Reed Switches Datasheet





Additional Information



Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c AV us	E47258 E471070	10-30 AT

Note: Contact Littelfuse for specific agency approval ratings.





Description

The FLEX-14 reed switch is a sub-miniature, normally open switch with a 14.00mm long x 2.28mm diameter ($0.551'' \times 0.090''$) glass envelope, flexible, easily formed leads, capable of switching 200Vdc at 10W. 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 200Vdc or 0.5A at up to 10W
- Available sensitivity range 10-30 AT
- Hermetically sealed switch contacts are not effected by and have no effect on their external environment

Applications

- Reed relays
- Security
- Limit switching

- Soft leads enable reliable hand forming
- Zero operating power required for contact closure
- Excellent for switching micro-controller logic level loads

- Office equipment
- Industrial Control

Switch Type

Electrical Load Life Expectancy - Contact Littelfuse with voltage, current values along with type of load.
Breakdown Voltage - per MIL-STD-202, Method 301.

5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the

Contact Form	A (SPST-NO)	
Materials	Body: Glass	
Waterials	Leads: Tin-plated Ni-Fe wire	

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

Electrical Ratings

Contact Type			Normally Open
Contact Rating ¹	-	W/VA - max.	10
Voltage ³	Switching ² 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	Ω - max. Ω - min.	0.100 10 ¹⁰
Capacitance	Contact	pF - typ.	0.2
Temperature	Operating	C	-40 to +125
	Storage ⁵	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.



leads

Product Characteristics

Operating Characteristics			
Operate Time ¹	-	0.55ms - max.	
Release Time ¹	-	0.20ms - max.	
Shock ²	11ms 1/2 sine wave	100G - max.	
Vibration ²	50-2000 Hertz	30G - max.	
Resonant Frequency	-	5.2kHz - 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



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	-	-

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