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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# MRPR-3 19.7mm Miniature Reed Switch



## Description

The MRPR-3 Reed Switch is a miniature, normally open switch with a 19.69mm long x 2.84mm diameter (0.770" x .112") glass envelope, capable of switching up to 200Vdc at 50W. The MRPR-3 has high insulation resistance of  $10^{10}$  ohms minimum and contact resistance less than 100 milli-ohms.

## Features

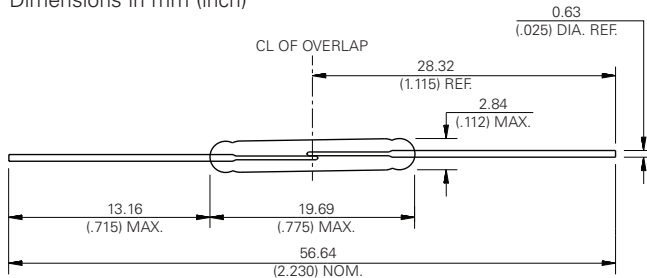
- Miniature normally open switch
- Switch contacts capable of switching 200Vdc or 1.5A at up to 50W.
- Available sensitivity range 22-43 AT

## Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
	E47258 E471070	22-43 AT
	DEMKO 14 ATEX 1393U	22-43 AT

## Dimensions

Dimensions in mm (inch)



## Benefits

- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Zero operating power required for contact
- Power switching with a miniature switch

## Applications

- Limit Switching
- Telephone Line Switching
- Office Equipments
- Heavy Load Switching
- Light Inductive Loads

## 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 <sup>1</sup>		W/VA - max.	50
Voltage <sup>3</sup>	Switching <sup>2</sup>	Vdc - max.	200
	Breakdown <sup>4</sup>	Vac - max.	140
		Vdc - min.	300
Current <sup>3</sup>	Switching <sup>2</sup>	Adc - max.	1.5
	Carry	Aac - max.	1.1
		Adc - max.	3.0
Resistance	Contact, Initial Insulation	$\Omega$ - max.	0.100
		$\Omega$ - min.	$10^{10}$
Capacitance	Contact	pF - typ.	0.2
Temperature	Operating	$^{\circ}\text{C}$	-40 to +125
	Storage <sup>5</sup>	$^{\circ}\text{C}$	-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.
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

## MRPR-3 19.7mm Miniature Reed Switch

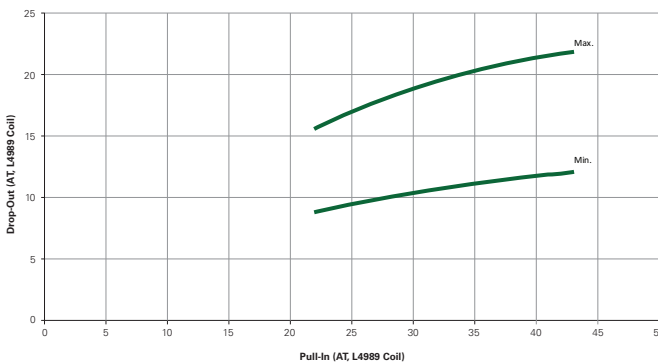
### Product Characteristics

Operating Characteristics		
Operate Time <sup>1</sup>		0.75ms - max.
Release Time <sup>1</sup>		0.3ms - max.
Shock <sup>2</sup>	11ms 1/2 sine wave	100G - max.
Vibration <sup>2</sup>	50-2000 Hertz	30G - max.
Resonant Frequency		2.1kHz - typ.
Magnetic Characteristics		
Pull-In Range <sup>3</sup>	Ampere Turns	22-43
Rating Sensitivity <sup>4</sup>	Ampere Turns	22
Test Coil		L4989

Notes:

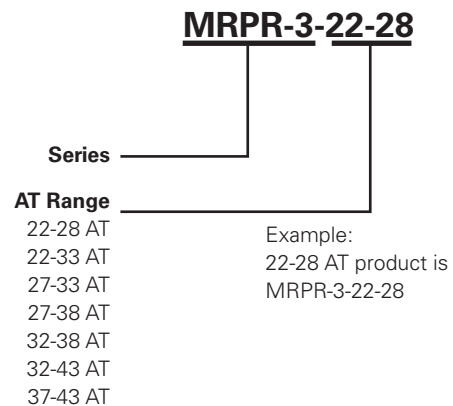
- Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.
- Pull-In Range - Contact Littelfuse for narrower AT ranges available.
- Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required below this value.
- 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.

### Additional Information



Datasheet



Resources



Samples

### Packaging

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