

OMNIMATE Signal - series BL/SL 5.08 BLF 5.08HC/11/180 SN OR BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
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Product image



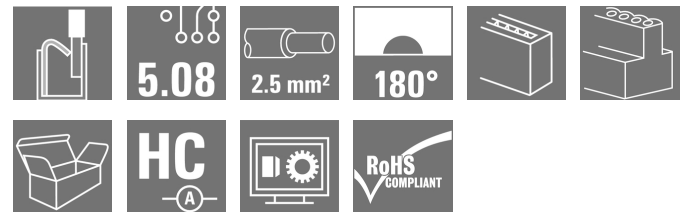
Similar to illustration

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

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has 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 5.08HC offers just as much as the version which served as a model:

- 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
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications



General ordering data

| | |
|--------------|--|
| Type | BLF 5.08HC/11/180 SN OR BX |
| Order No. | 1013780000 |
| Version | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 11, 180°, PUSH IN, Spring connection, Clamping range, max. : 3.31 mm², Box |
| GTIN (EAN) | 403224872 1894 |
| Qty. | 30 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 |

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Width | 55.88 | Width (inches) | 2.2 inch |
| Height | 14.2 mm | Height (inches) | 0.559 inch |
| Depth | 27.7 mm | Depth (inches) | 1.091 inch |
| Net weight | 22 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 | 11 | L1 in mm | 50.8 mm |
| L1 in inches | 2 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. | 7 N | Pulling force/pole, max. | 5.5 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, min. | 0.25 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 2.5 mm ² |

Creation date August 17, 2020 11:08:44 PM CEST

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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 | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H0.75/16 W | |
| | | Stripping length | nominal | 10 mm |
| | | Recommended wire-end ferrule | H0.75/10 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1 mm ² | |
| | wire end ferrule | Stripping length | nominal | 12 mm |
| | | Recommended wire-end ferrule | H1.0/16D R | |
| | | Stripping length | nominal | 10 mm |
| | | Recommended wire-end ferrule | H1.0/10 | |
| | Cross-section for conductor connection | Type | fine-wired | |
| | | nominal | 1.5 mm ² | |
| | 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 | | |
| wire end ferrule | Stripping length | nominal | 10 mm | |
| | Recommended wire-end ferrule | H2.5/10 | | |
| | Stripping length | nominal | 13 mm | |
| | Recommended wire-end ferrule | H2.5/16DS BL | | |
| 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 | | | |

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 |

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Technical data**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 D / CSA) 10 A

Wire cross-section, AWG, min. AWG 26

Wire cross-section, AWG, max.

Reference to approval values

Specifications are maximum values, details - see approval certificate.

AWG 12

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 | 35 mm |
| VPE width | 135 mm | VPE height | 350 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 identification, pitch, type of material, date clock |
| | Evaluation | available |
| | Test | durability |
| | Evaluation | passed |
| Test: Misengagement (Non-interchangeability) | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08 |
| | Test | 180° turned with coding elements |
| | Evaluation | passed |
| | Test | visual examination |
| | Evaluation | passed |

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| | | | |
|---|----------------|--|------------------------------|
| 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 / 04.08 | |
| | 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 | | |
| 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 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 |
| | Evaluation | passed | |
| | Requirement | 0.9 kg | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 12/1 |
| Type of conductor and conductor cross-section | | AWG 12/19 | |
| Evaluation | passed | | |

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| | | | | |
|---------------|----------------|---|-----------|--|
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 | | |
| | 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-K0.5 | |
| | | Type of conductor and conductor cross-section | H05V-U0.5 | |
| | 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 | |
| | Evaluation | passed | | |
| | Requirement | ≥60 N | | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 12/1 | |
| | | Type of conductor and conductor cross-section | AWG 12/19 | |
| | Evaluation | passed | | |

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 | | |

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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

