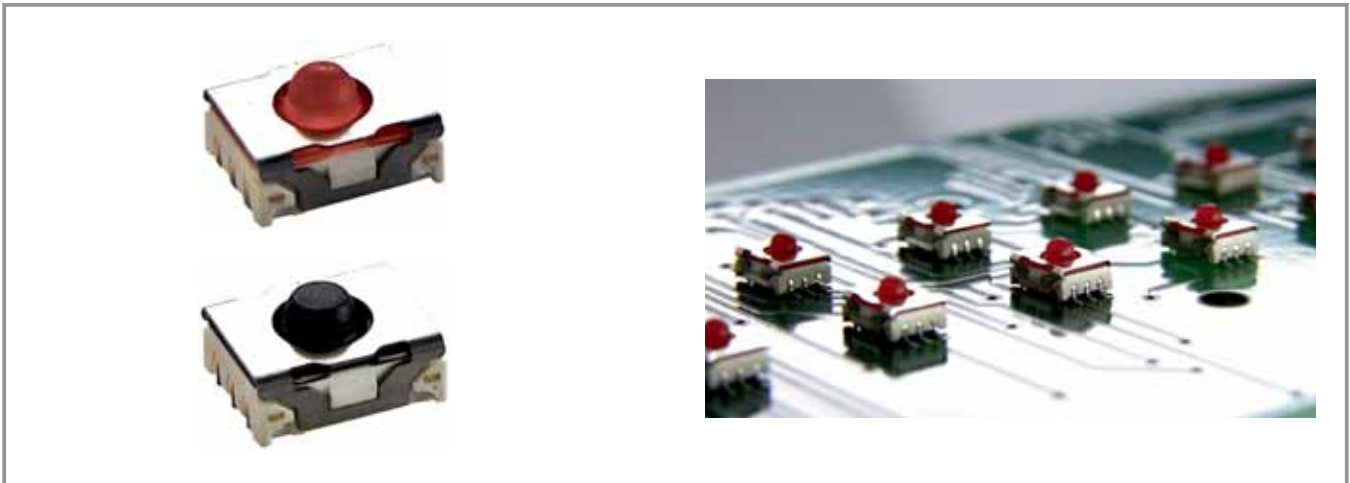


**NEW**

## MICON 5 - Short-travel keyswitches



### General Data

MICON 5 short-travel keyswitches offer an extremely high switching reliability while needing very little space. They can be arranged as single keys, in rows or key blocks. When arranged under an overlay, MICON keyswitches should be combined with plungers.

The features at a glance:

- Suitable for the most common soldering methods
  - Wave soldering bath for THT versions
  - Reflow soldering for SMT version
  - Vapour phase soldering for SMT versions
  - Manual soldering
- SMT version suitable for processing with an automatic SMT assembly machines
- IMDS listed

You can download actual product information from our internet site [www.rafi.de](http://www.rafi.de) / Catalogues and Downloads

