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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.

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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# MDRR-DT 14.7mm Miniature Changeover Reed Switch



## Description

The MDRR-DT Reed Switch is a miniature changeover switch with a 14.73mm long x 2.54mm diameter (0.580" x 0.100") glass envelope, capable of switching 175Vdc at 5W. It has insulation resistance of  $10^9$  ohms minimum, and contact resistance less than 100 milli-ohms. The MDRR-DT is available in surface mount version, that is, MDSM-DT.

## Features

- Miniature SPDT changeover switch
- Available sensitivity range 10-30 AT
- Capable of switching 175Vdc or 0.25A at up to 5W

## Benefits

- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Zero operating power required for contact closure
- Can be used as changeover or normally closed contact
- Excellent for switching microcontroller logic level loads

## Applications

- Position Sensing
- Reed Relays
- Industrial Controls
- Office Equipments
- Home Appliances
- Security

## Switch Type

Contact Form	C (SPDT-CO)
Materials	Body: Glass Leads: Tin-plated Ni-Fe wire

Note: SPDT-CO = Single-Pole, Double-Throw, Change Over

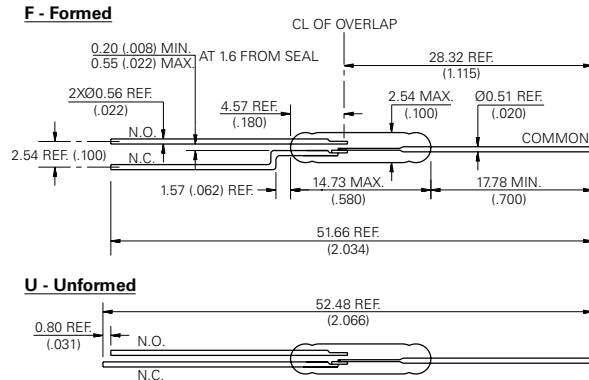
## Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
	E47258 E471070	10-30 AT
	DEMKO 14 ATEX 1393U	10-30 AT

Note: Contact Littelfuse for specific agency approval ratings.

## Dimensions

Dimensions in mm (inch)



## Electrical Ratings

Contact Rating <sup>1</sup>		W/VA - max.	5
Voltage <sup>3</sup>	Switching <sup>2</sup>	Vdc - max.	175
	Breakdown <sup>4</sup>	Vac - max.	120
		Vdc - min.	200
Current <sup>3</sup>	Switching <sup>2</sup>	Adc - max.	0.25
	Carry	Aac - max.	0.18
		Adc - max.	1.50
Resistance	Contact, Initial	$\Omega$ - max.	0.100
	Insulation	$\Omega$ - min.	$10^9$
Capacitance	Contact	pF - typ.	1
Temperature	Operating Storage <sup>5</sup>	$^{\circ}$ C	-40 to +125
		$^{\circ}$ F	-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.

## MDRR-DT 14.7mm Miniature Changeover Reed Switch

### Product Characteristics

#### Operating Characteristics

Operate Time <sup>1</sup>		0.7ms - max.
Release Time <sup>1</sup>		1ms - max.
Shock <sup>2</sup>	11ms 1/2 sine wave	50G - max.
Vibration <sup>2</sup>	50-2000 Hertz	30G - max.
Resonant Frequency		11.0kHz - typ.

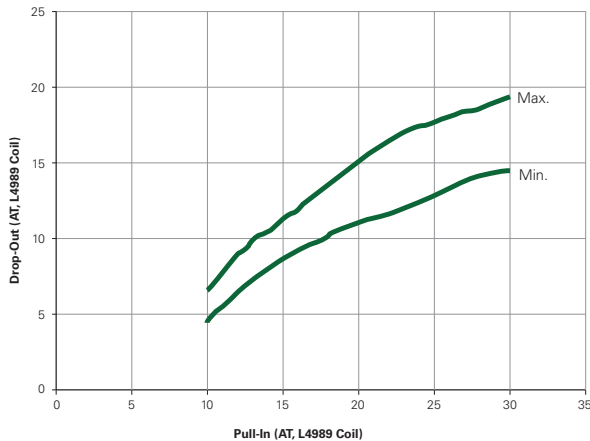
#### Magnetic Characteristics

Pull-In Range <sup>3</sup>	Ampere Turns	10-30
Rating Sensitivity <sup>4</sup>	Ampere Turns	20
Test Coil		L4989

**Notes:**

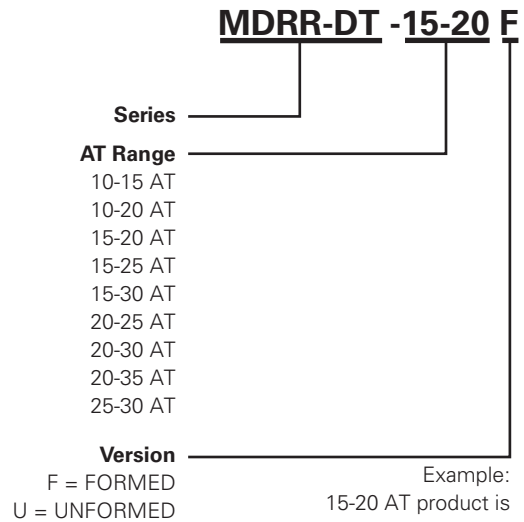
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
3. Pull-In Range - Contact Littelfuse for narrower AT ranges available.
4. Rating Sensitivity - The value at which contact ratings and operating 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.

### 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.

### Packaging

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