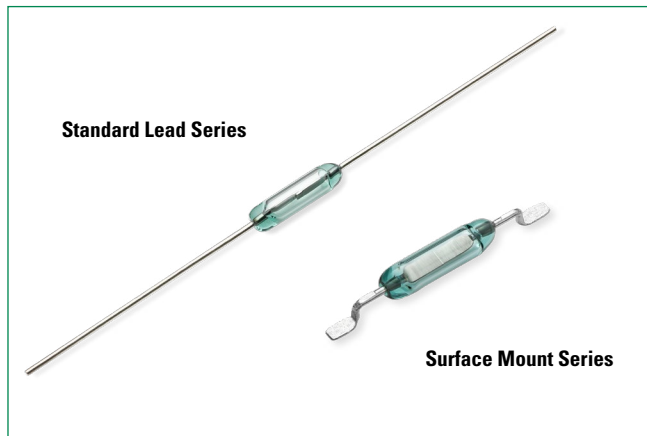


MITI-7L

Long life > High Reliability > 7mm > Sub-miniature



Additional Information



Resources



Accessories

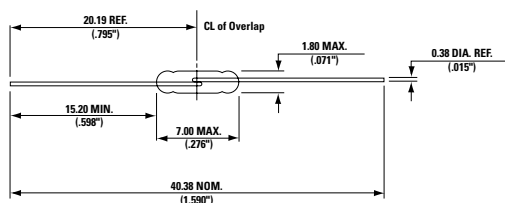


Samples

Dimensions

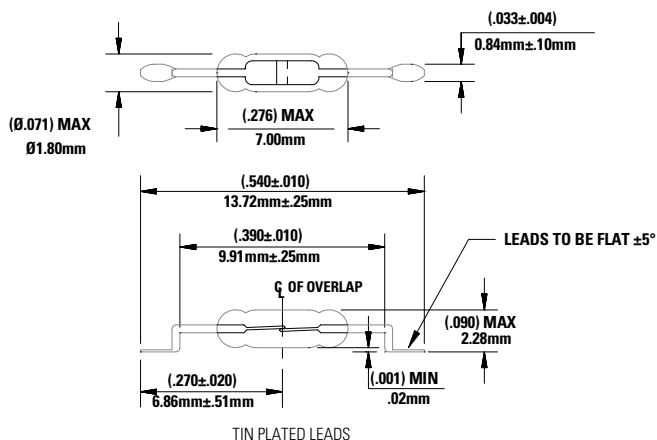
Dimensions in mm (inch)

Standard Lead Series



Surface Mount Series

SWITCH TYPE: MITI-7
NOTE: CONTACT ORIENTATION AS SHOWN $\pm 30^\circ$



Description

The MITI-7L 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 170 Vdc at 10W. It has a sensitivity range of 6–25 AT. It has a high insulation resistance of 10^{11} Ohms minimum and low contact resistance of less than 150 milliohms.

The MITI-7L is also available in a surface mount version, that is, MISM-7L.

Features & Benefits

- Prolong operating life cycles
- Ultra-miniature, normally open switch
- Wide sensitivity range 6–25 AT
- Hermetically sealed
- cULus recognition
- RoHS compliant
- Extending end product operating life and reliability
- Saves PCB space and reduce overall weight for compact size and light weight end products
- More design flexibility/options for end product: magnet size and sensitive distance
- Suitable for various operating environment/application
- Facilitates end product meeting/passing cULus test/request
- Environment friendly

Applications

- Reed Relay particularly for Automatic Test Equipment (ATE) application that requires 7 mm long life switch
- Appliance applications that require long life and high reliability switch
- Position Sensing

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
cULus	E47258	6–25 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

MITI-7L

Long life > High Reliability > 7mm > Sub-miniature

Electrical Ratings

Contact Rating ¹	-	Watt - max.	10
Voltage ³	Switching ²	Vdc - max.	170
	Breakdown ⁴	Vac - max.	120
		Vdc - min.	200
Current ³	Switching ²	Adc - max.	0.25
		Aac - max.	0.18
	Carry	Adc - max.	0.30
		Aac rms - max	0.21
Resistance	Contact, Initial	Ω - max.	0.15
	Insulation	Ω - min.	10 ¹¹
Capacitance	Contact	pF - typ.	0.65
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.

Product Characteristics

Operating Characteristics		
Operate Time ¹	-	0.4 ms - max. (with bounce)
Release Time ¹	-	0.5 ms - max.
Shock ²	11ms 1/2 sine wave	100 G - max.
Vibration ²	50-2000 Hertz	30 G - max.
Resonant Frequency	-	12.7 kHz - typ.
Magnetic Characteristics		
Pull-In Range ³	Ampere Turns	6-25
Rating Sensitivity ⁴	Ampere Turns	11
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.
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.

