MDCG-4 15.3mm Sub-miniature Reed Switch

Description

The MDCG-4 Reed Switch is a sub-miniature, normally open switch with a 15.24mm long x 2.28mm diameter (0.600" x 0.090") glass envelope, capable of switching 200Vdc at 10W. It has high insulation resistance of 10^{10} ohms minimum and contact resistance less than 100 milli-ohms. This reed switch is also available in a surface mount version, that is, MDSM-4.

Features

- Sub-miniature normally open switch
- Available sensitivity 12-38 AT
- Capable of switching 200Vdc or 0.5A at up to 10W

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 micro-controller logic level loads

Applications

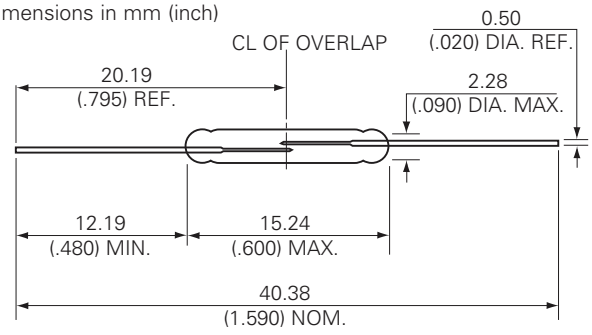
- Reed Relays
- Security
- Limit Switching
- Level Sensing
- Office Equipment
- Industrial Control

Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
c UL us	E47258 E471070	12-38 AT
Ex	DEMKO 14 ATEX 1393U	12-38 AT

Dimensions

Dimensions in mm (inch)



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 [1]		W/VA - max.	10
Voltage [3]	Switching [2]	Vdc - max. Vac - max.	200 140
	Breakdown [4]	Vdc - min.	250
Current [3]	Switching [2]	Adc - max. Aac - max.	0.50 0.35
	Carry	Adc - max.	1.20
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.100 10^{10}
Capacitance	Contact	pF - typ.	0.2
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.

Littelfuse
Expertise Applied | Answers Delivered

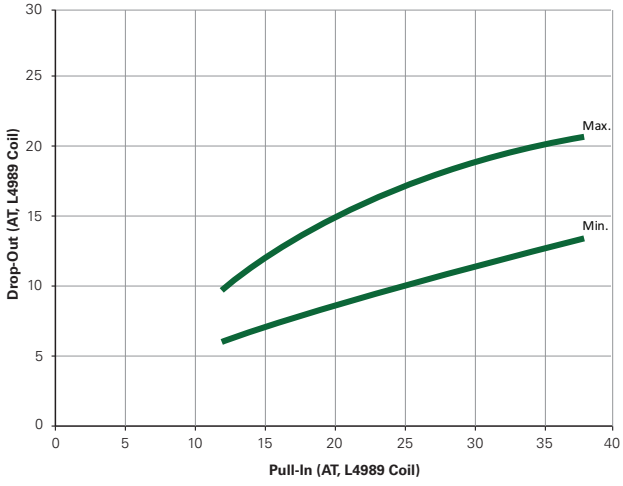
MDCG-4 15.24mm Sub-miniature Reed Switch

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		3.9kHz - typ.
Magnetic Characteristics		
Pull-In Range [3]	Ampere Turns	12-38
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: Chart represents the range of Drop-Out, min to max for a given Pull-In value.

Part Numbering System

MDCG-4 -12-18

Series

AT Range

12-18 AT
12-23 AT
17-23 AT
17-28 AT
22-28 AT
22-33 AT
27-33 AT
27-38 AT
32-38 AT

Example:
12-18 AT product is
MDCG-4-12-18

Note: These AT values are the before-modification values of the bare reed switch.

Additional Information

Datasheet | **Resources** | **Samples**

Packaging

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

MDCG-4 17-38 MDCG-4 17-28 MDCG-4 17-23 MDCG-4 12-38 MDCG-4 12-28 MDCG-4 22-28 MDCG-4 22-33 MDCG-4 32-38 MDCG-4 22-38 MDCG-4 27-38 MDCG-4 12-23 MDCG-4 27-33 MDCG-4 12-18 MDCG-4 12-33 MDCG-4-12-23 MDCG-4-17-23 MDCG-4-12-18 MDCG-4-12-33 MDCG-4-27-33 MDCG-4-22-28 MDCG-4-12-28 MDCG-4-27-38 MDCG-4-17-28 MDCG-4-12-38 MDCG-4-32-38 MDCG-4-17-38 MDCG-4-22-38 MDCG-4-22-33 MDCG-4-7-13 MDCG-4-37-43