

MISM-7

7mm Surface Mount Reed Switch



Description

The MISM-7 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-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 0.25A up to 10W
- 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

Additional Information



Resources



Accessories



Samples

Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
|--------|--------------------|--------------------|
| | E47258 E471070 | 6 - 20AT |

Note: Contact Littelfuse for specific agency approval ratings.

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

Electrical Ratings

| | | | |
|-----------------------------|--|-------------|------------------|
| Contact Rating ¹ | | W/VA - max. | 10 |
| Voltage ³ | Switching ² Breakdown ⁴ | Vdc - max. | 170 |
| | | Vac - max. | 120 |
| | | Vdc - min. | 175 |
| Current ³ | Switching ² Carry | Adc - max. | 0.25 |
| | | Aac - max. | 0.18 |
| | | Adc - max. | 0.50 |
| Resistance | Contact, Initial Insulation | Ω - max. | 0.150 |
| | | Ω - min. | 10 ¹² |
| Capacitance | Contact | pF - typ. | 0.3 |
| Temperature | Operating Storage ⁵ | °C | -40 to +125 |
| | | °C | -65 to +125 |

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.

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Product Characteristics

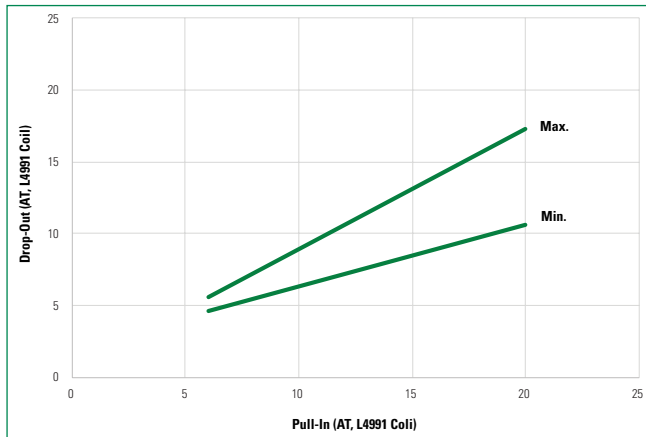
| Operating Characteristics | | |
|---------------------------|--------------------|---------------|
| Operate Time ¹ | - | 0.45ms - max. |
| Release Time ¹ | - | 0.20ms - max. |
| Shock ² | 11ms 1/2 sine wave | 100G - max |
| Vibration ² | 50-2000 Hertz | 30G - max. |
| Resonant Frequency | - | 14kHz - 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:

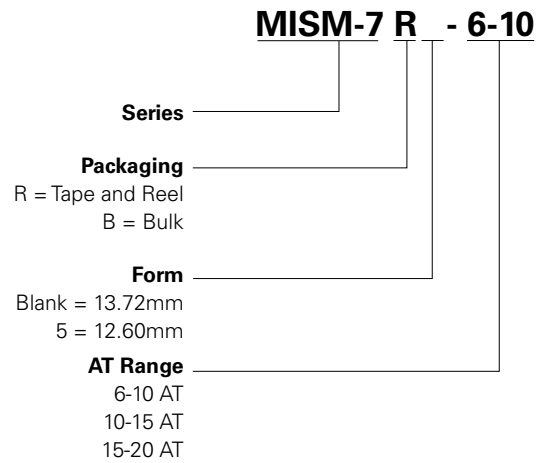
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil I).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- Pull-In Range - Contact Littelfuse for narrower AT ranges available. These AT values are the before modification AT of the MITI-3V1.
- Rating 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



