

# MICON 5 S, SMT standard, 5 ± 1 N, 1 NO

## 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	<b>direct links</b>
Operating temperature, max.	125 °C	➤ RAFI eCatalog
Storage temperature, min.	-40 °C	
Storage temperature, max.	90 °C	
illuminated	No	
Soldering	Reflow	
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	100 g at 6 ms amplitude semi-sinusoidal	
oscillation restistance according to standard IEC 60068-2-6	5 g at 10...500 Hz	
Minimum order quantity (MOQ)	2,100 pcs.	

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RoHS compliant Yes  
REACH compliant Yes

#### › mounting diameters

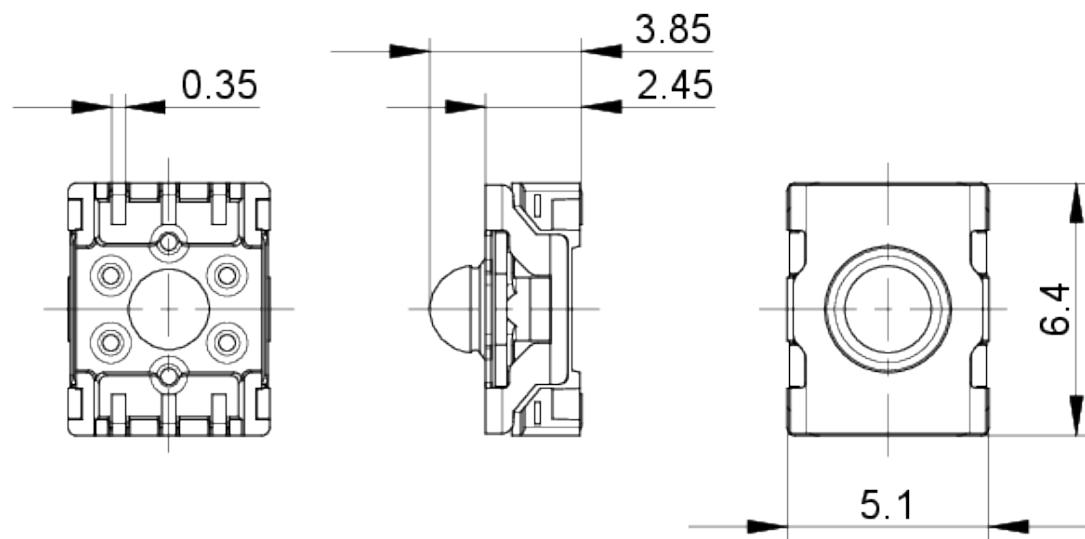
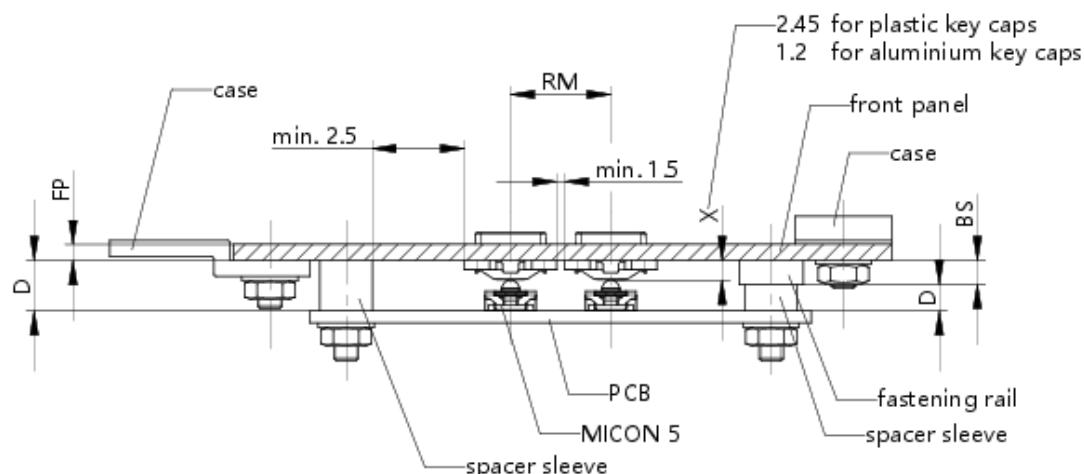
Outside dimension, length  $6.4 \pm 0.1$  mm  
Outside dimension, width  $5.1 \pm 0.1$  mm  
Installation height  $3.85 \pm 0.1$  mm  
Grid, min. 6 x 7.8 mm

