

MICON 5 SAFETY, SMT standard, 5.6 ± 1.1 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

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

> general

Operating temperature, min. $-40\,^{\circ}\text{C}$ Operating temperature, max. $125\,^{\circ}\text{C}$ Storage temperature, min. $-40\,^{\circ}\text{C}$

Storage temperature, max. 90 °C illuminated No Soldering Reflow

direct links

> RAFI eCatalog



DIN EN 60068-2-58 Solder heat resistance according to standard DIN EN 61760-1

Packaging Blister Packaging unit 2,100 pcs.

Operating life 1,000,000 cycles B10 1,300,000 cycles IP67 (IP6K7)

Degree of protection, front side,

Degree of protection on rear side

according to ISO 20653

IP67 (IP6K7)

acc. to ISO 20653

MSL Moisture Sensitivity Level

Shock resistance according to 50 g at 11 ms amplitude semi-sinusoidal

standard IEC 60068-2-27

oscillation restistance according

to standard IEC 60068-2-6

5 g at 10...500 Hz

MOQ order 2,100 pcs. RoHS compliant Yes

REACH compliant Yes

> mounting diameters

Outside dimension, length $6.4 \pm 0.1 \, \text{mm}$ Outside dimension, width $5.1 \pm 0.1 \, \text{mm}$ Installation height $3.85 \pm 0.1 \, \text{mm}$ Grid, min. 6 x 7.8 mm

> mechanical data

Actuation function momentary contact function

Operating force, max.

Operating force, min. $5.6 \pm 1.1 \, \text{N}$ Switching travel $0.9 \pm 0.15 \, \text{mm}$ Break before make Switching function

Bounce time at 10 mm/s <5 ms

1 NC + 1 NO Contact function

Contact system Snap-action contact

DPST - Double Pole Single Throw

Contact material Gold Solderability Yes Terminal on the rear **SMT**

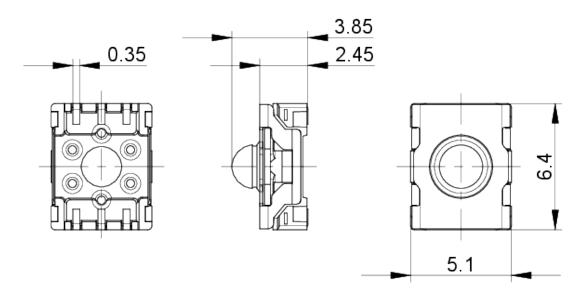
> electrical data

Rated voltage, min. 0.02 V Rated voltage, max. 35 V 250 V Dielectric strength Rated current, min. 0.00001 A Rated current, max. 0.1 A 1 W Rated power, max.

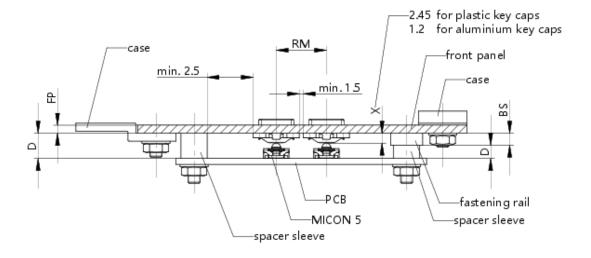


drawings

Dimensioned drawing

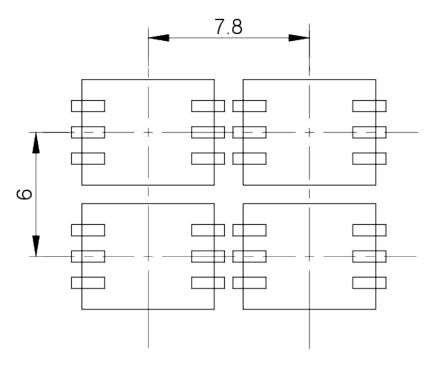


System drawing



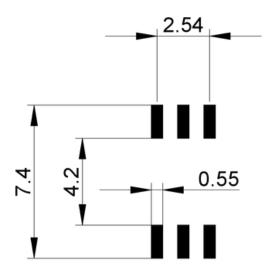


PCB drawing



MICON 5 SMT

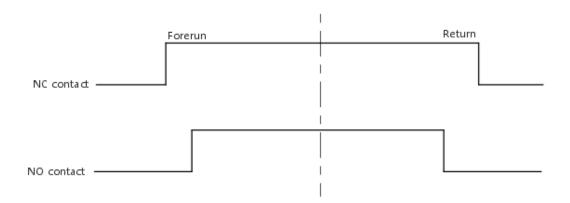
PCB drawing



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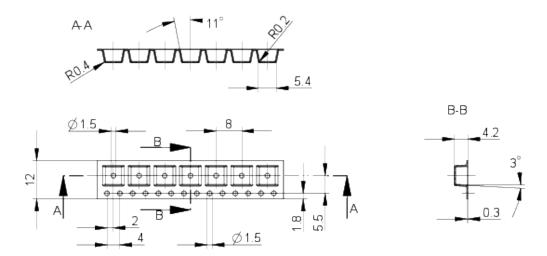


Schematic diagram



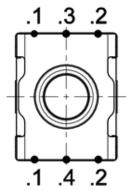
Switching sequence

Packaging drawing





Connection drawing





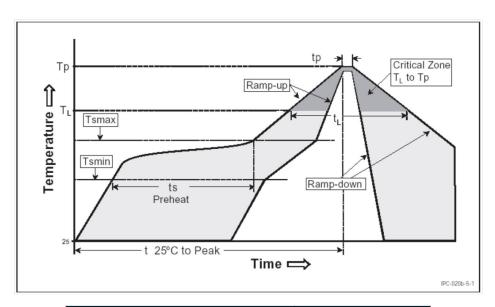


mounting

RAFI soldering profile for ROHS compliant reflow components



Publication date: October 7, 2021



Parameter	RAFI values
Gradient (T _L to T _P)	max. 3°C / s
Preheating zone Minimum temperature (T _{smin}) Maximum temperature (T _{smax}) 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°C 60 – 150 s
Peak temperature (T _P)	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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