

# **DRS-DTH 39.7mm Standard Changeover Reed Switch**

RoHS C THUS



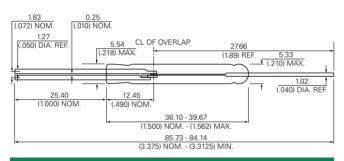
# **Agency Approvals**

Agency	Agency File Number	Ampere-Turns Range
c <b>FL</b> us	E47258 E471070	50-80 AT

Note: Contact Littelfuse for specific agency approval ratings

# **Dimensions**

### Dimensions in mm (inch)



# Applications

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

# Description

The DRS-DTH Reed Switch is a large changeover switch with a 39.67mm long x 5.33mm diameter (1.562" x 0.210") glass envelope, capable high voltage and power switching up to 500Vdc at 2mA, or 0.5A up to 30W/VA. The DRS-DTH has an insulation resistance of 10<sup>9</sup> ohms minimum and contact resistance of less than 125 milli-ohms.

# Features

- Changeover switch
- Minimum voltage breakdown 1200Vdc
- Capable of switching 500Vdc or 0.5A at up to 30W
- · 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

# Switch Type

Contact Form	C (SPDT-CO)	
Materials	Body: Glass	
Materials	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.	30	
Voltage <sup>3</sup>	Switching <sup>2</sup> Breakdown <sup>4</sup>	Vdc - max.	500	
		Vac - max.	350	
		Vdc - min.	1200	
Current <sup>3</sup>	Switching <sup>2</sup> Carry	Adc - max.	0.50	
		Aac - max.	0.35	
		Adc - max.	3.0	
Resistance	Contact, Initial Insulation	Ω - max.	0.125 10 <sup>9</sup>	
		Ω - min.		
Capacitance	Contact	pF - typ.	2.0	
Temperature	Operating	- °C	-20 to +125	
	Storage <sup>5</sup>		-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>	-	4.5ms - max.	
Release Time <sup>1</sup>	-	7.0ms - 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	
Drop-Out	Ampere-Turns - min.	-	

### Notes:

1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil IV).

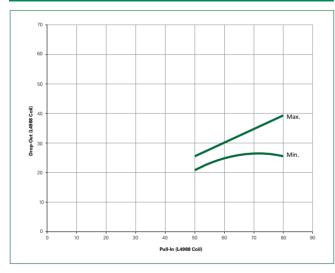
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.

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.

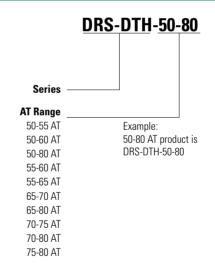
5. Custom modifications of forming and/or cutting of reed switches are available. Please contact Littelfuse.

# **Drop-Out vs. Pull-In Chart**





## 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	-	-

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