

## Additional Information



Resources


Accessories


Samples

Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
| :---: | :---: | :---: |
|  | E47258 |  |
| $\mathbf{N}$ | E471070 | $6-20 A T$ |

Note: Contact Littelfuse for specific agency approval ratings.

## Description

The MISM-7 surface mount reed switch is a sub-miniature, normally open switch with a 7 mm long $\times 1.8 \mathrm{~mm}$ diameter ( 0.276 " $\times 0.071$ ") glass envelope, capable of switching up to 0.25 Amps.
This reed switch is a surface mount version of the MITI-7. It has a high insulation resistance of 1012 Ohms minimum and a contact resistance of less than 150 milliohms.

## Features \& Benefits

- Ultra-miniature surface mount normally open switch
- Available sensitivity range 6-10 AT
- Capable of switching 170 Vdc or 0.25 A up to 10 W
- Hermetically sealed switch contacts are not effected by and have no effect on their external environment


## Applications

| - Position Sensing | - Security |
| :--- | :--- |
| - Level Sensing | - Office Equipment |
| - Meter Equipment |  |

Switch Type

| Contact Form | A (SPST-NO) |
| :---: | :---: |
| Materials | Body: Glass |

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

## Electrical Ratings

| Contact Rating ${ }^{1}$ |  | W/VA - max. | 10 |
| :---: | :---: | :---: | :---: |
| Voltage ${ }^{3}$ | Switching ${ }^{2}$ <br> Breakdown ${ }^{4}$ | Vdc - max. <br> Vac - max. <br> Vdc - min. | $\begin{aligned} & 170 \\ & 120 \\ & 175 \end{aligned}$ |
| Current ${ }^{3}$ | Switching ${ }^{2}$ Carry | Adc - max. <br> Aac - max. <br> Adc - max. | $\begin{aligned} & 0.25 \\ & 0.18 \\ & 0.50 \end{aligned}$ |
| Resistance | Contact, Initia Insulation | $\begin{aligned} & \Omega-\text { max. } \\ & \Omega-\text { min. } \end{aligned}$ | $\begin{gathered} 0.150 \\ 10^{12} \end{gathered}$ |
| Capacitance | Contact | pF - typ. | 0.3 |
| Temperature | Operating Storage ${ }^{5}$ | $\begin{aligned} & { }^{\circ} \mathrm{C} \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & -40 \text { to }+125 \\ & -65 \text { to }+125 \end{aligned}$ |

## 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
4. Breakdown Voltage - per MIL-STD-202, Method 301 .
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.

## Product Characteristics

| Operating Characteristics |  |  |
| :---: | :---: | :---: |
| Operate Time ${ }^{1}$ | - | 0.45 ms - max. |
| Release Time ${ }^{1}$ | - | 0.20 ms - max. |
| Shock ${ }^{2}$ | $11 \mathrm{~ms} 1 / 2$ sine wave | 100G - max |
| Vibration ${ }^{2}$ | 50-2000 Hertz | 30G - max. |
| Resonant Frequency | - | 14 kHz - typ. |
|  |  |  |
| Magnetic Characteristics |  |  |
| Pull-In Range ${ }^{3}$ | Ampere Turns | 6-10, 10-15, 15-20 |
| Rating Sensitivity ${ }^{4}$ | Ampere Turns | 10 |
| Test Coil | - | L4991 |

## Notes:

1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil I).
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202
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


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

## Part Numbering System



Note: These AT values are the before-modification values of the bare reed switch.
Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity and Packaging Code | Taping Width |
| ---: | :---: | :---: | :---: | :---: |
| Tape and Reel | EIA-RS-481-1 | 3000 | R | 32 mm |

Dimensions
Dimensions in mm


Note: Land pattern is Littelfuse recommendation only.
User is responsible for proper PCB design.
Reed orientation is configurable.

Tape Dimensions mm (inch)


Reel Dimensions mm (inch)


