

BLT 5.08HC/04/180DF SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 4, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box |
| Order No. | 1353150000 |
| Type | BLT 5.08HC/04/180DF SN OR BX |
| GTIN (EAN) | 4050118155617 |
| Qty. | 42 pc(s). |
| Product data | IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14 |
| Packaging | Box |

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Technical data**Dimensions and weights**

| | | | |
|------------|----------|-----------------|------------|
| Depth | 31.8 mm | Depth (inches) | 1.252 inch |
| Height | 12.2 mm | Height (inches) | 0.48 inch |
| Width | 44.54 mm | Width (inches) | 1.754 inch |
| Net weight | 13.869 g | | |

System Parameters

| | | | |
|--|-------------------------------------|-------------------|----------------------------|
| Product family | OMNIMATE Signal - series BL/SL 5.08 | | |
| Type of connection | Field connection | | |
| Wire connection method | TOP connection | | |
| Pitch in mm (P) | 5.08 mm | | |
| Pitch in inches (P) | 0.2 " | | |
| Conductor outlet direction | 180° | | |
| Number of poles | 4 | | |
| L1 in mm | 15.24 mm | | |
| L1 in inches | 0.6 " | | |
| 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 | IP20 plugged/ IP10 unplugged | | |
| Protection degree | IP20 | | |
| Volume resistance | ≤5 mΩ | | |
| Can be coded | Yes | | |
| Stripping length | 13 mm | | |
| Clamping screw | M 2.5 | | |
| Screwdriver blade standard | DIN 5264 | | |
| Plugging cycles | 25 | | |
| Plugging force/pole, max. | 8 N | | |
| Pulling force/pole, max. | 7 N | | |
| Tightening torque | Torque type | Wire connection | |
| | Usage information | Tightening torque | min. 0.4 Nm max. 0.5 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 | 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. | -25 °C |
| Temperature range, installation, max. | 100 °C | | |

Conductors suitable for connection

| | |
|---|----------------------|
| Clamping range, min. | 0.13 mm ² |
| Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 26 |
| Wire connection cross section AWG, max. | AWG 14 |
| Solid, min. H05(07) V-U | 0.2 mm ² |

Creation date July 4, 2024 9:31:09 PM CEST

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| | | | |
|---|--|------------------------------|-----------------------------|
| 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, 0.2 mm ² min. | | | |
| w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm ² max. | | | |
| w. wire end ferrule, DIN 46228 pt 1, 0.2 mm ² min. | | | |
| w. wire end ferrule, DIN 46228 pt 1, 1.5 mm ² max. | | | |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.4 mm x 1.5 mm ; 2.4 mm | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm ² |
| | wire end ferrule | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0.5/18 OR |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1 mm ² |
| | wire end ferrule | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1.0/18 GE |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1.5 mm ² |
| | wire end ferrule | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1.5/18D SW |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1.5/12 |
| 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, max. number of poles (Tu=20°C) | 19 A | Rated current, min. number of poles (Tu=20°C) | 27 A | |
| Rated current, max. number of poles (Tu=40°C) | 16 A | Rated current, min. number of poles (Tu=40°C) | 24 A | |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 V | Rated voltage for surge voltage class / pollution degree II/2 | 400 V | |
| Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV | Rated voltage for surge voltage class / pollution degree III/3 | 250 V | |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 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) | 15 A | Rated current (Use group D / CSA) | 15 A |
| Wire cross-section, AWG, min. | AWG 26 | Wire cross-section, AWG, max. | AWG 14 |

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Technical data

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated current (Use group B / UL 1059) 17 A

Wire cross-section, AWG, min. AWG 26

Reference to approval values Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, max. AWG 14

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 352 mm |
| VPE width | 137 mm | VPE height | 38 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 of material, date clock |
| | Evaluation | available |
| | Test | durability |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed |
| | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06 |
| | Test | 180° turned with coding elements |
| | Evaluation | passed |
| Test: Misengagement (Non-interchangeability) | Test | visual examination |
| | Evaluation | passed |
| 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 / 12.02 |
| | Conductor type | Type of conductor and solid 0.08 mm ² conductor cross-section |
| | | Type of conductor and stranded 0.08 mm ² conductor cross-section |
| | | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | | Type of conductor and stranded 2.5 mm ² conductor cross-section |
| | | Type of conductor and AWG 26/1 conductor cross-section |
| | | Type of conductor and AWG 26/19 conductor cross-section |
| | | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 14/19 conductor cross-section |
| | Evaluation | passed |

