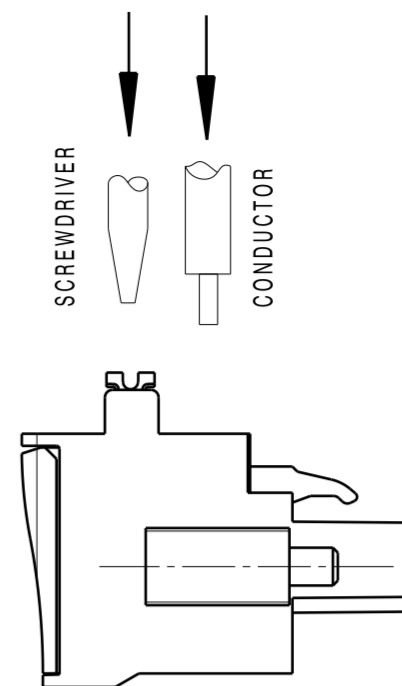
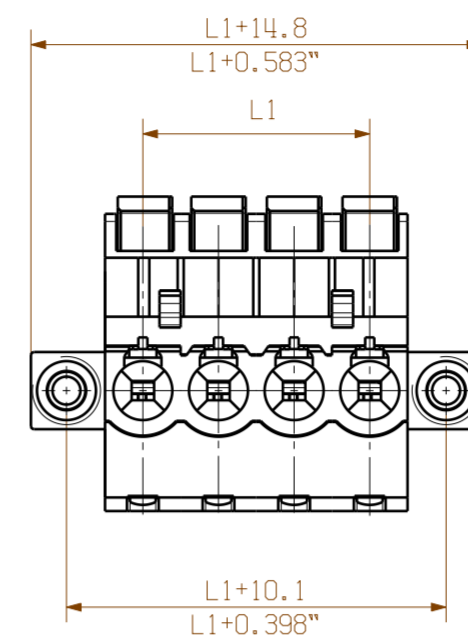
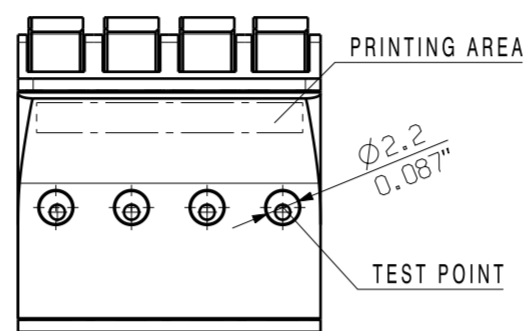
Wide clamping range
Tool-free wire connection

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

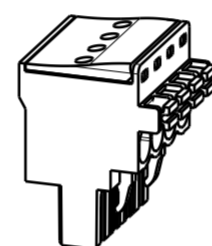
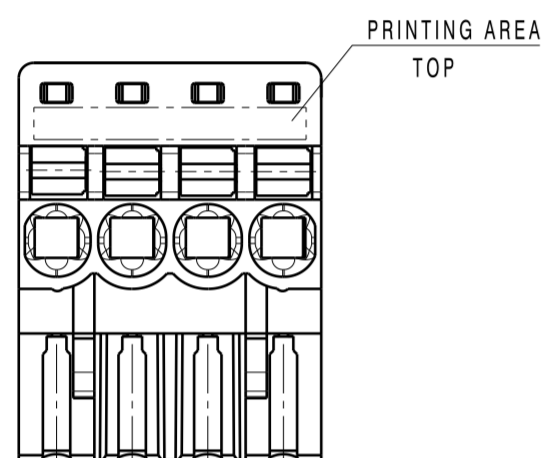
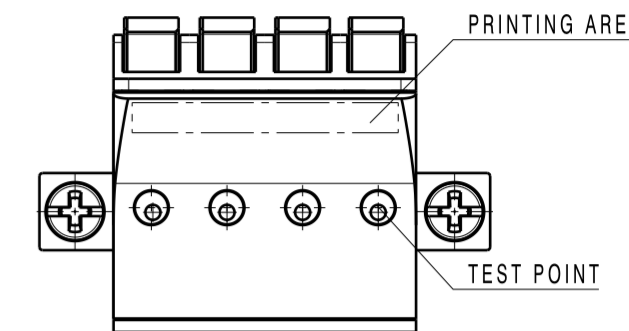
DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING



