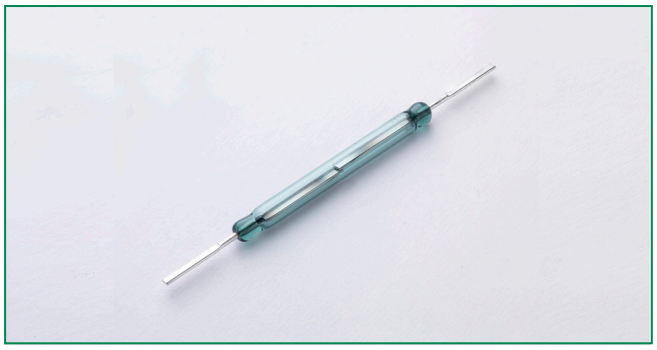
DRS-50 50.8mm High Power Reed Switch



Description

The DRS-50 Reed Switch is a standard, normally open switch with a 50.80mm long x 5.25mm diameter (2.000" x .207") glass envelope, capable of high voltage and power switching up to 400Vdc at 2mA. Will carry 6A and switch up to 100W/VA. It has high insulation resistance of 10^{10} ohms minimum and contact resistance of less than 100 milli-ohms.

Features

- Normally open switch
- Capable of switching 400Vdc or 3.0A at up to 100W
- Minimum voltage breakdown 600Vdc
- Available sensitivity range 42-83 AT

Benefits

- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Capable of switching European mains voltage
- Zero operating power required for contact closure

Applications

- Security
- Limit switching
- Industrial applications
- White Goods

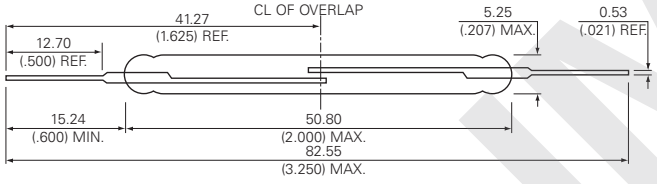
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c UL us	Pending	42-83 AT
Ex	Pending	42-83 AT

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm (inch)



Switch Type

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

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

Electrical Ratings

Contact Rating [1]		W/VA - max.	100
Voltage [3]	Switching [2]	Vdc - max. Vac - max.	400 280
	Breakdown [4]	Vdc - min.	600
Current [3]	Switching [2]	Adc - max. Aac - max.	3.0 2.1
	Carry	Adc - max.	6.0
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.100 10^{10}
Capacitance	Contact	pF - typ.	0.6
Temperature	Operating Storage [5]	°C °C	-40 to +125 -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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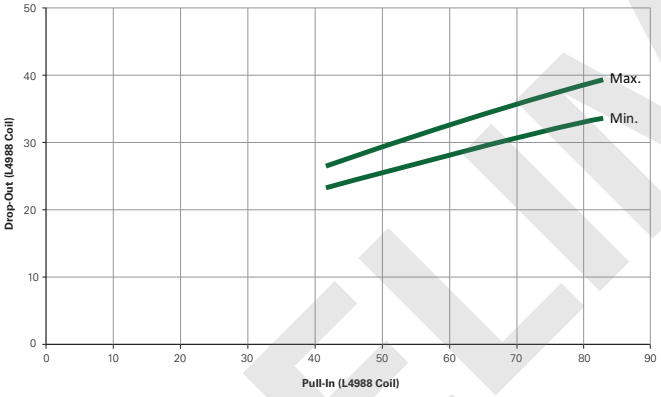
Product Characteristics

Operating Characteristics		
Operate Time [1]		4.5ms - max.
Release Time [1]		2.5ms - max.
Shock [2]	11ms 1/2 sine wave	100G - max.
Vibration [2]	50-2000 Hertz	30G - max.
Resonant Frequency	Hz - typ.	850Hz - typ.
Magnetic Characteristics		
Pull-In Range [3]	Ampere Turns	42-83
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 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



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

Part Numbering System

DRS-50-42-83

Series

AT Range

42-48 AT
42-53 AT
42-83 AT
47-53 AT
47-58 AT
47-68 AT
57-63 AT
57-68 AT
62-68 AT
62-78 AT
67-73 AT
67-83 AT
77-83 AT
62-73 AT

Example:
42-83 AT product is
DRS-50-42-83

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