

## MICON 5, SMT standard, 1.5 ± 0.3 N, 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

Key switch 1.14.002.201/0000 does not offer any tactile or acoustic feedback. It is therefore usually only used as a redundant additional switch for other MICON standard key switches, if this is required for safety reasons.

### technical data

#### › general

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

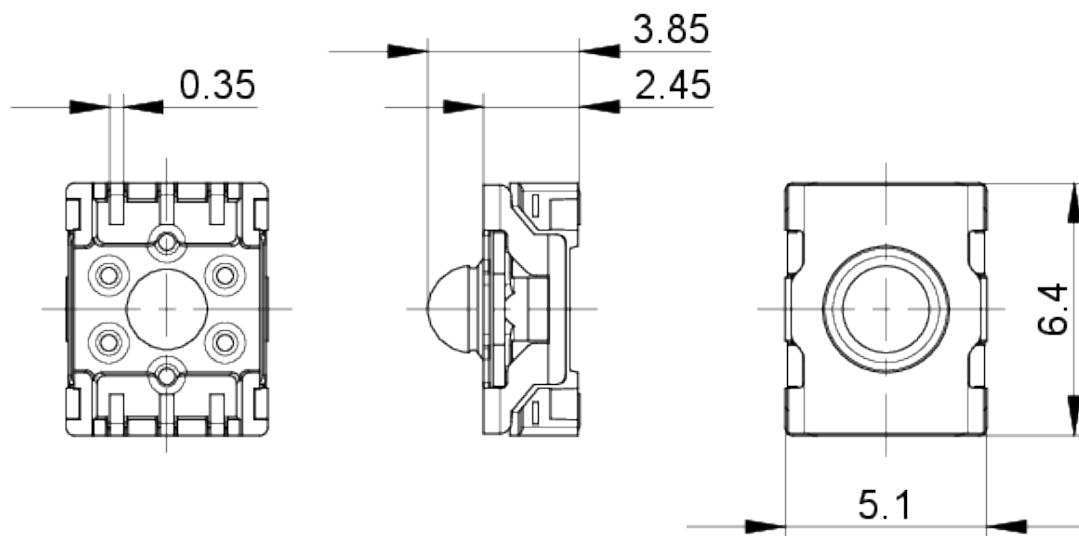
#### direct links

- › [RAFI eCatalog](#)

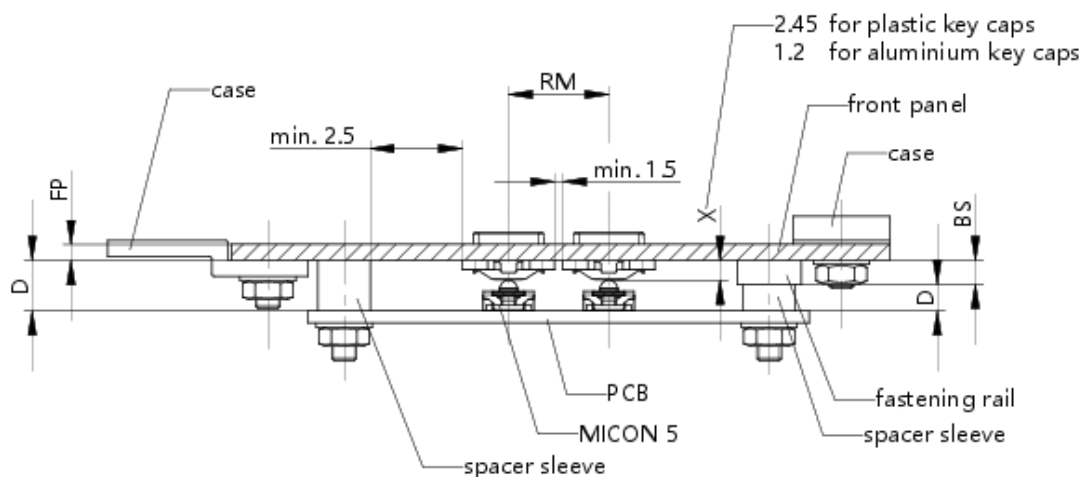
Solder heat resistance according to standard	DIN EN 60068-2-58 DIN EN 61760-1
Packaging	Blister
Packaging unit	2,100 pcs.
net weight	0.3 g
Operating life	1,000,000 cycles
B10	1,300,000 cycles
MSL Moisture Sensitivity Level	1
Shock resistance according to standard IEC 60068-2-27	100 g at 6 ms amplitude 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.	1.5 ± 0.3 N
Switching travel	0.7 ± 0.15 mm
Contact function	1 NO
Contact system	Snap-action contact SPST - Single 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**

