Data sheet

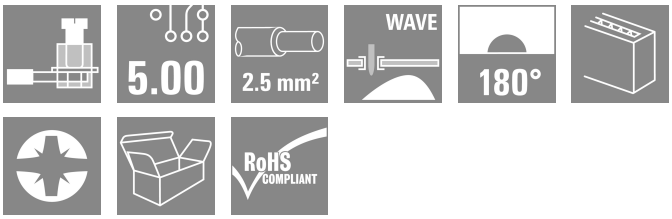
# LM 5.00/13/180 SN OR BX TB

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
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Germany

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## Product image






Similar to illustration

PCB terminal with proven clamping yoke connection at 5.00 and 5.08 mm pitch. Conductor outlet direction 90°, 135° and 180°. Suitable for conductor cross-sections up to 2.5 mm².

## General ordering data

| | |
|---|---|
| Version | Printed circuit board terminals, 5.00 mm, Number of poles: 13, 180°, tinned, orange, Clamping yoke connection, Clamping range, max. : 2.5 mm², Box |
| Order No. | 1265890000 |
| Type | LM 5.00/13/180 SN OR BX TB |
| GTIN (EAN) | 4050118055528 |
| Qty. | 50 items |
| Product data | IEC: 630 V / 17.5 A / 0.2 - 2.5 mm²<br>UL: 300 V / 15 A / AWG 24 - AWG 14 |
| Packaging | Box |

# Data sheet

## LM 5.00/13/180 SN OR BX TB

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# Technical data

### Approvals

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

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 13.8 mm | Depth (inches) | 0.5433 inch |
| Height | 10 mm | Height (inches) | 0.3937 inch |
| Height of lowest version | 10 mm | Width | 65.55 mm |
| Width (inches) | 2.5807 inch | Net weight | 11.24 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 LM | Wire connection method | Clamping yoke connection |
| Mounting onto the PCB | THT solder connection | Conductor outlet direction | 180° |
| Pitch in mm (P) | 5.00 mm | Pitch in inches (P) | 0.197 " |
| Number of poles | 13 | Pin series quantity | 1 |
| Fitted by customer | Yes | Number of rows | 1 |
| Max. adjacent poles per row | 24 | Solder pin dimensions | 0.95 x 0.8 mm |
| Solder eyelet hole diameter (D) | 1.3 mm | Solder eyelet hole diameter tolerance (D) | + 0,1 mm |
| Number of solder pins per pole | 1 | Screwdriver blade | 0.6 x 3.5 |
| Screwdriver blade standard | DIN 5264 | Tightening torque, min. | 0.4 Nm |
| Tightening torque, max. | 0.5 Nm | Clamping screw | M 2.5 |
| Stripping length | 6 mm | L1 in mm | 60.00 mm |
| L1 in inches | 2.362 " | Touch-safe protection acc. to DIN VDE 0470 | IP 10 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from back-of-hand touch | Protection degree | IP20 |
| Volume resistance | 1.20 mΩ | | |

### Material data

| | | | |
|---|---|---|---|
| Insulating material | Wemid (PA) | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | I |
| Comparative Tracking Index (CTI) | ≥ 600 | Moisture Level (MSL) | |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Coating | 1-3 µm Ni, 4-6 µm SN |
| Tinning type | matt | Layer structure of solder connection | 1...3 µm Ni / 4...6 µm Sn matt |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 70 °C |
| Operating temperature, min. | -50 °C | Operating temperature, max. | 120 °C |
| Temperature range, installation, min. | -25 °C | Temperature range, installation, max. | 120 °C |

### Conductors suitable for connection

| | |
|---|---|
| Clamping range, min. | 0.2 mm² |
| Clamping range, max. | 2.5 mm² |

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## Technical data

| | | | |
|---|---|---|---|
| Wire connection cross section AWG, min. | AWG 24 | | |
| Wire connection cross section AWG, max. | AWG 14 | | |
| Solid, min. H05(07) V-U | 0.2 mm² | | |
| Solid, max. H05(07) V-U | 2.5 mm² | | |
| Flexible, min. H05(07) V-K | 0.2 mm² | | |
| Flexible, max. H05(07) V-K | 2.5 mm² | | |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm² | | |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 1.5 mm² | | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm² | | |
| w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm² | | |
| Plug gauge in accordance with EN 60999 a x b; ø | 2.4 mm x 1.5 mm; 1.9mm | | |
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm² |
| | wire end ferrule | Stripping length | nominal 8 mm |
| | | Recommended wire-end ferrule | H0,5/12 OR |
| | | Stripping length | nominal 6 mm |
| | | Recommended wire-end ferrule | H0,5/6 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.75 mm² |
| | wire end ferrule | Stripping length | nominal 8 mm |
| | | Recommended wire-end ferrule | H0,75/12 W |
| | | Stripping length | nominal 6 mm |
| | | Recommended wire-end ferrule | H0,75/6 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 1 mm² |
| | wire end ferrule | Stripping length | nominal 8 mm |
| | | Recommended wire-end ferrule | H1,0/12 GE |
| | | Stripping length | nominal 6 mm |
| | | Recommended wire-end ferrule | H1,0/6 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.25 mm² |
| | wire end ferrule | Stripping length | nominal 8 mm |
| | | Recommended wire-end ferrule | H0,25/10 HBL |
| | | Stripping length | nominal 5 mm |
| | | Recommended wire-end ferrule | H0,25/5 |
| | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.34 mm² |
| | wire end ferrule | Stripping length | nominal 8 mm |
| | | Recommended wire-end ferrule | H0,34/10 TK |
| Reference text | Length of ferrules is to be chosen depending on the product and the rated voltage., The outside diameter of the plastic collar should not be larger than the pitch (P) | | |