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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 26/19 conductor cross-section |
| Evaluation | passed |
| Requirement | 0.3 kg |
| Conductor type | Type of conductor and solid 0.5 mm ² conductor cross-section |
| | Type of conductor and stranded 0.5 mm ² conductor cross-section |
| Evaluation | passed |
| Requirement | 0.7 kg |
| Conductor type | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | Type of conductor and stranded 2.5 mm ² conductor cross-section |
| | Type of conductor and AWG 14/1 conductor cross-section |
| | Type of conductor and AWG 14/19 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 |
| | Evaluation | passed |
| | Requirement | ≥10 N |
| | Conductor type | Type of conductor and AWG 26/19 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥20 N |
| | Conductor type | Type of conductor and solid 0.5 mm ² conductor cross-section |
| | | Type of conductor and stranded 0.5 mm ² conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥40 N |
| | Conductor type | Type of conductor and AWG 14/1 conductor cross-section |
| | | Type of conductor and AWG 14/19 conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥50 N |
| | Conductor type | Type of conductor and solid 2.5 mm ² conductor cross-section |
| | | Type of conductor and stranded 2.5 mm ² conductor cross-section |
| | Evaluation | passed |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | 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 |

Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | / |
|------------|---|

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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">• Additional variants 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• Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.• P on drawing = pitch• 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.• 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• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

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www.weidmueller.com**Technical data****Downloads**

| | |
|---|---|
| Approval/Certificate/Document of Conformity | CB Certificate |
| | CB Testreport |
| | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| 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 |

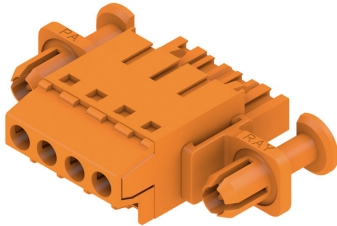
BLT 5.08HC/04/180DF SN OR BX

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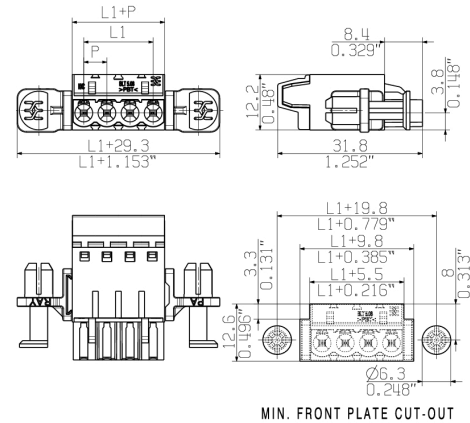
www.weidmueller.com

