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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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MAGNASPHERE® 



## Security Contacts Product Catalog

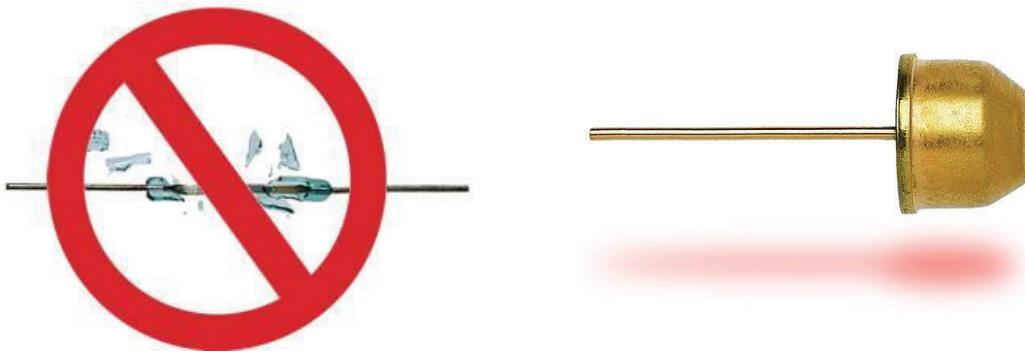
INVENTED and DESIGNED to address the undetected breaches of security that could occur when using easily exploitable and fragile reed switch sensors, MAGNASPHERE'S award-winning and patented technology is virtually unbeatable and unbreakable.

For more product information, visit [magnasphere.com](http://magnasphere.com) or call 262-347-0711

MAGNASPHERE represents the **first significant** improvement in magnetic switch and sensor technology in **70 years**

## Contacts made with Magnasphere Technology are Superior to reed switch contacts

*"Most people don't realize how easy it is for an intruder to defeat a reed switch security system contact and evade detection," said Rick Kirschman, President of MAGNASPHERE Corp. "Magnets are the kryptonite to the common reed switch. If a rogue magnet was placed within range of a reed switch contact, an intruder could enter almost any home undetected without triggering an alarm. How safe are you really if your home security system can be defeated with a simple magnet?"*



Invented by Dr. Randall Woods, the MAGNASPHERE® high security switch was designed to address the undetected breaches of security that could occur while using reed switch based home security system contacts. *"When my neighbor's home got robbed and the alarm didn't go off, I wanted to know why," said Dr. Woods. "I soon discovered the reed switch security flaw and set out to design a more secure switch technology that would do the job that I thought the reed switch contact was supposed to do."*

The US Government demanded a more effective countermeasure to protect its highest classified areas. While these Magnasphere defeat resistant HSS devices are now commonly used to detect breaches in high security facilities, their higher cost and large size made them an impractical security solution for most residential applications. Resistant to external magnetic defeat tampering, virtually unbreakable, and contact-weld resistant, MAGNASPHERE's patented "reed switch free" technology provides the absolute highest level of intrusion detection available to any security system owner today. In fact, MAGNASPHERE's MSS series provides the same level of external magnetic defeat protection found in the Federal Government's most secure installations, but at a fraction of the cost and size.



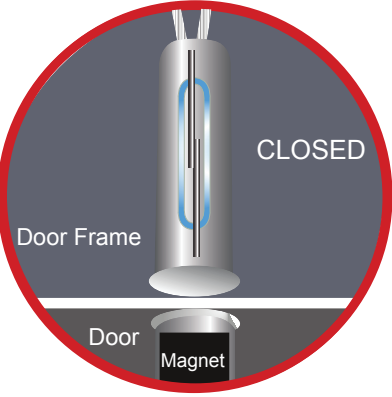
# Reed vs. MAGNASPHERE®



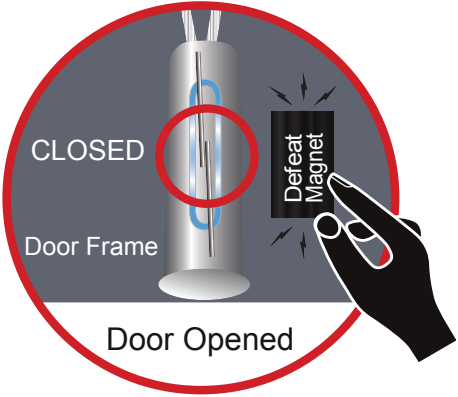
## Security contacts are made with a decades-old technology called the Reed switch.

Reed switches have three inherent weaknesses when used in security contacts: (1) Easily defeated with magnets, (2) Prone to permanent contact weld failure (from lightning and power surges), and (3) fragile (made mostly of glass, they are subject to damage even when packaged as security contacts).

SECURE: NO ALARM



FAILED: NO ALARM

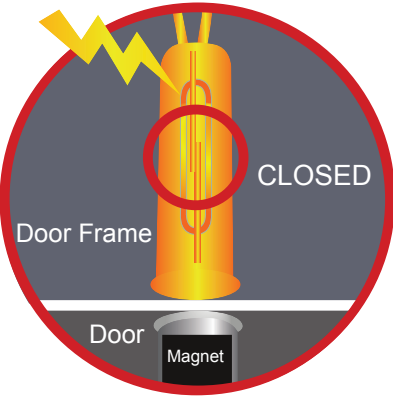


Introducing a defeat magnet OUTSIDE the door will keep the reed contacts closed, allowing an intruder to enter without alerting the security system. They FAIL SECURE.

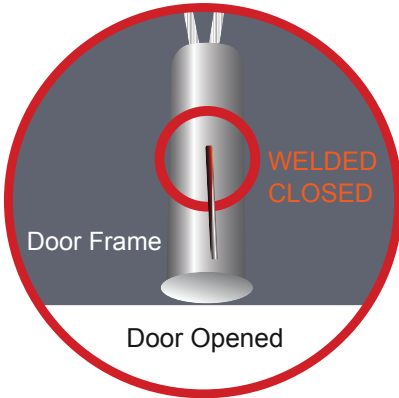
Reed contacts operate on magnetic fields. Most contacts are Closed in the secure position (Closed Loop) when the door is closed and the magnet is near the switch.

Reed switch contacts are globally magnetic: they will respond to the strongest magnetic field anywhere around the contact — not solely to the door magnet. When compromised, reed contacts will still send secure signals.

NO ALARM



FAILED: NO ALARM



Once contacts have welded closed, they remain in that state though the door is open. They FAIL SECURE.

When closed reed contacts are exposed to power surges such as lightning strikes, they are prone to permanent contact welding.

Reed contacts operate by magnetic induction, so they are not attracted to the door magnet.

# Reed vs. MAGNASPHERE®

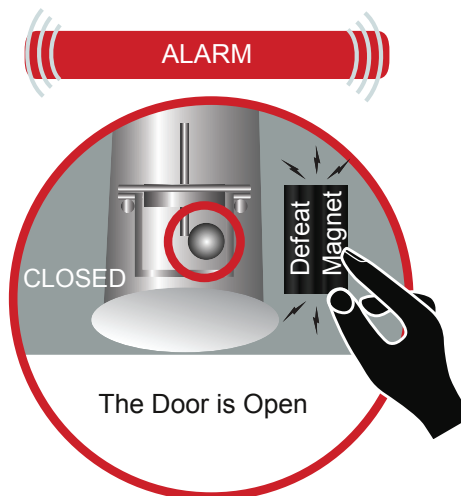
The patented, award-winning MAGNASPHERE switch technology was designed as a security device which over comes the deficiencies of reed contacts. The MAGNASPHERE switch is (1) Resistant to magnetic defeat and tamper, (2) Resistant to permanent contact welding from lightning and power surges, and (3) Robust, all metal welded construction is virtually unbreakable.

SECURE: NO ALARM



MAGNASPHERE security sensors' magnet ball contact is open in the secure position (Open Loop) when the door is closed and the door magnet is near the switch.

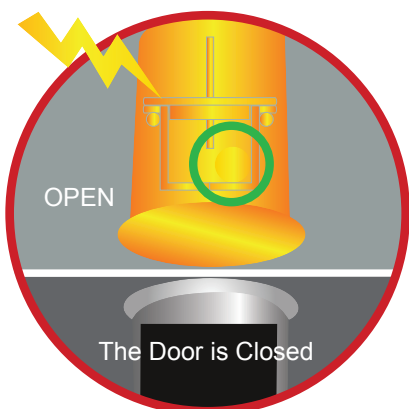
ALARM



A defeat magnet introduced OUTSIDE the door will have no effect on the ball contact. When the door is opened, the contact will close, and the SYSTEM WILL ALARM.

