**MLRR-4 15.2mm Sub-miniature Close Differential Reed Switch**

**Description**
The MLRR-4 Reed Switch is a sub-miniature, normally open switch with a 15.24mm long x 2.54mm diameter (0.600” x 0.100”) glass envelope, and capable of switching 200Vdc at 20W with close differential (CD) characteristics. It has high insulation resistance of 10\(10^6\) ohms minimum and contact resistance less than 100 milli-ohms. It can handle lamp loads up to 2W @ 14V with no suppression circuitry. This reed switch is also available in a surface mount version, that is, MLSM-4.

**Features**
- Sub-miniature normally open switch
- Capable of switching 200Vdc or 1.0A at up to 20W
- Close differential AT between PI and DO value
- Available sensitivity range 17-38 AT
- Capable of switching small incandescent lamp loads

**Benefits**
- Hermetically sealed switch contacts are not affected by and have no effect on their external environment
- Zero operating power required for contact closure
- Excellent for switching microcontroller logic level loads and small incandescent lamp loads

**Applications**
- Position Sensing
- Security Systems
- Level Sensing
- Light Inductive Loads
- Office Equipments
- Lamp Loads up to 2W @ 14V

**Switch Type**
- Contact Form: A (SPST-NO)
- Materials:
  - Body: Glass
  - Leads: Tin Plated Nickel Iron

**Agency Approvals**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Agency File Number</th>
<th>Ampere-Turns Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>☀️</td>
<td>E47258 E471070</td>
<td>17-38 AT</td>
</tr>
<tr>
<td>☎️</td>
<td>DEMKO 14 ATEX 1393U</td>
<td>17-38 AT</td>
</tr>
</tbody>
</table>

**Dimensions**
Dimensions in mm

**Electrical Ratings**

<table>
<thead>
<tr>
<th>Contact Rating 1</th>
<th>Switching 2</th>
<th>Breaking 4</th>
<th>Watt - max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage 3</td>
<td>Vdc - max.</td>
<td>Vac - max.</td>
<td>Vdc - min.</td>
</tr>
<tr>
<td>Resistance</td>
<td>Contact, Initial</td>
<td>Insulation</td>
<td></td>
</tr>
<tr>
<td>Capacitance</td>
<td>Contact</td>
<td>pF - typ.</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>Operating</td>
<td>Storage 5</td>
<td></td>
</tr>
</tbody>
</table>

**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.
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.
Axial Lead Reed Switches
High Power > MLRR-4

MLRR-4 15.2mm Sub-miniature Close Differential Reed Switch

Product Characteristics

<table>
<thead>
<tr>
<th>Operating Characteristics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operate Time ¹</td>
<td></td>
<td>0.6ms - max.</td>
</tr>
<tr>
<td>Release Time ¹</td>
<td></td>
<td>0.2ms - max.</td>
</tr>
<tr>
<td>Shock ²</td>
<td>11ms 1/2 sine wave</td>
<td>100G - max.</td>
</tr>
<tr>
<td>Vibration ²</td>
<td>50-2000 Hertz</td>
<td>30G - max.</td>
</tr>
<tr>
<td>Resonant Frequency</td>
<td></td>
<td>6.25kHz - typ.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Magnetic Characteristics</th>
<th>Ampere Turns</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pull-In Range ³</td>
<td>17-38</td>
<td></td>
</tr>
<tr>
<td>Rating Sensitivity ⁴</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

Test Coil: L4989

Notes:
1. Operate (including bounce)/Release Time - per EIA/NARM RS-421-A, diode suppressed coil (Coil II).
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.

MLRR-4-17-23

Part Numbering System

Series
MLRR-4-17-23
AT Range
17-23 AT
17-28 AT
22-28 AT
22-33 AT
27-33 AT
27-38 AT
32-38 AT

Example: 17-23 AT product is MLRR-4-17-23

Note: This AT value is the before-modification value of the bare reed switch.

Additional Information

Datasheet
Resources
Samples

Packaging

<table>
<thead>
<tr>
<th>Packaging Option</th>
<th>Packaging Specification</th>
<th>Quantity</th>
<th>Quantity &amp; Packaging Code</th>
<th>Taping Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>Bulk</td>
<td>3000</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: The chart represents the range of Drop-Out, minimum to maximum for a given Pull-In value.

Note: The chart represents the range of Drop-Out, minimum to maximum for a given Pull-In value.

Note: This AT value is the before-modification value of the bare reed switch.