3/4" Recessed Steel Door Magnasphere

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Recessed 3/4" Steel Door Switch Set with Magnasphere Technology MS180-12 / MS184-12 MS8080-T

- Higher level of security
- Spherical magnetism
- Resistant to magnetic tamper and defeat
- Hermetically sealed
- Built-in E.O.L. Resisters and Diodes upon request
- Switches and magnets available separately
- Colors: white, brown or gray, black
- Custom lead lengths upon request
- Lifetime Warranty
- Standard Gap 3/8"



MS180-12



MS8080-T

INSTALLATION APPLICATIONS

The GRI MS180-12 is the industry standard 3/4" diameter recessed steel door switch set with 12" leads. MS184-12 is 1" diameter recessed steel door switch set with 12" leads.

CONSTRUCTION

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

Continued on back

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

GEORGE RISK INDUSTRIES, INC.
G.R.I. PLAZA
KIMBALL, NE 69145

WWW.GRISK.COM

Proudly Made in U.S.A.

1-800-445-5218
1-800-523-1227
(308) 235-4645
FAX (308) 235-3561
E-MAIL: sales@grisk.com

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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.

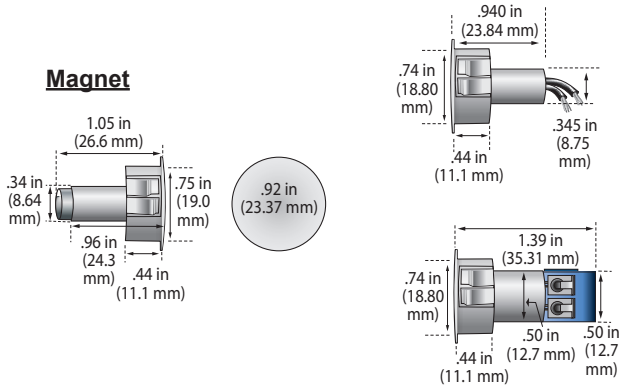
When the actuator magnet approaches the switch from the end of the switch opposite the electrode, the magnetic ball is attracted to this field, and "snaps" to the bottom of the case, making contact with the electrode and case, closing the switch.

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.

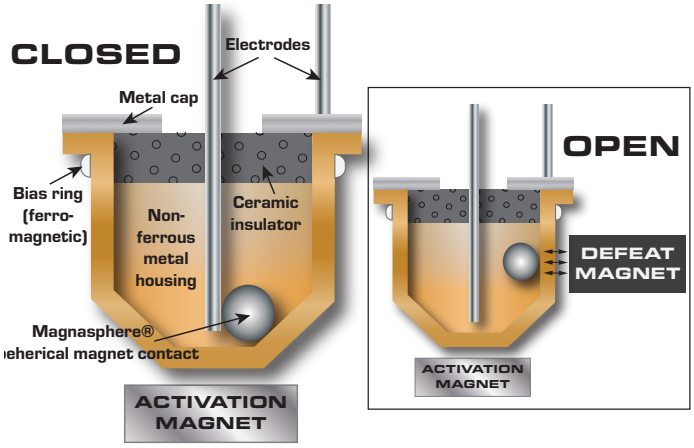
PRINCIPLES OF SPHERICAL MAGNETISM:

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.

MS180-12



MS8080-T



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)
MS180-12	Closed	N/O	A	.400	5	250 AC/DC	.180*
MS8080-T	Closed	N/O	A	.400	5	250 AC/DC	.180*

*Higher maximum switching current ratings available.

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