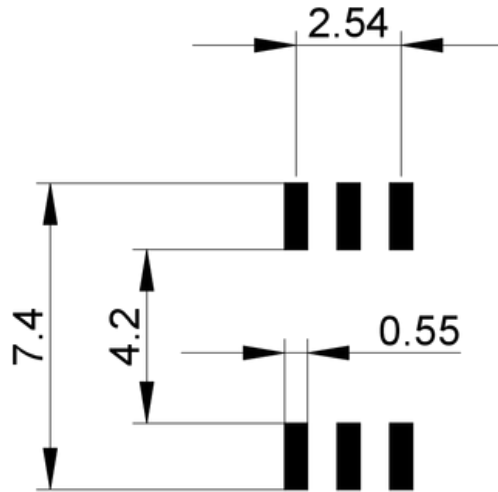
**Dimensioned drawing**



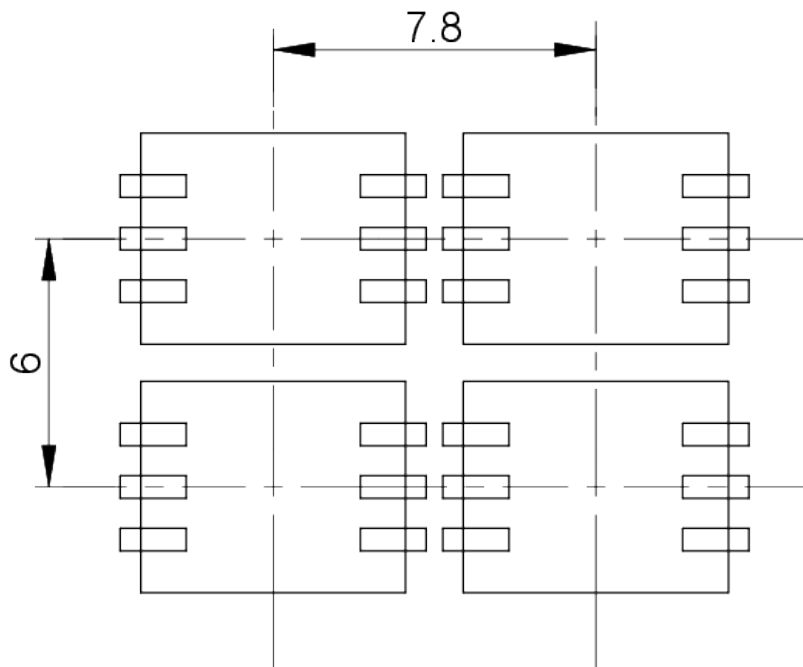
**System drawing**



PCB drawing

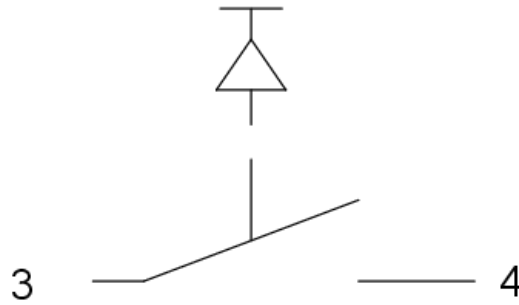
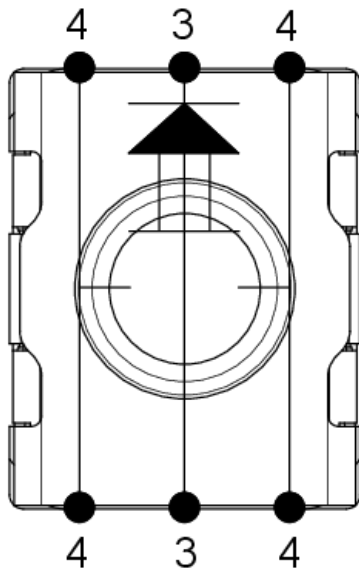


