

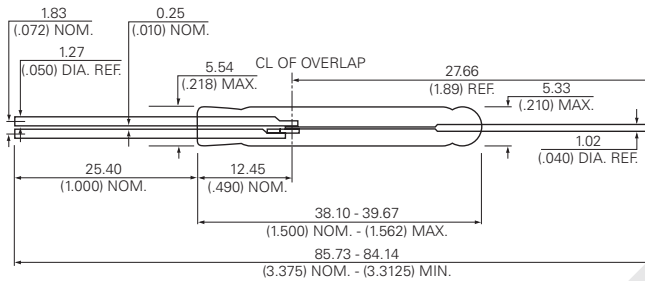
DRS-DTH 39.7mm Standard Changeover Reed Switch

RoHS



Dimensions

Dimensions in mm (inch)



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 10⁹ ohms minimum and contact resistance of less than 125 milli-ohms.

Features

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

| Parameter | Condition | Rating | Notes |
|-----------------------------|--------------------------------|--------------------------|-----------------|
| Contact Rating ¹ | | W/VA - max. | 30 |
| Voltage ³ | Switching ² | Vdc - max. | 500 |
| | Breakdown ⁴ | Vac - max. Vdc - min. | 350 1200 |
| Current ³ | Switching ² | Adc - max. | 0.50 |
| | Carry | Aac - max. | 0.35 |
| | | Adc - max. | 3.0 |
| Resistance | Contact, Initial Insulation | Ω - max. | 0.125 |
| | | Ω - min. | 10 ⁹ |
| Capacitance | Contact | pF - typ. | 2.0 |
| Temperature | Operating Storage ⁵ | °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.

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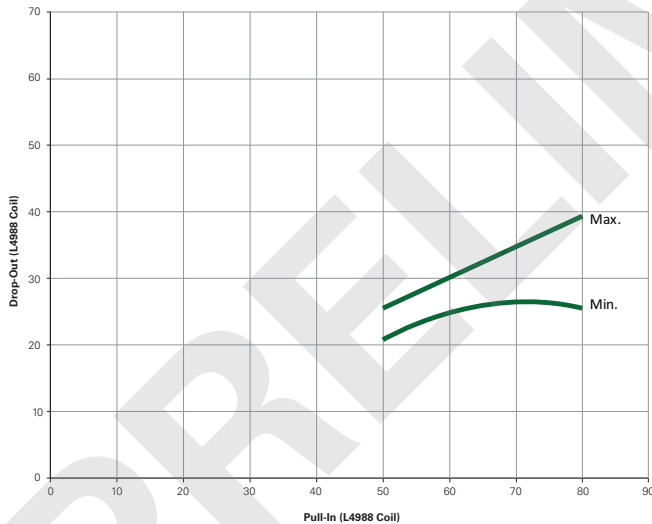
Product Characteristics

| Operating Characteristics | | |
|---------------------------------|--------------------|----------------|
| Operate Time ¹ | | 4.5ms - max. |
| Release Time ¹ | | 7.0ms - 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:

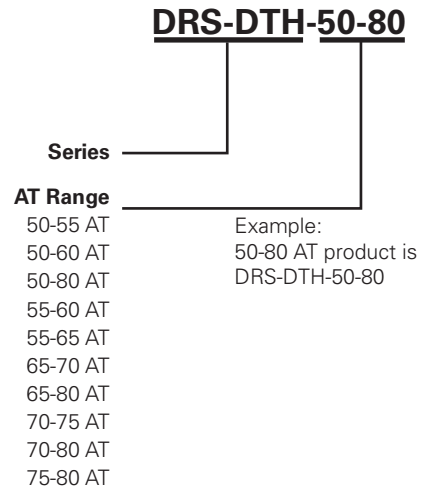
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil IV).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- Pull-In Range - Contact Littelfuse for narrower AT ranges available.
- Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.
- 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 |