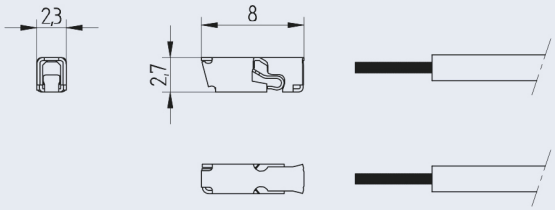
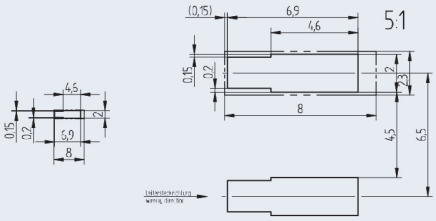
# SMD-Terminal blocks

46.110 · SMD Terminal block Pico

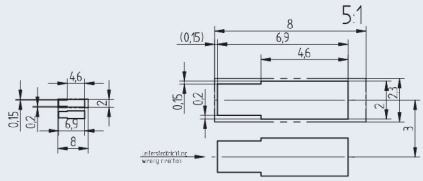
technology for light


Footprint Rast 6.5 mm (630 V)




Footprint eng Rast 3.0 mm




**SMD-Terminal block Pico with push wire contacts and contact opening function**

without insulating housing

**1 pole - 46.110.**1001.48

**Funnel-shaped wire insertion channel for easy wire insertion**

**Direct insertion of solid and stranded, tinned wire ends and finely stranded conductors by using the contact opening function**

**Contact opening function** - also for release of already inserted wires

**Mounting and wiring position: PCB top side**

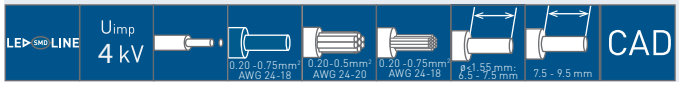
**Machine-compatible "tape-and-reel" packaging**

Fixing: Lead-free reflow soldering according to DIN EN 610760-1, section 6

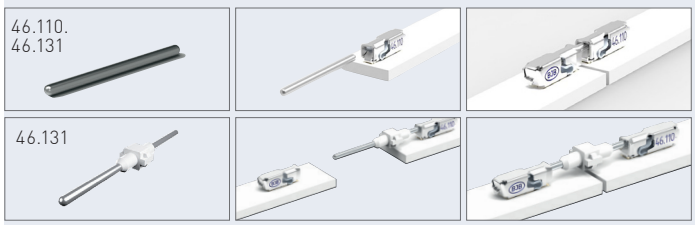
Material: CrNi / CuSn
Clamping spring material: CrNi
Contact material: CuSN
Contact surface: hot-dipped tinned

Note: Terminal without insulation housing!
Protection against contact when using voltage> extra-low voltage (SELV, PELV) must be ensured in the application.

| Packaging data 46.110.1001.48 | |
|---|---|
| Weight per piece | 0.1 g |
| Pieces per coil - Tape and Reel | 6.000 pcs |
| Reel width | 16 mm |
| Pitch distance | 4 mm |
| Reel diameter | 330 mm - 13" |
| Weight per reel | 1.3 kg |
| Number of reels per carton | 18 pcs |
| Number of SMD terminal blocks per carton | 108.000 pcs |
| Weight per carton | 24.3 kg |
| Carton dimensions (LxWxH) | 400 x 355 x 365 mm |
| Cartons per pallet | 12 pcs |
| Pieces per pallet | 1.296.000 pcs |




**Accessories:**
SMD Pico-B2B-connector. For connection of LED modules.




**Tool for contact opening**
To open contacts for use of finely stranded wires or for release of already inserted wires.

**46.110.**U801.89

| Connection data | |
|---|---|
| Connection technology | Push wire contacts |
| Solid wires | 0.20 - 0.75 mm², AWG 24-18 |
| Stranded, tinned wires | 0.20 - 0.5 mm², AWG 24-20 |
| Stranded wires | 0.20 - 0.75 mm², AWG 24-18 |
| Strip length (ø < 1.55 mm) with IMS Boards / IMS PCBs | 6.5 - 7.5 mm |
| Strip length | 7.5 - 9.5 mm |
| Conductor entry angle to PCB | 0° |
| Wire release function by | Contact opening tool |
| | |
| **Pull-out force according to DN 60999-1** | |
| 0.2 mm² | min. 10 N |
| 0.34 mm² | min. 15 N |
| 0.5 mm² | min. 20 N |
| 0.75 mm² | min. 30 N |
| Insertion force | max. 10 N |

| Geometrical data | |
|---|---|
| Pin spacing | 6.5 mm / 0.16 inch |
| Width | 2.3 mm / 0.15 inch |
| Height | 2.7 mm / 0.16 inch |
| Depth | 8 mm / 0.52 inch |

| Material data | |
|---|---|
| Insulating material group | - |
| Insulating material | - |
| PTI | - |
| Flammability class, based on UL 94 | - |
| Clamping spring material | CrNi |
| Contact material | CuSn |
| Contact surface | hot-dipped tinned |

