

DRT-DTH 39.7mm Standard Changeover Reed Switch

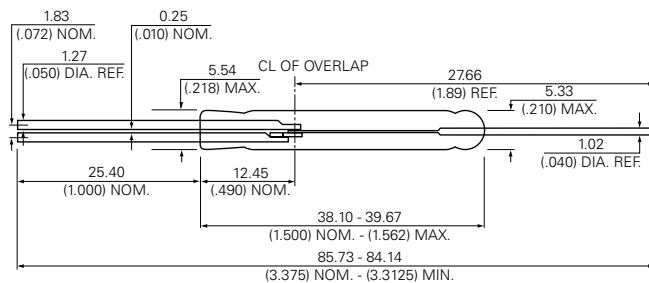
RoHS

OBSOLETE DATE: 07/17/2017 PCN/ECN# N/A
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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 ¹ | | W/VA - max. | 50 |
| Voltage ³ | Switching ² | Vdc - max. | 500 |
| | Breakdown ⁴ | Vac - max. | 350 |
| | | Vdc - min. | 1000 |
| Current ³ | Switching ² | Adc - max. | 1.5 |
| | Carry | Aac - max. | 1.0 |
| | | Adc - max. | 2.0 |
| Resistance | Contact, Initial Insulation | Ω - max. | 0.500 ⁶ |
| | | Ω - min. | 10^9 |
| Capacitance | Contact | pF - typ. | 2.0 |
| Temperature | Operating Storage ⁵ | $^{\circ}\text{C}$ | -20 to +125 |
| | | $^{\circ}\text{C}$ | -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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Product Characteristics

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

Notes:

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

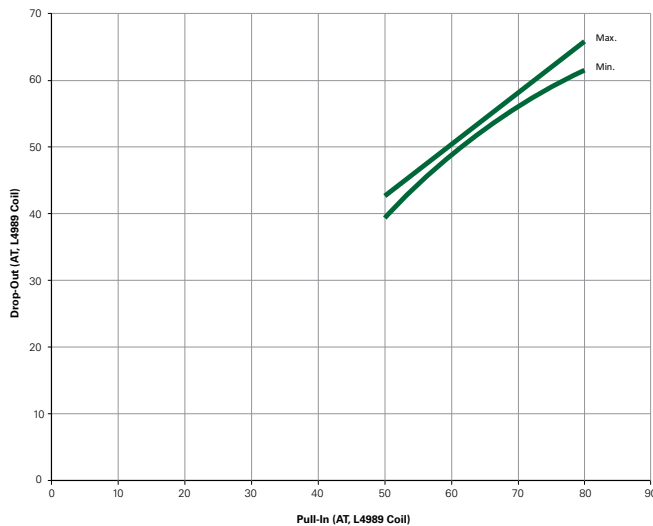
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.

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.

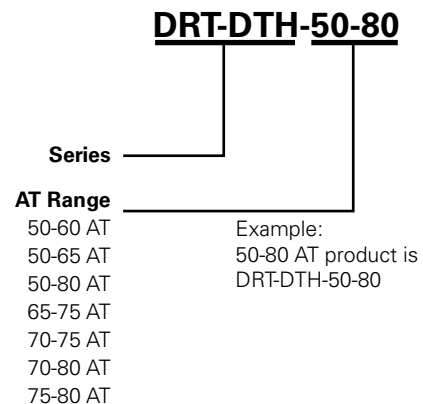
5. Custom modifications of forming and/or cutting of reed switches are available. Please contact Littelfuse.

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 |

Mouser Electronics

Authorized Distributor

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Littelfuse:

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