

MDSM-DT 14.7mm Surface Mount Changeover Reed Switch







Description

The MDSM-DT Reed Switch is a miniature, surface mounting, changeover switch with a 14.73mm long x 2.54mm diameter (0.580" x 0.100") glass envelope. It is capable of switching 175Vdc at 5W. The MDSM-DT has an insulation resistance of 109 ohms minimum and contact resistance less than 100 milli-ohms. This reed switch is a surface mount version of the MDRR-DT.

Features

- Surface mount SPDT changeover switch
- Capable of switching 175Vdc or 0.25A at up to 5W
- · Available sensitivity 15-30 AT

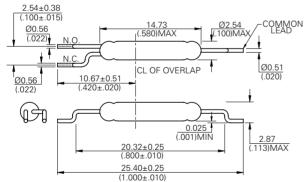
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c FU °us	E47258 E471070	15-30 AT

Note: Contact Littelfuse for specific agency approval ratings

Dimensions

Dimensions in mm (inch)



Note: Land pattern is Littelfuse recommendation only. User is responsible for proper PCB design.

Benefits

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

Applications

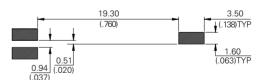
- · Position Sensing
- Level Sensing
- Industrial Controls
- · Office Equipments
- · Mobile Phones

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

RECOMMENDED LAND PATTERN



Electrical Ratings

Contact Rating ¹		W/VA - max.	5
Voltage ³	Switching ² Breakdown ⁴	Vdc - max. Vac - max. Vdc - min.	175 120 200
Current ³	Switching ² Carry	Adc - max. Aac - max. Adc - max.	0.25 0.18 1.50
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.100 10 ⁹
Capacitance	Contact	pF - typ.	1.0
Temperature	Operating Storage ⁵	°C °C	-40 to +125 -65 to +125

- 1. Contact rating Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/life information.
- . 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.
- Electrical Load Life Expectancy Contact Littelfuse with voltage, current values along with type of load.
 Breakdown Voltage per MIL-STD-202, Method 301.
 Storage Temperature Long time exposure at elevated temperature may degrade solderability of the leads.



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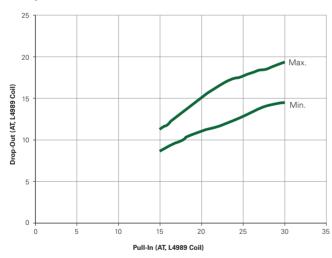
Product Characteristics

Operating Characteristics							
Operate Time ¹		0.7ms - max.					
Release Time ¹		1.0ms - max.					
Shock ²	11ms 1/2 sine wave	50G - max.					
Vibration ²	50-2000 Hertz	30G - max.					
Resonant Frequency		11.0kHz - typ.					
Magnetic Characteristics							
Pull-In Range ³	Ampere Turns	15-30					
Rating Sensitivity ⁴	Ampere Turns	20					
Test Coil		L4989					

Notes

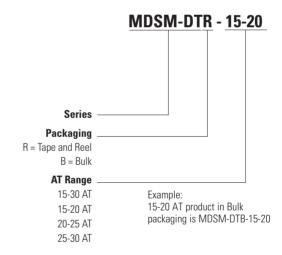
- 1. Operate (including bounce)/Release Time per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- 2. Shock and Vibration per EIA/NARM RS-421-A and MIL-STD-202.
- 3. Pull-In Range Contact Littelfuse for narrower AT ranges available. These AT values are the before modification AT of the MDRR-DT.
-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

Drop-Out vs. Pull-In Chart



Note: Chart represents the range of Drop-Out, min to max, for a given Pull-In value of the MDRR-DT prior to modification into the MDSM-DT.

Part Numbering System



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

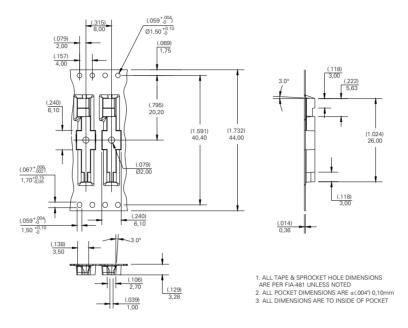
Packaging

Packaging Option	Packaging Specification	Quantity	Quantity and Packaging Code	Taping Width
Tape and Reel	EIA-RS-481-1	3000	R	32mm
Bulk	N/A	200	В	N/A



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TAPE DIMENSIONS mm (inch)



REEL DIMENSIONS mm (inch)