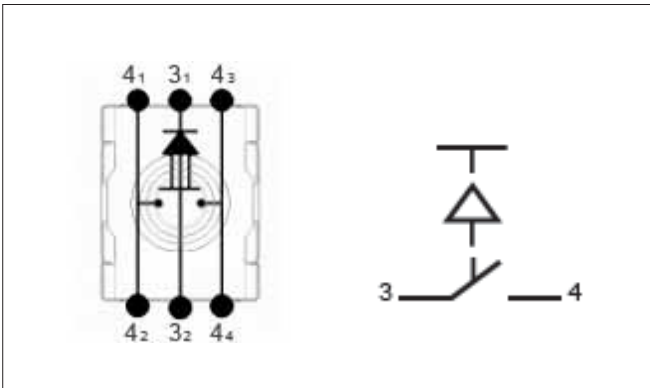
### Technical Data

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MICON

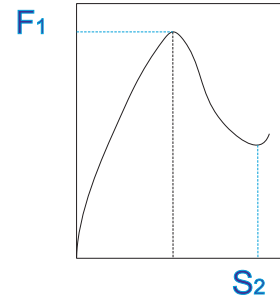
|                                   |                     |   |                               |
|-----------------------------------|---------------------|---|-------------------------------|
| <b>Dimensions</b>                 |                     | <b>Rated current min.</b>                     | 0.01 mA                       |
| Length of housing                 | 6.4 mm              | <b>Rated current max.</b>                     | 100 mA                        |
| Width of housing                  | 5.1 mm              | <b>Rated power max.</b>                       | 1 W                           |
| Overall height                    | see order block     | (ohmic load)                                  |                               |
| <b>Mechanical design</b>          |                     | <b>Contact resistance when new</b>            | 100 mΩ                        |
| Mounting                          | soldering           | <b>Rated voltage resistance AC</b>            | 250 V                         |
| Terminals                         | see order block     | <b>Insulation resistance</b>                  | 10 <sup>9</sup> Ω             |
| Contact system                    | snap-action contact | <b>Other specifications</b>                   |                               |
| Contact arrangement               | 1 NO                | <b>Ambient temp. operating min.</b>           | -40 °C                        |
| Contact materials                 | Au                  | <b>Ambient temp. operating max.</b>           | +90 °C                        |
| Illumination                      | no                  | <b>Resistance to environment</b>              | IEC 60068-2 -14, -30,-33, -78 |
| <b>Mechanical characteristics</b> |                     | <b>Operating life (test force)</b>            | see order block               |
| Operating force F1 (±20%)         | see order block     | <b>Solder heat resistance / Solderability</b> | see order block               |
| Switching travel S2 (±0.15 mm)    | see order block     | <b>Flammability of materials</b>              | UL 94 V1                      |
| <b>Electrical characteristics</b> |                     | <b>Packing</b>                                | see order block               |
| Rated voltage min.                | 0.02 V              | <b>Produkt code</b>                           | see order block               |
| Rated voltage max.                | 35 V                |   |                               |

## MICON 5 Circuit Diagram

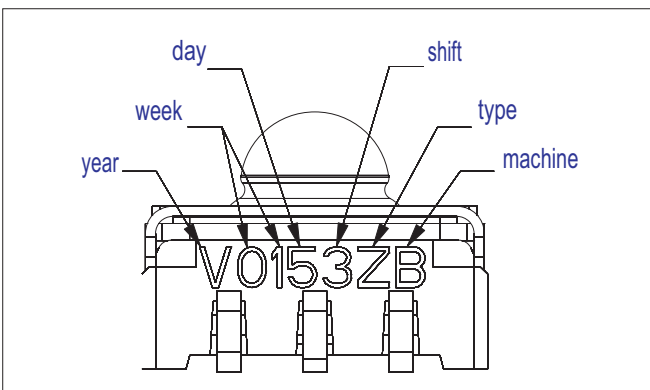


## MICON 5 Force-Travel Diagram

Operating force  $F_1$ : see order block  
Switching travel  $S_2$ : see order block