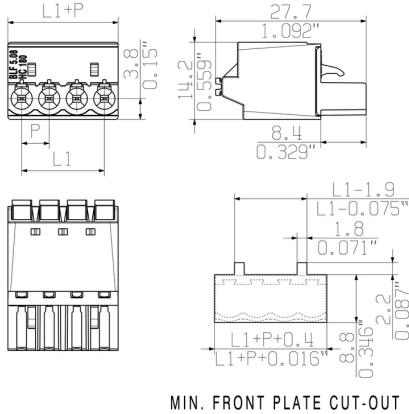
| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Brochure/Catalogue | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS.EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL 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, Zuken E3.S |
| Engineering Data | STEP |
| White paper PUSH IN wire connection | Download Whitepaper |

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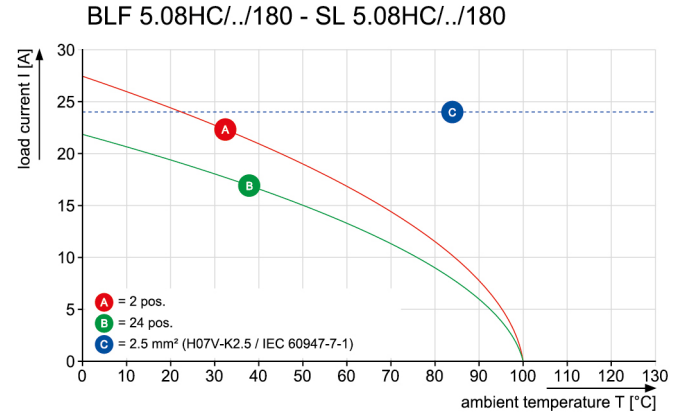
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Drawings