#### › mechanical data

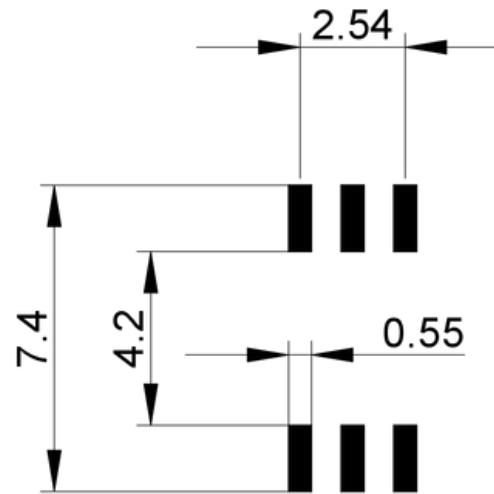
Actuation function momentary contact function  
Operating force, max. 8 N  
Operating force, min.  $5 \pm 1$  N  
Switching travel  $0.9 \pm 0.15$  mm  
Bounce time at 10 mm/s <5 ms  
Contact function 1 NO  
Contact system Snap-action contact  
SPST - Single Pole Single Throw  
Contact material Gold  
Solderability Yes  
Terminal on the rear SMT

#### › electrical data

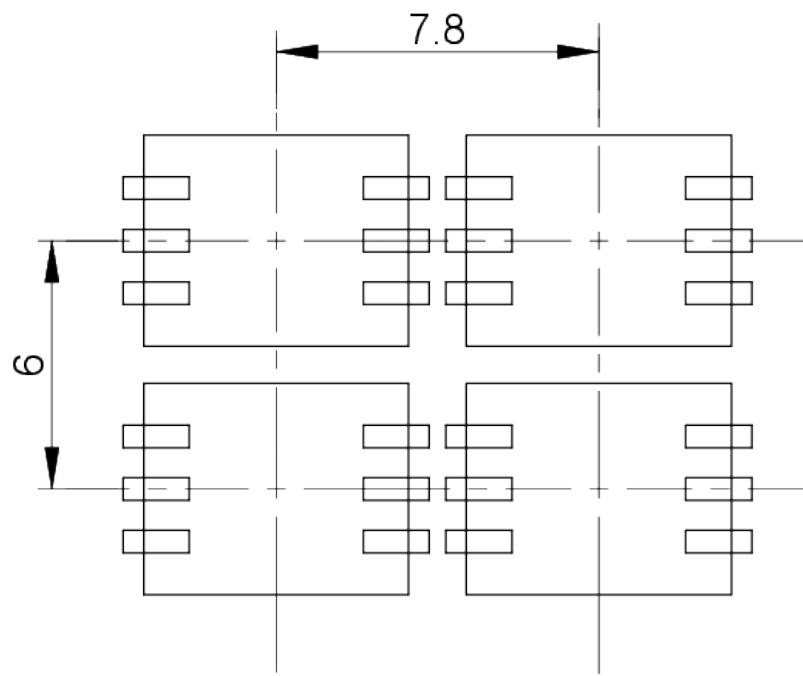
Rated voltage, min. 0.02 V  
Rated voltage, max. 35 V  
Dielectric strength 250 V  
Rated current, min. 0.00001 A  
Rated current, max. 0.1 A  
Rated power, max. 1 W

