

## MICON 5 SAFETY, SMT standard, $2.9 \pm 0.6$ N, 1 NC + 1 NO



### 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



### 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

#### ➤ general

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

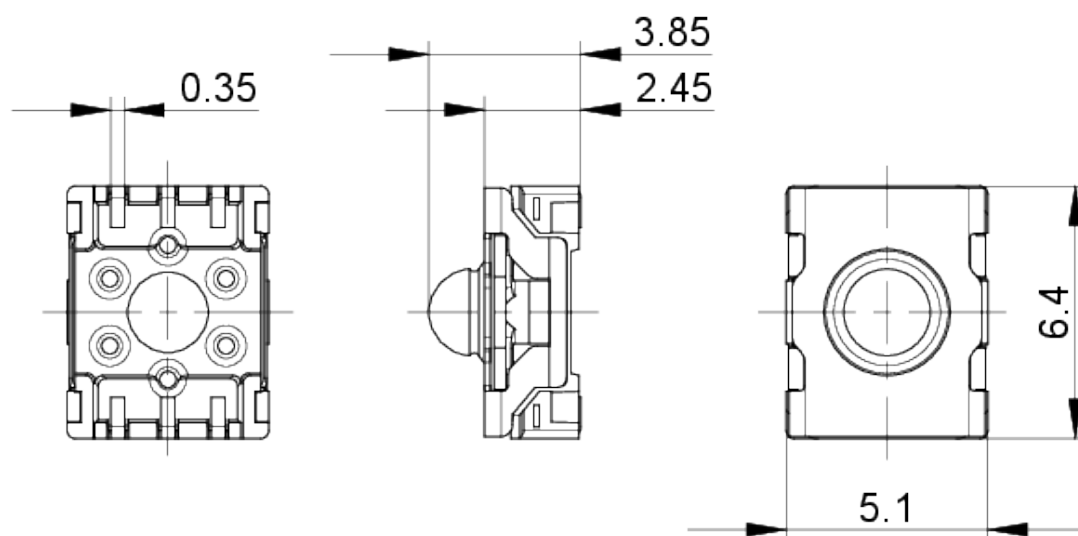
#### direct links

- [RAFI eCatalog](#)

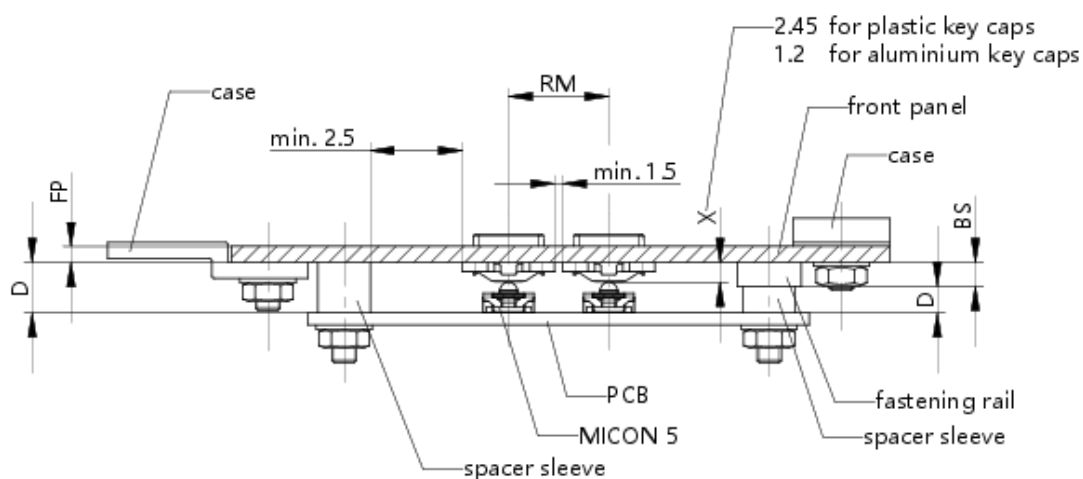
Solder heat resistance according to standard	DIN EN 60068-2-58 DIN EN 61760-1
Packaging	Blister
Packaging unit	2,100 pcs.
Operating life	1,000,000 cycles
B10	1,300,000 cycles
Degree of protection, front side, according to ISO 20653	IP67 (IP6K7)
Degree of protection on rear side acc. to ISO 20653	IP67 (IP6K7)
MSL Moisture Sensitivity Level	1
Shock resistance according to standard IEC 60068-2-27	50 g at 11 ms amplitude semi-sinusoidal
oscillation resistance according to standard IEC 60068-2-6	5 g at 10...500 Hz
MOQ order	2,100 pcs.
RoHS compliant	Yes
REACH compliant	Yes
<b>&gt; mounting diameters</b>	
Outside dimension, length	6.4 ± 0.1 mm
Outside dimension, width	5.1 ± 0.1 mm
Installation height	3.85 ± 0.1 mm
Grid, min.	6 x 7.8 mm
<b>&gt; mechanical data</b>	
Actuation function	momentary contact function
Operating force, max.	4 N
Operating force, min.	2.9 ± 0.6 N
Switching travel	0.7 ± 0.15 mm
Switching function	Break before make
Bounce time at 10 mm/s	<5 ms
Contact function	1 NC + 1 NO
Contact system	Snap-action contact DPST - Double Pole Single Throw
Contact material	Gold
Solderability	Yes
Terminal on the rear	SMT
<b>&gt; electrical data</b>	
Rated voltage, min.	0.02 V
Rated voltage, max.	35 V
Dielectric strength	250 V
Rated current, min.	0.00001 A
Rated current, max.	0.1 A
Rated power, max.	1 W