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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) | 17.5 A |
| Rated current, max. number of poles (Tu=20°C) | 16 A | Rated current, min. number of poles (Tu=40°C) | 17.5 A |
| Rated current, max. number of poles (Tu=40°C) | 14.2 A | Rated voltage for surge voltage class / pollution degree II/2 | 630 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

| | | | |
|---|---|---|---|
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group B / CSA) | 18 A | Rated current (Use group D / CSA) | 10 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 14 |

### Rated data acc. to UL 1059

| | | | |
|---|---|---|---|
| Institute (cURus) | 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) | 15 A | Rated current (Use group D / UL 1059) | 10 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 14 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Packing

| | | | |
|---|---|---|---|
| Packaging | Box | VPE length | 281.00 mm |
| VPE width | 154.00 mm | VPE height | 110.00 mm |

### Type tests

| | | | |
|---|---|---|---|
| Test: Durability of markings | Standard | DIN EN 60512-1-1 / 01.03 | |
| | Test | mark of origin, type identification, pitch, type of material, approval marking UL, approval marking CSA, durability | |
| | Evaluation | available | |
| 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 0.2 mm² |
| | | Type of conductor and conductor cross-section | stranded 0.2 mm² |
| | | Type of conductor and conductor cross-section | stranded 1.5 mm² |
| | | Type of conductor and conductor cross-section | solid 2.5 mm² |
| | | Type of conductor and conductor cross-section | AWG 24/1 |

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## Technical data

| | | | |
|---|---|---|---|
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | | 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 | stranded 0.25 mm² |
| | | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | 0.3 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm² |
| | Evaluation | passed | |
| | Requirement | 0.4 kg | |
| | Conductor type | Type of conductor and conductor cross-section | stranded 1.5 mm² |
| | Evaluation | passed | |
| | Requirement | 0.7 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 2.5 mm² |
| | | 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 | DIN EN 60999-1 section 9.5 / 12.00 | |
| | Requirement | ≥10 N | |
| | Conductor type | Type of conductor and conductor cross-section | stranded 0.25 mm² |
| | | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | ≥20 N | |
| | Requirement | ≥40 N | |
| | Conductor type | Type of conductor and conductor cross-section | H07V-K1.5 |
| | Evaluation | passed | |
| | Requirement | ≥50 N | |

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## Technical data

| | | | |
|---|---|---|---|
| | Conductor type | Type of conductor and conductor cross-section | H07V-U2.5 |
| | | Type of conductor and conductor cross-section | AWG 14/1 |
| | | Type of conductor and conductor cross-section | AWG 14/19 |
| | 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 | • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

### Classifications

| | | | |
|---|---|---|---|
| ETIM 8.0 | EC002643 | ETIM 9.0 | EC002643 |
| ETIM 10.0 | EC002643 | ECLASS 14.0 | 27-46-01-01 |
| ECLASS 15.0 | 27-46-01-01 | | |

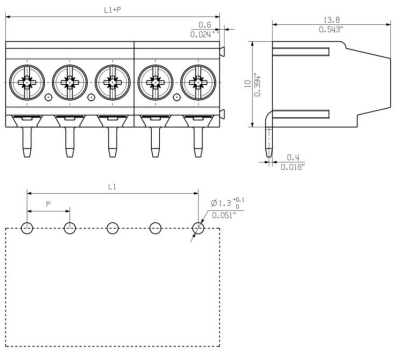
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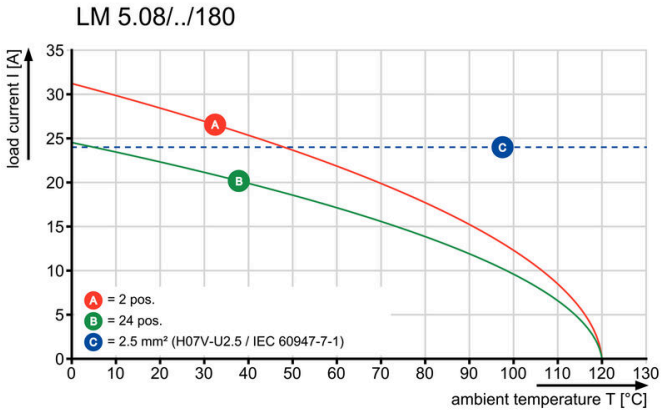
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## Drawings

### Dimensional drawing



### Graph




Derating curve valid for 5.00 & 5.08 pitch

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## 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 |
| GTIN (EAN) | 4050118897012 | thickness (A): 0.6 mm |
| Qty. | 1 ST | |
| 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 ST | |

### Crosshead screwdriver Phillips



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

#### General ordering data

| | | |
|---|---|---|
| Type | SDK PH0 X 60 | Version |
| Order No. | 2749400000 | Screwdriver, Blade width (B): 3 mm, 60 mm, Blade thickness (A): 0 |
| GTIN (EAN) | 4050118895629 | |
| Qty. | 1 ST | |