**drawings****Dimensioned drawing****System drawing**

## PCB drawing



## PCB drawing



MICON 5 SMT

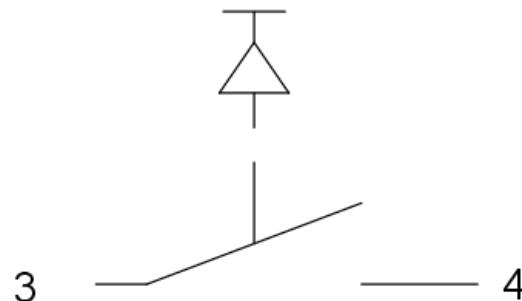
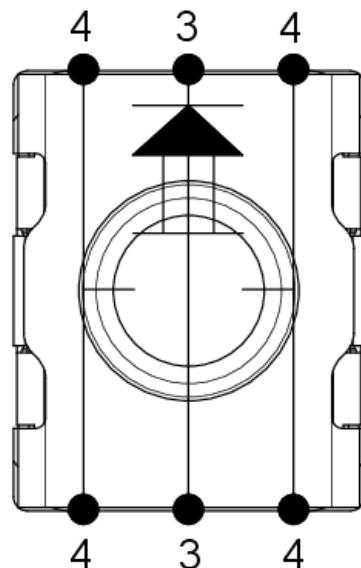
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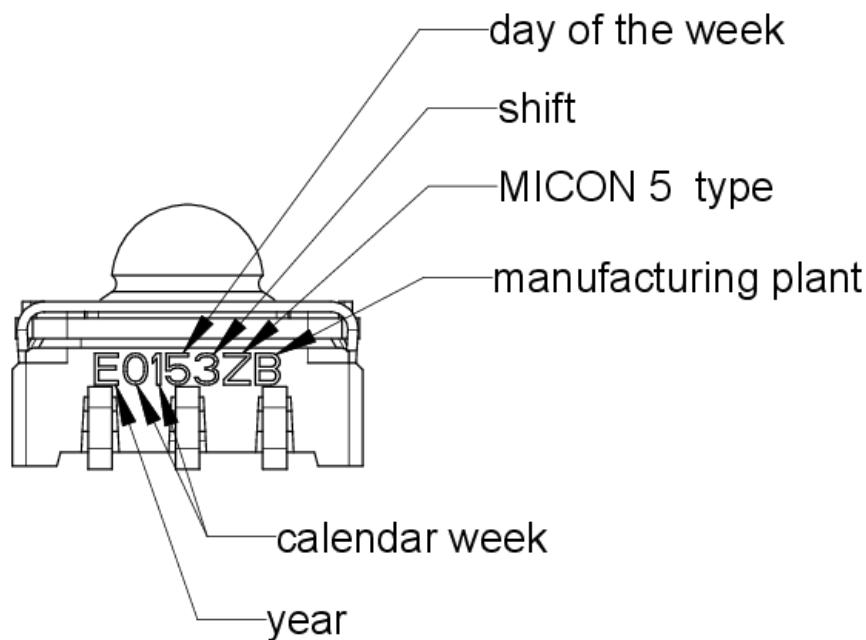
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## Schematic diagram

