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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MDSR-10 10.2mm Sub-miniature Reed Switch



Description

The MDSR-10 Reed Switch is a sub-miniature, normally open switch with a 10.16mm long x 1.80mm diameter (0.400" x 0.071") glass envelope, capable of switching 200Vdc at 10W. It has high insulation resistance of 10^{12} ohms minimum and low contact resistance of less than 120 milli-ohms. This reed switch is also available in a surface mount version, that is, MDSM-10.

Features

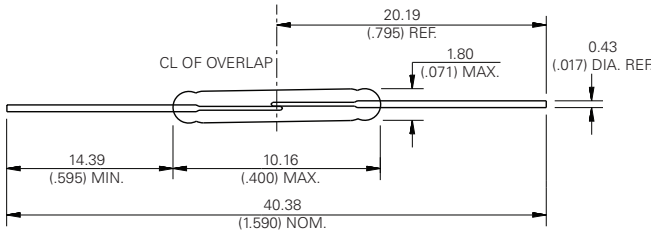
- Sub-miniature normally open switch
- Capable of switching 200Vdc or 0.5A at up to 10W
- 10^{12} Ohms insulation resistance
- Available sensitivity range 10-25 AT

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
	E47258 E471070	10-25 AT
	DEMKO 14 ATEX 1393U	10-25 AT

Dimensions

Dimensions in mm (inch)



Benefits

- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Low space requirement
- Zero operating power required for contact
- Excellent for switching microcontroller logic level loads

Applications

- Reed Relays (particularly suited to ATE type applications)
- Security Systems
- Limit Switching
- Office Equipments

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.	200
	Breakdown ⁴	Vac - max. Vdc - min.	140 250
Current ³	Switching ²	Adc - max.	0.50
	Carry	Aac - max.	0.35
		Adc - max.	1.00
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.120 10^{12}
Capacitance	Contact	pF - typ.	0.2
Temperature	Operating	$^{\circ}$ C	-40 to +125
	Storage ⁵	$^{\circ}$ 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.

MDSR-10 10.2mm Sub-miniature Reed Switch

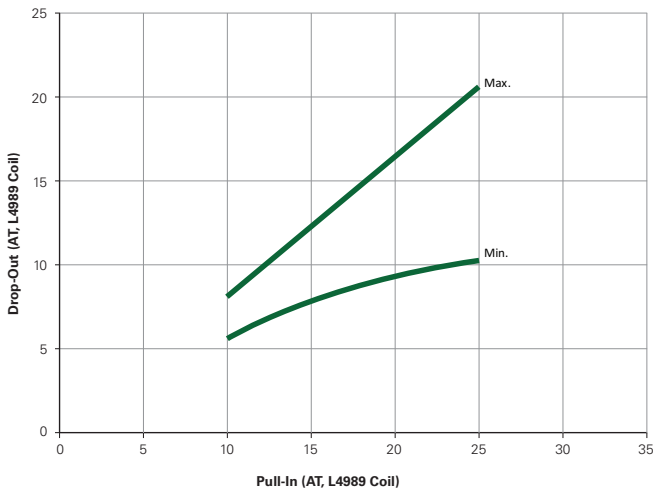
Product Characteristics

Operating Characteristics		
Operate Time ¹		0.5ms - max.
Release Time ¹		0.1ms - max.
Shock ²	11ms 1/2 sine wave	100G - max.
Vibration ²	50-2000 Hertz	30G - max.
Resonant Frequency		8.5kHz - typ.
Magnetic Characteristics		
Pull-In Range ³	Ampere Turns	10-25
Rating Sensitivity ⁴	Ampere Turns	15
Test Coil		L4989

Notes:

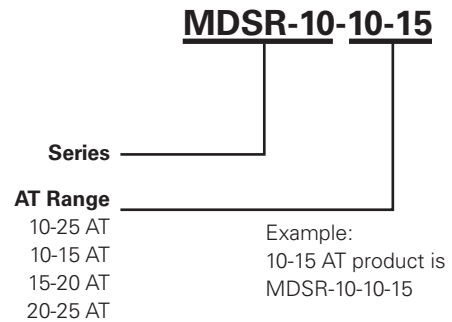
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- Pull-In Range - Contact Littelfuse for narrower AT ranges available.
- Rating Sensitivity - The value at which contact ratings and operating 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: Chart represents the range of Drop-Out, min to max for a given Pull-In value.

Part Numbering System



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

Additional Information



Datasheet



Resources



Samples

Packaging

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