

# MITI-7

## 7mm Ultra-Miniature Reed Switch



### Description

The MITI-7 ultra-miniature reed switch is a normally open switch with a 7mm x 1.8mm (0.276" x 0.071") glass envelope, which is capable of switching 170Vdc at 10W. It has a sensitivity range of 6-20 AT. It has a high insulation resistance of 10<sup>12</sup> ohms minimum and low contact resistance of less than 150 milliohms. The MITI-7 is also available in a surface mount version, that is, MISM-7.

### Features & Benefits

- Ultra-miniature, normally open switch
- Capable of switching 170Vdc or 0.25A at up to 10W
- Available sensitivity range 6-20 AT
- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Very low space requirement
- Zero operating power required for contact closure
- Excellent for switching micro-controller logic level loads
- RoHS Compliant

### Additional Information



Resources



Accessories



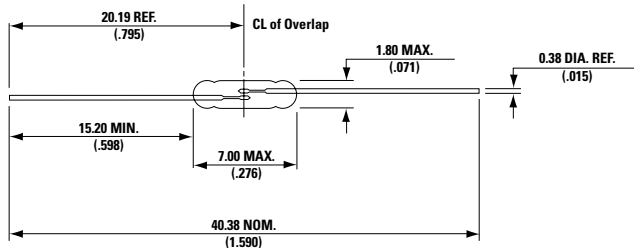
Samples

### Applications

- Position Sensing
- Security
- Meter Equipment
- Industrial Controls
- Office Equipment
- Telecoms

### Dimensions

Dimensions in mm



### Agency Approvals

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

Note: Contact Littelfuse for specific agency approval ratings.

### Switch Type

<b>Contact Form</b>	A (SPST-NO)
<b>Materials</b>	Body: Glass Leads: Tin Plated Nickel Iron

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

### Electrical Ratings

Contact Rating <sup>1</sup>	-	Watt - max.	10
Voltage <sup>3</sup>	Switching <sup>2</sup>	Vdc - max.	170
	Breakdown <sup>4</sup>	Vac - max.	120
Current <sup>3</sup>	Switching <sup>2</sup>	Vdc - min.	175
	Carry	Adc - max.	0.25
		Aac - max.	0.18
Resistance	Contact, Initial	Adc - max.	0.50
Capacitance	Contact	Ω - max.	0.15
		Ω - min.	10 <sup>12</sup>
Temperature	Operating	pF - typ.	0.3
	Storage <sup>5</sup>	°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.

# MITI-7

## 7mm Ultra-Miniature Reed Switch

### Product Characteristics

Operating Characteristics		
Operate Time <sup>1</sup>	-	0.5ms - max.
Release Time <sup>1</sup>	-	0.2ms - max.
Shock <sup>2</sup>	11ms 1/2 sine wave	100G - max.
Vibration <sup>2</sup>	50-2000 Hertz	30G - max.
Resonant Frequency	-	14kHz - typ.

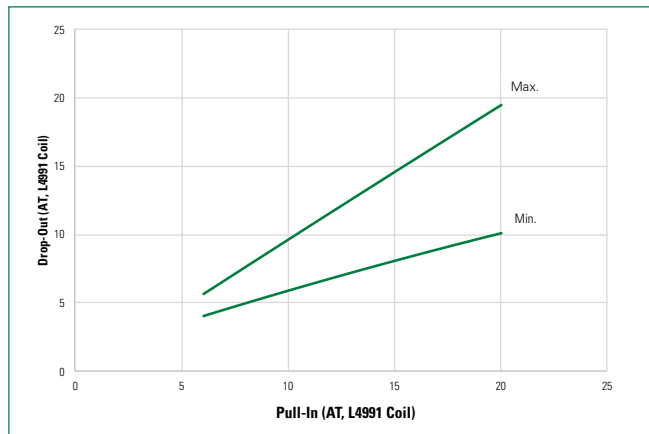
  

Magnetic Characteristics		
Pull-In Range <sup>3</sup>	Ampere Turns	6-20
Rating Sensitivity <sup>4</sup>	Ampere Turns	10
Test Coil	-	L4991

**Notes:**

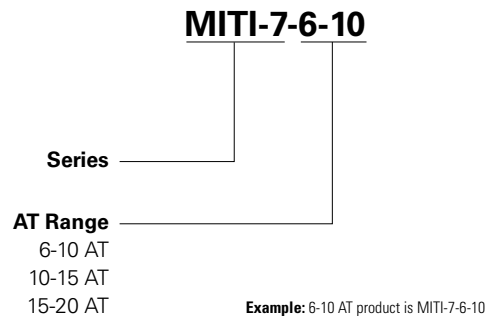
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil I).
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
3. Pull-In Range - Contact Littelfuse for narrower AT ranges available.
4. Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.
5. Custom modifications of forming and/or cutting of reed switches are available. Please contact Littelfuse.

### Drop-Out vs. Pull-In Chart



**Note:** The chart represents the range of Drop-Out, minimum to maximum for a given Pull-In value.

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	1000	N/A	N/A

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at [www.littelfuse.com/disclaimer-electronics](http://www.littelfuse.com/disclaimer-electronics).