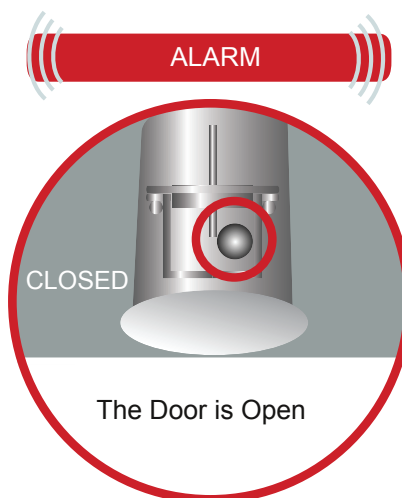
MAGNASPHERE's contact is a spherical magnet and operates in a defined activation zone directed toward the door magnet.

NO ALARM



MAGNASPHERE Security Sensors are highly resistant to contact welding from power surges and lightning strikes.

ALARM



Because the magnet ball contact will not weld, when the door is opened the contact will close and the SYSTEM WILL ALARM.



# MAGNASPHERE

## Underwriters Laboratories Testing Criteria UL-634 Connectors and Switches for Use with Burglar-Alarm Systems

There are 40 standards that must be met to achieve listing to UL-634, which covers basic contacts, including Balanced Magnetic Switches, defined by UL-634 Section 3, Glossary, as: 3.2 BALANCED MAGNETIC SWITCH (BMS) - A switch that is constructed in such a manner or that includes additional components that increase resistance to magnetic, electrical and mechanical tampering or defeat.

It should be noted that while devices made with BMS provide “higher security” than standard contacts, they are not considered HIGH SECURITY CONTACTS until criteria listed below is met.

In addition, there are 8 testing criteria that must be met to achieve **UL-634 Level 1 HIGH SECURITY**. They are included in these categories:




















- Mechanical Protection Against Tampering
- Electrical Protection Against Tampering
- Compromise Test – Mechanical and Mercury Switches
- Compromise Test – Magnetic Switches
- Compromise Test – Enclosures
- Detection Test – Measures Activation Distances

Beyond the UL-634 Level 1 listing, there are 8 additional requirements that must be met to achieve **UL-634 Level 2 HIGH SECURITY**:

- Made with Balanced Magnetic Switches (BMS)
- Nuisance Alarm Test
- Cover or Enclosure Tamper Test (When Applicable)
- Magnet Assembly Cover Removal Alarm Test (When Applicable)
- Switch Assembly Removal Tamper Test (When Applicable)
- Foreign Magnetic Field Tamper Alarm Test
- Foreign Magnetic Field Compromise Tests
- Extended Endurance Test


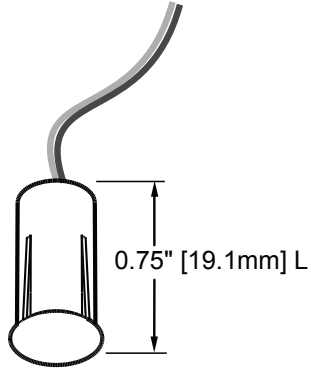
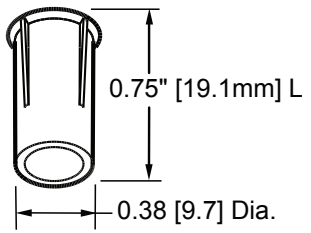

## CATALOG


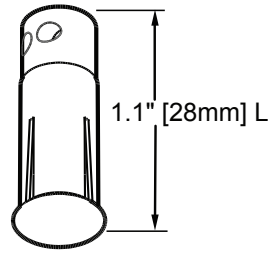
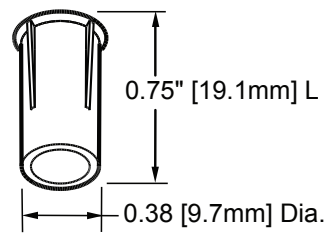

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### Magnasphere MSS Contacts

Available Part Numbers


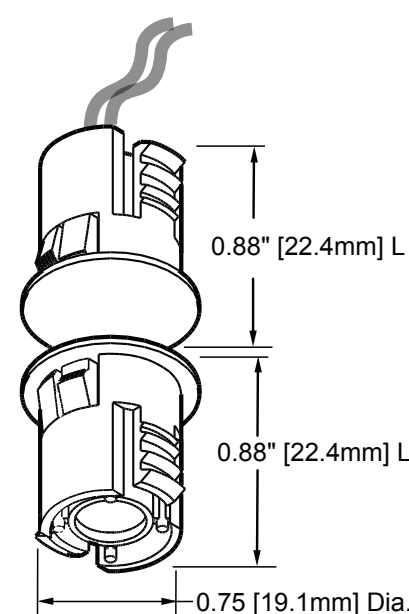


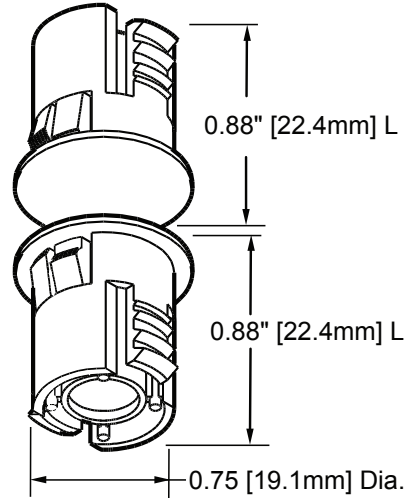

<p>MSS-09CL Recessed Contact</p>  <p>Switch not to be used in steel <b>frames</b></p>	<p>Specifications Max Current: <b>0.25A</b> Resistive Max Voltage: <b>30 VDC</b> Max Power: <b>.25 W</b> Resistive Configuration: "<b>Open Loop</b>" w/ Target Magnet in Place MAX Gap: <b>1/2" [12.7mm]</b> Conductor: <b>#22 AWG - 12" [30.5cm]</b> Color(s): <b>Brown, and White</b></p>	<p>SIZE</p>  
<p>MSS-10CL Recessed Contact</p>  <p><b>CLOSED LOOP</b></p>	<p>Specifications Max Current: <b>0.25A</b> Resistive Max Voltage: <b>30 VDC</b> Max Power: <b>.25 W</b> Resistive Configuration: "<b>Closed Loop</b>" w/ Target Magnet in Place MAX Gap: <b>3/8" [9.7mm]</b> Conductor: <b>#22 AWG - 12" [30.5cm]</b> Color(s): <b>Brown, and White</b></p>	

<p>MSS-09CT Recessed Contact</p>  <p>Switch not to be used in steel <b>frames</b></p>	<p>Specifications Max Current: <b>0.25A</b> Resistive Max Voltage: <b>30 VDC</b> Max Power: <b>.25 W</b> Resistive Configuration: "<b>Open Loop</b>" w/ Target Magnet in Place MAX Gap: <b>1/2" [12.7mm]</b> Conductor: <b>Screw Terminals</b> Color(s): <b>Brown, Grey and White</b></p>	<p>SIZE</p>  
<p>MSS-10CT Recessed Contact</p>  <p><b>CLOSED LOOP</b></p>	<p>Specifications Max Current: <b>0.25A</b> Resistive Max Voltage: <b>30 VDC</b> Max Power: <b>.25 W</b> Resistive Configuration: "<b>Closed Loop</b>" w/ Target Magnet in Place MAX Gap: <b>3/8" [9.7mm]</b> Conductor: <b>Screw Terminals</b> Color(s): <b>Brown, Grey and White</b></p>	