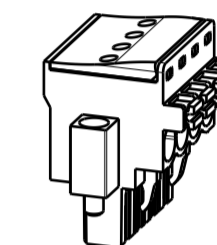
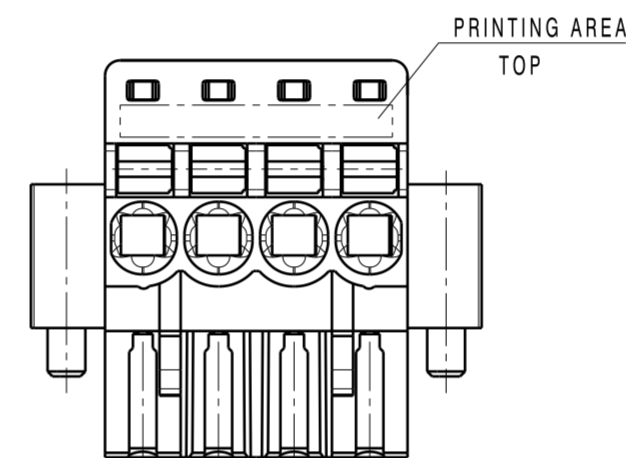
SHOWN: BLF 5.00HC/04/90G SN ...



SHOWN: BLF 5.00HC/04/90F SN ...



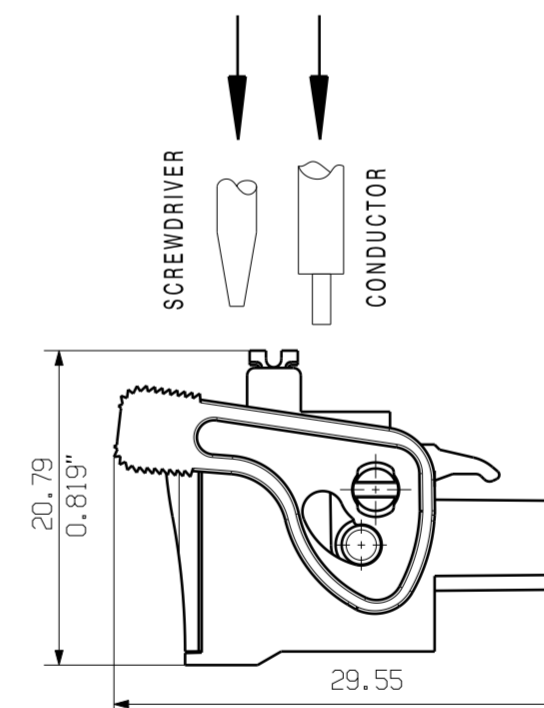
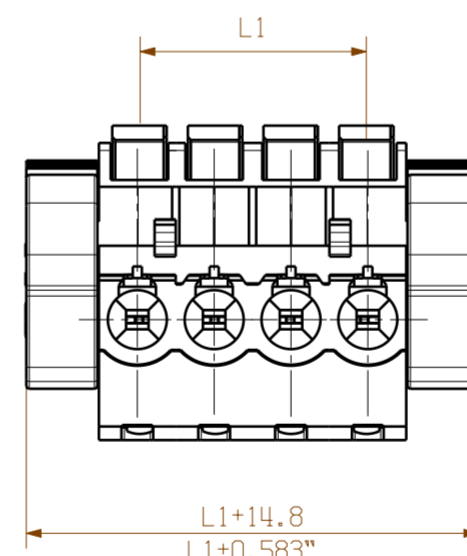
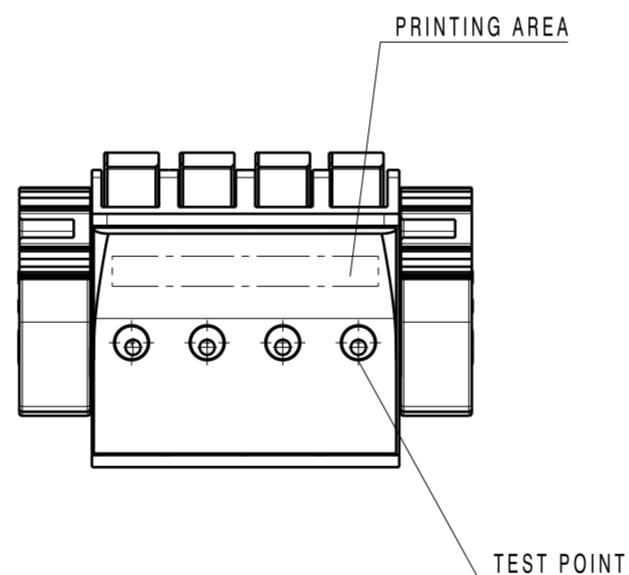
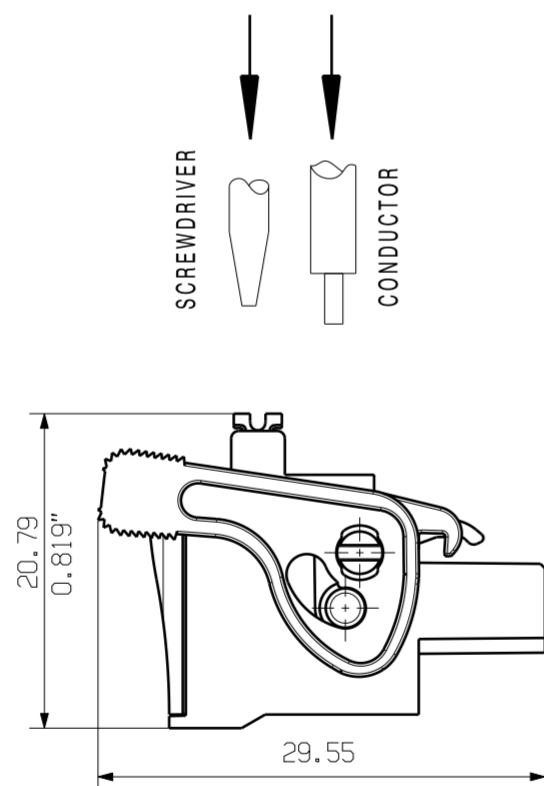
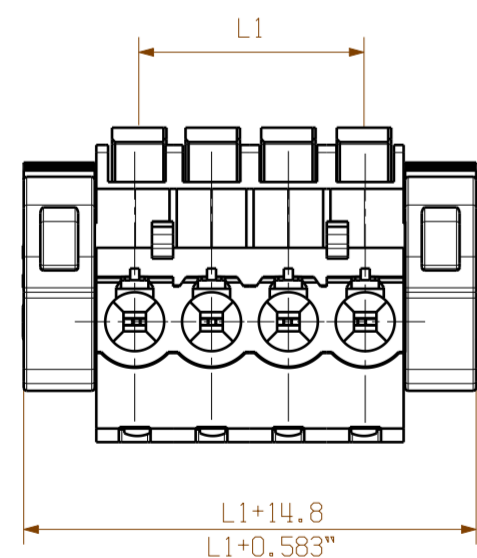
M 1:1



