

# DRR-129 50.8mm Close-Differential Reed Switch



**OBSOLETE** DATE: 07/17/2017 PCN/ECN# N/A  
REPLACED BY: DRS-50



## 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  $10^{10}$  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 600Vdc
- Available sensitivity range 42-83 AT

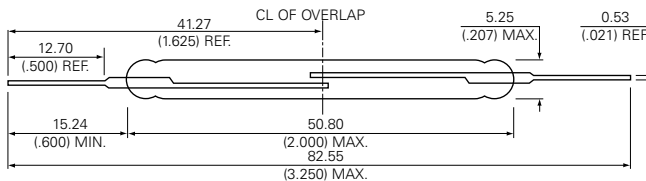
## Agency Approvals

| Agency | Agency File Number  | Ampere-Turns Range |
|--------|---------------------|--------------------|
|        | E47258<br>E471070   | 42-83 AT           |
|        | DEMKO 14 ATEX 1393U | 42-83 AT           |

Note: Contact Littelfuse for specific agency approval ratings.

## Dimensions

Dimensions in mm (inch)



## 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

## 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>         | Vdc - max.         | 400         |
|                             | Breakdown <sup>4</sup>         | Vac - max.         | 280         |
|                             |                                | Vdc - min.         | 600         |
| Current <sup>3</sup>        | Switching <sup>2</sup>         | Adc - max.         | 3.0         |
|                             | Carry                          | Aac - max.         | 2.1         |
|                             |                                | Adc - max.         | 6.0         |
| Resistance                  | Contact, Initial Insulation    | $\Omega$ - max.    | 0.100       |
|                             |                                | $\Omega$ - min.    | $10^{10}$   |
| Capacitance                 | Contact                        | pF - typ.          | 0.6         |
| Temperature                 | Operating Storage <sup>5</sup> | $^{\circ}\text{C}$ | -40 to +125 |
|                             |                                | $^{\circ}\text{C}$ | -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

# DRR-129 50.8mm Close-Differential Reed Switch

## 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).

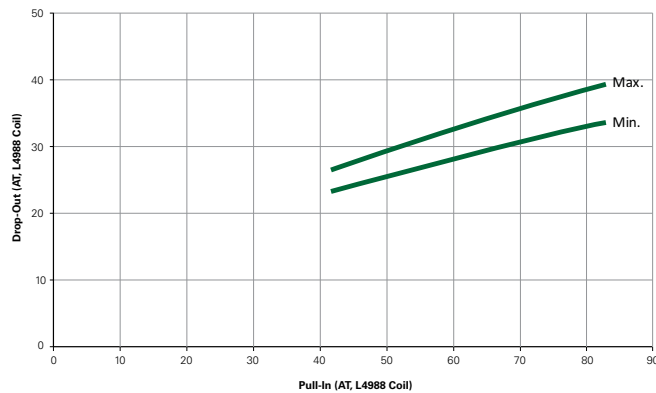
2. Shock and Vibration - per EIA/NARM RS-421-A and MIL-STD-202.

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

**DRR-129-42-83**

Series

AT Range

42-48 AT  
42-53 AT  
42-83 AT  
47-53 AT  
47-58 AT  
47-68 AT  
57-63 AT  
57-68 AT  
62-68 AT  
62-78 AT  
67-73 AT  
67-83 AT  
77-83 AT  
62-73 AT

Example:  
42-83 AT product is  
DRR-129-42-83

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          |