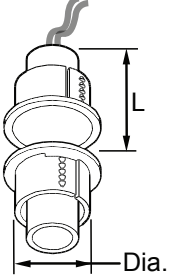

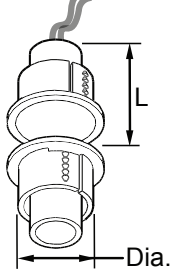

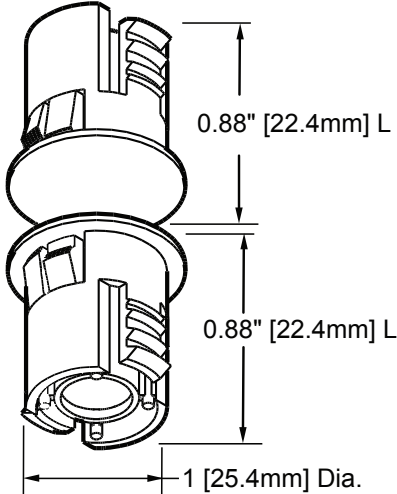

## Magnasphere MSS Contacts

Available Part Numbers

<p>MSS-19CL Recessed Contact</p> 	<p><b>Specifications</b>            Max Current: <b>0.25A</b> Resistive            Max Voltage: <b>30 VDC</b>            Max Power: <b>.25 W</b> Resistive            Configuration: "<b>Open Loop</b>"            w/ Target Magnet in Place            MAX Gap: <b>1/2" [12.7mm]</b>            Conductor: <b>#22 AWG - 12" [30.5cm]</b>            Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 
<p>MSS-20CL Recessed Contact</p>  <p style="color: red; transform: rotate(-45deg); font-weight: bold;">CLOSED LOOP</p>	<p><b>Specifications</b>            Max Current: <b>0.25A</b> Resistive            Max Voltage: <b>30 VDC</b>            Max Power: <b>.25 W</b> Resistive            Configuration: "<b>Closed Loop</b>"            w/ Target Magnet in Place            MAX Gap: <b>3/8" [9.7mm]</b>            Conductor: <b>#22 AWG - 12" [30.5cm]</b>            Color(s): <b>Brown, Grey and White</b></p>	
<p>MSS-19CT Recessed Contact</p> 	<p><b>Specifications</b>            Max Current: <b>0.25A</b> Resistive            Max Voltage: <b>30 VDC</b>            Max Power: <b>.25 W</b> Resistive            Configuration: "<b>Open Loop</b>"            w/ Target Magnet in Place            MAX Gap: <b>1/2" [12.7mm]</b>            Conductor: <b>Screw</b>  <b>Terminals</b>            Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 
<p>MSS-20CT Recessed Contact</p>  <p style="color: red; transform: rotate(-45deg); font-weight: bold;">CLOSED LOOP</p>	<p><b>Specifications</b>            Max Current: <b>0.25A</b> Resistive            Max Voltage: <b>30 VDC</b>            Max Power: <b>.25 W</b> Resistive            Configuration: "<b>Closed Loop</b>"            w/ Target Magnet in Place            MAX Gap: <b>3/8" [9.7mm]</b>            Conductor: <b>Screw</b>  <b>Terminals</b>            Color(s): <b>Brown, Grey and White</b></p>	


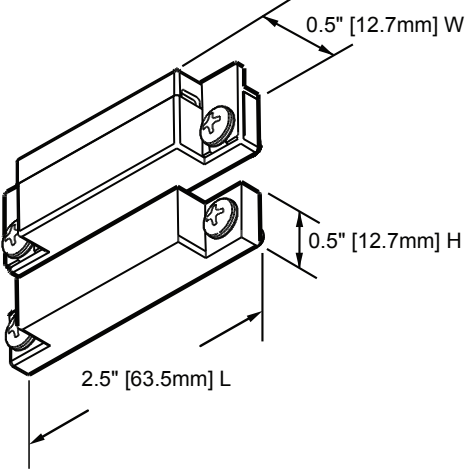

## Magnasphere MSS Contacts


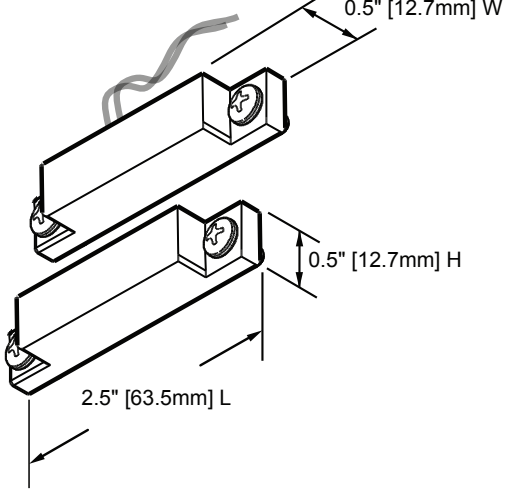

Available Part Numbers

<p>MSS-19C Recessed Contact</p> 	<p>SIZE 3/4" Dia. x .88" L [20mm Dia. x 21mm L]</p> 	<p>MAX Gap <b>1/2" [12.7mm]</b></p>	<p><b>Magnasphere Electrical Specifications</b>        Max Current: <b>0.25A</b> Resistive        Max Voltage: <b>30 VDC</b>        Max Power: <b>.25 W</b> Resistive        Configuration: <b>"Open Loop"</b> w/        Target Magnet in Place</p>
<p>MSS-25C Recessed Contact</p> 	<p>SIZE 1" Dia. x 1.2" L [25mm Dia. x 30mm L]</p> 	<p>MAX Gap <b>1/2" [12.7mm]</b></p>	<p><b>Magnasphere Electrical Specifications</b>        Max Current: <b>0.25A</b> Resistive        Max Voltage: <b>30 VDC</b>        Max Power: <b>.25 W</b> Resistive        Configuration: <b>"Open Loop"</b> w/        Target Magnet in Place</p>
<p>MSS-25CL Recessed Contact</p> 	<p>Specifications        Max Current: <b>0.25A</b> Resistive        Max Voltage: <b>30 VDC</b>        Max Power: <b>.25 W</b> Resistive        Configuration: <b>"Open Loop"</b>        w/ Target Magnet in Place        MAX Gap: <b>1/2" [12.7mm]</b>        Conductor: <b>#22 AWG -        12" [30.5cm]</b>        Color(s): <b>Brown, Grey and        White</b></p>	<p>SIZE</p> 	
<p>MSS-26CL Recessed Contact</p> 	<p>Specifications        Max Current: <b>0.25A</b> Resistive        Max Voltage: <b>30 VDC</b>        Max Power: <b>.25 W</b> Resistive        Configuration: <b>"Closed        Loop"</b> w/ Target Magnet in        Place        MAX Gap: <b>3/8" [9.7mm]</b>        Conductor: <b>#22 AWG -        12" [30.5cm]</b>        Color(s): <b>Brown, Grey and        White</b></p>	<p><b>CLOSED LOOP</b></p>	


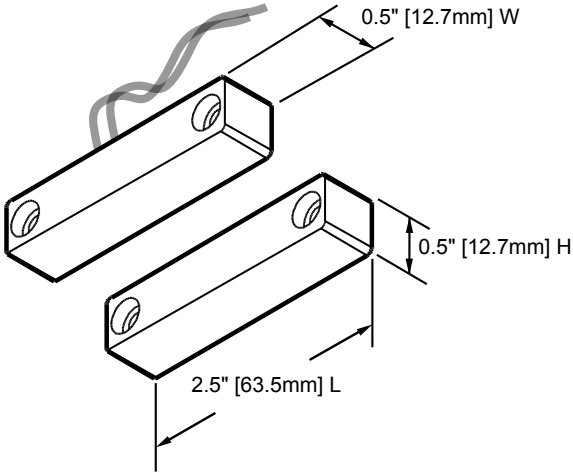


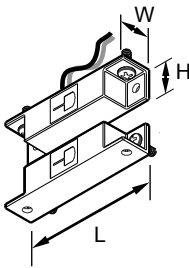
### Magnasphere MSS Contacts

Available Part Numbers

<p><b>MSS-K22</b> Surface Mount Contact</p> 	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: "<b>Open Loop</b>"                  w/ Target Magnet in Place                  MAX Gap: <b>1/2" [12.7mm]</b>                  Conductor: <b>Screw</b>  <b>Terminals</b>                  Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 
<p><b>MSS-K24</b> Surface Mount Contact</p>  <p><b>CLOSED LOOP</b></p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: "<b>Closed Loop</b>"                  w/ Target Magnet in Place                  MAX Gap: <b>3/8" [9.7mm]</b>                  Conductor: <b>Screw</b>  <b>Terminals</b>                  Color(s): <b>Brown, Grey and White</b></p>	

<p><b>MSS-K22S</b> Surface Mount Contact</p> 	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: "<b>Open Loop</b>"                  w/ Target Magnet in Place                  MAX Gap: <b>1/2" [12.7mm]</b>                  Conductor: <b>#22 AWG - 12" [30.5cm] Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 
<p><b>MSS-K24S</b> Surface Mount Contact</p>  <p><b>CLOSED LOOP</b></p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: "<b>Closed Loop</b>"                  w/ Target Magnet in Place                  MAX Gap: <b>3/8" [9.7mm]</b>                  Conductor: <b>#22 AWG - 12" [30.5cm] Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>	