Example: 6-10 AT product is MISM-7R-6-10

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

Packaging

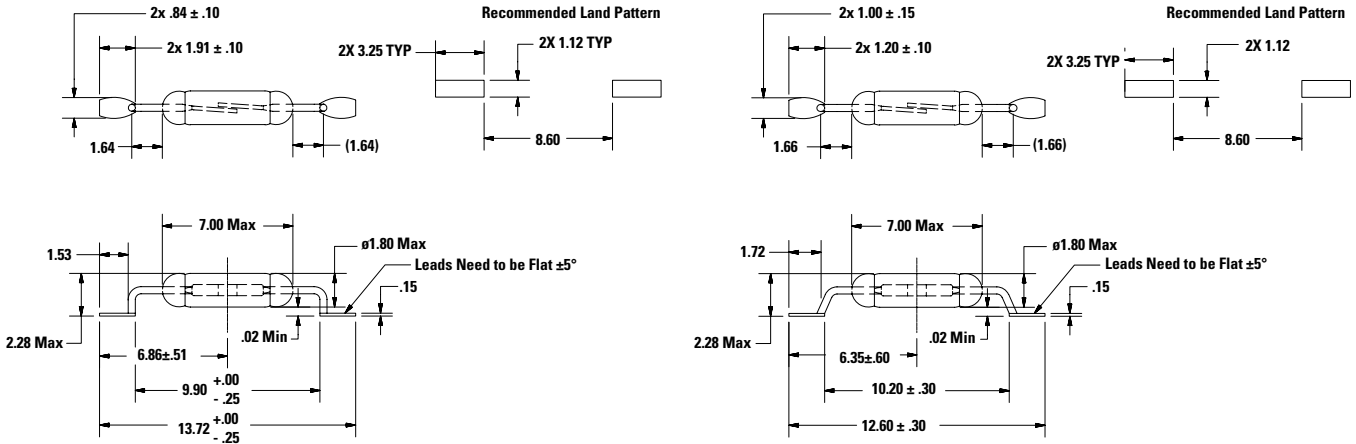
| Packaging Option | Packaging Specification | Quantity | Quantity and Packaging Code | Taping Width |
|------------------|-------------------------|----------|-----------------------------|--------------|
| Tape and Reel | EIA-RS-481-1 | 3000 | R | 32mm |

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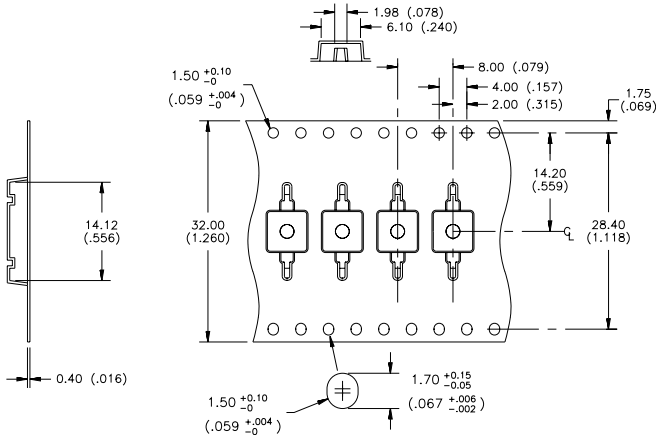
Dimensions

Dimensions in mm

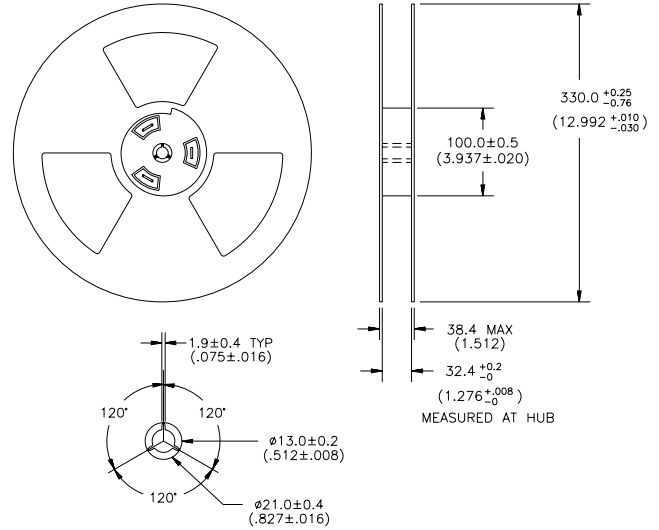


Note: Land pattern is Littelfuse recommendation only. User is responsible for proper PCB design. Reed orientation is configurable.

Tape Dimensions mm (inch)



Reel Dimensions mm (inch)



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