Drawings

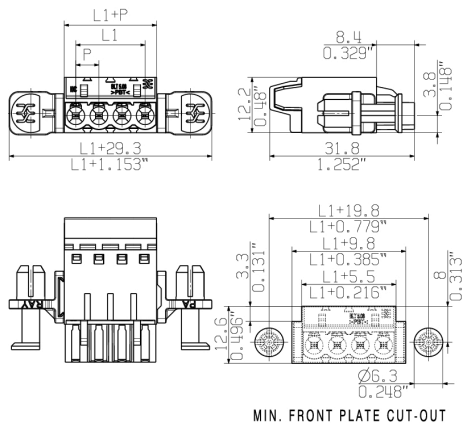
Product image



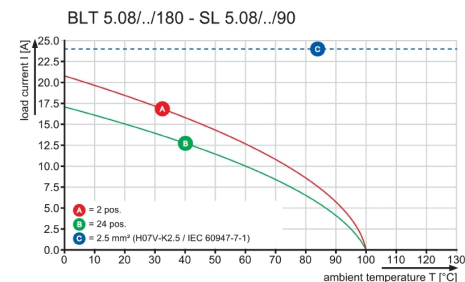
Dimensional drawing



Dimensional drawing



Graph



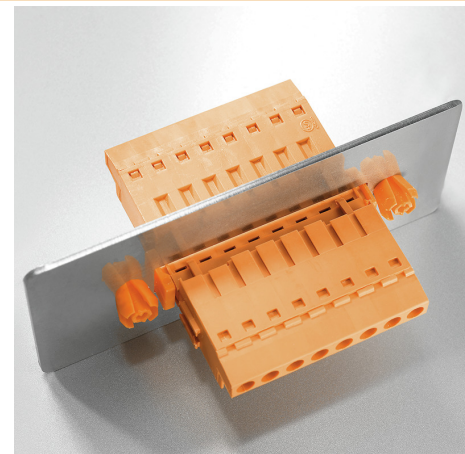
Lower assembly costs
Secure in a matter of seconds

Product benefits



Lower assembly costs
Secure in a matter of seconds

Product benefits

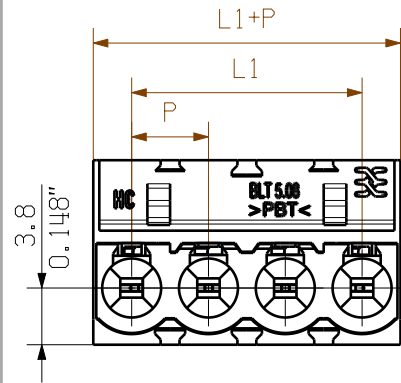


Guaranteed secure fixing
For wall thickness from 0.5 to 2 mm

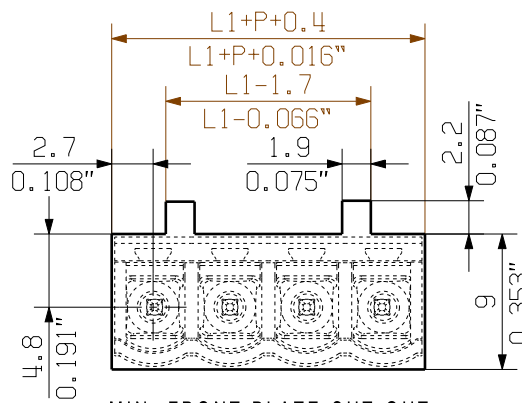
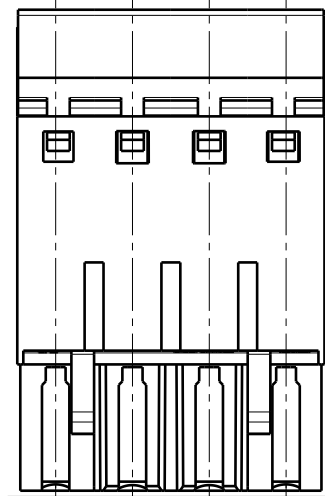
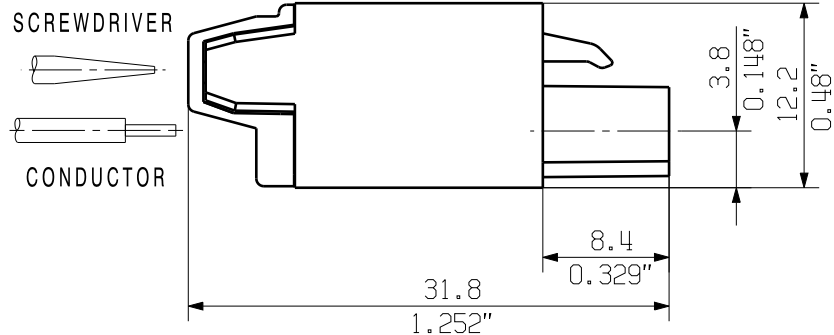
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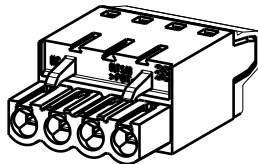
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.