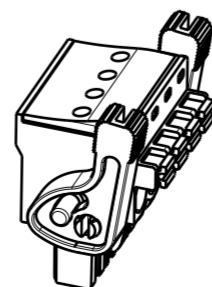
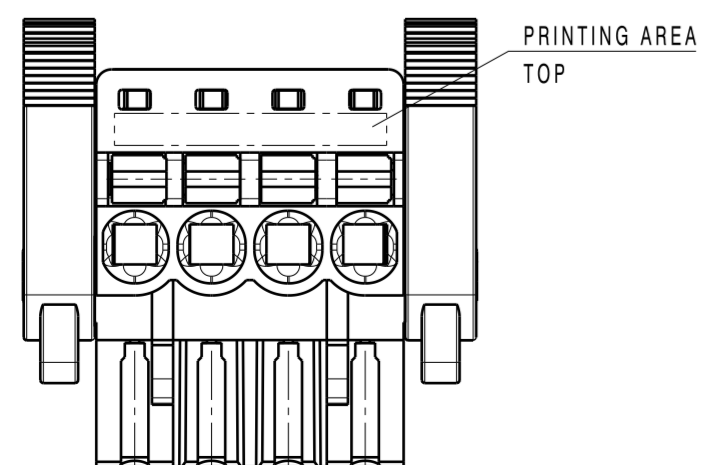
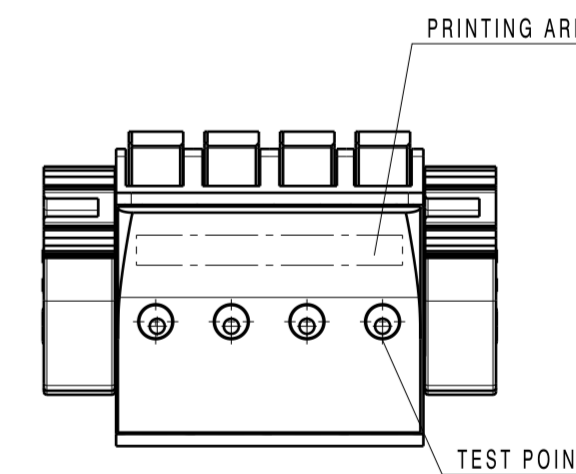
M 1:1