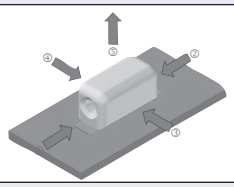
| Mechanical data | |
|---|---|
| Mounting position | PCB top side |
| Mounting type | Lead-free reflow soldering |

| Temperature data | |
|---|---|
| Marginal temperatures | -40 °C to + 150 °C |
| Ambient temperature | -40 °C to + 105 °C |

| Rated data according to IEC / EN 60947-7-4 (IEC/EN 60664-1). The data are based on the exemplary grid dimension of 6.5 mm. | |
|---|---|
| Rated voltage (III / 3) | 320 V |
| Rated impulse voltage (III / 3) | 4 kV |
| Rated voltage (III / 2) | 320 V |
| Rated impulse voltage (III / 2) | 4 kV |
| Rated voltage (II / 2) | 630 V |
| Rated impulse voltage (II / 2) | 4 kV |
| Rated current | 9 A |

| Rated data according to UL 1977 | |
|---|---|
| Rated voltage UL 1977 | 630 V |
| Rated current UL 1977 | USR:9 A |
| | CNR: 6 A, AWG 24 |
| | CNR: 9 A, AWG 18 |

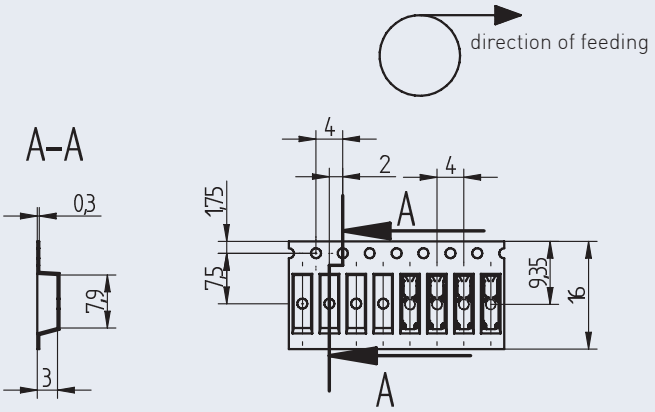
| Country specific certificates | |
|---|---|
| VDE ENEC | IEC 606947-7-4: 2019-10, IEC 60947-7-4:2019 |
| UL c UL us | 1977 |

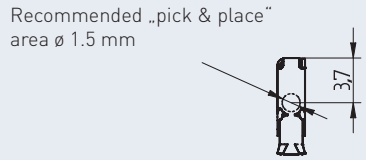
| **Shear forces according to IEC 62137-1-2: 2007.**<br><br>**These values are maximum values that apply only for impuls, not for continuous load.** |  |
|---|---|
| Direction 1 shear force along | 50 |
| Direction 2 shear force along | 50 |
| Direction 3 shear force across | 30 |
| Direction 4 shear force across | 30 |
| Direction 5 pull-off force | 30 |

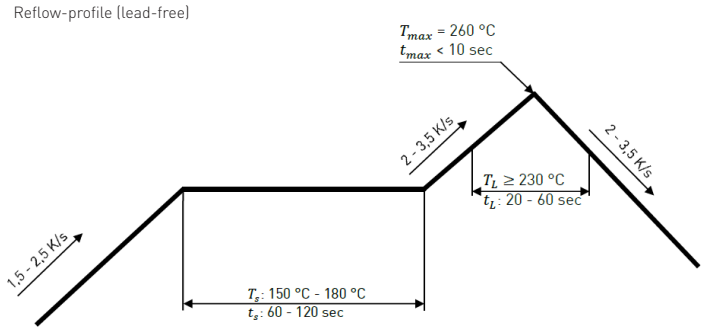
**Instructions for soldering process**

Suitable for leadfree-reflow-profiles according to DIN EN 61760-1 respective DIN EN 60068-2-58 up to peak-temperature of max. 260°C.
Due to different application-specific parameters (component arrangement and alignment, soldering system, solder paste), it is recommended to use test runs to determine a suitable profile under production conditions.

Depending on the SMD soldering process and associated parameters a minor discoloration might occur. However, this will not influence the functionality.




| | |
|---|---|
| Storage time | Solderability up to 6 months when stored between -5°C and +40°C and rel. humidity between 10...60% r H.<br>After a storage time of 6 months, solderability has to be checked according to J-STD-002D or DIN EN 60068-2-58:2016. |
| max. allowed number of reflow-processes | 3 |
| Reflow-profile |  |
| Solderability | Solderability of components is checked by wetting test according to J-STD-002D |
| Assembly method | SMD, according to drawing |
| Recommended solder stencil thickness | 100 - 150 µm (recommendation BJB 150 µm) |