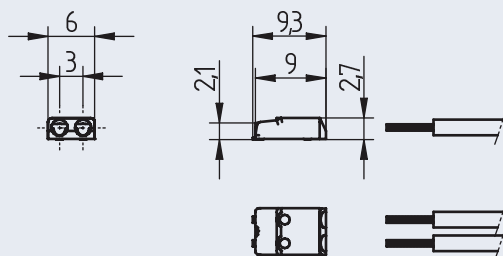


SMD Terminal blocks

46.142 · SMD Terminal block Nano



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

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

2 pole - 46.142.2001-0

Direct insertion of solid wires

Contact opening function - for release of already inserted wires

Mounting and wiring position: PCB top side

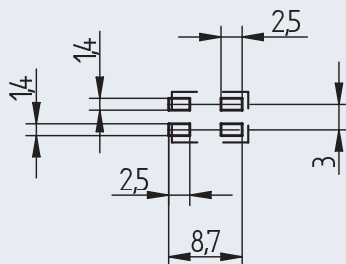
Machine-compatible "tape-and-reel" packaging

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

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

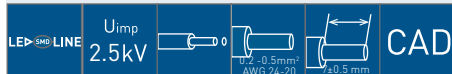
To operate the contact opening function, we recommend the use of our tool 46.141.U801-0

Recommended dimensions for solder tags



Packaging data 46.142.2001-0

Weight per piece	0.3 g
Pieces per coil	4.050
Coil diameter	381 mm - 15"
Weight per coil	1.52 kg
Number of coils per cardboard	18
Number of SMD terminal blocks per cardboard	72.900
Weight per cardboard	23.5 kg
Cardboard dimensions (LxWxH)	400 x 405 x 415 mm

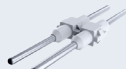


Accessories:

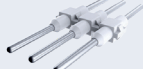
SMD Nano-B2B connector. For connecting PCBs.
Available in 21 mm length.



46.141.U701-0



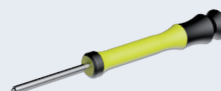
46.142.U701-0



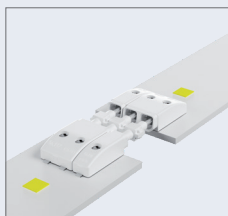
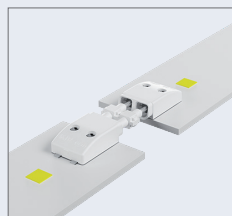
46.143.U701-0

Contact opening tool

For release of already inserted wires



46.141.U801-0



Connection data	
Connection technology	Push wire contacts
Solid wires	0.2 - 0.5 mm ² , AWG 24-20
Strip length	7 ±0.5 mm
Conductor entry angle to the PCB	0
Wire release function by	Contact opening tool
Pull-out force according to DN 60999-1	
0.2 mm ²	min. 10 N
0.34 mm ²	min. 15 N
0.5 mm ²	min. 20 N
0.75 mm ²	min. 30 N
Insertion force	max. 10 N

Geometrical data	
Pin spacing	3 mm / 0.12 inch
Width	6 mm / 0.24 inch
Height	2.7 mm / 0.11 inch
Depth	9.3 mm / 0.37 inch

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

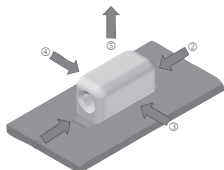
Mechanical data	
Mounting position	PCB top side
Mounting type	Lead-free reflow soldering

Temperature data	
Marginal temperatures	-70 °C to + 150 °C
Ambient temperature	-70 °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)	
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	3 A

Rated data according to UL 1977 / CSA-C22.2 No. 182.3	
Rated voltage	320 V
Rated current	USR 9 A, AWG 24 -18 CNR 6 A, AWG 24 -20 CNR 9 A, AWG 18

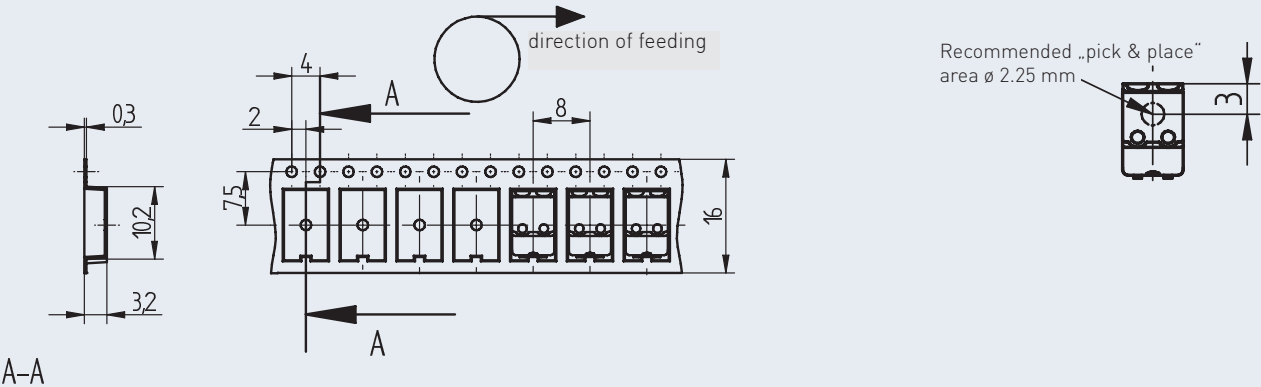
Country specific certificates	
VDE / ENEC	EN IEC60947-7-4 File no.: 40040866
cURus	UL 1977 / CSA-C22.2 No. 182.3 File no.: E-365006

Shear forces according to IEC 62137-1-2.	
These values are maximum values that apply only for impuls, not for continuous load.	
Direction 1 + 2 shear force along	80 N
Direction 3 + 4 shear force across	25 N
Direction 5 pull-off force	25 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	Reflow-profile (lead-free) The graph shows a reflow profile with the following parameters: - Heating rate: 1.5 - 2.5 K/s - Preheat temperature: $T_p: 150\text{ °C} - 180\text{ °C}$ - Preheat time: $t_p: 60 - 120\text{ sec}$ - Peak temperature: $T_{max} = 260\text{ °C}$ - Peak time: $t_{max} < 10\text{ sec}$ - Cooling rate: 2 - 3.5 K/s - Minimum temperature: $T_L \geq 230\text{ °C}$ - Minimum time: $t_L: 20 - 60\text{ sec}$
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)