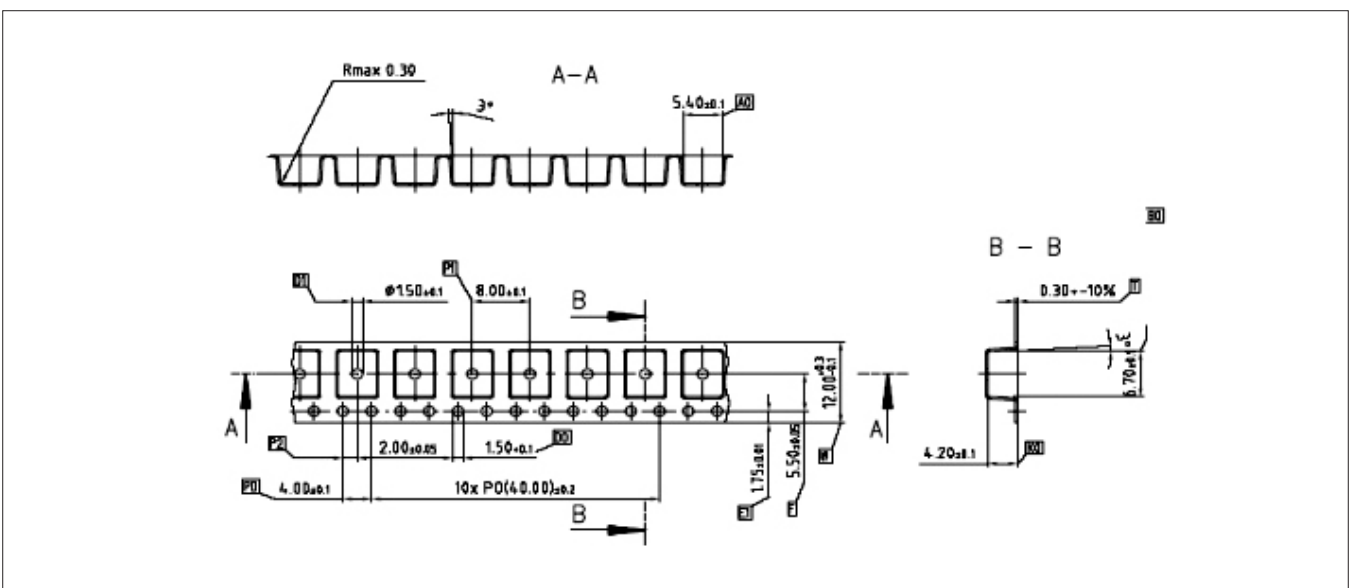


## MICON 5 Product Code acc. to DIN EN ISO 9001 (EN ISO 8402)



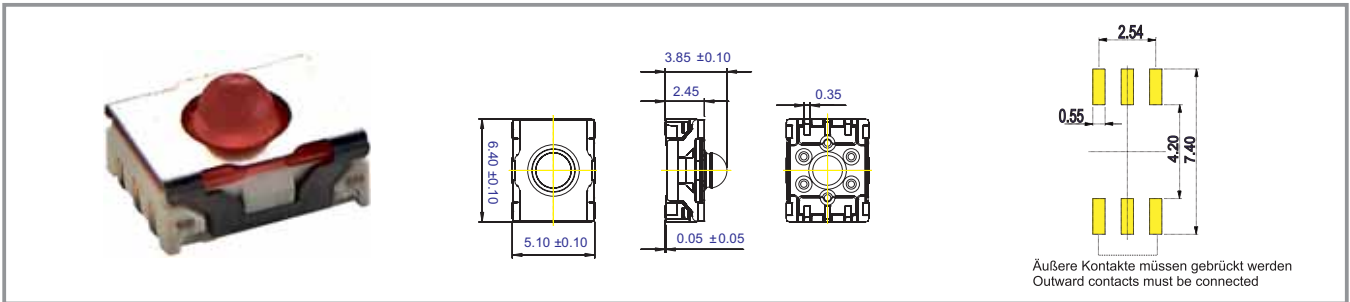
Traceability acc. to (EN ISO 8402) DIN EN ISO 9001, 2000, 7.5.3  
A 7-digit code is printed on the housing of the keyswitch. This code informs about production date, production shift and type of product.

## MICON 5 SMT Version, Tape and Reel Drawing



**NEW**

## MICON 5 - Short-travel keyswitch, SMT Standard



| Terminals | Solder heat resistance / Solderability | Operating force F1 (±20%) | Switching travel S2 (±0,15 mm) | Operating life (test force) | Produkt code | Order no.                |
|-----------|--|---------------------------|--------------------------------|-----------------------------|--------------|--------------------------|
| SMT       | E DIN IEC 600 68-2-58                  | 3.0 N                     | 0.7 mm                         | 1,000,000 (4 N)             | X            | <b>1.14.002.101/0000</b> |
| SMT       | E DIN IEC 600 68-2-58                  | 4.5 N                     | 0.8 mm                         | 250,000 (6 N)               | Z            | <b>1.14.002.001/0000</b> |
| SMT       | E DIN IEC 600 68-2-58                  | 5.5 N                     | 0.9 mm                         | 1,000,000 (8 N)             | W            | 1.14.002.111/0000        |
| SMT       | E DIN IEC 600 68-2-58                  | 8.0 N                     | 1.1 mm                         | 250,000 (12 N)              | Y            | 1.14.002.011/0000        |