PCB drawing



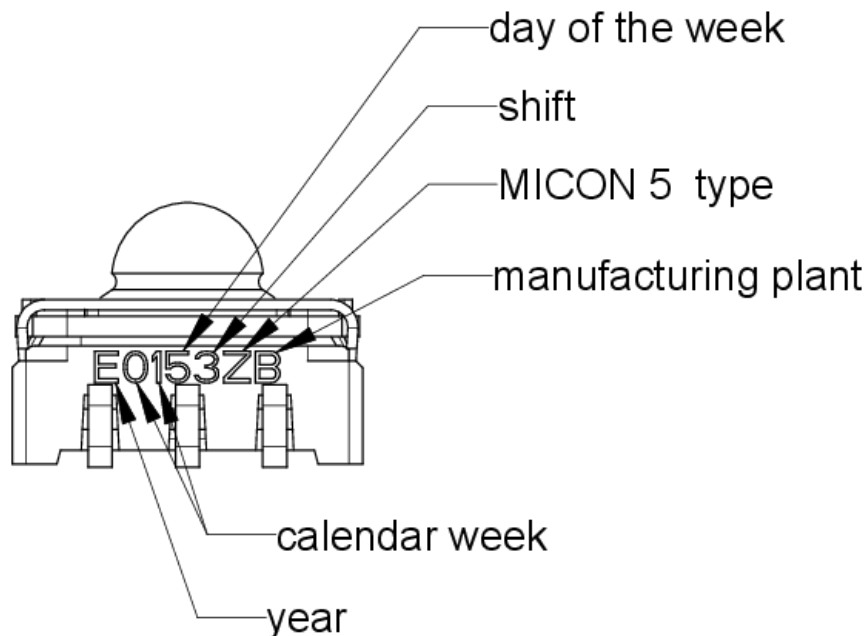
MICON 5 SMT

**Schematic diagram**

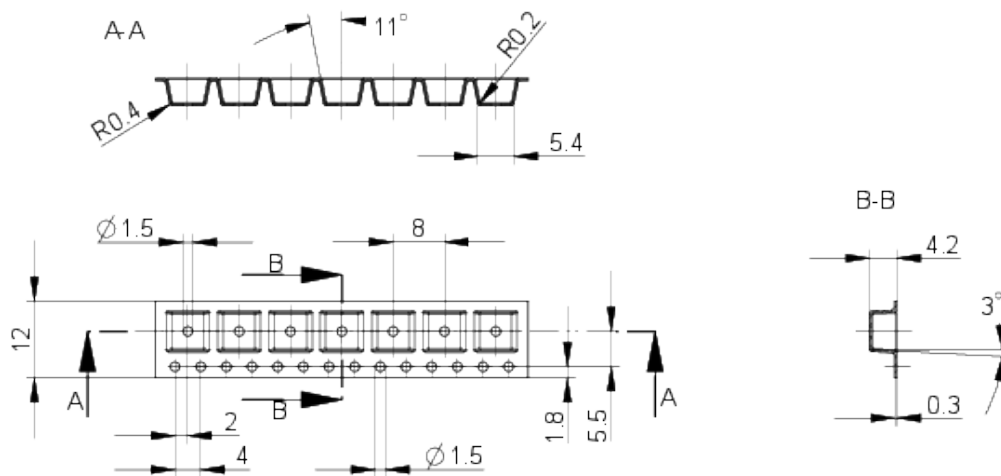


Circuit symbol according to IEC 617

**Product labeling drawing**



**Packaging 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
<b>Preheating zone</b>	
Minimum temperature ( $T_{smin}$ )	150°C
Maximum temperature ( $T_{smax}$ )	200°C
Time (from min. to max.) ( $t_s$ )	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 ( $t_p$ )	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 Jecdec J-STD-020D.

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