## MISM-7 7mm Surface Mount Reed Switch



## Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
| :---: | :---: | :---: |
| $\mathbf{c} \mathbf{D}_{\text {us }}$ | E47258 <br> E471070 | $6-20 A T$ |
| Ex | DEMKO 14 ATEX 1393U | $6-20$ AT |

## Dimensions

Dimensions in mm


## 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 ( $0.276^{\prime \prime} \times 0.071^{\prime \prime}$ ) 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 $10^{12}$ 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


## Benefits

- Hermetically sealed switch contacts are not effected by and have no effect on their external environment
- Zero operating power required for contact closure


## Applications

- Position Sensing
- Security
- Level Sensing
- 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 ${ }^{1}$ |  | WNA - 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, Initial Insulation | $\begin{aligned} & \Omega-\max . \\ & \Omega-\min . \end{aligned}$ | $\begin{aligned} & 0.150 \\ & 10^{12} \end{aligned}$ |
| 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.

Expertise Applied | Answers Delivered

## MISM-7 7 mm Surface Mount Reed Switch

## Product Characteristics

| Operating Characteristics |  |
| :--- | :---: |
| Operate Time ${ }^{1}$ |  |
| Release Time ${ }^{1}$ |  |
| Shock ${ }^{2}$ |  |
| Vibration ${ }^{2}$ |  |
| Resonant Frequency |  |
| 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 II).
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
MISM-7 R - $\underline{6-10}$

Series

Packaging
$R=$ Tape and Reel
$B=$ Bulk
AT Range
6-10 AT
10-15 AT
Example:

15-20 AT
6-10 AT product is
MISM-7R-6-10
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 |

## MISM-7 7 mm Surface Mount Reed Switch

TAPE DIMENSIONS mm (inch)


## REEL DIMENSIONS mm (inch)



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