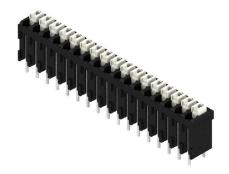


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Klingenbergstraße 26 D-32758 Detmold Germany

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Product image























PCB terminal for fully automatic assembly in reflow soldering (SMT), with PUSH IN conductor connection system. Conductor inserted and slider operated in same direction (TOP). Packed in box or as tape on reel. Pin lengths optimised at 1.5 mm or 3.5 mm.

General ordering data

| Version | Printed circuit board terminals, 3.81 mm, Number of poles: 17, 180°, Solder pin length (I): 3.5 mm, black, PUSH IN with actuator, Clamping range, max.: 1.5 mm², Tube |
|--------------|---|
| Order No. | <u>1870940000</u> |
| Туре | LSF-SMT 3.81/17/180 3.5SN BK TU |
| GTIN (EAN) | 4032248448333 |
| Qty. | 8 items |
| Product data | IEC: 320 V / 17.5 A / 0.2 - 1.5 mm² UL: 300 V / 12 A / AWG 28 - AWG 14 |
| Packaging | Tube |
| | |



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Technical data

Approvals

Approvals



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

Dimensions and weights

| Depth | 7.8 mm | Depth (inches) | 0.3071 inch |
|--------------------------|-------------|-----------------|-------------|
| Height | 17.5 mm | Height (inches) | 0.689 inch |
| Height of lowest version | 14 mm | Width | 65.16 mm |
| Width (inches) | 2.5653 inch | Net weight | 12.17 g |

Temperatures

Continuous operating temp., max. 120 °C

Environmental Product Compliance

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

System parameters

| Product family | OMNIMATE Signal - series LSF | Wire connection method | PUSH IN with actuator |
|--|---------------------------------|---|------------------------|
| Mounting onto the PCB | THT/THR solder connection | Conductor outlet direction | 180° |
| Pitch in mm (P) | 3.81 mm | Pitch in inches (P) | 0.150 " |
| Number of poles | 17 | Pin series quantity | 1 |
| Fitted by customer | No | Number of rows | 1 |
| Solder pin length (I) | 3.5 mm | Solder pin length tolerance | +0.1 / -0.3 mm |
| Solder pin dimensions | 0.35 x 0.8 mm | Solder pin dimensions = d tolerance | 0 / -0.1 mm |
| Solder eyelet hole diameter (D) | 1.1 mm | Solder eyelet hole diameter tolerance (D)+ 0,1 mm | |
| Number of solder pins per pole | 2 | Stripping length | 8 mm |
| L1 in mm | 60.96 mm | L1 in inches | 2.400 " |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Protection degree | IP20 | Volume resistance | 1.60 mΩ |

Material data

| Insulating material | LCP GF | Colour | black |
|---------------------------------------|---------------|---------------------------------------|----------|
| Colour chart (similar) | RAL 9011 | Insulating material group | Illa |
| Comparative Tracking Index (CTI) | ≥ 175 | Moisture Level (MSL) | 1 |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Layer structure of solder connection | 46 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. | -30 °C |
| Temperature range, installation, max. | 120 °C | | |



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Technical data

Conductors suitable for connection

| Clamping range, min. | 0.13 mm ² | | |
|---|--|----------------------------------|----------------------------|
| Clamping range, max. | 1.5 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 | 1.5 mm ² | | |
| Flexible, min. H05(07) V-K | 0.2 mm ² | | |
| Flexible, max. H05(07) V-K | 1.5 mm ² | | |
| w. plastic collar ferrule, DIN 46228 pt omin. | 4, 0.25 mm² | | |
| w. plastic collar ferrule, DIN 46228 pt max. | 4, 0.75 mm² | | |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² | | |
| w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm ² | | |
| Clampable conductor | Cross-section for conductor connection | Туре | fine-wired |
| | | nominal | 0.25 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire- end ferrule | H0,25/12 HBL |
| | Cross-section for conductor connection | Туре | fine-wired |
| | | nominal | 0.34 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire- end ferrule | H0,34/12 TK |
| | Cross-section for conductor connection | Туре | fine-wired |
| | | nominal | 0.5 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire- end ferrule | H0,5/14 OR |
| | Cross-section for conductor connection | Туре | fine-wired |
| | | nominal | 0.75 mm ² |
| | wire end ferrule | Stripping length | nominal 10 mm |
| | | Recommended wire- end ferrule | H0,75/14T HBL |
| Reference text | Length of ferrules is to be chosen depending | | امنوفريو محال مرموفا مريام |

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 A | Rated voltage for surge voltage class / pollution degree II/2 | 320 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 160 V | Rated voltage for surge voltage class / pollution degree III/3 | 160 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 2.5 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV | Short-time withstand current resistance | 3 x 1s with 80 A |



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Technical data

| Rated | 1 4-4- | | 4- | CCA |
|-------|--------|-----|----|-----|
| Kater | i data | acc | tΩ | LSΔ |

| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1664286 |
|-----------------------------------|--|-----------------------------------|----------------|
| 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 28 | Wire cross-section, AWG, max. | AWG 14 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