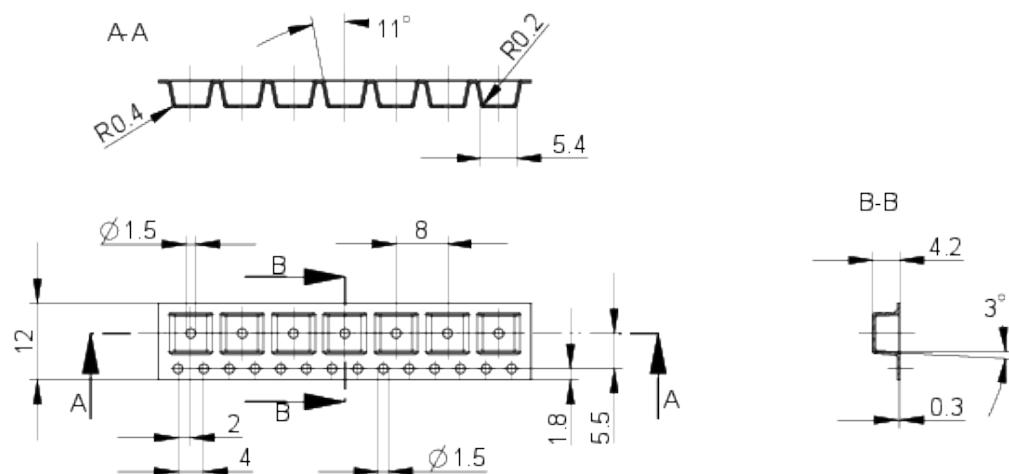


Circuit symbol according to IEC 617

## Product labeling drawing



## Packaging drawing



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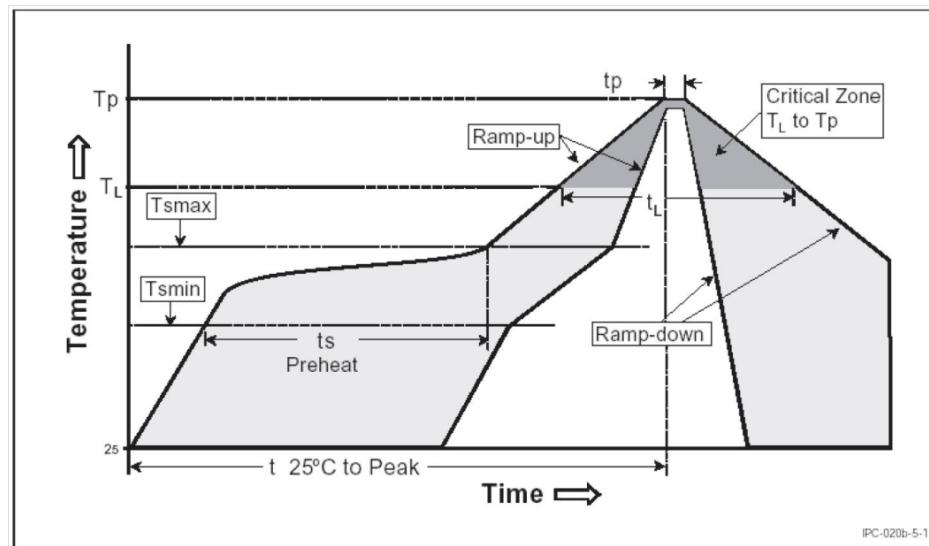
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## mounting

## 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 Jedec J-STD-020D.

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**Media Robust Electronics**

Publication date: February 13, 2025

**MICON 5 S, SL and SAFETY**

Valid for all variants MICON 5 S 1.14.005., MICON 5 SL 1.14.105. and MICON 5 SAFETY 1.14.205.

**Recommended potting compounds**

WEVO-CHEMIE GmbH

WEVOPUR 7210 FL/WEVONAT 507

**Important note**

Maximum potting height B must not be exceeded.

**Recommended circuit board protection**

Lackwerke Peters GmbH &amp; Co.KG

combination of high-viscosity (HT-T)  
and low-viscosity coating from the  
ELPEGUARD® SL 1307 family

Lackwerke Peters GmbH &amp; Co.KG

ELPEGUARD® SL 1800

**Important note**

The conformal coating of our tactile switches must be tested in the final application. Coating that enters the tactile switch does not harden directly, so that any resulting malfunction can only be detected later.

If the tactile switch is completely coated, the coating may peel off the elastomer of the tactile switch during the first few actuations. Press the tactile switch only after the coating has hardened.

We recommend leaving out the elastomer area when coating to prevent detachment.

**General remark**

The suitability and use of the recommended media for potting, conformal coating and nano-coating must be qualified and approved in the final application.

The potting, conformal coating and nano-coating must be used in accordance with the manufacturer's technical data sheet.

Actuation of the tactile switch only after the potting compound, conformal coating and nano coating has complete hardened.

Other potting compounds and processes for printed circuit board protection on request.

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