

MARR-5 14mm Reed Switch





Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c FN us	E47258 E471070	17-38 AT
Æx>	DEMKO 14 ATEX 1393U	17-38 AT

Dimensions

Dimensions in mm (inch)

Electrical Ratings



Description

The MARR-5 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

- Miniature normally open switch
- Capable of switching 1000Vdc at 1mA or 0.5A up to 10W

Benefits

 Hermetically sealed switch contacts are not affected by and have no effect on their external environment

Applications

- Reed relays (particularly suitable for high voltage breakdown applications)
- Security

Switch Type

- Minimum voltage breakdown
 2000 Vdc
- Available sensitivity range 17-38 AT
- Zero operating power required for contact closure
- Limit switching
- Telecoms line switching
- Office equipment

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

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

Contact Rating W/VA - max. 10 Switching ² 1000 Vdc - max. Voltage ³ Breakdown⁴ Vdc - min. 2000 Switching ² Adc - max. 0.50 Current ³ Carry Adc - max 1.30 Contact, Initial Ω - max. 0.100 Resistance Insulation Ω - min. 1012 Capacitance Contact pF - typ. 0.2 °C -75 to +125 Operating Temperature °C Storage 5 -75 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		0.75ms - max.			
Release Time ¹		0.30ms - max.			
Shock ²	11ms 1/2 sine wave	ine wave 100G - max.			
Vibration ²	50-2000 Hertz 30G - max.				
Resonant Frequency		3.2kHz - typ.			
Magnetic Characteristics					
Pull-In Range ³	Ampere Turns 17-38				
Rating Sensitivity ⁴	Ampere Turns	35			
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.

Packaging

Part Numbering System



Note: These AT values are the before-modification values of the bare reed switch.

Additional Information





Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	1000	N/A	N/A