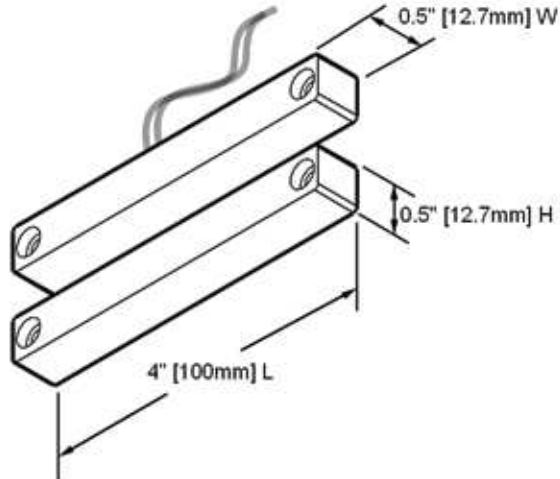

**Magnasphere MSS Contacts**  
 Available Part Numbers

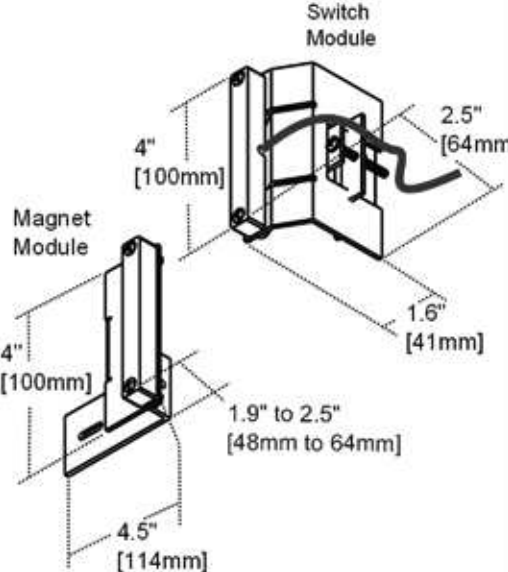


<p><b>MSS-53SL</b>                  Surface Mount Contact</p> 	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Open Loop"</b>                  w/ Target Magnet in Place                  MAX Gap: <b>1/2" [12.7mm]</b>                  Conductor: <b>12" Jacketed Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 	
<p><b>MSS-54SL</b>                  Surface Mount Contact</p>  <p><b>CLOSED LOOP</b></p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Closed Loop"</b>                  w/ Target Magnet in Place                  MAX Gap: <b>3/8" [9.7mm]</b>                  Conductor: <b>12" Jacketed Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>		
<p><b>MSS-63S</b>                  Surface Mount Contact</p> 	<p><b>SIZE</b>                  2.5"L x .55"W x .55"H                  [64mm L x 14mm W x 14mm H]</p> 	<p><b>MAX Gap</b>  <b>1/2" [12.7mm]</b></p>	<p><b>Magnasphere Electrical Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Open Loop"</b> w/                  Target Magnet in Place</p>
		<p><b>Color(s)</b>  <b>Brown and White</b></p>	<p><b>#22 AWG</b>  <b>12" [30.5cm] Leads</b></p>




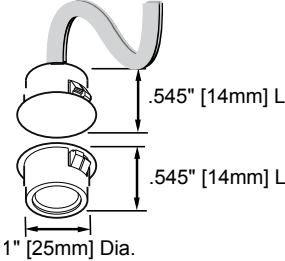
### Magnasphere MSS Contacts

Available Part Numbers

<p><b>MSS-89SL</b> Surface Mount Contact</p> 	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Open Loop"</b>                  w/ Target Magnet in Place                  MAX Gap: <b>1/2" [12.7mm]</b>                  Conductor: <b>12" Jacketed Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>	<p><b>SIZE</b></p> 
<p><b>MSS-88SL</b> Surface Mount Contact</p>  <p><b>CLOSED LOOP</b></p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Closed Loop"</b>                  w/ Target Magnet in Place                  MAX Gap: <b>3/8" [9.7mm]</b>                  Conductor: <b>12" Jacketed Leads</b>                  Color(s): <b>Brown, Grey and White</b></p>	

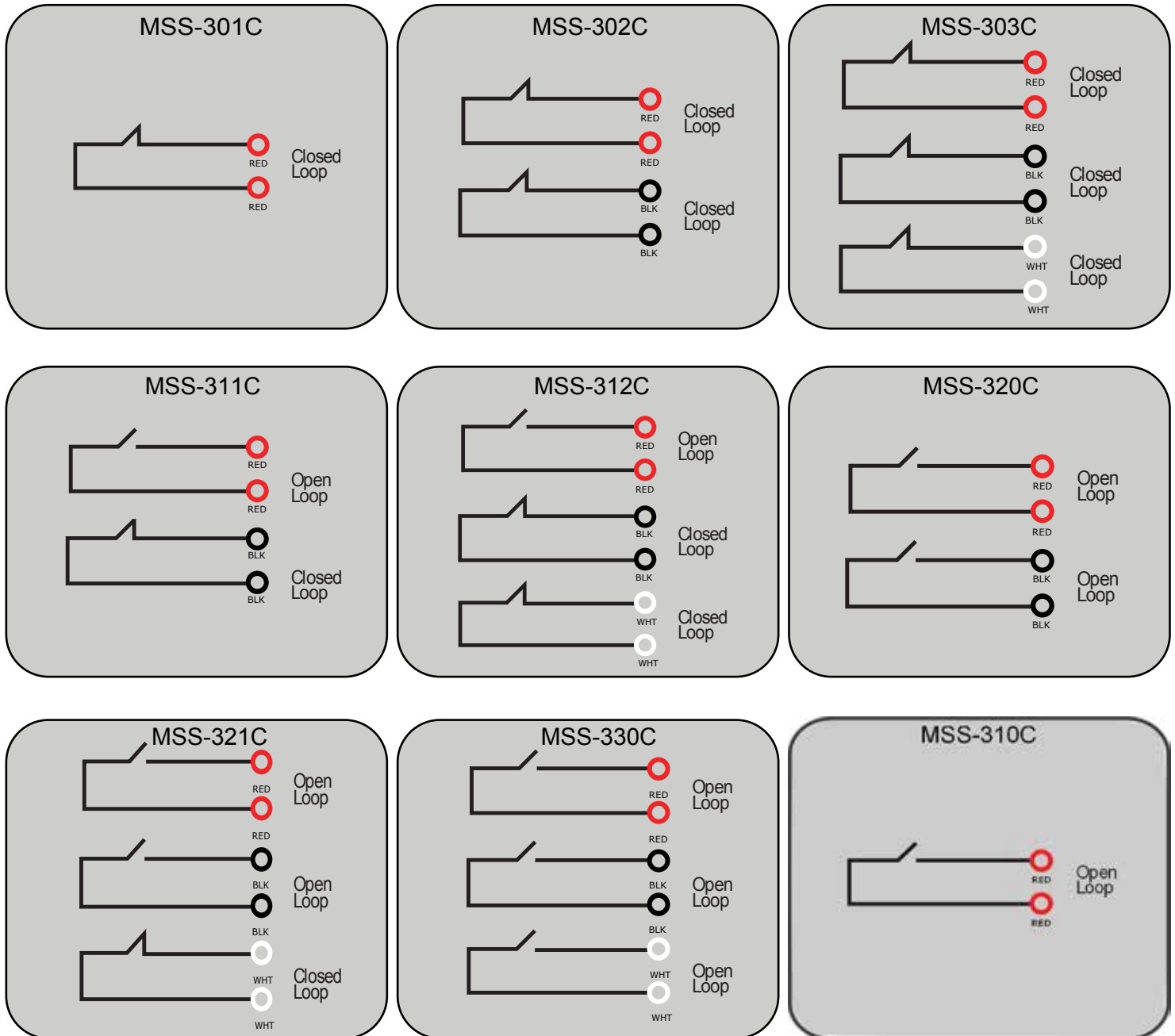
<p><b>4" Overhead Door Contacts</b>                  Available in Jacketed and Armored Leads</p>		<p><b>SIZE</b></p> 
<p><b>OPEN LOOP</b></p> <p>MSS-105S (60" Jacketed Leads)</p> <p>MSS-105S-C18-L2 (18" Armored Cable)</p> <p>MSS-105S-C36-L3.5 (36" Armored Cable)</p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Open Loop"</b> w/                  Target Magnet in Place                  MAX Gap: <b>1/2" [12.7mm]</b>                  Conductor: <b>22 AWG</b>                  Color(s): <b>Grey</b></p>	
<p><b>CLOSED LOOP</b></p> <p>MSS-106S (60" Jacketed Leads)</p> <p>MSS-106S-C18-L2 (18" Armored Cable)</p> <p>MSS-106S-C36-L3.5 (36" Armored Cable)</p>	<p><b>Specifications</b>                  Max Current: <b>0.25A</b> Resistive                  Max Voltage: <b>30 VDC</b>                  Max Power: <b>.25 W</b> Resistive                  Configuration: <b>"Closed Loop"</b> w/                  Target Magnet in Place                  MAX Gap: <b>3/8" [9.7mm]</b>                  Conductor: <b>22 AWG</b>                  Color(s): <b>Grey</b></p>	
<p><b>Jacketed Leads Model</b></p> 	<p><b>Armored Cable Model</b></p> 	

**Magnasphere MSS-300C Series (Recessed)**


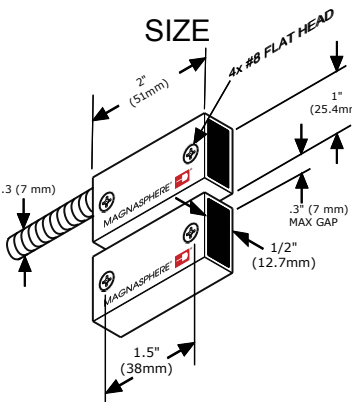
<p>MSS-3XXC Recessed Contact</p> 	<p>NOMENCLATURE</p> <p>Concealed</p> <p># of open loops</p> <p>MSS - 3 x x C</p> <p>Triple loop capacity</p> <p># of closed loops</p>	<p>SIZE</p>  <p>MAX Gap 1/4" [6.4mm]</p>	<p>Magnasphere Electrical Specifications</p> <p>Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive</p> <hr/> <p>Leads: 22 AWG 12" [30.5cm] Housing Color: BLACK</p>
--	---	--	--

**NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE**

**Available Part Numbers**

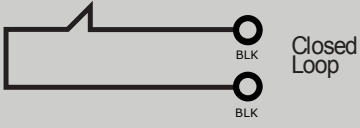

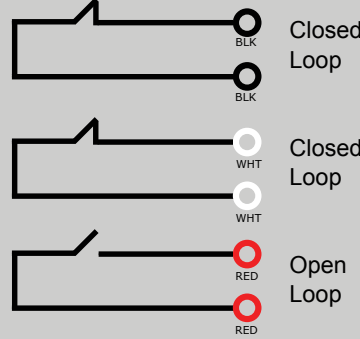
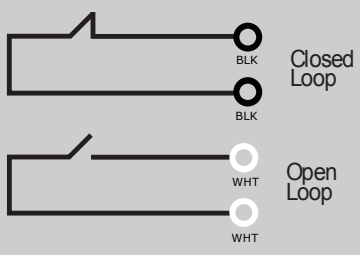
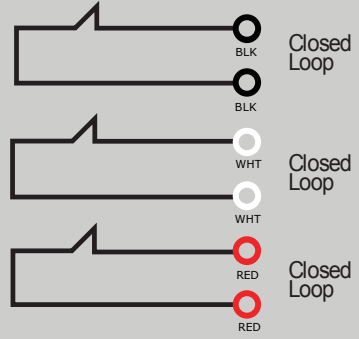
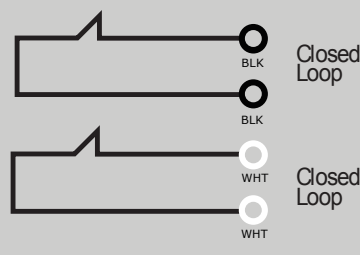
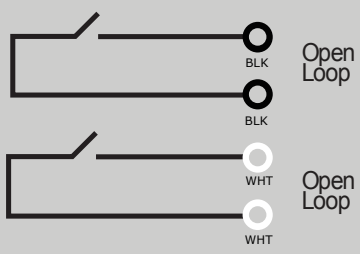
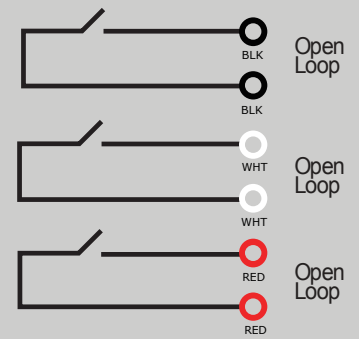
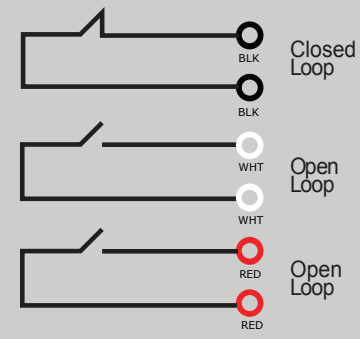


**Magnasphere MSS-300S Series (Surface Mount)**


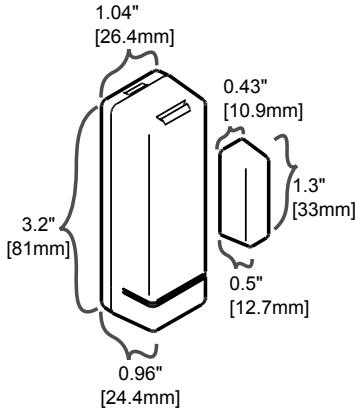
<p><b>MSS-3XXS</b> Surface Mount</p> 	<p><b>NOMENCLATURE</b></p> <p>Surface mount</p> <p># of closed loops</p> <p><b>MSS - 3 x x S</b></p> <p>Triple loop capacity</p> <p># of open loops</p>	<p><b>SIZE</b></p> 	<p><b>Magnasphere</b> Electrical Specifications</p> <p>Max Current: 0.25A Resistive          Max Voltage: 30 VDC          Max Power: .25 W Resistive          Max Gap: .3" [7mm]</p> <hr/> <p>22 AWG - 24" [61cm]          Armored Cable          Housing: Aluminum          See Page 41 for          Custom Cable Length</p>
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**NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE**

**Available Part Numbers**

<p><b>MSS-310S</b></p>  <p>Closed Loop</p>	<p><b>MSS-301S</b></p>  <p>Open Loop</p>	<p><b>MSS-321S</b></p>  <p>Closed Loop</p> <p>Closed Loop</p> <p>Open Loop</p>
<p><b>MSS-311S</b></p>  <p>Closed Loop</p> <p>Open Loop</p>	<p><b>MSS-330S</b></p>  <p>Closed Loop</p> <p>Closed Loop</p> <p>Closed Loop</p>	<p><b>MSS-320S</b></p>  <p>Closed Loop</p> <p>Closed Loop</p>
<p><b>MSS-302S</b></p>  <p>Open Loop</p> <p>Open Loop</p>	<p><b>MSS-303S</b></p>  <p>Open Loop</p> <p>Open Loop</p> <p>Open Loop</p>	<p><b>MSS-312S</b></p>  <p>Closed Loop</p> <p>Open Loop</p> <p>Open Loop</p>

### Magnasphere MSS-RFS Series Wireless Surface Mount Contact

<p>MSS-RFS-100/200/300 Surface Mount Contact</p> 	<p><b>SIZE</b></p> 	<p><b>MAX Gap</b></p> <p><b>0.63" [16 mm]</b></p>	<p><b>Magnasphere Electrical Specifications</b></p> <p>Max Current: <b>0.25A</b> Resistive Max Voltage: <b>30 VDC</b> Max Power: <b>.25 W</b> Resistive Battery: 3VDC, 1.55Ah, CR123A Lithium Battery</p>
		<p><b>Color(s)</b></p> <p><b>White and Brown</b></p>	<p><b>Screw Terminals</b></p>

**COMPATIBLE WITH THESE OEM\* FORMATS:**

- MSS-RFS-100 = UTC - INTERLOGIX / ITI / ELK
- MSS-RFS-200 = HONEYWELL
- MSS-RFS-300 = 2 GIG

\*UTC, Interlogix and ITI are registered trademarks of United Technologies Corporation, Elk is a registered trademark of Elk Products, Inc., Honeywell is a registered trademark of Honeywell International, Inc., 2 GIG is a registered trademark of Nortek, Inc.

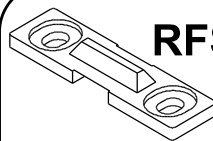
RFS-158# SPACER KIT FOR THE MSS-RFS WIRELESS SERIES

25pc Spacer Kit

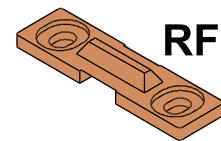
WHITE

BROWN

2mm  
.079"

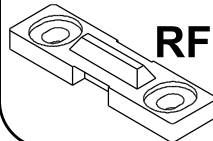


**RFS-1586**

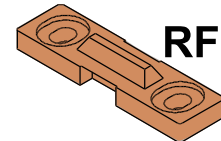


**RFS-1587**

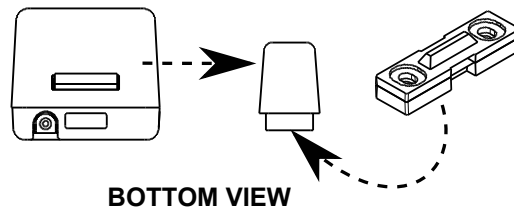
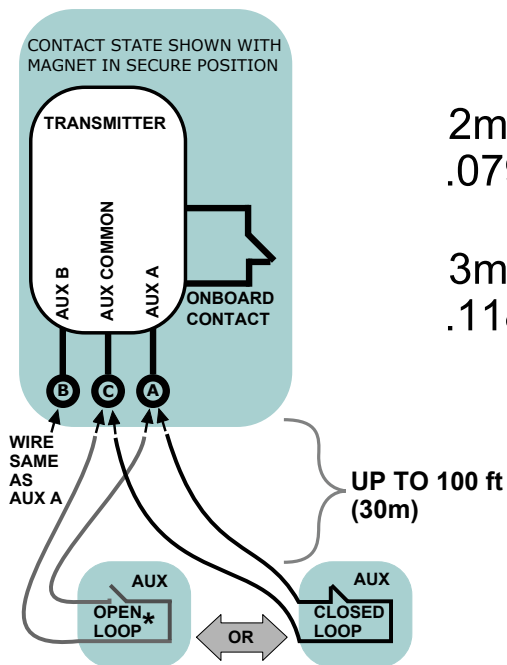
3mm  
.118"



