

# SMD-Terminal block

46.121 · Push through Terminal block - M



technology for light

## SMD-Push through terminal block with push wire contacts

1 pole - 46.121.1002.50

Direct insertion of solid and stranded, tinned wire ends

Wires can be released by twisting and pulling the wire simultaneously.

Mounting and wiring position: PCB bottom side

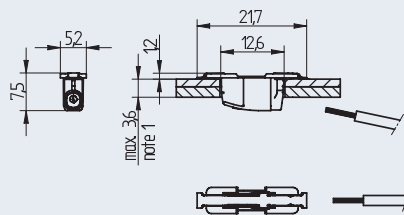
Ballast and PCB terminal block on one level

Machine-compatible "tape-and-reel" packaging

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

Material: Housing: PPA, white  
Contact material: CuNi  
Contact surface: hot-dip tinned

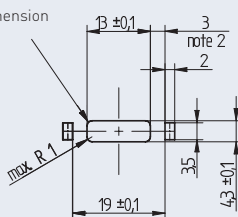
| Packaging data 46.121.1002.50            |                    |
|--|--------------------|
| Weight per piece                         | 0.5 g              |
| Pieces per coil                          | 1.400              |
| Coil diameter                            | 381 mm - (15")     |
| Weight per coil                          | 1.06 kg            |
| Number of coils per carton               | 10                 |
| Number of SMD terminal blocks per carton | 14.000             |
| Weight per carton                        | 11.79 kg           |
| Carton dimensions (LxWxH)                | 400 x 405 x 415 mm |



Note 1: Maximum thickness of PCB and luminaire heat sink shall not exceed 3.6 mm.

General note: It is recommended to make an electrical connection between both poles of each polarity on the solder pad.

Recommended dimension for opening in PCB



Note 2: The minimum creepage distance has to be guaranteed, depends on the application.



| Connection data                  |  |
|----------------------------------|--|
| Connection technology            | Push wire contacts                     |
| Solid wires                      | 0.2 - 0.75 mm <sup>2</sup> , AWG 24-18 |
| Stranded, tinned wires           | 0.2 - 0.5 mm <sup>2</sup> , AWG 24-20  |
| Strip length                     | 8 +1 mm                                |
| Conductor entry angle to the PCB | 0 - 10°                                |
| Wire release function by         | Twisting and Pulling                   |

| Pull-out force according to DN 60999-1 |           |
|--|-----------|
| 0.2 mm <sup>2</sup>                    | min. 10 N |
| 0.34 mm <sup>2</sup>                   | min. 15 N |
| 0.5 mm <sup>2</sup>                    | min. 20 N |
| 0.75 mm <sup>2</sup>                   | min. 30 N |
| Insertion force                        | max. 10 N |

| Geometrical data |                      |
|------------------|----------------------|
| Pin spacing      | 5.25 mm / 0.206 inch |
| Width            | 5.2 mm / 0.204 inch  |
| Height           | 7.5 mm / 0.295 inch  |
| Depth            | 21.7 mm / 0.85 inch  |

| Material data                         |                   |
|---------------------------------------|-------------------|
| Insulating material group             | I                 |
| Insulating material                   | PPA, white        |
| PTI                                   | 600               |
| Flammability class, based on UL UL 94 | V-0               |
| Contact material                      | CuNi              |
| Contact surface                       | hot-dipped tinned |

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

| Temperature data                                   |                    |
|--|--------------------|
| Marginal temperatures                              | -40 °C to + 150 °C |
| Ambient temperature                                | -40 °C to + 125 °C |
| T-classification according to IEC 60998-1 para. 12 | 120° C             |

