# **Standex Reed Switches**

Application – Sub-miniature reed switch with Rhodium contacts specifically designed for application where the available magnetic field is very low. Ideal for sensitive reed relays. Also useful for "wide – gap" security system applications and other magnetic systems requiring long operating distances with permanent magnets.

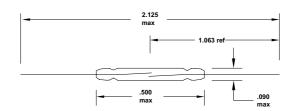
### **Physical Characteristics**

 Glass Diameter(Max)
 0.090in(2.3mm)

 Glass length (Max)
 0.500in(12.7mm)

 Lead Dia.(Nominal)
 0.018in(0.45mm)

 Overall length (Max)
 2.125in(54.0mm)



#### **Electrical Characteristics**

Contact Arrangement Contact Material

(1) Power Rating

Switching Current (Max) Switching Voltage(Max)

(2) Breakdown Voltage (Min.@20AT)

(3) Contact resistance

Insulation Resistance(Min)
Contact capacitance (Pf Max)

Form A(SPST), Center Gap

Rhodium

10 VA Maximum

0.5Amp. DC, 0.5 Amp. AC

100 VDC, 125 VAC

200 Volts DC

150 Milliohms

10<sup>12</sup> ohms

0.3Pf

## **Operation Characteristics**

Magnetic Sensitivity (Range - pull in) Magnetic Sensitivity (Range - Drop Out) Operate Time, including bounce (typ.) Release Time (typ.)

Resonant Frequency (typ.) Vibration,10-2,000HZ(G's Max)

Shock, 11 -ms. 1/2 Sine wave (G's Max)

Operating Temperature Storage temperature

7 to 30 Ampere Turns

(see chart) 1.0Milliseconds 0.1Milliseconds

3.2KHZ 50G 100G

> -40°C to +125°C -50°C to +155°C

## Notes:

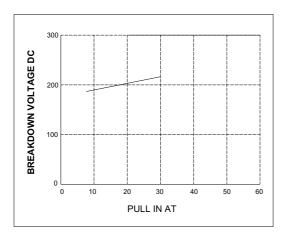
- 1) The specification for VA rating may sometimes be exceeded for less sensitive (higher AT) switches, and should be decreased for very sensitive (lower AT) switches. Standex Electronics will run life tests specific to a customers load upon request.
- 2) Breakdown voltage is measured in the presence of a radioactive ionizing source. Switch leakage current is limited to 100 microamperes.
- 3) Contact resistance measurements are made at 10ma from a 1volt source, with 50% overdrive, using a 4-wire (Kelvin) measuring system. Contact probes are located on 1.7" centers.

# Minimum Switching Life with Standard Test Loads, using 20AT switches

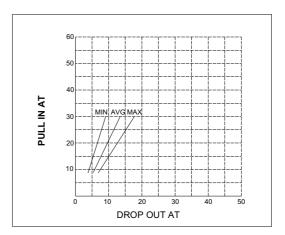
Voltage	5VDC	10VDC	12VDC	24VDC	100VDC	125VDC
Current	2mA	1Amp	10mA	10mA	100mA	80mA
Life	100×10 <sup>6</sup>	0.5×10 <sup>6</sup>	10×10 <sup>6</sup>	2×10 <sup>6</sup>	0.5×10 <sup>6</sup>	0.5×10 <sup>6</sup>

Note: End of life is defined as contact resistance exceeding one ohm and/or failure to operate.

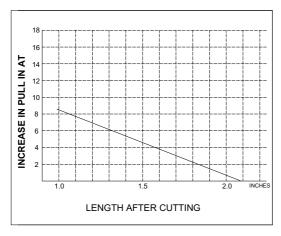
Breakdown Voltage Plotted Against Pull-In Ampere Turns



Pull-In Ampere Turns Plotted Against Drop-out Ampere Turns



Change In Pull-In Ampere Turns After Switch Lead Cutting



Change In Drop-Out Ampere After Switch lead Cutting

