

Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
| :---: | :---: | :---: |
| c | E47258 | $50-80$ 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 39.67 mm long $\times 5.33 \mathrm{~mm}$ diameter ( $1.562^{\prime \prime} \times 0.210^{\prime \prime}$ ) glass envelope, capable high voltage and power switching up to 500 Vdc at 2 mA , or 0.5 A up to $30 \mathrm{~W} / \mathrm{VA}$. The DRS-DTH has an insulation resistance of $10^{9}$ ohms minimum and contact resistance of less than 125 milli-ohms.

## Features

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


## 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


## 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 ${ }^{1}$ | - | WNA - max. | 30 |
| :---: | :---: | :---: | :---: |
| Voltage ${ }^{3}$ | Switching ${ }^{2}$ <br> Breakdown ${ }^{4}$ | Vdc - max. | 500 |
|  |  | Vac - max. | 350 |
|  |  | Vdc - min. | 1200 |
| Current ${ }^{3}$ | Switching ${ }^{2}$ Carry | Adc - max. | 0.50 |
|  |  | Aac - max. | 0.35 |
|  |  | Adc - max. | 3.0 |
| Resistance | Contact, Initial Insulation | $\Omega$ - max. | $\begin{gathered} 0.125 \\ 10^{9} \end{gathered}$ |
|  |  | $\Omega$ - min. |  |
| Capacitance | Contact | pF - typ. | 2.0 |
| Temperature | Operating | ${ }^{\circ} \mathrm{C}$ | $\begin{aligned} & -20 \text { to }+125 \\ & -65 \text { to }+125 \end{aligned}$ |
|  | Storage ${ }^{5}$ |  |  |

## 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. Electrical Load Life Expectancy - Contact Littelfuse wit
5. Breakdown Voltage - per MIL-STD-202, Method 301.
6. Breakdown Voltage - per MIL-STD-202, Method 301.

# Axial Lead Reed Switches High Power > DRS-DTH 

## DRS-DTH 39.7 mm Standard Changeover Reed Switch

## Product Characteristics

| Operating Characteristics |  |  |
| :---: | :---: | :---: |
| Operate Time ${ }^{1}$ | - | $4.5 \mathrm{~ms} \mathrm{-} \mathrm{max}$. |
| Release Time ${ }^{1}$ | - | 7.0 ms - max. |
| Shock ${ }^{2}$ | 11ms $1 / 2$ sine wave | 10G - max. |
| Vibration ${ }^{2}$ | 50-2000 Hertz | 15G - max. |
| Resonant Frequency | Hz - typ. | 2.75 kHz - typ. |
|  |  |  |
| Magnetic Characteristics |  |  |
| Pull-In Range ${ }^{3}$ | Ampere Turns | 50-80 |
| Rating Sensitivity ${ }^{4}$ | Ampere Turns | 60 |
| Test Coil | - | $\llcorner 4988$ |
| 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.
DRS-DTH-50-80

| Series |  |
| ---: | :--- |
| AT Range |  |
| $50-55$ AT |  |
| $50-60$ AT | Example: |
| $50-80$ AT | DRS-DTH-50-80 |
| $55-60$ AT |  |
| $55-65$ AT |  |
| $65-70$ AT |  |
| $65-80$ AT |  |
| $70-75$ AT |  |
| $70-80$ AT |  |
| $75-80$ AT |  |

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

| Packaging |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Packaging Option | Packaging Specification | Quantity | Quantity \& Packaging Code | Taping Width |
| Bulk | Bulk | 1000 | - | - |