Technical data see page 4 - 4

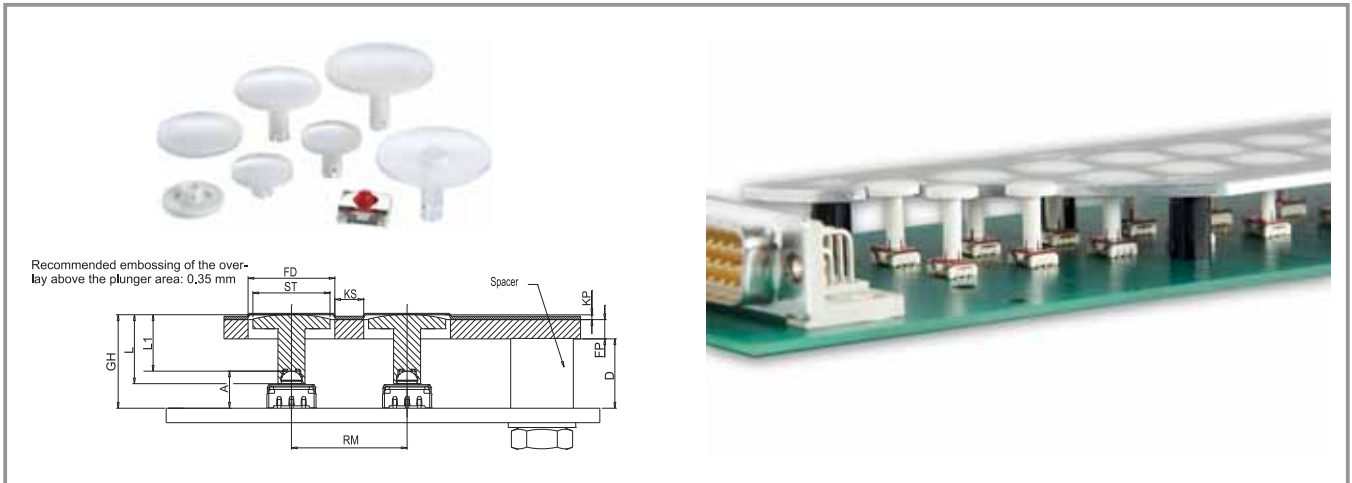
Packing: in tape, reel with 2100 pieces  
Keycaps see RK 90

Mounting hints:

Special pipette (Siemens Siplace order no.: 348514-02), mounting with collect and place head  
Recommendation for screen printing: 150 µm stencil with 10% reduction of the pad size.

**NEW**

## MICON 5 - Plungers round, not illuminable



### General Data

- A - Height of keyswitch: SMT type: 3.85 mm, THT type: 3.80 mm
  - D - Length of spacer  $D = GH - KP - FP$
  - FD - Front panel cut-out  $FD = ST + 1 \text{ mm}$
  - FP - Front panel thickness
  - GH - Overall height:  $GH = A + L1 + 0.05$  (SMT type),  $GH = A + L1$  (THT type)
  - KP - Thickness of overlay + embossing
  - KS - Glue webs for overlay, min. 3 mm
  - L1 - Length of plunger above keyswitch  $L1 = GH - A$
  - L - Overall length of plunger  $L = L1 + 1.3 \text{ mm}$  (min. 3 mm)
  - RM - Key grid  $RM = FD + KS$
  - ST - Diameter of plunger
- The plungers can only be combined with MICON 5 version Standard (red bubble).