SHOWN: BLT 5.08HC/04/180

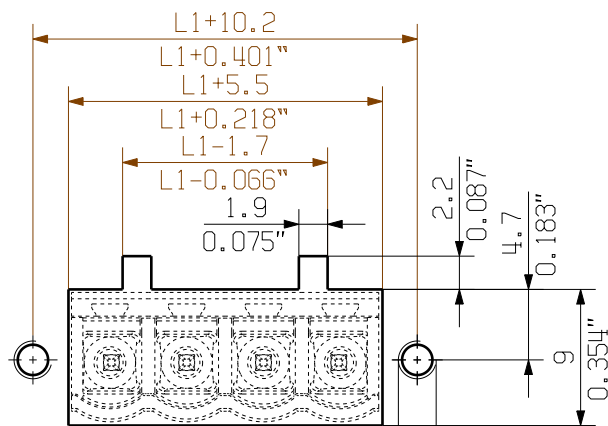
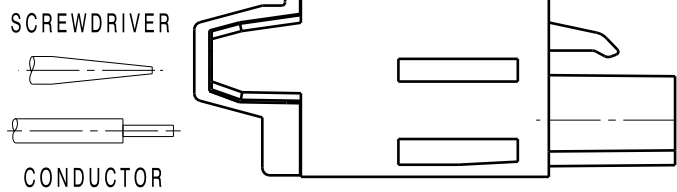
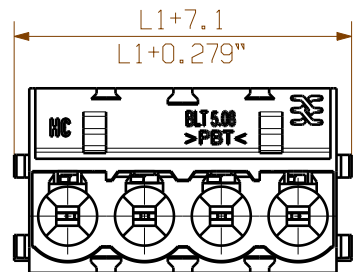


M 1/1

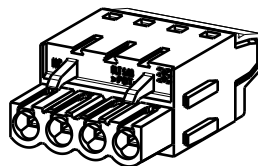


MIN. FRONT PLATE CUT-OUT

SHOWN: BLT 5.08HC/04/180B



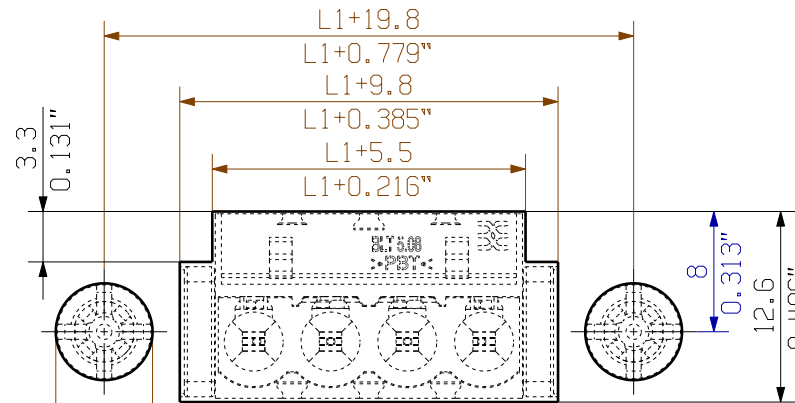
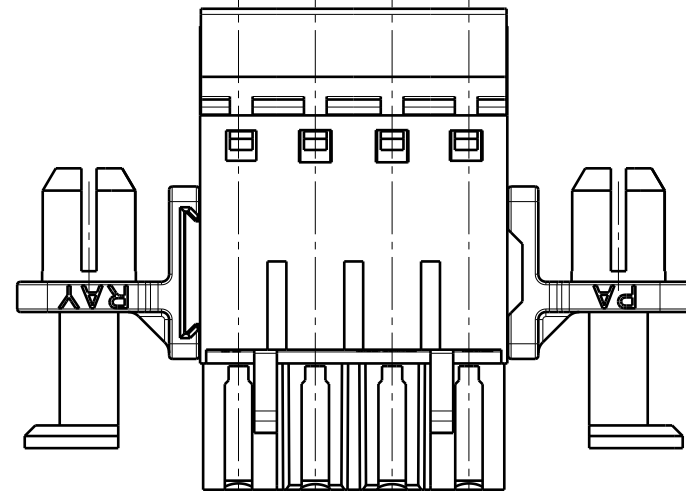
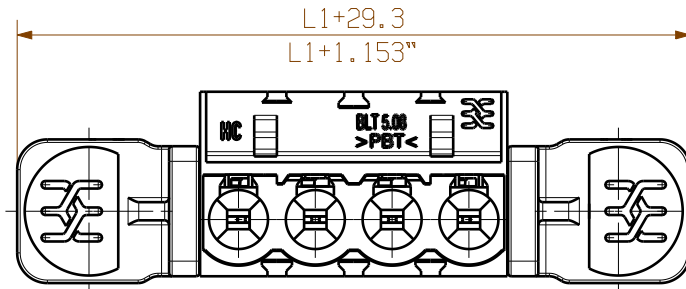
M 1/1



