

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

# **Agency Approvals**

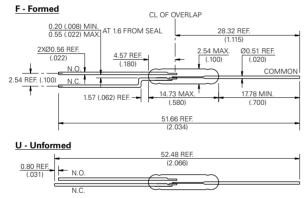
Agency	Agency File Number	Ampere-Turns Range
c <b>FL</b> °us	E47258 E471070	10-30 AT
⟨Ex⟩	DEMKO 14 ATEX 1393U	10-30 AT

## **Benefits**

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

# **Dimensions**

Dimensions in mm (inch)



# **Applications**

- · Position Sensing
- Reed RelaysIndustrial 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

# **Electrical Ratings**

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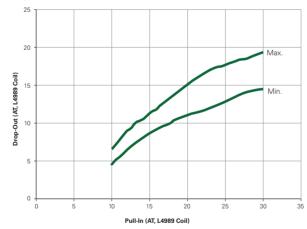
### **Product Characteristics**

Operating Characteristics					
Operate Time <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.

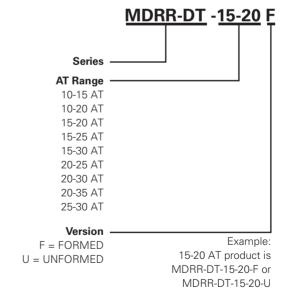
# **Additional Information**







# **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



# Surface Mount Reed Switches Low Power > MASM-14

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