

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 10^{12} Ohms minimum and a contact resistance of less than 150 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

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
cULus	E47258 E471070	6 - 20AT
Ex	DEMKO 14 ATEX 1393U	6 - 20 AT

Note: Contact Littelfuse for specific agency approval ratings.

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	Vdc - max.	170
		Vac - max.	120
	Breakdown ⁴	Vdc - min.	175
Current ³	Switching ²	Adc - max.	0.25
		Aac - max.	0.18
	Carry	Adc - max.	0.50
Resistance	Contact, Initial	Ω - max.	0.150
	Insulation	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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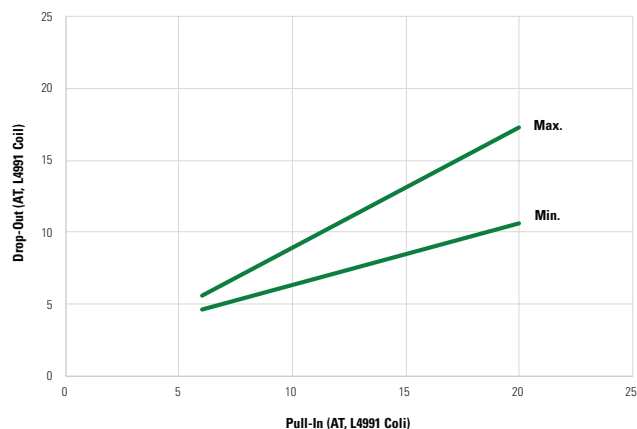
Product Characteristics

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:

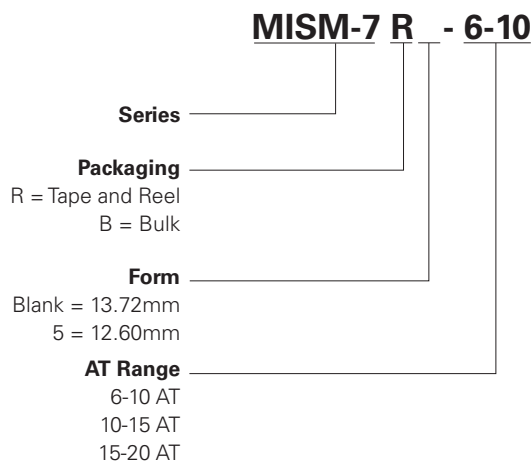
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil I).
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
3. Pull-In Range - Contact Littelfuse for narrower AT ranges available. These AT values are the before modification AT of the MITI-3V1.
4. 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



Packaging

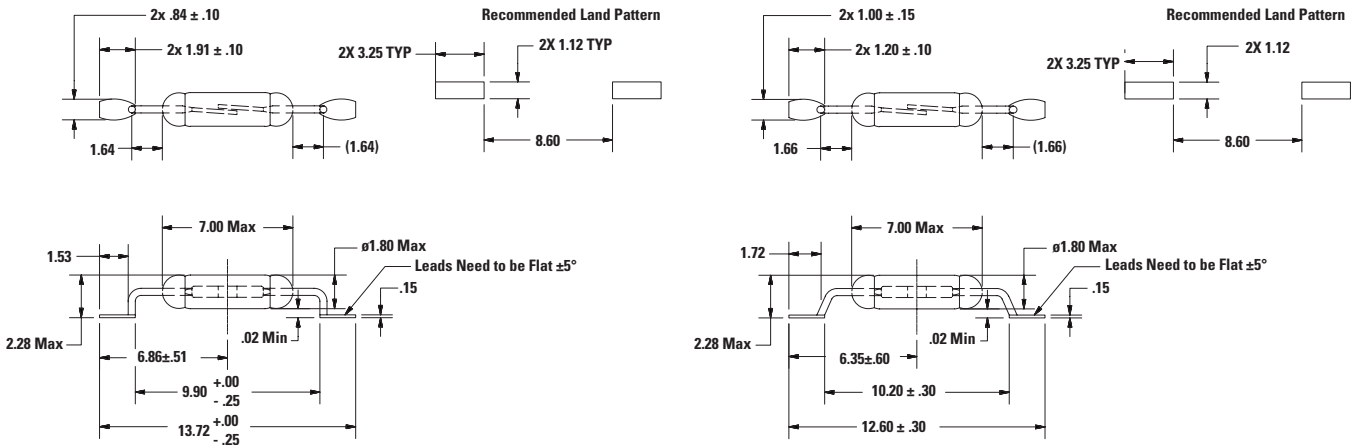
Note: These AT values are the before-modification values of the bare reed switch.

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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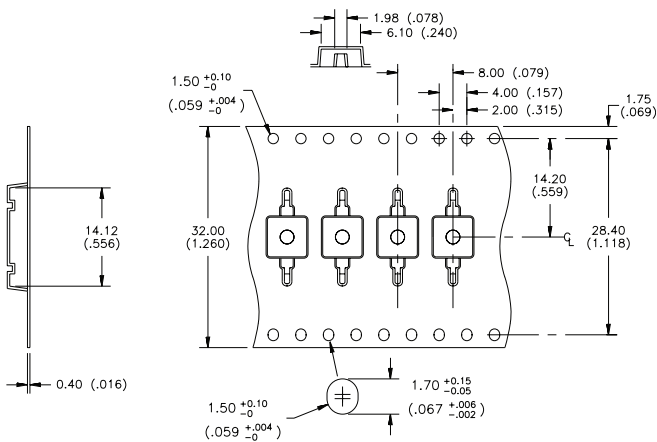
Dimensions

Dimensions in mm



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

Tape Dimensions mm (inch)



Reel Dimensions mm (inch)

