

# DRT-DTH 39.7mm Standard Changeover Reed Switch

RoHS

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



## Description

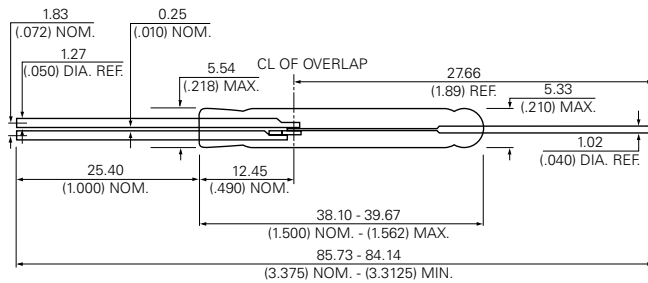
The DRT-DTH Reed Switch is a standard changeover switch with a 39.67mm long x 5.33mm diameter (1.562" x 0.210") glass envelope, with tungsten contacts capable of high voltage and power switching up to 500Vdc at 50W. It has the insulation resistance of  $10^9$  ohms minimum and contact resistance less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

## Dimensions

Dimensions in mm (inch)



## 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>	Vdc - max.	500
	Breakdown <sup>4</sup>	Vac - max.	350
Current <sup>3</sup>	Switching <sup>2</sup>	Vdc - min.	1000
		Adc - max.	1.5
	Carry	Aac - max.	1.0
Resistance	Contact, Initial Insulation	Aac - max.	2.0
		Ω - max.	0.500 <sup>6</sup>
Capacitance	Contact	Ω - min.	$10^9$
		pF - typ.	2.0
Temperature	Operating Storage <sup>5</sup>	°C	-20 to +125
		°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.
6. Contact resistance measured at 36Vdc, 100mA, switched wet.
7. Not recommended for small electrical loads.

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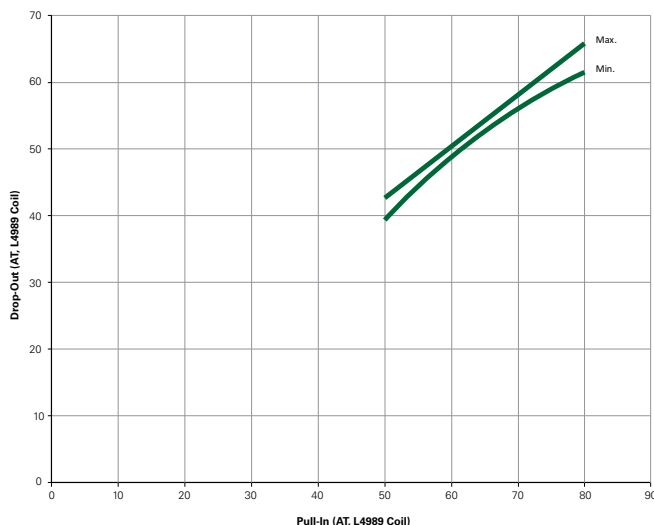
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## Product Characteristics

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

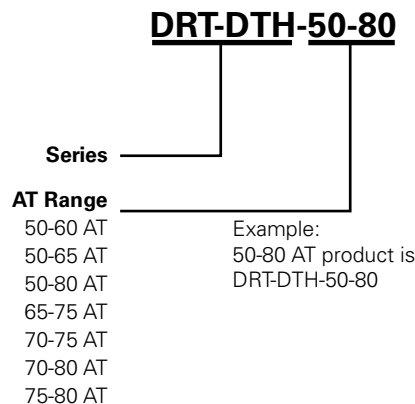
- Notes:  
 1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).  
 2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.  
 3. Pull-In Range - Contact Littelfuse for narrower AT ranges available.  
 4. Rating Sensitivity - The value at which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



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