

# MICON 5 SL, SMT standard, 2.9 ± 0.6 N, 1 NO

### COMING SOON

### fields of application

- > Measurement-control-regulation
- Mechanical and system engineering
- > Automotive
- > Electro-medical

### special features

- Gold contacts, reliable switching with low currents
- > Special tactile feedback
- High packing density due to small form factor (5.1 x 6.4 mm)
- > Different operating forces
- Ring and full illumination of the button surface due to plunger
- > Variable overall heights due to plunger
- > Terminal technology: SMT
- Traceability through product identification in accordance with DIN EN ISO 9001

# CE

# description

MICON 5 tactile switches offer extreme switching reliability, with a very small space requirement. They can be arranged individually, in rows or as key blocks. For use beneath overlays, we recommend combining the MICON 5 tactile switches with plungers. Here are the properties at a glance:

- > Suitable for the most important soldering techniques
- > Soldering bath for THT versions
- > Reflow soldering for SMT versions
- > Vapor phase soldering for SMT versions
- > Manual soldering
- > Processing of the SMT design with SMT automatic assembly machines
- > IMDS entry
- > Packaging in blister tape, spool with 2,100 pieces
- > Proposal for stencil printing: 150 μm stencil with 10% pad reduction on area



## technical data

3	
Operating temperature, min.	-40 °C
Storage temperature, min.	-40 °C
Operating temperature, max.	125 °C
Storage temperature, max.	90 °C
illuminated	No
Soldering	Reflow

direct links

RAFI eCatalog

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# 1.14.105.101/0000

	Solder best registeres assorting	DIN EN 60068-2-58
	Solder heat resistance according to standard	DIN EN 61760-1
	Packaging	Blister
	Operating life	10,000,000 cycles
	Degree of protection, front side,	IP54
	according to DIN EN 60529	IPx7
	Degree of protection, rear side,	IP54
	according to DIN EN 60529	IPx7
	MSL Moisture Sensitivity Level	1
	Shock resistance according to	100 g at 6 ms amplitude semi-sinusoidal
	standard IEC 60068-2-27	
	oscillation restistance according	5 g at 10500 Hz
	to standard IEC 60068-2-6	
	RoHS compliant	Yes
	REACH compliant	Yes
>	mounting diameters	
	Installation height	3.85 ± 0.1 mm
	Grid, min.	6 x 7,8 mm
	Outside dimension, length	6.4 ± 0.1 mm
	Outside dimension, width	5.1 ± 0.1 mm
	Outside dimension, height	3.85 ± 0.1 mm
>	mechanical data	
>	mechanical data Actuation function	momentary contact function
>		momentary contact function 4 N
>	Actuation function	
>	Actuation function Operating force, max.	4 N
>	Actuation function Operating force, max. Operating force, min.	4 N 2.9 ± 0.6 N
>	Actuation function Operating force, max. Operating force, min. Switching travel	4 N 2.9 ± 0.6 N 0.7 ± 0.15 mm
>	Actuation function Operating force, max. Operating force, min. Switching travel Contact function	4 N 2.9 ± 0.6 N 0.7 ± 0.15 mm 1 NO
>	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system	4 N 2.9 ± 0.6 N 0.7 ± 0.15 mm 1 NO Snap-action contact
>	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material	4  N 2.9 ± 0.6 N 0.7 ± 0.15 mm 1 NO Snap-action contact Gold
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Terminal on the rear	4 N $2.9 \pm 0.6 N$ $0.7 \pm 0.15 mm$ 1 NO Snap-action contact Gold SMT
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Terminal on the rear Solderability	4 N $2.9 \pm 0.6 N$ $0.7 \pm 0.15 mm$ 1 NO Snap-action contact Gold SMT
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Terminal on the rear Solderability electrical data	4 N $2.9 \pm 0.6 N$ $0.7 \pm 0.15 mm$ 1 NO Snap-action contact Gold SMT Yes
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact system Contact material Terminal on the rear Solderability <b>electrical data</b> Rated voltage, min.	4  N $2.9 \pm 0.6 \text{ N}$ $0.7 \pm 0.15 \text{ mm}$ 1  NO Snap-action contact Gold SMT Yes 0.02  V
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact material Terminal on the rear Solderability <b>electrical data</b> Rated voltage, min. Rated voltage, max.	4 N $2.9 \pm 0.6 N$ $0.7 \pm 0.15 mm$ 1 NO Snap-action contact Gold SMT Yes 0.02 V 35 V
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact system Contact material Terminal on the rear Solderability <b>electrical data</b> Rated voltage, min. Rated voltage, max. Dielectric strength	4 N 2.9 ± 0.6 N 0.7 ± 0.15 mm 1 NO Snap-action contact Gold SMT Yes 0.02 V 35 V 250 V
	Actuation function Operating force, max. Operating force, min. Switching travel Contact function Contact system Contact system Contact material Terminal on the rear Solderability <b>electrical data</b> Rated voltage, min. Rated voltage, max. Dielectric strength Rated current, min.	4 N 2.9 ± 0.6 N 0.7 ± 0.15 mm 1 NO Snap-action contact Gold SMT Yes 0.02 V 35 V 250 V 0.00001 A



