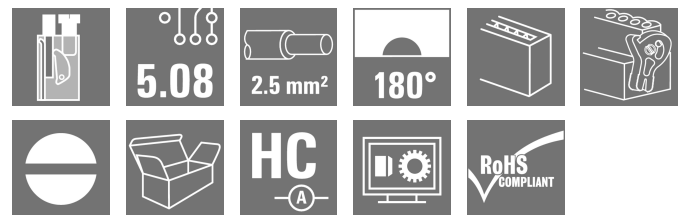


BLT 5.08HC/19/180LR SN OR BX

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 wire outlet and release latch mechanism. 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: 19, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box |
| Order No. | 1890390000 |
| Type | BLT 5.08HC/19/180LR SN OR BX |
| GTIN (EAN) | 4032248498871 |
| Qty. | 12 items |
| 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

Approvals

Approvals



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

Dimensions and weights

| | | | |
|------------|-----------|-----------------|-------------|
| Depth | 31.8 mm | Depth (inches) | 1.252 inch |
| Height | 15.1 mm | Height (inches) | 0.5945 inch |
| Width | 106.34 mm | Width (inches) | 4.1866 inch |
| Net weight | 63.85 g | | |

Environmental Product Compliance

| | |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC | No SVHC above 0.1 wt% |

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) | 0.200 " | | |
| Conductor outlet direction | 180° | | |
| Number of poles | 19 | | |
| L1 in mm | 91.44 mm | | |
| L1 in inches | 3.600 " | | |
| 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 | 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 | 0.6 x 3.5 | | |
| 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 |

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|---------------------------------------|--------|---------------------------------------|----------------------------|
| Comparative Tracking Index (CTI) | ≥ 200 | Moisture Level (MSL) | |
| 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 28 |
| Wire connection cross section AWG, max. | AWG 14 |
| 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. | 0.2 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 1.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.2 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm ² |
| 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, min. number of poles (Tu=20°C) | 27 A |
| Rated current, max. number of poles (Tu=20°C) | 19 A | Rated current, min. number of poles (Tu=40°C) | 24 A |
| Rated current, max. number of poles (Tu=40°C) | 16 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 |

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Technical data

Rated impulse voltage for surge voltage class/ pollution degree II/2 4 kV

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 current (Use group B / CSA) 15 A

Wire cross-section, AWG, min. AWG 26

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group D / CSA) 15 A

Wire cross-section, AWG, max. AWG 14

Rated data acc. to UL 1059

Institute (cURus) CURUS

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.

Certificate No. (cURus) E60693

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 338.00 mm

VPE width 130.00 mm VPE height 33.00 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: 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 conductor cross-section | solid 0.08 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.08 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 |
| | | | |

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Technical data

| | | | |
|---|---|---|---------------------------|
| Test for damage to and accidental loosening of conductors | | Type of conductor and conductor cross-section | AWG 14/1 |
| | | Type of conductor and conductor cross-section | AWG 14/19 |
| | Evaluation | passed | |
| | Standard | DIN EN 60999-1 section 9.4 / 12.00 | |
| | Requirement | 0.2 kg | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 28/1 |
| | | 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 | solid 0.5 mm ² |
| Type of conductor and conductor cross-section | | stranded 0.5 mm ² | |
| Evaluation | passed | | |
| Requirement | 0.7 kg | | |
| Conductor type | 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 14/1 | |
| | Type of conductor and conductor cross-section | AWG 14/19 | |
| Evaluation | passed | | |
| Standard | DIN EN 60999-1 section 9.5 / 12.00 | | |
| Requirement | ≥5 N | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 28/1 | |
| Evaluation | passed | | |
| Requirement | ≥10 N | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 26/19 | |
| Evaluation | passed | | |
| Requirement | ≥20 N | | |
| Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² | |
| | Type of conductor and conductor cross-section | stranded 0.5 mm ² | |
| Evaluation | passed | | |
| Requirement | ≥40 N | | |
| Conductor type | Type of conductor and conductor cross-section | AWG 14/1 | |

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Technical data

| | | |
|----------------|---|------------------------------|
| | Type of conductor and conductor cross-section | AWG 14/19 |
| Evaluation | passed | |
| Requirement | ≥50 N | |
| Conductor type | Type of conductor and conductor cross-section | solid 2.5 mm ² |
| | Type of conductor and conductor cross-section | stranded 2.5 mm ² |
| Evaluation | passed | |

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**
- 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

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | 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 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |

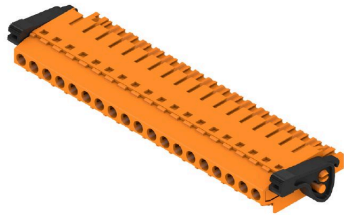
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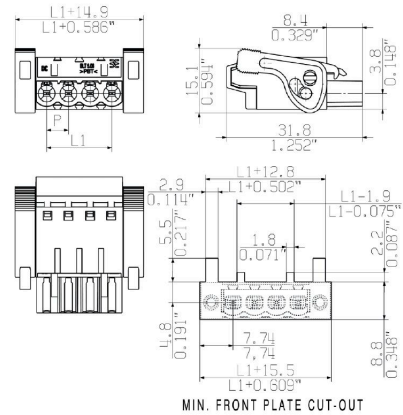
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Drawings

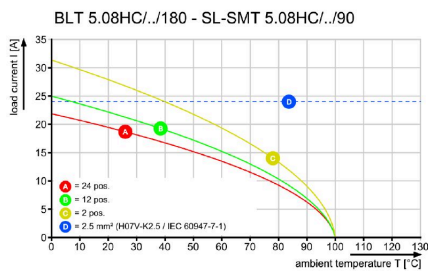
Product image



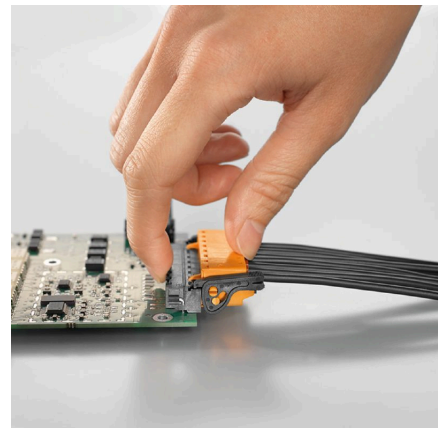
Dimensional drawing



Graph

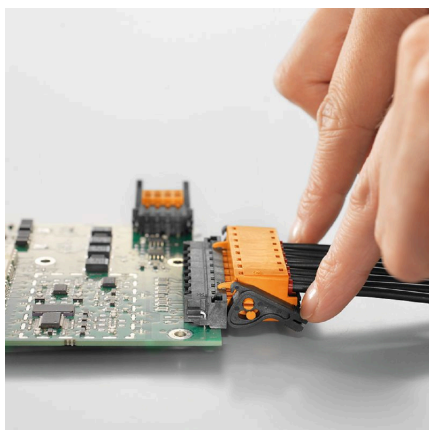


Product benefits



Self-locking Immediately on plugging in

Product benefits



Gentle unlocking Low mechanical stress