Description
The MISM-3V1 surface mount reed switch is a sub-miniature, normally open switch with a 7mm long x 1.8mm diameter (0.276” x 0.071”) glass envelope, capable of switching up to 0.25 Amps.

This reed switch is a surface mount version of the MITI-3V1. It has a high insulation resistance of $10^{12}$ Ohms minimum and a contact resistance of less than 100 milliohms.

Features
- Ultra-miniature surface mount normally open switch
- Available sensitivity range 6-10 AT
- Capable of switching 170 Vdc or 0.25A up to 10W

Benefits
- Hermetically sealed switch contacts are not effected by and have no effect on their external environment
- Zero operating power required for contact closure
- Excellent for switching microcontroller logic level loads
- Very low space requirement

Applications
- Position Sensing
- Level Sensing
- Meter Equipment
- Security
- Office Equipment

Switch Type
- Contact Form: A (SPST-NO)
- Materials: Body: Glass, Leads: Tin-plated Ni-Fe wire

Note: SPST-NO = Single-pole, single-throw, normally open

Agency Approvals
<table>
<thead>
<tr>
<th>Agency</th>
<th>Agency File Number</th>
<th>Ampere-Turns Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>cULus</td>
<td>E47258 E471070</td>
<td>6-10AT</td>
</tr>
<tr>
<td>Ex</td>
<td>DEMKO 14 ATEX 1393U</td>
<td>6-10 AT</td>
</tr>
</tbody>
</table>

Agency Approvals Table:

- E47258
- E471070
- DEMKO 14 ATEX 1393U

Dimensions
Dimensions in mm

Electrical Ratings Table:

- Contact Rating 1
- Voltage 3
- Current 3
- Resistance
- Capacitance
- Temperature

Contact Form Table:

- Switching 2
- Breakdown 4
- Switching 2
- Carry
- Contact, Initial Insulation
- Contact
- Operating Temp

Material Table:

- Body: Glass
- Leads: Tin-plated Ni-Fe wire

Notes:
1. Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
2. When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A and AN107 for details.
3. Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.
# MISM-3V1 7mm Surface Mount Reed Switch

## Product Characteristics

### Operating Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operate Time $^1$</td>
<td>0.45ms - max.</td>
</tr>
<tr>
<td>Release Time $^1$</td>
<td>0.20ms - max.</td>
</tr>
<tr>
<td>Shock $^2$</td>
<td>11ms 1/2 sine wave</td>
</tr>
<tr>
<td>Vibration $^2$</td>
<td>50-2000 Hertz</td>
</tr>
<tr>
<td>Resonant Frequency</td>
<td>18.0kHz - typ.</td>
</tr>
</tbody>
</table>

### Magnetic Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull-In Range $^3$</td>
<td>Ampere Turns 6-10</td>
</tr>
<tr>
<td>Rating Sensitivity $^4$</td>
<td>Ampere Turns 10</td>
</tr>
<tr>
<td>Test Coil</td>
<td>L4991</td>
</tr>
</tbody>
</table>

Notes:
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil III).
3. Pull-In Range - Contact Littelfuse for narrower AT ranges available. These AT values are the before modification AT of the MITI-3V1.
4. Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.

## Drop-Out vs. Pull In Chart

![Drop-Out vs. Pull In Chart](chart.png)

Note: Chart represents the range of Drop-Out, min to max for a given Pull-In value.

## Part Numbering System

- **Series**: MISM-3V1R
- **Packaging**: R = Tape and Reel, B = Bulk
- **AT Range**: 6-10 AT

Example: 6-10 AT product is MISM-3V1R-6-10

Note: This AT value is the before-modification value of the bare reed switch.

## Packaging

<table>
<thead>
<tr>
<th>Packaging Option</th>
<th>Packaging Specification</th>
<th>Quantity</th>
<th>Quantity and Packaging Code</th>
<th>Taping Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape and Reel</td>
<td>EIA-RS-481-1</td>
<td>3000</td>
<td>R</td>
<td>32mm</td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.
MISM-3V1 7mm Surface Mount Reed Switch

TAPE DIMENSIONS mm (inch)

REEL DIMENSIONS mm (inch)