**RFS-1588**



**RFS-1589**





## Accessories

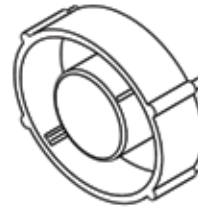
Available Part Numbers

### MSS Series

P/N : 1605

DESCRIPTION: Channel Magnet for Aluminum Doors

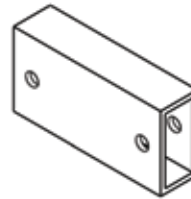
QTY: 1



P/N : 1595

DESCRIPTION: 1/2" Thick, Spacer for MSS-300S

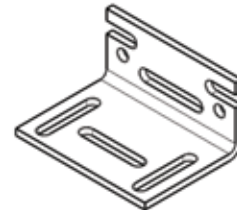
QTY: 1



P/N : 1643

DESCRIPTION: MSS300S 1"x1.5"L Bracket (.093" thk) w/ Threaded Holes

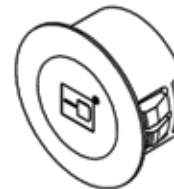
QTY: 1



P/N : 1694

DESCRIPTION: MSS-300C Extended Reach / Gap Magnet Module  
Increases the switch operation gap to 5/8" (.63")

QTY: 1



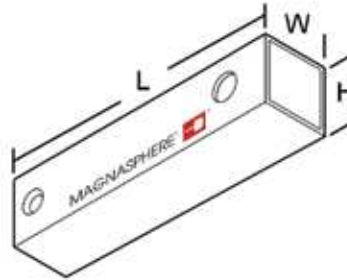
Note : Images are **NOT** to scale.

**Magnasphere UL-634 Level 1**

**HSL-1.5 (Dual Alarm Contact)  
 UL634 Level 1**



**SIZE**

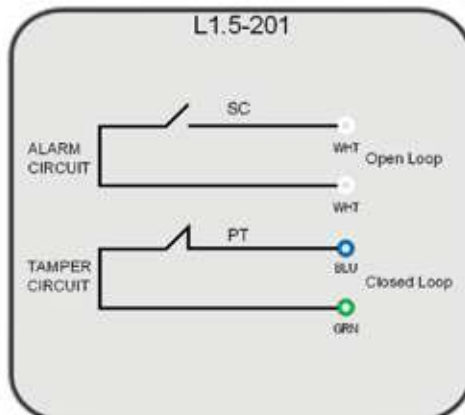
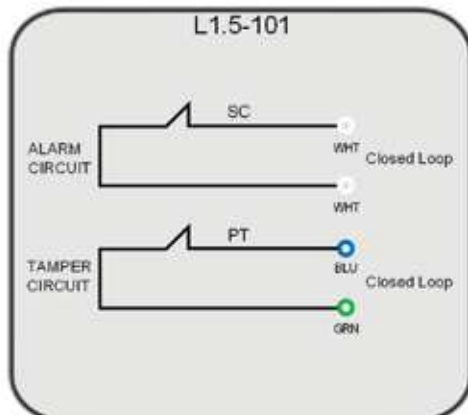
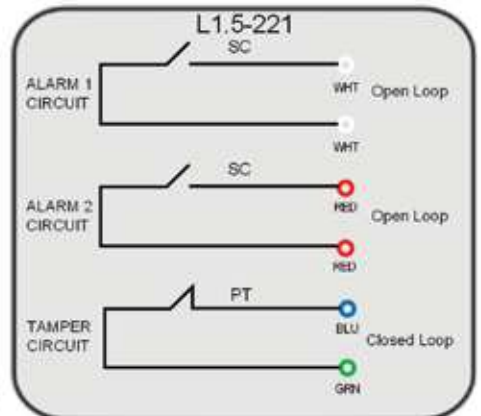
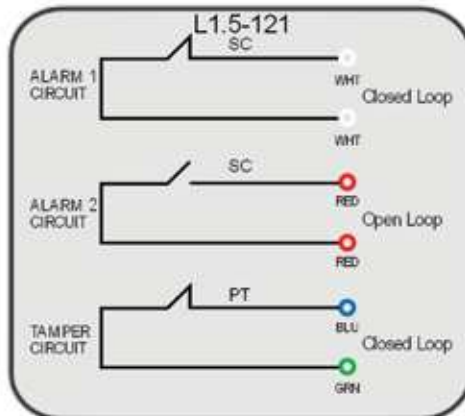
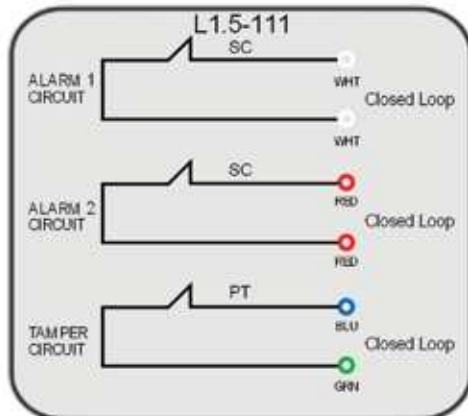


4.25" [107.9mm] L x 1" [25.4mm] W  
 1" [25.4mm] H

**Magnasphere  
 General Information**

**Each Circuit/Contact**  
 Housing: Aluminum  
 Wire Lead Type: Solid  
 Color-Coded Lead Wires,  
 22 AWG  
 Max Current: 0.25 A Resistive  
 Max Voltage: 30 VDC  
 Max Power: 0.250 W  
 Max Gap: .25"

**NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE**  
**Available Part Numbers**



**Legend / Notes**

SC = Secure Contact  
 PT = Pry Tamper

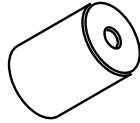
Wire Lead Type: 22Gauge (AWG),  
 18" [46cm] Armored Cable (Std.),  
 (See Page 41 for Custom  
 Cable Length)

## Accessories

Available Part Numbers

HSL-1.5

P/N : 1250  
KIT: Removal Tamper Magnet  
QTY: 3pcs



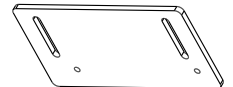
P/N : 1251  
KIT: Removal Tamper Cap  
QTY: 5pcs



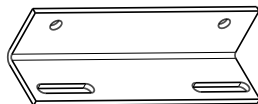
P/N : 1270  
KIT: 1/16" Spacers for HSL-1.5  
QTY: 4pcs



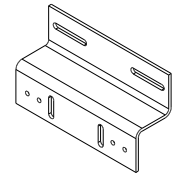
P/N : 1524  
KIT: 1/8" Out-Swing Spacer for HS-L1.5  
(For use with narrow door stops.)  
QTY: 1pc



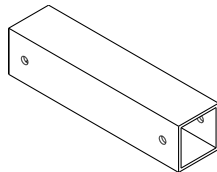
P/N : 1618  
KIT: L1.5 L-Bracket  
QTY: 1



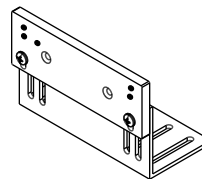
P/N : 1612  
KIT: Z Bracket  
QTY: 1



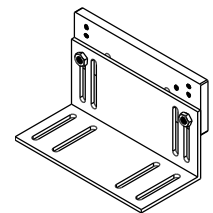
P/N : 1615  
KIT: 1" x 1" Aluminum Spacer  
QTY: 1



P/N : 1616  
KIT: L1.5 Extended L-Bracket Kit  
QTY: 1

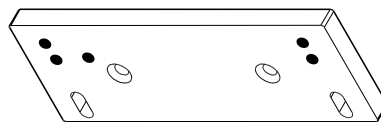


Orthographic Front View



Orthographic Back View

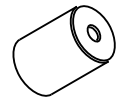
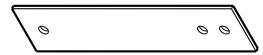
P/N : 1600  
KIT: Bracket for HSL1.5 Direct  
Replacment to 2700 Series  
QTY: 1



Note : Images are **NOT** to scale.

