## FLEX-14

14mm Reed Switch


## Additional Information



> Agency Approvals

| Agency | Agency File Number | Ampere-Turns Range |
| :---: | :---: | :---: |
| $\mathbf{c - 1}$ us | E47258 | 10-30 AT |

Note: Contact Littelfuse for specific agency approval ratings.

## Dimensions

Dimensions in mm


## Description

The FLEX-14 reed switch is a sub-miniature, normally open switch with a 14.00 mm long $\times 2.28 \mathrm{~mm}$ diameter $\left(0.551^{\prime \prime} \times 0.090^{\prime \prime}\right)$ glass envelope, flexible, easily formed leads, capable of switching 200 Vdc at 10 W . It has high insulation resistance of 1010 ohms minimum and low contact resistance of less than 100 milliohms.

## Features \& Benefits

- Sub-miniature, normally open switch
- Longer leads are flexible for easy forming
- Capable of switching up to 200 Vdc or 0.5 A at up to 10 W
- Available sensitivity range 10-30 AT
- Hermetically sealed switch contacts are not effected by and have no effect on their external environment


## Applications

| $\square$ Reed relays | $\square$ Office equipment |
| :--- | :--- |
| $\square$ Security | $\square$ Industrial Control |

- Limit switching


## Switch Type

| Contact Form | A (SPST-NO) |
| :---: | :---: |
| Materials | Body: Glass |

Note: SPST-NO = Single-pole, single-throw, normally open

## Electrical Ratings

| Contact Type |  |  | Normally Open |
| :---: | :---: | :---: | :---: |
| Contact Rating ${ }^{1}$ | - | WNA - max. | 10 |
| Voltage ${ }^{3}$ | Switching ${ }^{2}$ <br> Breakdown ${ }^{4}$ | Vdc - max. | 200 |
|  |  | Vac - max. | 140 |
|  |  | Vdc - min. | 250 |
| Current ${ }^{3}$ | Switching ${ }^{2}$ Carry | Adc - max. | 0.50 |
|  |  | Aac - max. | 0.35 |
|  |  | Adc - max. | 1.00 |
| Resistance | Contact, Initial Insulation | $\begin{aligned} & \Omega-\max . \\ & \Omega-\text { min. } \end{aligned}$ | $\begin{gathered} 0.100 \\ 10^{10} \end{gathered}$ |
| Capacitance | Contact | pF - typ. | 0.2 |
| Temperature | Operating | ${ }^{\circ} \mathrm{C}$ | -40 to +125 |
|  | Storage ${ }^{5}$ |  | -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.
4. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.

## FLEX-14 <br> 14mm Reed Switch

## Product Characteristics

| Operating Characteristics |  |  |
| :---: | :---: | :---: |
| Operate Time ${ }^{1}$ | - | 0.55 ms - max. |
| Release Time ${ }^{1}$ | - | 0.20 ms - max. |
| Shock ${ }^{2}$ | $11 \mathrm{~ms} 1 / 2$ sine wave | 100G - max. |
| Vibration ${ }^{2}$ | 50-2000 Hertz | 30G - max. |
| Resonant Frequency | - | 5.2 kHz - typ. |
|  |  |  |
| Magnetic Characteristics |  |  |
| Pull-In Range ${ }^{3}$ | Ampere Turns | 10-30 |
| Rating Sensitivity ${ }^{4}$ | Ampere Turns | 20 |
| Test Coil | - | L4989 |

## 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
FLEX-14-10-15


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 | 3000 | - | - |