WEITERGABE SOWIE Vervielfaeligung dieses Dokuments, Verwertung und Mitteilung seines Inhalts sind verboten, soweit nicht ausdruecklich gestattet.
 ZUMIEDERHANGEN VERPFLICHTEN ZU SCHADENSATZ ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER-, ODER GESCHWACHMUSTERRECHTUNG VORBEHALTEN.
 THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED.
 OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. WEIDMUELLER EXCLUSIVELY RESERVES THE RIGHT TO FILE FOR PATENTS, UTILITY MODELS OR DESIGNS.
 © WEIDMUELLER INTERFACE GmbH & Co.KG

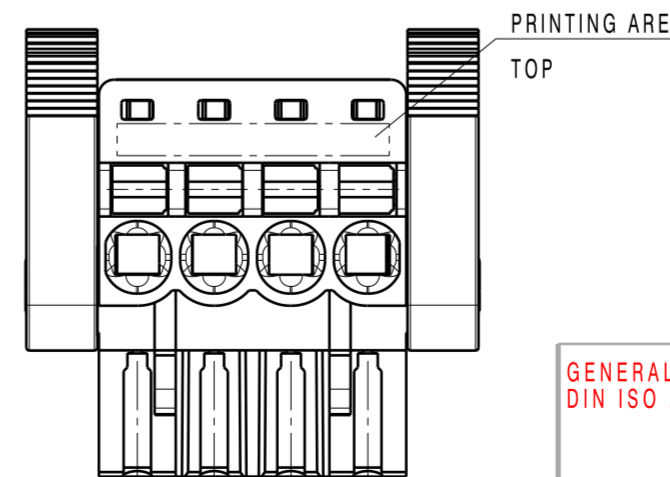
SHOWN: BLF 5.00HC/.../90LR SN ...



SHOWN: BLF 5.00HC/04/90LH SN ...

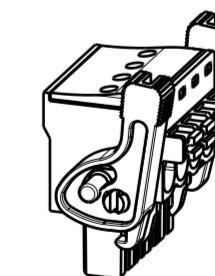


1:1



For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.
 The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.
 The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.
 P = 5.08 RASTER/PITCH
 n = POLZAHL/NO OF POLES



M 1:1

| | | |
|----|--------|----------|
| 20 | 95 | 3.743 |
| 19 | 90 | 3.546 |
| 18 | 85 | 3.349 |
| 17 | 80 | 3.152 |
| 16 | 75 | 2.955 |
| 15 | 70 | 2.758 |
| 14 | 65 | 2.561 |
| 13 | 60 | 2.364 |
| 12 | 55 | 2.167 |
| 11 | 50 | 1.970 |
| 10 | 45 | 1.773 |
| 9 | 40 | 1.576 |
| 8 | 35 | 1.379 |
| 7 | 30 | 1.182 |
| 6 | 25 | 0.985 |
| 5 | 20 | 0.788 |
| 4 | 15 | 0.591 |
| 3 | 10 | 0.394 |
| 2 | 5 | 0.197 |
| n | L1[mm] | L1[Inch] |

GENERAL TOLERANCE:
 DIN ISO 2768-m



89270/5
 03.12.15 HELIS_MA 01

MODIFICATION

| | DATE | NAME |
|-------------|------------|----------|
| DRAWN | 29.11.2007 | HUANG_PA |
| RESPONSIBLE | | HERTEL_S |
| CHECKED | 18.12.2015 | HELIS_MA |
| APPROVED | | LANG_T |

Weidmüller

CAT.NO.:

C 44231 07

DRAWING NO. SHEET 01 OF 01 SHEETS

BLF 5.00HC/.../90...
 BUCHSENLEISTE
 SOCKET BLOCK

PRODUCT FILE: BLF 5.00 7379

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Weidmuller:](#)

[1980800000](#)