

# DRT-DTH 39.7mm Standard Changeover Reed Switch

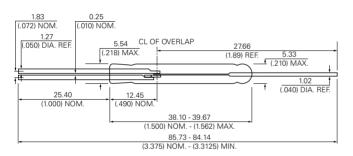
RoHS

# OBSOLETE DATE: 07/17/2017 PCN/ECN# N/A REPLACED BY: N/A



### **Dimensions**

Dimensions in mm (inch)



## **Description**

The DRT-DTH Reed Switch is a standard changeover switch with a 39.67mm long x 5.33mm diameter (1.562" x 0.210") glass envelope, with tungsten contacts capable of high voltage and power switching up to 500Vdc at 50W. It has the insulation resistance of  $10^9$  ohms minimum and contact resistance less than 500 milli-ohms.

#### **Features**

- Changeover switch
- Capable of switching 500Vdc or 1.5A at up to 50W
- Minimum voltage breakdown 1000Vdc
- Available sensitivity range 50-80 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
- Capable of switching European mains voltage
- Zero operating power required for contact closure

## **Applications**

- Security
- Limit switching
- Industrial safety applications
- White goods applications

## **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.	50
Voltage <sup>3</sup>	Switching <sup>2</sup> Breakdown <sup>4</sup>	Vdc - max. Vac - max. Vdc - min.	500 350 1000
Current <sup>3</sup>	Switching <sup>2</sup> Carry	Adc - max. Aac - max. Adc - max.	1.5 1.0 2.0
Resistance	Contact, Initial Insulation	$\Omega$ - max. $\Omega$ - min.	0.500 <sup>6</sup> 10 <sup>9</sup>
Capacitance	Contact	pF - typ.	2.0
Temperature	Operating Storage <sup>5</sup>	°C °C	-20 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.
- 6. Contact resistance measured at 36Vdc, 100mA, switched wet.
- 7. Not recommended for small electrical loads.



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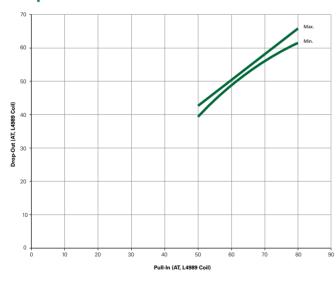
#### **Product Characteristics**

Operating Characteristics						
Operate Time <sup>1</sup>		5.5ms - max.				
Release Time <sup>1</sup>		8.0ms - max.				
Shock <sup>2</sup>	11ms 1/2 sine wave	10G - max.				
Vibration <sup>2</sup>	50-2000 Hertz	15G - max.				
Resonant Frequency	Hz - typ.	2.75kHz - typ.				
Magnetic Characteristics						
Pull-In Range <sup>3</sup>	Ampere Turns	50-80				
Rating Sensitivity <sup>4</sup>	Ampere Turns	60				
Test Coil		L4988				

#### Notes

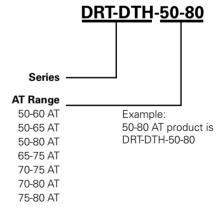
- 1. Operate (including bounce)/Release Time per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- 2. Shock and Vibration per EIA/NARM RS-421-A and MIL-STD-202.
- 3. Pull-In Range Contact Littelfuse for narrower AT ranges available.
- 4. Rating Sensitivity The value at which contact ratings and operating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



 ${\tt Note: Chart\ represents\ the\ range\ of\ Drop-Out,\ min\ to\ max\ for\ a\ given\ Pull-In\ value.}$ 

## **Part Numbering System**



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

### **Packaging**

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

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