

# MRPR-8 20.3mm Miniature High Voltage Reed Switch

OBSOLETE:

Date: April 28, 2016

Replacement Series: MRPR-20 Series PCN#: (Sorry i can;t recall this alreadv)





## **Description**

The MRPR-8 Reed Switch is a miniature, normally open switch with a 20.32mm long x 2.84mm diameter (0.800" x 0.112") glass envelope, capable of high voltage and power switching of 265Vac at 50VA. The MRPR-8 has high insulation resistance of 10<sup>10</sup> ohms minimum and contact resistance less than 100 milli-ohms.

### **Features**

- Miniature normally open switch
- Capable of switching 265Vac or 1.0A at up to 50W/VA
- Minimum voltage breakdown 750Vdc
- Available sensitivity range 22-43 AT

## **Agency Approvals**

	Agency	Agency File Number	Ampere-Turns Range
	c <b>FU</b> °us	E47258 E471070	22-43 AT
	€x>	DEMKO 14 ATEX 1393U	22-43 AT

### **Benefits**

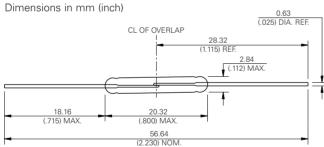
· Hermetically sealed switch contacts are not affected by and have no effect on their external environment

· Zero operating power required for contact

# **Applications**

- · Reed relays (suitable for switching European mains voltage)
- · Limit switching
- · Telecoms line switching
- White goods applications
- European mains voltage switching

# **Dimensions**



# **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> Breakdown <sup>4</sup>	Vdc - max. Vac - max. Vdc - min.	250 265 750
Current <sup>3</sup>	Switching <sup>2</sup> Carry	Adc - max. Aac - max. Adc - max.	1.0 0.7 2.5
Resistance	Contact, Initial Insulation	$\Omega$ - max. $\Omega$ - min.	0.100 10 <sup>10</sup>
Capacitance	Contact	pF - typ.	0.2
Temperature	Operating Storage <sup>5</sup>	°C °C	-20 to +125 -65 to +125

- 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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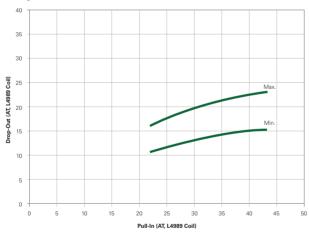
# MRPR-8 20.3mm Miniature High Voltage Reed Switch

### **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					

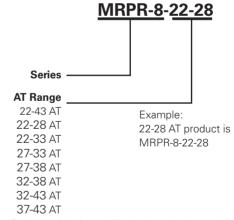
- 1. Operate (including bounce)/Release Time per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
- 2. Shock and Vibration per EIA/NARM RS-421-A and MIL-STD-202.
- 3. Pull-In Range Contact Littelfuse for narrower AT ranges available.
- 4. Rating Sensitivity The value at which contact ratings and operating 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.

### **Additional Information**









### **Packaging**

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