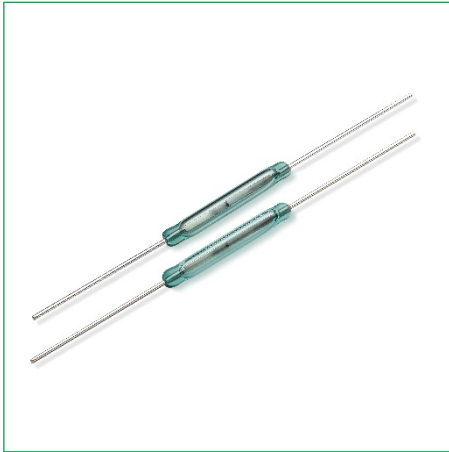


MVSR-20

19.7mm Reed Switch



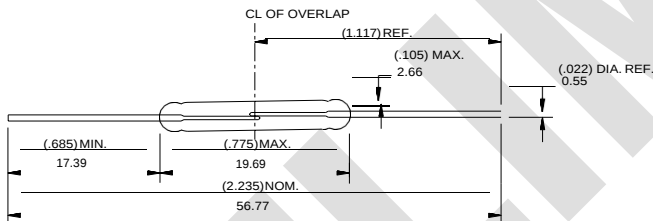
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
US	E67006	17-38 AT

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm (inch)



Description

The MVSR-20 series reed switch is a miniature, normally open switch with a 19.69mm long x 2.66mm diameter (0.775" x 0.105") glass envelope, capable of high voltage switching of up to 1kVdc at 1mA. It has high insulation resistance of 10^{12} ohms minimum and contact resistance less than 100 milli-ohms.

Features and Benefits

- Miniature normally open switch
- Capable of switching 1000Vdc at 1mA or 0.5A up to 10W
- Minimum voltage breakdown 2000 Vdc
- Available sensitivity range 17-48AT
- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Zero operating power required for contact closure

Applications

- Reed relays (particularly suitable for high voltage breakdown applications)
- Security
- Limit switching
- Telecoms line switching
- Industrial equipment
- Automatic test equipment

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

28.37

MVSR-20

19.7mm Reed Switch

Electrical Ratings

Contact Rating ¹	-	W/VA - max.	10
Voltage ³	Switching ² Breakdown ⁴	Vdc - max.	1000
		Vac - max.	265
		Vdc - min.	< 32AT = 2000 min
			32-38 AT = 3000 min
			37-48 AT = 3600 min
Current ³	Switching ² Carry	Adc - max.	0.50
		Aac - max.	0.35
		Adc - max.	1.30
Capacitance	Contact	pF - typ.	0.43
Resistance	Contact, Initial Insulation	Ω - max.	0.100
		Ω - min.	10 ¹²
Temperature	Operating	°C	-65 to +125
	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. Breakdown Voltage- per MIL-STD-202, Method 301.
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.

MVSR-20

19.7mm Reed Switch

Product Characteristics

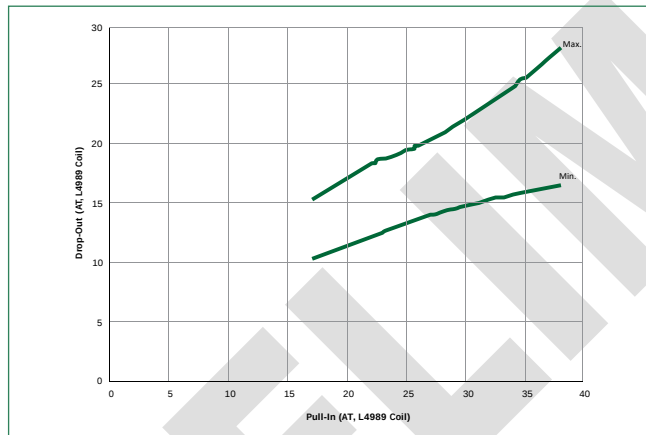
Operating Characteristics		
Operate Time ¹	-	0.75ms - max.
Release Time ¹	-	0.30ms - max.
Shock ²	11ms 1/2 sine wave	20G - max.
Vibration ²	50-2000 Hertz	10G - max.
Resonant Frequency	-	3.5kHz - typ.

Magnetic Characteristics		
Pull-In Range ³	Ampere Turns	17-48
Rating Sensitivity ⁴	Ampere Turns	35 and 45
Test Coil	-	L4989

Notes:

1. Operate(includingbounce)/Release Time -per EIA/NARMRS-421-A,diodesuppressed 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. Custommodifications offorming and/or cutting of reed switches are available. Pleasecontact 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

MVSR-20-22-28

Series

AT Range

17-23 AT
17-28 AT
22-28 AT
22-33 AT
27-33 AT
27-38 AT

Example:

22-28 AT product is
MVSR-20-22-28
MVSR-20E*-32-38
MVSR-20E*-37-43
MVSR-20E*-42-48
MVSR-20EH*-37-43
MVSR-20EH*-42-48

Note:

1. These AT values are the before-modification values of the bare reed switch.
2. E = 3000V Voltage Breakdown
3. EH = 3600V Voltage Breakdown

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	1000	-	-

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