

# DRR-129 50.8mm Close-Differential Reed Switch





# **Description**

The DRR-129 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 100W. Will carry 6A and switch 3A. It has high insulation resistance of 10<sup>10</sup> 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
- Available sensitivity range 42-83 AT

## **Agency Approvals**

| Agency          | Agency File Number  | Ampere-Turns Range |  |
|-----------------|---------------------|--------------------|--|
| c <b>Ru</b> °us | E47258<br>E471070   | 42-83 AT           |  |
| €x>             | DEMKO 14 ATEX 1393U | 42-83 AT           |  |

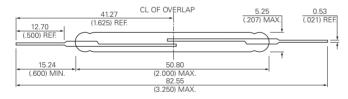
### **Benefits**

· 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

### **Dimensions**

Dimensions in mm (inch)



# **Applications**

- Security
- · Limit switching
- · Industrial safety applications

# **Switch Type**

| Contact Form | A (SPST-NO)                                 |
|--------------|---|
| Materials    | Body: Glass<br>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.                            | 100                        |
|-----------------------------|--|--|----------------------------|
| Voltage <sup>3</sup>        | Switching <sup>2</sup><br>Breakdown <sup>4</sup> | Vdc - max.<br>Vac - max.<br>Vdc - min. | 400<br>280<br>600          |
| Current <sup>3</sup>        | Switching <sup>2</sup><br>Carry                  | Adc - max.<br>Aac - max.<br>Adc - max. | 3.0<br>2.1<br>6.0          |
| Resistance                  | Contact, Initial<br>Insulation                   | $\Omega$ - max. $\Omega$ - min.        | 0.100<br>10 <sup>10</sup>  |
| Capacitance                 | Contact  | pF - typ.                              | 0.6                        |
| Temperature                 | Operating<br>Storage <sup>5</sup>                | °C<br>°C                               | -40 to +125<br>-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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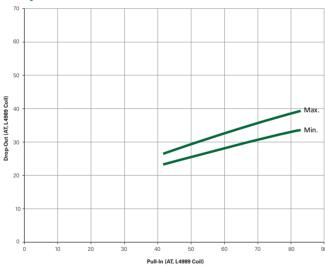
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### **Product Characteristics**

| Operating Characteristics       |                    |              |  |  |  |
|---------------------------------|--------------------|--------------|--|--|--|
| Operate Time <sup>1</sup>       |                    | 4.5ms - max. |  |  |  |
| Release Time <sup>1</sup>       |                    | 2.5ms - max. |  |  |  |
| Shock <sup>2</sup>              | 11ms 1/2 sine wave | 100G - max.  |  |  |  |
| Vibration <sup>2</sup>          | 50-2000 Hertz      | 30G - max.   |  |  |  |
| Resonant Frequency              | Hz - typ.          | 850Hz - typ. |  |  |  |
| Magnetic Characteristics        |                    |              |  |  |  |
| Pull-In Range <sup>3</sup>      | Ampere Turns       | 42-83        |  |  |  |
| Rating Sensitivity <sup>4</sup> | Ampere Turns       | 60           |  |  |  |
| Test Coil                       |                    | L4988        |  |  |  |

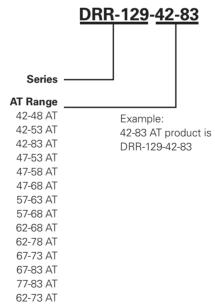
- Notes: 1. Operate (including bounce)/Release Time per EIA/NARM RS-421-A,diode suppressed coil (Coil II).
- 2. Shock and Vibration per EIA/NARM RS-421-A and MIL-STD-202.
- 3. Pull-In Range Contact Littelfuse for narrower AT ranges available.
- 4. Rating Sensitivity The value at which contact ratings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

## **Part Numbering System**



### **Additional Information**







Resources



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          |