## INSTALLER COMPONENTS FOR HSL-1.5 SERIES

REPLACEMENT KIT P/N: 1542

Description (Note: Images are **NOT** to scale)Pry-tamper Plugs (Plastic) / **Qty: 2**Pry-tamper Magnet ( Dia. 3/8" x 1/2" Length) / **Qty: 1**Plastic Spacers (1/16" Thk.) / **Qty: 2**Poly Bag / **Qty:1**



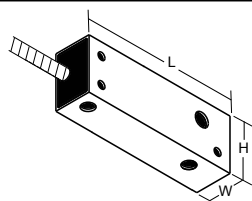
### Magnasphere UL 634 Level 2 High Security Contacts (Surface Mount)

#### HSS-L2S (Single Alarm Contact) UL634 Level 2



#### Magnasphere General Information

**Aluminum Case:** Silver-Gray Anodized  
**Wire Lead Type:** Solid Color-Coded Lead Wires, 22 AWG  
**Max Current:** 0.25 A Resistive  
**Max Voltage:** 30 VDC  
**Max Power:** 0.250 W  
**Operating Temperature:** -40° C to +80°C  
**Max Gap:** 3/16" (Note: .125" Gap for UL634 Level 2 Installation)  
 See Page 41 for Custom Cable Length



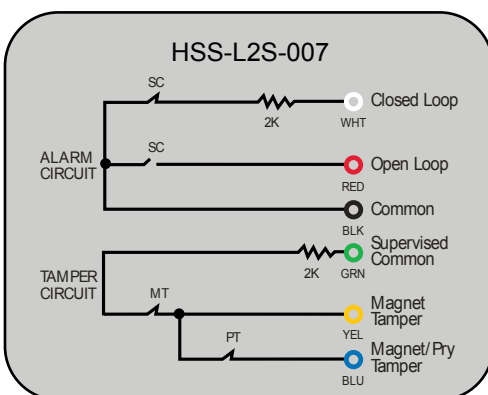
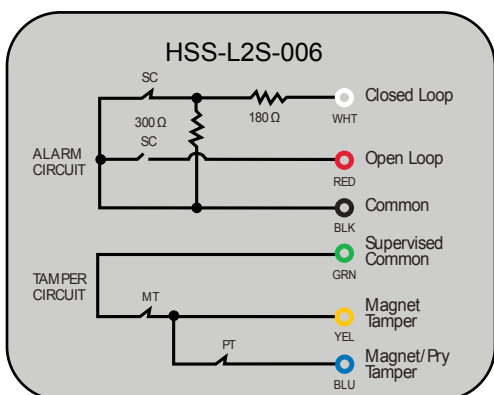
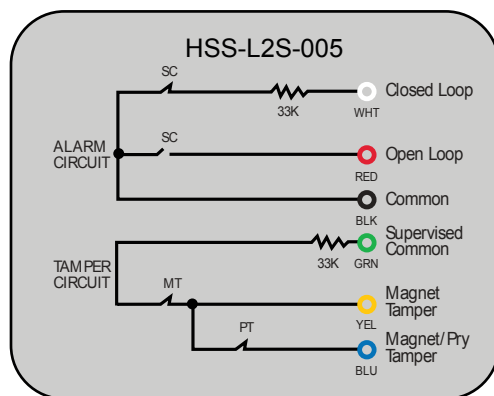
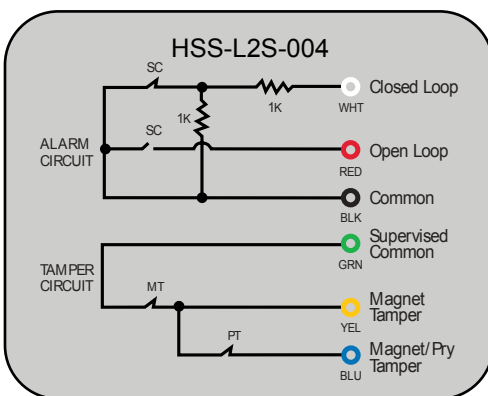
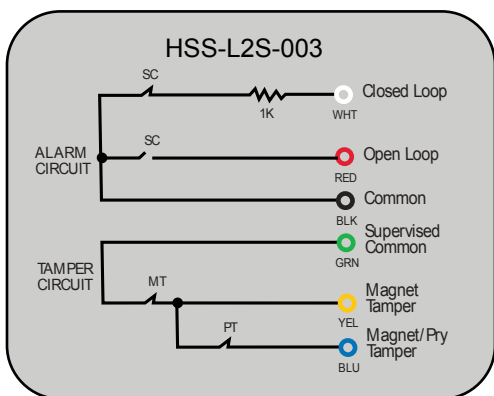
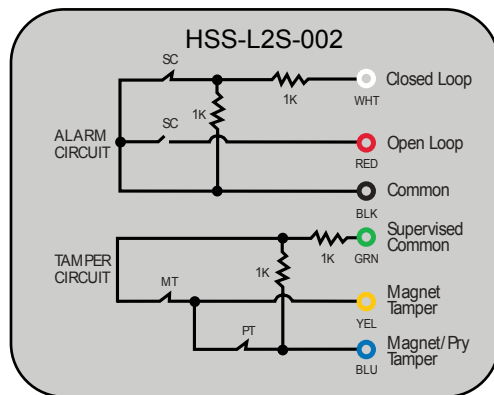
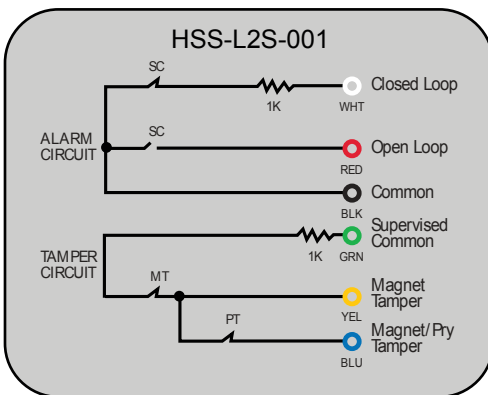
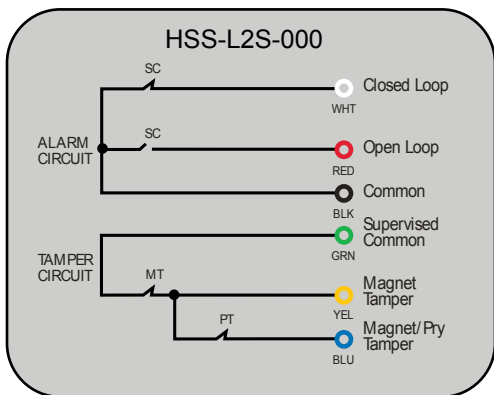
#### SIZE

4.25" L x 1" W x 1.5" H

[107.9mm L x 25.4mm W x 38.1mm H]

