

MITI-3V1 7mm Ultra-Miniature Reed Switch



Description

The MITI-3V1 ultra-miniature reed switch is a normally open switch with a 7.00mm long x 1.80mm diameter (0.276" x 0.071") glass envelope, which is capable of switching 170Vdc at 10W. It has a high insulation resistance of 10^{12} ohms minimum and low contact resistance of less than 150 milliohms.

The MITI-3V1 is also available in a surface mount version, that is, MISM-3V1.

Features

- Ultra-miniature, normally open switch
- Capable of switching 170Vdc or 0.25A at up to 10W
- Available sensitivity range 6-10 AT

Benefits

- 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

Applications

- Reed relays
- Security
- Metering
- Mobile phones

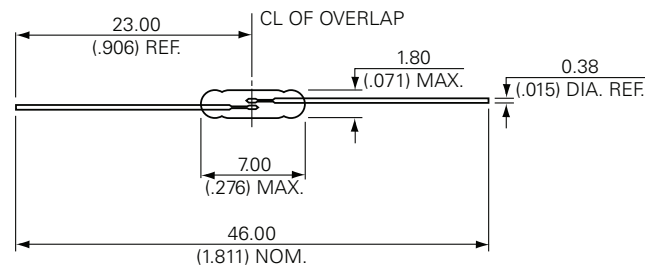
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
	E47258 E471070	6-10 AT
	DEMKO 14 ATEX 1393U	6-10 AT

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm



Electrical Ratings

Contact Rating ¹		Watt - max.	10
Voltage ³	Switching ² Breakdown ⁴	Vdc - max.	170
		Vdc - min.	175
Current ³	Switching ² Carry	A - max.	0.25
		A - max.	0.5
Resistance	Contact, Initial Insulation	Ω - max.	0.15
		Ω - min.	10^{12}
Capacitance	Contact	pF - typ.	0.3
Temperature	Operating Storage ⁵	$^{\circ}\text{C}$	-40 to +125
		$^{\circ}\text{C}$	-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.

Switch Type

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

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

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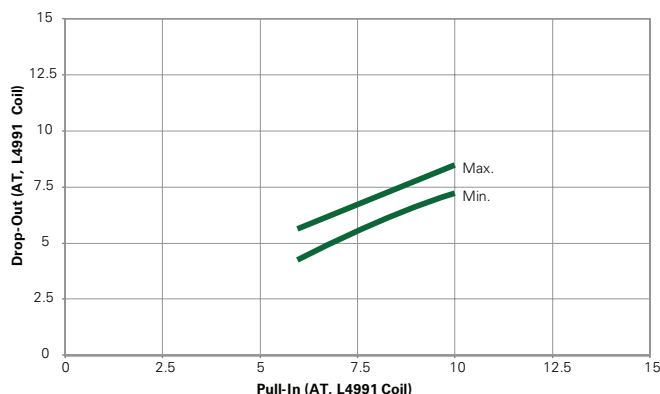
Product Characteristics

Operating Characteristics		
Operate Time ¹		0.45ms - max.
Release Time ¹		0.2ms - max.
Shock ²	11ms 1/2 sine wave	150G - max.
Vibration ²	50-2000 Hertz	30G - max.
Resonant Frequency		18.0kHz - typ.
Magnetic Characteristics		
Pull-In Range ³	Ampere Turns	6-10
Rating Sensitivity ⁴	Ampere Turns	10
Test Coil		L4991

Notes:

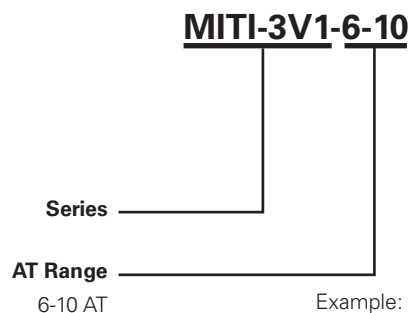
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- Pull-In Range - Contact Littelfuse for narrower AT ranges available.
- Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.
- 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



Example:

6-10 AT product is MITI-3V1-6-10

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	2000	N/A	N/A