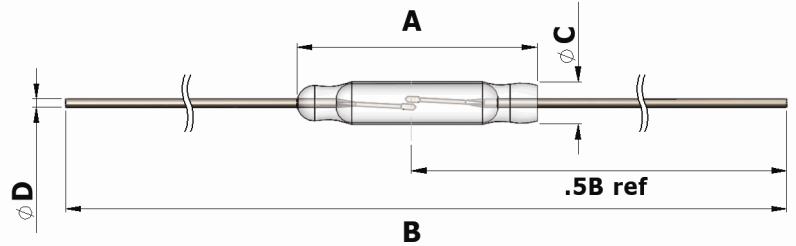


GR100 Reed Switch



REACH & RoHS Compliant

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- Professional grade general purpose reed switch with rhodium contacts
- Designed to give superior life switching relatively heavy loads
- Normal applications include liquid level sensors, security systems, reed relays, proximity sensors and counting devices
- Ideally suited to handle normal 120 VAC loads.
- Maintains low contact resistance over life switching light duty logic level loads

Physical Characteristics

| | | |
|---|-----------------------|---------|
| A | Glass Length (Max.) | 20.3 mm |
| B | Overall Length (Max.) | 54.0 mm |
| C | Glass Diameter (Max.) | 2.5 mm |
| D | Lead Diameter (Nom.) | 0.6 mm |

Electrical Characteristics

| | |
|---|---------------------------|
| Contact Arrangement | Form A (SPST), Center Gap |
| Contact Material | Rhodium |
| Power Rating ¹ | 10VA maximum |
| Switching Current (Max.) | 1.0 Amp. DC, 1.0 Amp. AC |
| Carry Current (Max.) | 1.5 Amp. DC, 1.5 Amp. AC |
| Switching Voltage (Max.) | 100 VDC, 150 VAC |
| Breakdown Voltage (Min. @20AT) ² | 250 Volts DC |
| Contact Resistance ³ | 100 Milliohms |
| Insulation Resistance (Min.) | 10 ¹² ohms |
| Contact Capacitance (pf Max.) | 0.2 pf |

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-Meder Electronics will run life tests specific to a customer's load upon request.
2. Breakdown voltage is measured in the presence of a radioactive ionising source. Switch leakage current is limited to 100 microamperes
3. Contact resistance measurements are made at 10ma from a 1-volt source, with 50% overdrive, using a 4-wire (Kelvin) measuring system. Contact probes are located on 43 mm centres.

Minimum Switching Life with Standard Test Loads, using 20AT switch

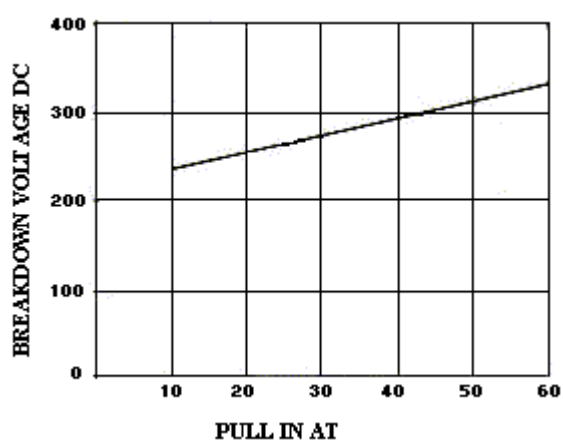
| | | | | | | | |
|---------|-----------------------|-----------------------|----------------------|---------------------|-----------------------|-----------------------|---------------------|
| Voltage | 5 VDC | 10 VDC | 12 VDC | 24 VDC | 100 VDC | 125 VAC | 150VAC |
| Current | 2 mA | 1 A | 10 mA | 10 mA | 100 mA | 80 mA | 60 mA |
| Life | 100 x 10 ⁶ | 0.5 x 10 ⁶ | 10 x 10 ⁶ | 2 x 10 ⁶ | 0.5 x 10 ⁶ | 0.5 x 10 ⁶ | 1 x 10 ⁶ |

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

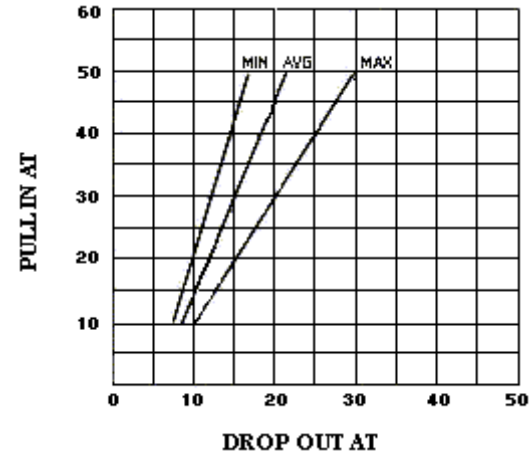
Operating Characteristics

| | |
|---|-----------------------|
| Magnetic Sensitivity (Range - Pull In) | 10 to 60 Ampere Turns |
| Magnetic Sensitivity (Range - Drop Out) | (See chart below) |
| Operate Time, including bounce (typ.) | 0.8 Milliseconds |
| Release Time (typ.) | 0.1 Milliseconds |
| Resonant Frequency (typ.) | 2.2 kHz |
| Vibration, 10-2,000 Hz (G's Max.) | 40 G |
| Shock, 11-ms. 1/2 Sine wave (G's Max.) | 100 G |
| Operating Temperature | -40°C to + 125°C |
| Storage Temperature | -50°C to + 155°C |

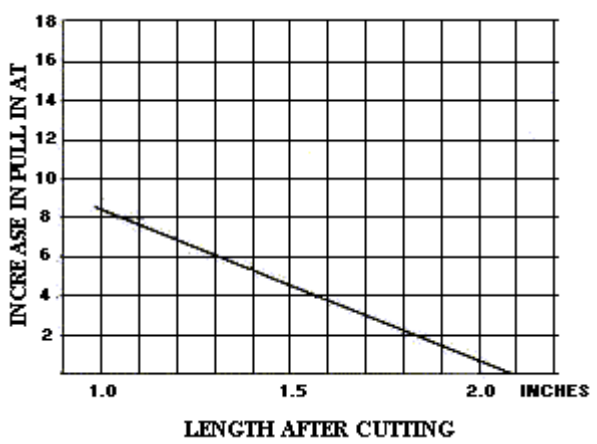
Charts



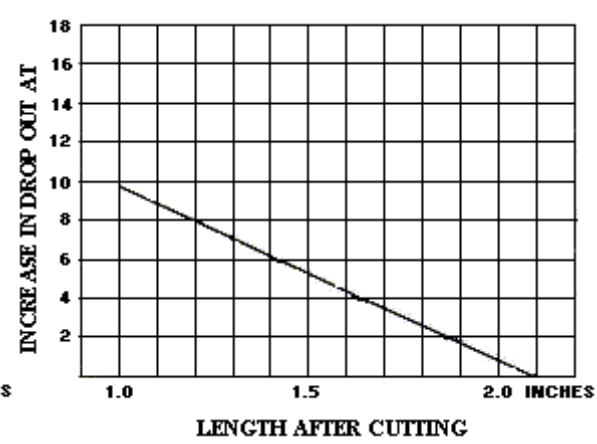
Breakdown Voltage Plotted
Against Pull-In Ampere Turns



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 Turns
After Switch Lead Cutting