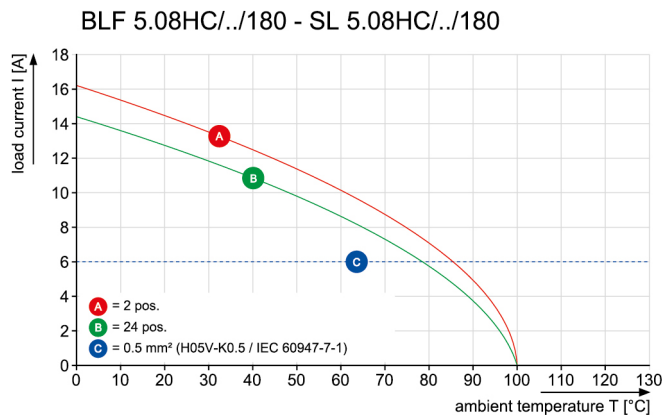
Dimensional drawing



Graph



Graph

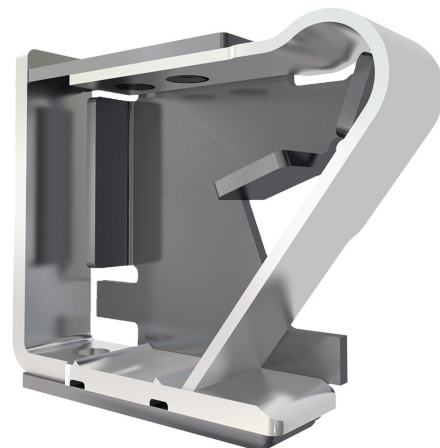


Product benefits



Uncompromising functionality
High vibration resistance

Product benefits



Solid PUSH IN contact
Safe and durable

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Product benefits



Cost-effective wiring
Quick and intuitive operation

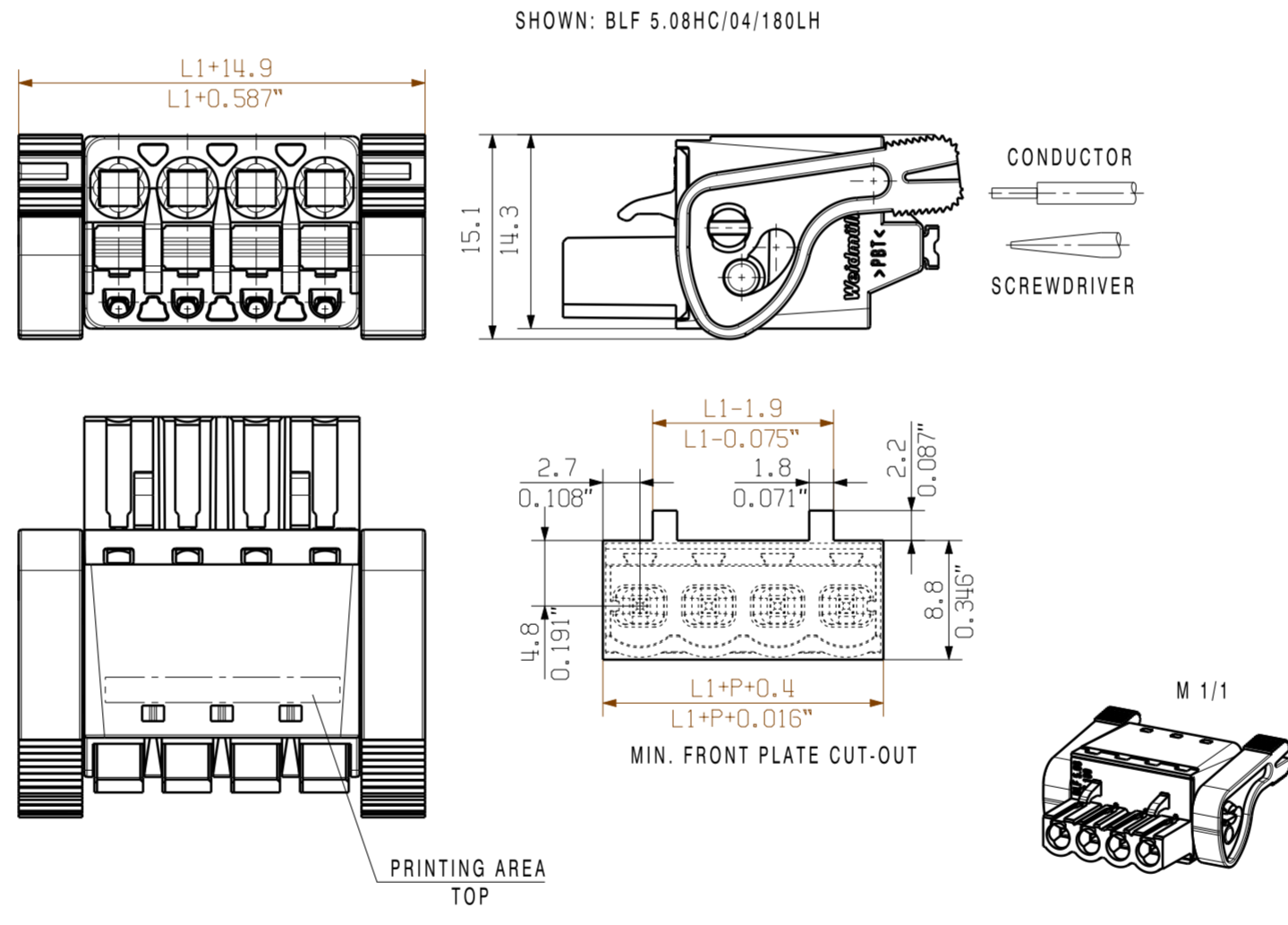
Product benefits



Wide clamping range
Tool-free wire connection



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



| | | | |
|----------------------------------|------------------------------------|--------|----------|
| 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] |

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.

GENERAL TOLERANCE:
DIN ISO 2768-m

P=5.08 RASTER
PITCH

| | | |
|----|------------------|----------------------|
| 24 | 116.84 | 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] |

| | | | |
|-------------------|---------------------------------------|------------------------------------|--|
| EC00001173 | 07 | Prim PLM Part No.: 003310 | Prim ERP Part No.: 1013710000 |
| RoHS COMPLIANT | First Issue Date 28.04.2009 | Max. nos. Modification | Weidmüller |
| | Drawn 01.03.2019 Hertel, Suzann | Date 05.03.2019 Lang, Thomas | 43921 |
| Scale: 2:1 | Size: A2 | Approved | Sheet 02 of 02 sheets |
| Drawings Assembly | | | BLF 5.08HC/./180... BUCHSENSTECKER FEMALE PLUG |
| | | | Product file: 7379 BLF 5.08 180 |

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