HA15-2 15.2mm Sub-miniature HV Reed Switch

RoHS

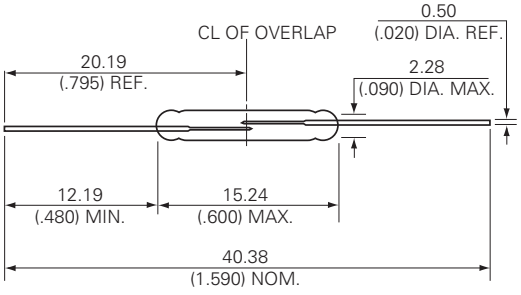
Agency Approvals

Agency	Agency File Number	Ampere-Turns Range
	E47258 E471070	17-33 AT

Note: Contact Littelfuse for specific agency approval ratings.

Dimensions

Dimensions in mm (inch)



Description

The HA15-2 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 and capable of high voltage switching of 265Vac at 10VA. It has high insulation resistance of 10^{10} ohms minimum and contact resistance less than 100 milli-ohms. It can handle light inductive loads with no suppression circuitry and switch European mains voltage.

Features

- Sub-miniature normally open switch
- Capable of switching 100-265Vac or 0.3A up to 20VA loads outside of this window is rated 10W max (see Electrical Ratings)
- Minimum voltage breakdown 400Vdc (17-23AT) and 450Vdc (22+ AT)
- Available sensitivity range 17-33 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

Applications

- Reed Relays
- Security
- Limit Switching
- Office Equipment
- Light Inductive Loads
- European Mains Voltage Switching

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

Sensitivity [6]			17-23	22+
Contact Rating [1]		W/VA - max.	20W for 100-265 VAC loads 10W for all other loads	
Voltage [3]	Switching [2] Breakdown [4]	Vdc - max. Vac - max. Vdc - min.	200 265 rms 400	200 265 rms 450
Current [3]	Switching [2] Carry	Adc - max. Aac - max. Adc - max.	0.40 0.30 1.4	0.50 0.35 1.5
Resistance	Contact, Initial Insulation	Ω - max. Ω - min.	0.100 10^{10}	0.100 10^{10}
Capacitance	Contact	pF - typ.	0.2	0.2
Temperature	Operating Storage [5]	°C °C	-20 to +125 -65 to +125	-20 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 and 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 lead.
6. Rating Sensitivity - The value at which contact ratings and operating characteristics are determined. Derating may be required for lower values.

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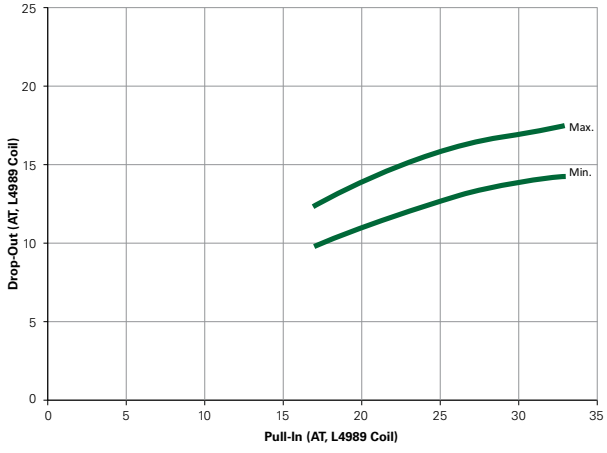
Product Characteristics

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		4.0kHz - typ.
Magnetic Characteristics		
Pull-In Range [3]	Ampere Turns	17-33
Rating Sensitivity [4]	Ampere Turns	17 and 23
Test Coil		L4989
Drop-Out	Ampere-Turns - min.	5

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

HA15-2-17-23

Series

AT Range
17-23 AT
22-28 AT
27-33 AT

Example:
17-23 AT product is
HA15-2-17-23

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

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