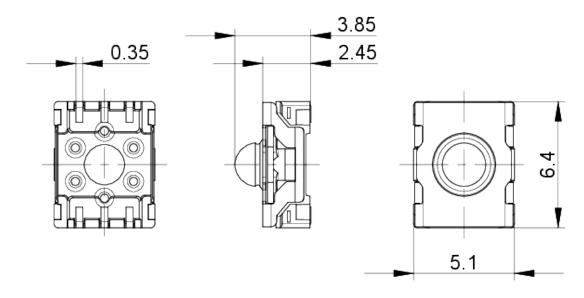
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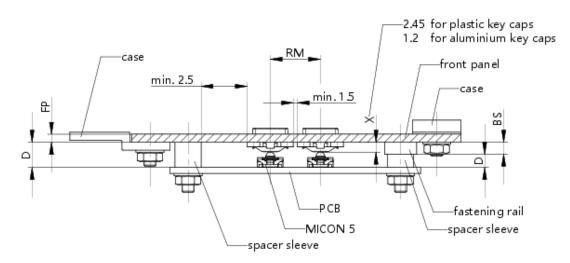


# drawings

### **Dimensioned drawing**



System drawing





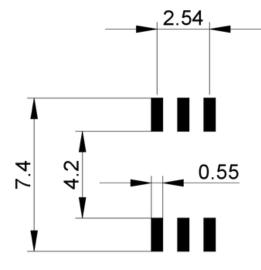
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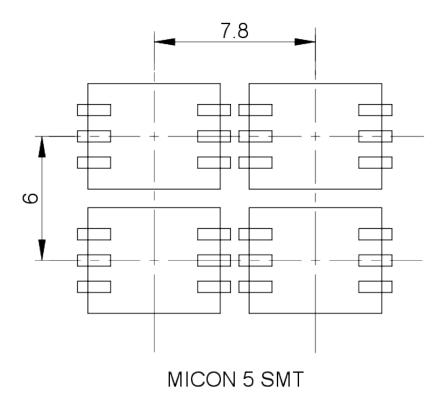
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**PCB** drawing





### **PCB drawing**

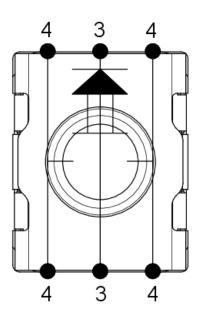


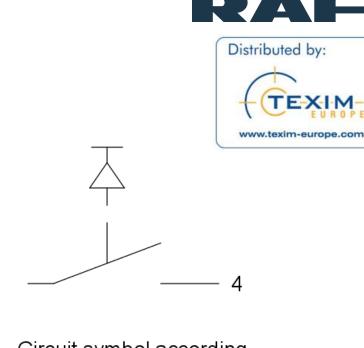
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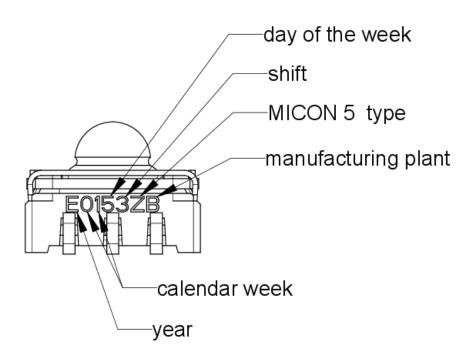
### Schematic diagram





Circuit symbol according to IEC 617

**Product labeling drawing** 



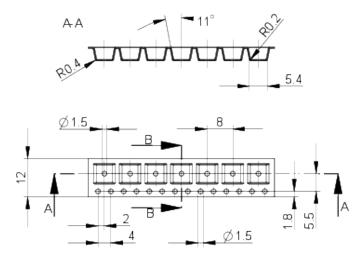
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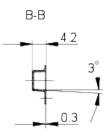
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## Packaging drawing







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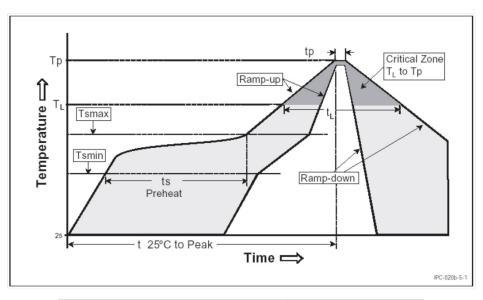


## mounting

# RAFI soldering profile for ROHS compliant reflow components



Publication date: October 7, 2021



Parameter	RAFI values
Gradient (T <sub>L</sub> to T <sub>P</sub> )	max. 3°C / s
Preheating zone Minimum temperature (T <sub>smin</sub> ) Maximum temperature (T <sub>smax</sub> ) Time (from min. to max.) (ts)	150°C 200°C 60 - 120 s
Gradient ( $T_{smax}$ to $T_L$ )	max. 3°C / s
Time over melting temperature $(T_L)$ time $(t_L)$	217℃ 60 – 150 s
Peak temperature (T <sub>P</sub> )	max. 260°C (+0°C)
Time within peak temperature - 5°C (tp)	20-40 s
Gradient ramp down	max. 6°C / s
Time difference from 25°C to peak temperature	max. 8 minutes

The reflow soldering profile is based on the definition of Jedec J-STD-020D.

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