MIN. FRONT PLATE CUT-OUT
FOR USE WITH SLA BB12R

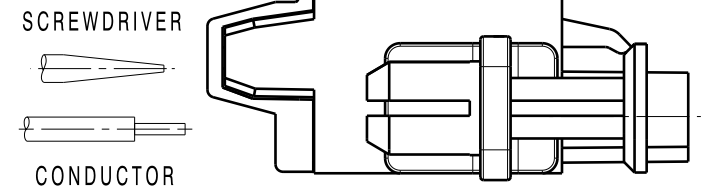
ALLGEMEINGUELTIGE KUNDENZEICHNUNG, AKTUELLER STAND NUR AUF ANFRAGE
GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED

SHOWN: BLT 5.08HC/04/180DF

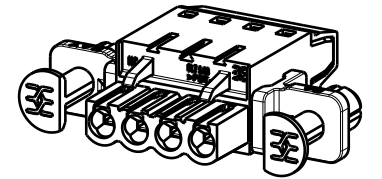


MIN. FRONT PLATE CUT-OUT

| | | | |
|----------------------------------|------------------------------------|--------|----------|
| 0.5-0.8 | 0.019-0.031 | 6.3 | 0.248 |
| 1.00 | 0.039 | 6.4 | 0.252 |
| 1.5 | 0.059 | 6.5 | 0.256 |
| 2.00 | 0.079 | 6.7 | 0.264 |
| WANDDICKE WALL THICKNESS [mm] | WANDDICKE WALL THICKNESS [inch] | d [mm] | d [inch] |



M 1/1



P=5.08 RASTER
PITCH

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 to 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 VDE 0627 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.

| | | | |
|--------------------|---------|-----------|-------|
| | 24 | 106.84 | 4.600 |
| | 23 | 111.76 | 4.400 |
| | 22 | 106.68 | 4.200 |
| | 21 | 101.60 | 4.000 |
| | 20 | 96.52 | 3.800 |
| | 19 | 91.44 | 3.600 |
| | 18 | 86.36 | 3.400 |
| | 17 | 81.28 | 3.200 |
| | 16 | 76.20 | 3.000 |
| | 15 | 71.12 | 2.800 |
| | 14 | 66.04 | 2.600 |
| | 13 | 60.96 | 2.400 |
| | 12 | 55.88 | 2.200 |
| | 11 | 50.80 | 2.000 |
| | 10 | 45.72 | 1.800 |
| | 9 | 40.64 | 1.600 |
| | 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 |
| n POLZAHL POLES | L1 [mm] | L1 [inch] | |

GENERAL TOLERANCE:
DIN ISO 2768-m



70664/4
24.09.13 HERTEL_S 01
MODIFICATION



| | |
|--------------------|-----------|
| DATE | NAME |
| DRAWN 11.06.2003 | KNOTH_G |
| RESPONSIBLE | HERTEL_S |
| CHECKED 24.09.2013 | HERTEL_S |
| APPROVED | HECKERT_M |

SCALE: 2/1
SUPERSEDES: .

Weidmüller

BLT5.08HC/.../180 ...
BUCHSENSTECKER
FEMALE PLUG

PRODUCT FILE: BLT 5.08

CAT.NO.: .

C 16018 41
DRAWING NO. SHEET 01 OF 01 SHEETS

7143