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) | 12 A | Rated current (Use group D / UL 1059) | 10 A |
| Wire cross-section, AWG, min. | AWG 28 | Wire cross-section, AWG, max. | AWG 14 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| Packaging | Tube | VPE length | 556.00 mm |
|--------------------|-------------------|------------|-----------|
| VPE width | 20.00 mm | VPE height | 16.00 mm |
| Surface resistance | Rs = 109 - 1012 Ω | | |

Type tests

| Test: Durability of markings | Standard | DIN EN 60512-1-1 / 01.03 |
|-------------------------------|----------------|--|
| | Test | mark of origin, type identification, pitch, durability |
| | Evaluation | available |
| | Test | approval marking UL |
| | Evaluation | on packaging label |
| 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 solid 0.14 mm ² and conductor cross-section |
| | | Type of conductor stranded 0.14 mm ² and conductor cross-section |
| | | Type of conductor solid 1.5 mm ² and conductor cross-section |
| | | Type of conductor stranded 1.5 mm ² and conductor cross-section |
| | | Type of conductor AWG 24/1 and conductor cross-section |
| | | Type of conductor AWG 24/19 and conductor cross-section |
| | | Type of conductor AWG 16/1 and conductor cross-section |
| | | Type of conductor AWG 16/19 and conductor cross-section |
| | Evaluation | passed |

Creation date 27.09.2025 02:29:20 MEZ

Catalogue status / Drawings 4





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Technical data

| Test for damage to and accidental | Standard | DIN EN 60999-1 section 9.4 / 12.00 |
|-----------------------------------|----------------|---|
| loosening of conductors | Requirement | 0.2 kg |
| | Conductor type | Type of conductor AWG 24/1 and conductor cross-section |
| | | Type of conductor AWG 24/19 and conductor cross-section |
| | Evaluation | passed |
| | Requirement | 0.3 kg |
| | Conductor type | Type of conductor stranded 0.25 mm ² and conductor cross-section |
| | | Type of conductor solid 0.5 mm ² and conductor cross-section |
| | Evaluation | passed |
| | Requirement | 0.4 kg |
| | Conductor type | Type of conductor solid 1.5 mm ² and conductor cross-section |
| | | Type of conductor stranded 1.5 mm ² and conductor cross-section |
| | | Type of conductor AWG 16/1 and conductor cross-section |
| | | Type of conductor AWG 16/19 and conductor cross-section |
| | Evaluation | passed |
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 |
| | Requirement | ≥10 N |
| | Conductor type | Type of conductor AWG 24/1 and conductor cross-section |
| | | Type of conductor AWG 24/19 and conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥20 N |
| | Conductor type | Type of conductor stranded 0.25 mm ² and conductor cross-section |
| | | Type of conductor H05V-U0.5 and conductor cross-section |
| | Evaluation | passed |
| | Requirement | ≥40 N |
| | Conductor type | Type of conductor H07V-U1.5 and conductor cross-section |
| | | Type of conductor H07V-K1.5 and conductor cross-section |
| | | Type of conductor AWG 16/1 and conductor cross-section |
| | | Type of conductor AWG 16/19 and conductor cross-section |
| | Evaluation | passed |

Weidmüller **₹**

LSF-SMT 3.81/17/180 3.5SN BK TU

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Technical data

| Im | nn | rto | nt | note |
|----|----|-----|-----|------|
| | րս | rta | 111 | 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 push button colours on request Operating force of slider max. 40 N Rated current related to rated cross-section & min. No. of poles. Wire end ferrule with plastic collar to DIN 46228/4 Wire end ferrule without plastic collar to DIN 46228/1 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. Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended. Long term storage of the product with average temperature of 50 °C and maximum humidity 70%. 36 months | | | |

Classifications

| | <u> </u> | | <u> </u> |
|-------------|-------------|-------------|-------------|
| | | | |
| ETIM 6.0 | EC002643 | ETIM 7.0 | EC002643 |
| ETIM 8.0 | EC002643 | ETIM 9.0 | EC002643 |
| ETIM 10.0 | EC002643 | ECLASS 9.0 | 27-44-04-01 |
| ECLASS 9.1 | 27-44-04-01 | ECLASS 10.0 | 27-44-04-01 |
| ECLASS 11.0 | 27-46-01-01 | ECLASS 12.0 | 27-46-01-01 |
| ECLASS 13.0 | 27-46-01-01 | ECLASS 14.0 | 27-46-01-01 |
| ECLASS 15.0 | 27-46-01-01 | | |



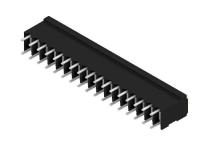
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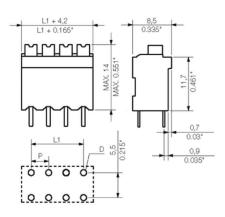
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Drawings

Product image



Dimensional drawing



Graph Graph

