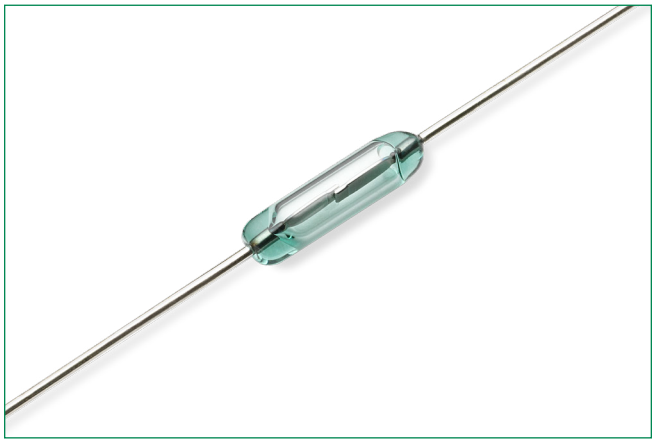
MITI-7
7mm Ultra-Miniature Reed Switch

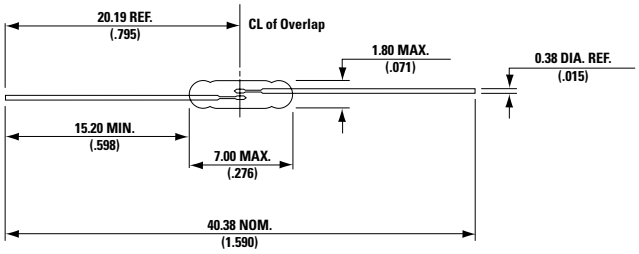


Additional Information

Resources | Accessories | Samples

Dimensions

Dimensions in mm



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^{12} 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

Applications

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

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c UL us	E47258	6-20 AT

Note: Contact Littelfuse for specific agency approval ratings.

Switch Type

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

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

Electrical Ratings

Contact Rating [1]	-	Watt - 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.	0.15
	Insulation	Ω - min.	10^{12}
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating	°C	-40 to +125
	Storage [5]	°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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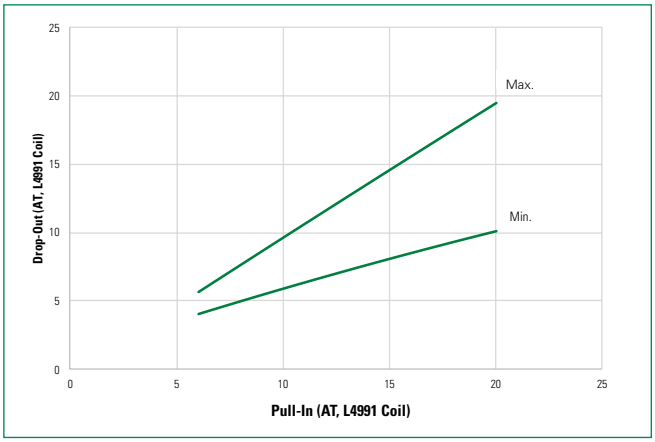
Product Characteristics

Operating Characteristics		
Operate Time [1]	-	0.5ms - max.
Release Time [1]	-	0.2ms - 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	6-20
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.
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

MITI-7-6-10

Series

AT Range
6-10 AT
10-15 AT
15-20 AT

Example: 6-10 AT product is MITI-7-6-10

Packaging

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

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