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

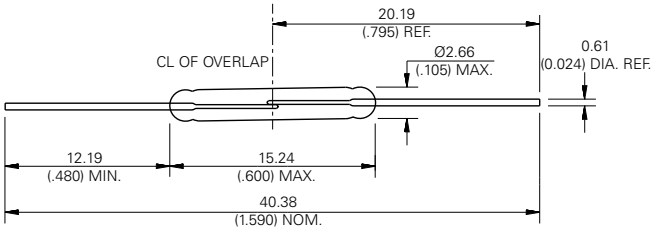
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c UL us	E47258 E471070	17-38 AT

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm



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} 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 incandesent 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

Note: SPST-NO = Single-pole, single-throw, normally open

Electrical Ratings

Contact Rating [1]		Watt - max.	20
Voltage [3]	Switching [2]	Vdc - max. Vac - max.	200 140
	Breakdown [4]	Vdc - min.	250
Current [3]	Switching [2]	Adc - max. Aac - max.	1.0 0.7
	Carry	Adc - max.	1.0
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.10 10^{10}
Capacitance	Contact	pF - typ.	0.4
Temperature	Operating Storage [5]	°C °C	-40 to +125 -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.

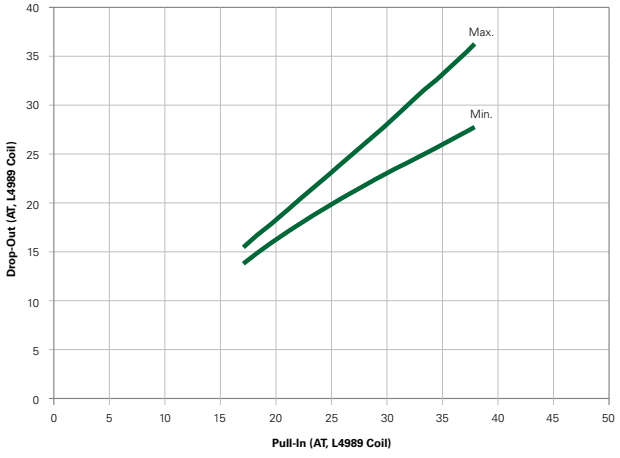
MLRR-4 15.2mm Sub-miniature Close Differential Reed Switch

Product Characteristics

Operating Characteristics		
Operate Time [1]		0.6ms - max.
Release Time [1]		0.2ms - max.
Shock [2]	11ms 1/2 sine wave	100G - max.
Vibration [2]	50-2000 Hertz	30G - max.
Resonant Frequency		6.25kHz - typ.
Magnetic Characteristics		
Pull-In Range [3]	Ampere Turns	17-38
Rating Sensitivity [4]	Ampere Turns	20
Test Coil		L4989

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

Part Numbering System

MLRR-4-17-23

Series

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.

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	3000	N/A	N/A

 Revised: BO.12/08/20