

# Special Pull Apart Magnasphere

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## *Special Purpose Pull Apart Switch Set with Magnasphere Technology MS4702 / MS4702-A*

- ◆ Higher level of security
- ◆ Spherical magnetism
- ◆ Resistant to magnetic tamper and defeat
  - ◆ Hermetically sealed
  - ◆ Heavy duty for improved durability
- ◆ Great for marinas, truck docks and any portable merchandise
  - ◆ 3 foot jacketed or armored cable
  - ◆ Custom lead lengths upon request
  - ◆ Armored disconnect cable available
  - ◆ Gray only
  - ◆ Lifetime Warranty



MS4702 / MS4702A

### INSTALLATION APPLICATIONS

The GRI MS4702-A has three parts; the switch probe, the switch receptacle and the magnet. The MS4702-A is designed for use when standard surface mount security switches won't work due to swinging gates, free moving objects, vehicle protection, worn gates/doors or expanding metal curtains. Now you can protect products and property that is kept outdoors such as recreation vehicles, golf carts, lawn mowers, ladders, truck tractor trailers, motor boats, ATV's or a host of rental equipment. To use the Pull Apart, attach the probe receptacle to a solid surface and anchor it well. Position the receptacle and switch probe so that the probe can pull out of the receptacle easily. Don't connect it at a right angle or upside down This will delay and/or alter the switch's ability to react to tampering and theft. Connect the appropriate zone from the alarm panel to the switch probe. Thread the armored cable through the item to be protected and insert the probe into the receptacle.

### CONSTRUCTION

Magnasphere's® patented technology utilizes the principal of Spherical Magnetism. The heart of the switch is a magnetic sphere, or ball contact. This sphere is housed in a durable metal housing. Completing the switch is a seal that contains

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**WARRANTY:** Lifetime warranty against workmanship, material and factory defects.

GEORGE RISK INDUSTRIES, INC.  
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Made in U.S.A.

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the contacting electrode, insulated from the magnetic perimeter by a time proven ceramic to metal bond.

The case or seal provides the second contact point required to complete the electrical circuit.

The seal / electrode cap is welded to the housing in an inert atmosphere providing a hermetically sealed contact.

## OPERATION

In the normally open position, the magnetic sphere is attracted to the ferromagnetic portion of the seal cap, away from the electrode. Because of this attraction the switch may be positioned in any orientation and will remain open.

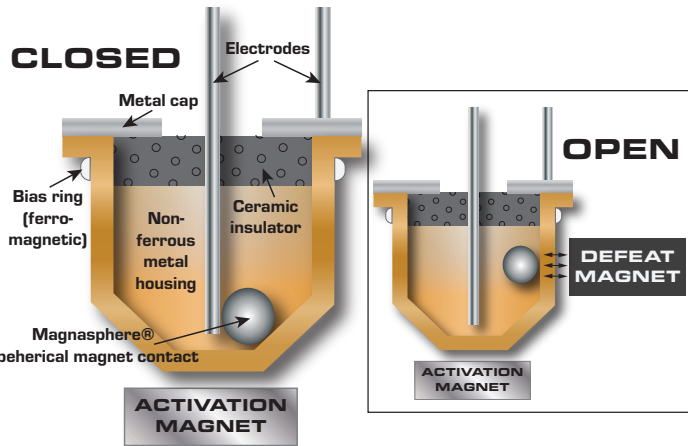
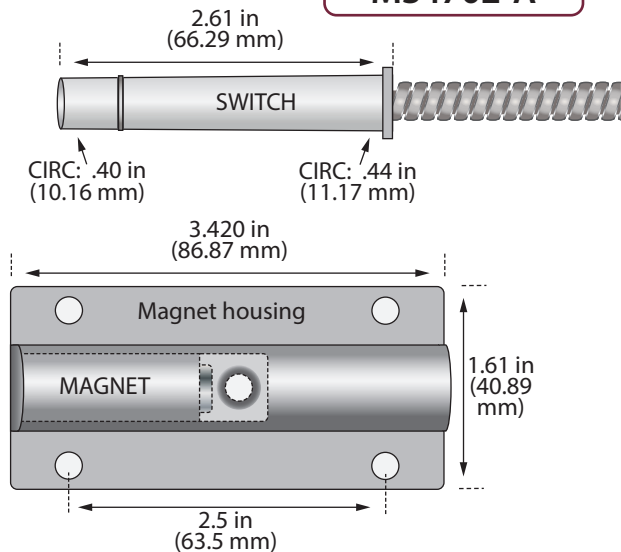
When the actuator magnet approaches the switch from the end of the switch opposite the electrode, the magnetic ball is attracted to this field, and "snaps" to the bottom of the case, making contact with the electrode and case, closing the switch.

Unlike a reed switch that responds to a magnet within a global activation zone, the Magnasphere® switch responds to a magnet only within a restricted zone. A magnet outside the zone pulls the ball off center electrode to open the switch.

## PRINCIPLES OF SPHERICAL MAGNETISM:

Finite element analysis shows magnetic flux paths of the Magnasphere® magnetic ball contact. The spherical shape is not polarity sensitive and will be attracted to either pole of the actuating magnet.

MS4702-A



GRI PRODUCTS MEET OR EXCEED THESE MINIMUM GENERAL SPECIFICATIONS:

Part Number	Loop Type	Electrical Configuration	Reed Form	Max. Initial Contact Resistance (Ω)	Max. Contact Rating (W)	Max. Switching Voltage (VDC)	Max. Switching Current (A)
MS4702	Closed	N/O	A	.400	5	250 AC/DC	.180*
MS4702-A	Closed	N/O	A	.400	5	250 AC/DC	.180*

\*Higher maximum switching current ratings available.

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