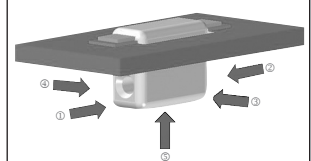
| Rated data according to IEC / EN 60947-7-4 (IEC/EN 60664-1) for PCB type FR4 1.0 mm |        |
|---|--------|
| Rated voltage (III / 3)   | 200 V  |
| Rated impulse voltage (III / 3)   | 2.5 kV |
| Rated voltage (III / 2)   | 250 V  |
| Rated impulse voltage (III / 2)   | 2.5 kV |
| Rated voltage (II / 2)  | 400 V  |
| Rated impulse voltage (II / 2)  | 2.5 kV |
| Rated current   | 9 A    |

| Rated data according to IEC / EN 60947-7-4 (IEC/EN 60664-1) for PCB type IMS |        |
|--|--------|
| Rated voltage (III / 3)  | 63 V   |
| Rated impulse voltage (III / 3)  | 2.5 kV |
| Rated voltage (III / 2)  | 160 V  |
| Rated impulse voltage (III / 2)  | 2.5 kV |
| Rated voltage (II / 2)   | 320 V  |
| Rated impulse voltage (II / 2)   | 2.5 kV |
| Rated current  | 9 A    |

| Rated data according to UL 1977 / CSA-C22.2 No. 182.3 |  |
|---|--|
| Rated voltage UL 1977                                 | 600 V  |
| Rated current UL 1977                                 | USR 9 A, AWG 24 -18<br>CNR 6 A, AWG 24-20<br>CNR 9 A, AWG 18 |

| Country specific certificates |   |
|-------------------------------|---|
| VDE / ENEC                    | EN IEC 60947-7-4<br>File no.: 40040866              |
| cURus                         | UL 1977 / CSA-C22.2 No. 182.3<br>File no.: E-365006 |

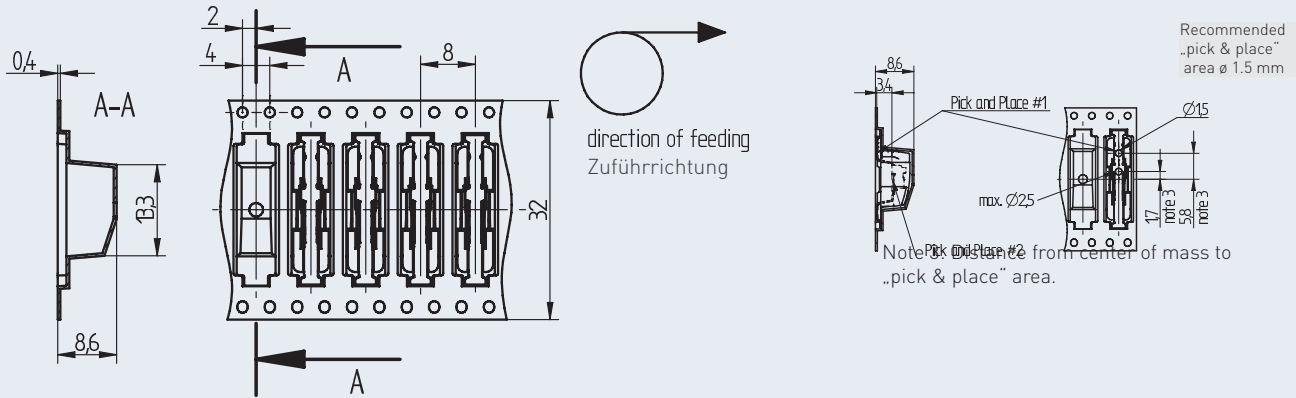
| Shear forces according to IEC 62137-1-2.   |       |
|--|-------|
| These values are maximum values that apply only for impuls, not for continuous load. |       |
| Direction 1 shear force along  | 100 N |
| Direction 2 shear force along  | 80 N  |
| Direction 3 shear force across   | 20 N  |
| Direction 4 shear force across   | 20 N  |
| Direction 5 pull-off force   | 20 N  |



## 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. 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                          | <p>Reflow-profile (lead-free)</p>  |
| 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)   |