## drawings

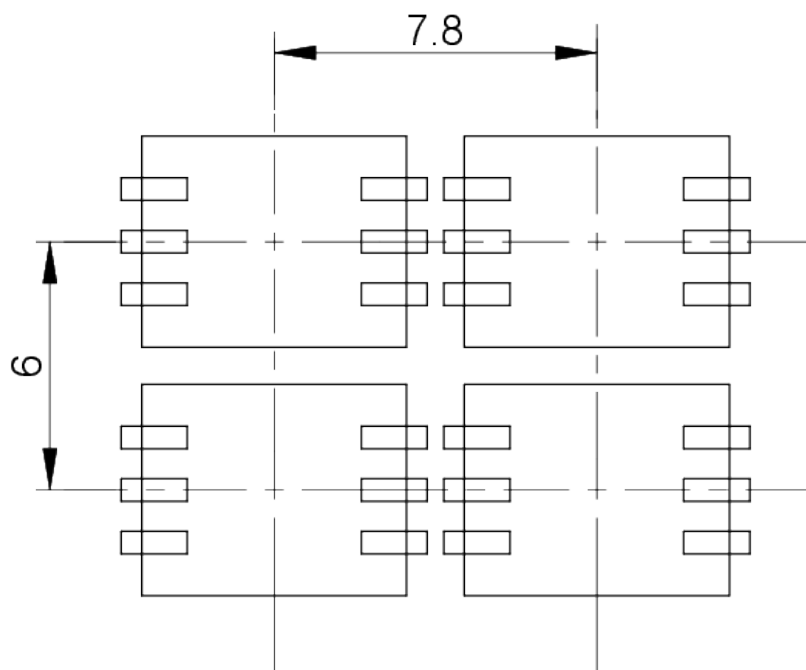
### Dimensioned drawing



### System drawing

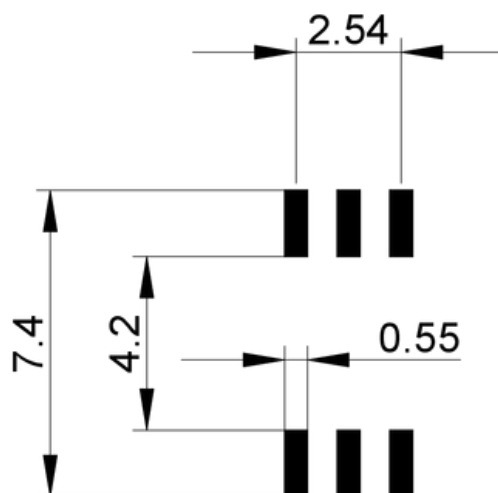


PCB drawing

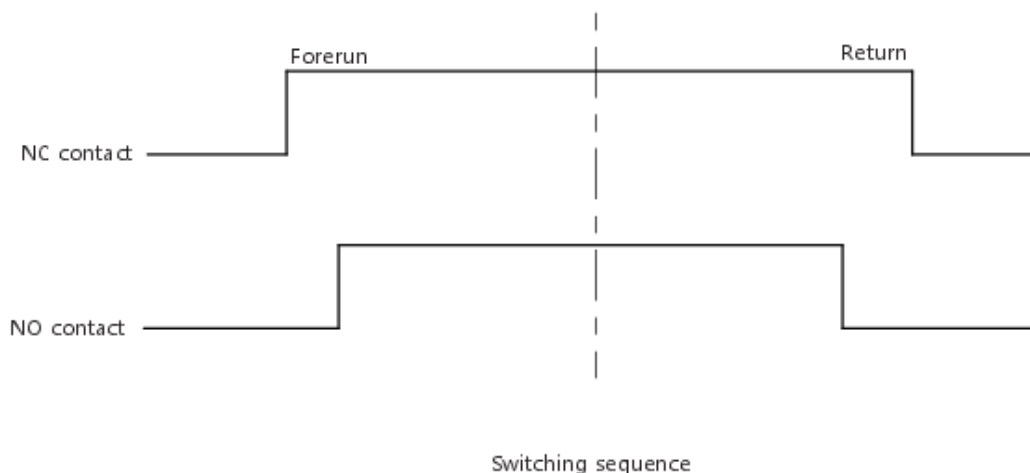


MICON 5 SMT

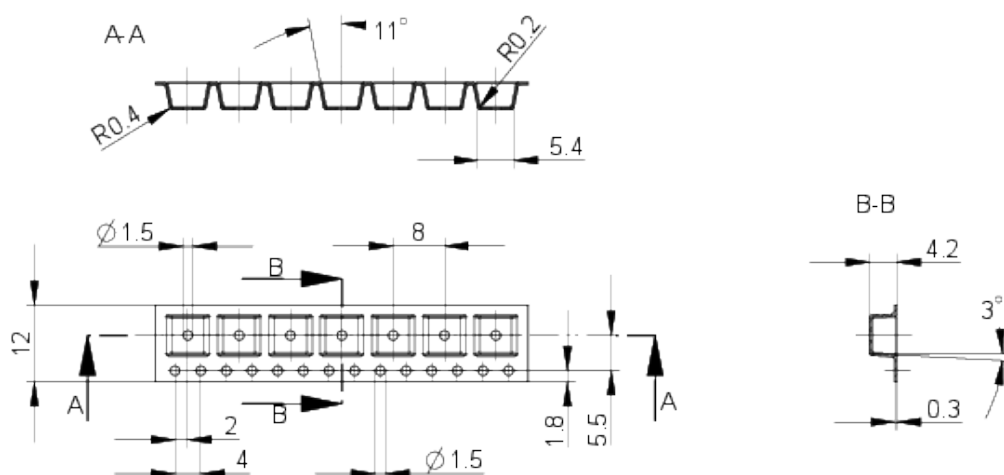
PCB drawing

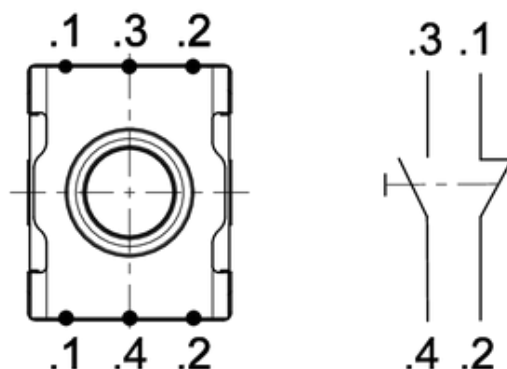


# Schematic diagram



# Packaging drawing



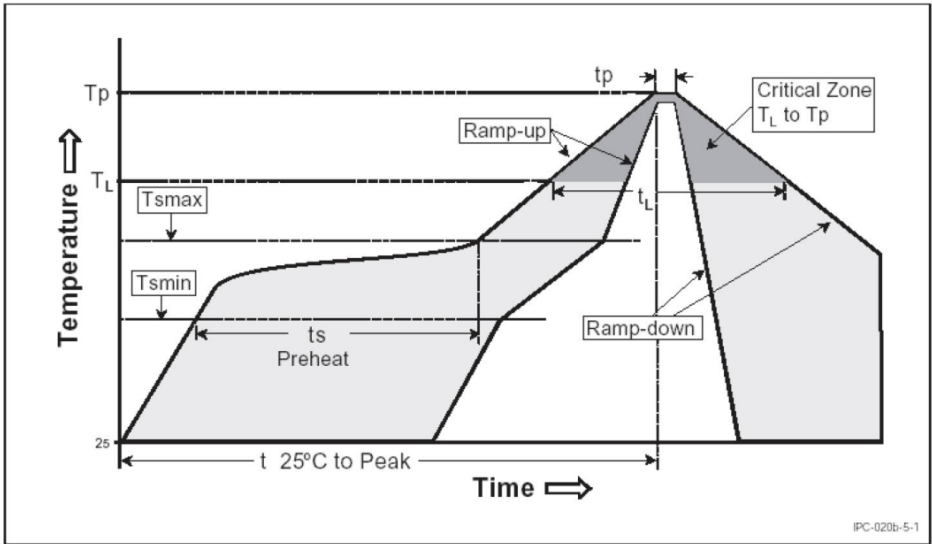
**Connection drawing**

mounting

RAFI soldering profile for ROHS compliant  
reflow components



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Parameter	RAFI values
Gradient (T <sub>L</sub> to T <sub>P</sub> )	max. 3°C / s
<b>Preheating zone</b>	
Minimum temperature (T <sub>smin</sub> )	150°C
Maximum temperature (T <sub>smax</sub> )	200°C
Time (from min. to max.) (ts)	60 - 120 s
Gradient (T <sub>smax</sub> to T <sub>L</sub> )	max. 3°C / s
Time over melting temperature (T <sub>L</sub> ) time (t <sub>L</sub> )	217°C 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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