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### Technical Data

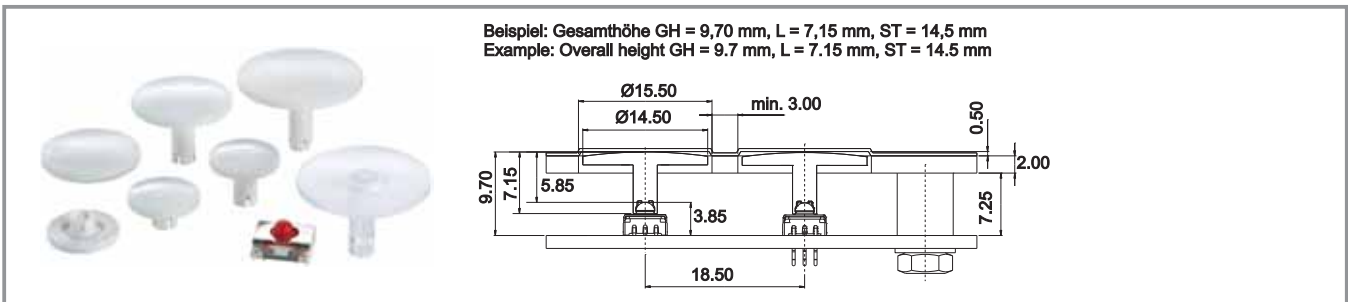
#### General information

|                       |                 |
|-----------------------|-----------------|
| Plunger diameter/size | see order block |
| Length of plunger L   | see order block |

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## MICON 5 - Plunger opaque, round, not illuminable

NEW



| Plunger diameter ST/size | Length of plunger L | Order no.         |
|--------------------------|---------------------|-------------------|
| 6.0 mm                   | 3.00 mm             | 5.46.001.103/0200 |
| 6.0 mm                   | 3.45 mm             | 5.46.001.104/0200 |
| 6.0 mm                   | 3.95 mm             | 5.46.001.105/0200 |
| 6.0 mm                   | 4.45 mm             | 5.46.001.106/0200 |
| 6.0 mm                   | 7.15 mm             | 5.46.001.107/0200 |
| 6.0 mm                   | 9.95 mm             | 5.46.001.108/0200 |
| 8.0 mm                   | 3.00 mm             | 5.46.001.123/0200 |
| 8.0 mm                   | 3.45 mm             | 5.46.001.124/0200 |
| 8.0 mm                   | 3.95 mm             | 5.46.001.125/0200 |
| 8.0 mm                   | 4.45 mm             | 5.46.001.126/0200 |
| 8.0 mm                   | 5.50 mm             | 5.46.001.121/0200 |
| 8.0 mm                   | 7.15 mm             | 5.46.001.127/0200 |
| 8.0 mm                   | 9.95 mm             | 5.46.001.128/0200 |
| 8.0 mm                   | 10.30 mm            | 5.46.001.122/0200 |
| 11.5 mm                  | 3.00 mm             | 5.46.001.143/0200 |
| 11.5 mm                  | 3.45 mm             | 5.46.001.144/0200 |
| 11.5 mm                  | 3.95 mm             | 5.46.001.145/0200 |
| 11.5 mm                  | 4.45 mm             | 5.46.001.146/0200 |
| 11.5 mm                  | 5.50 mm             | 5.46.001.141/0200 |
| 11.5 mm                  | 7.15 mm             | 5.46.001.147/0200 |
| 11.5 mm                  | 9.95 mm             | 5.46.001.148/0200 |
| 11.5 mm                  | 10.30 mm            | 5.46.001.142/0200 |

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| Plunger diameter ST/size | Length of plunger L | Order no.         |
|--------------------------|---------------------|-------------------|
| 14.5 mm                  | 3.00 mm             | 5.46.001.163/0200 |
| 14.5 mm                  | 3.45 mm             | 5.46.001.164/0200 |
| 14.5 mm                  | 3.95 mm             | 5.46.001.165/0200 |
| 14.5 mm                  | 4.45 mm             | 5.46.001.166/0200 |
| 14.5 mm                  | 7.15 mm             | 5.46.001.167/0200 |
| 14.5 mm                  | 9.95 mm             | 5.46.001.168/0200 |
| 19.0 mm                  | 3.00 mm             | 5.46.001.183/0200 |
| 19.0 mm                  | 3.45 mm             | 5.46.001.184/0200 |
| 19.0 mm                  | 3.95 mm             | 5.46.001.185/0200 |
| 19.0 mm                  | 4.45 mm             | 5.46.001.186/0200 |
| 19.0 mm                  | 7.15 mm             | 5.46.001.187/0200 |
| 19.0 mm                  | 9.95 mm             | 5.46.001.188/0200 |

Technical data see page 4 - 8

Can only be combined with MICON 5 version Standard (red bubble)