**NOTE:** CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

#### Available Part Numbers



#### Legend / Notes

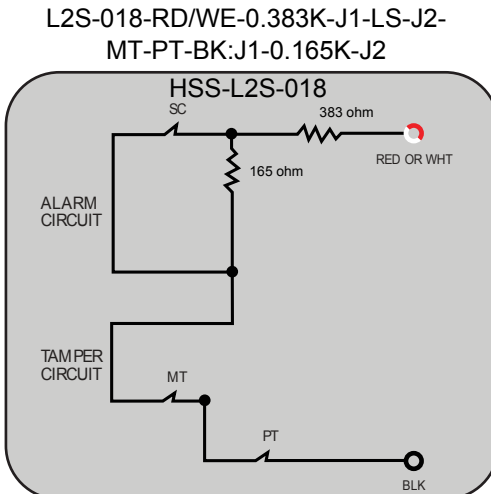
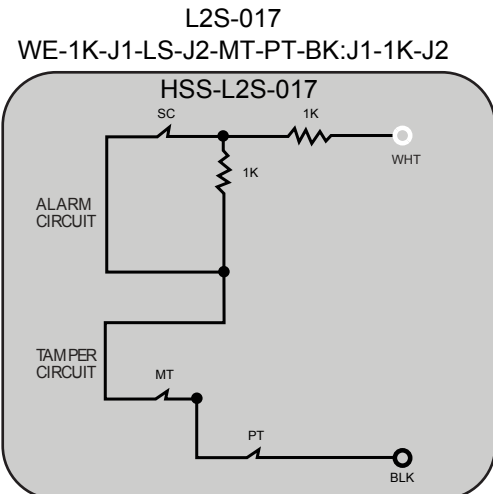
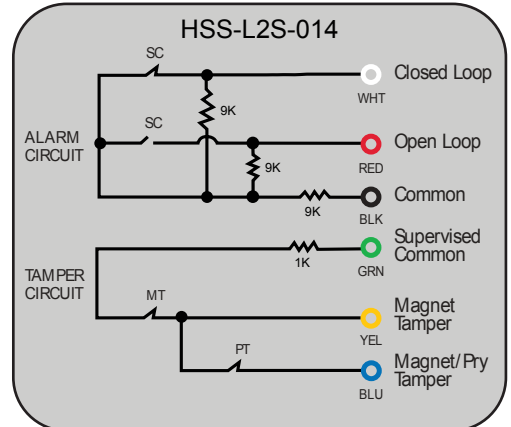
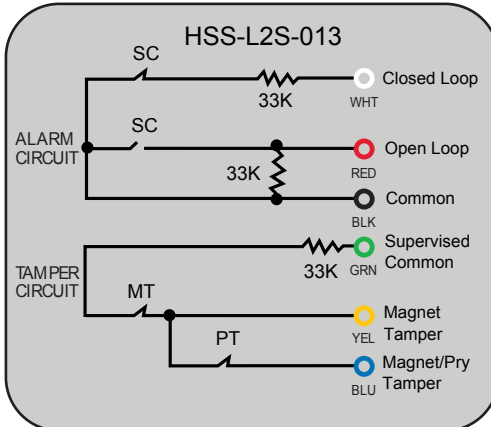
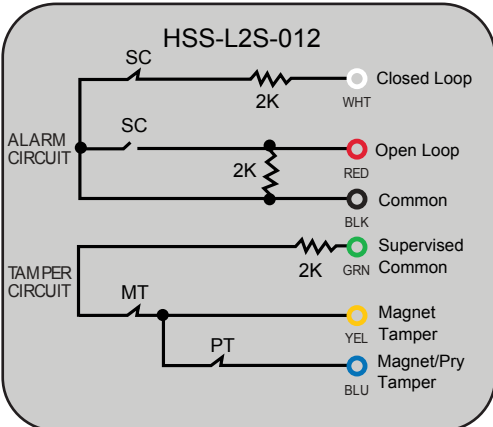
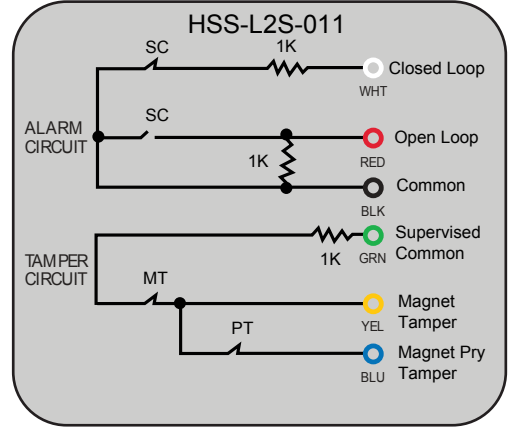
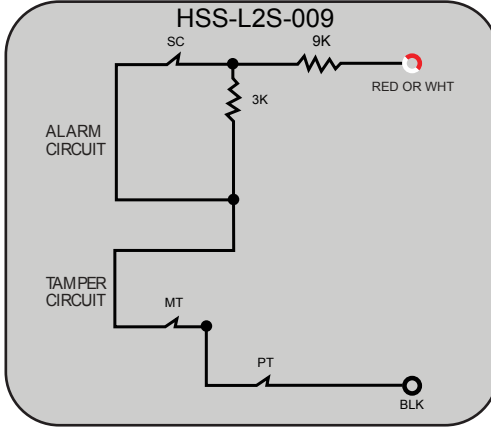
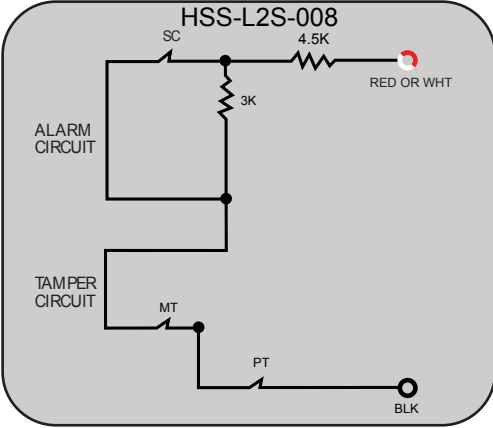
SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K = Resistor

36" [91cm] Armored Cable (Std.),  
 (See Page 41 for Custom Cable Length)

**Magnasphere HSS-L2S (Single Alarm Contact) Continued**  
 UL 634 Level 2 High Security Contacts (Surface Mount)

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers



**Legend**

SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K= Resistor

36" [91cm] armored cable (Std.),  
 (See Page 41 for Custom Cable Length)

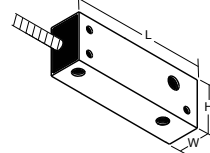
**Magnasphere UL 634 Level 2 High Security Contacts (Surface Mount)**

**HSS-L2D (Dual Alarm Contacts)  
UL634 Level 2**



**Magnasphere General Information**

**Aluminum Case:** Silver-Gray Anodized  
**Wire Lead Type:** Solid Color-Coded Lead Wires, 22 AWG/AC 36" STD  
**Max Current:** 0.25 A Resistive  
**Max Voltage:** 30 VDC  
**Max Power:** 0.250 W  
**Operating Temperature:** -40° C to +80°C  
**Max Gap:** 3/16" (Note: .125" Gap for UL634 Level 2 Installation)  
 See Page 41 for Custom Cable Length



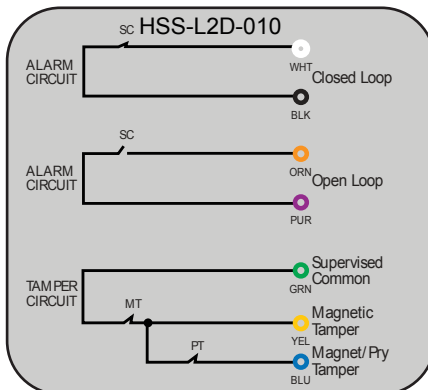
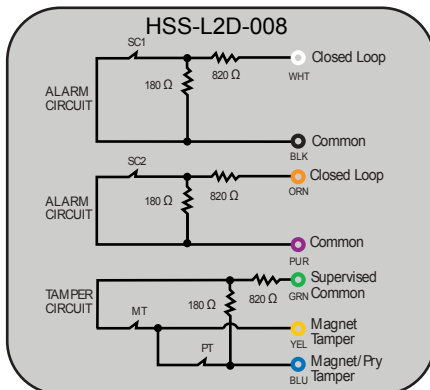
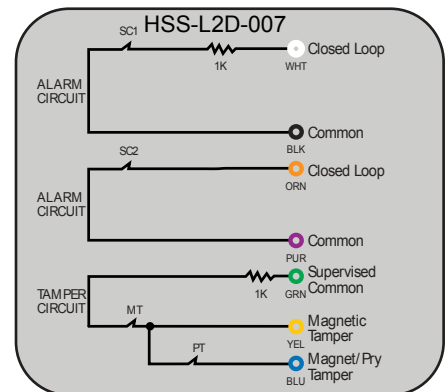
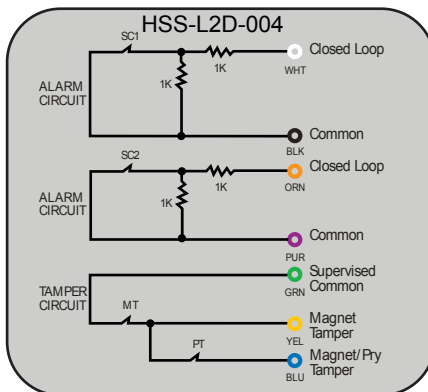
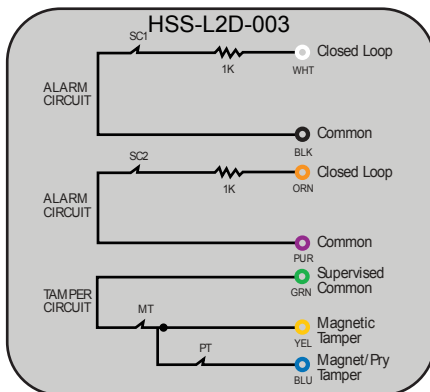
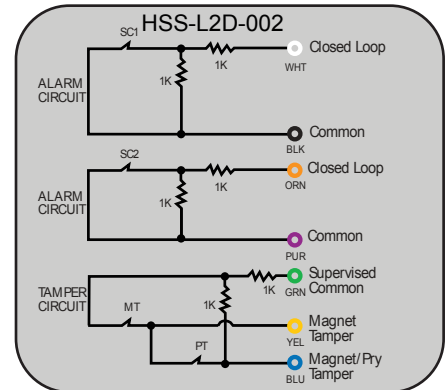
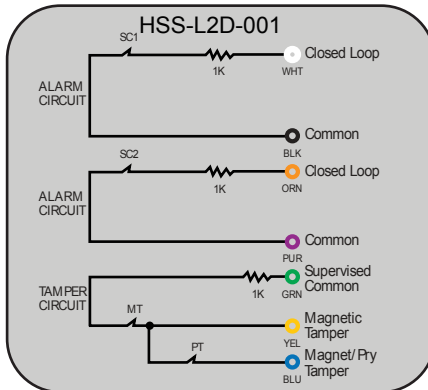
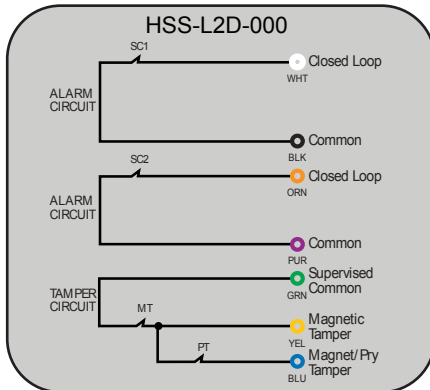
**SIZE**

4.25"L x 1"W x 1.5"H

[107.9mm L x 25.4mm W x 38.1mm H]

**NOTE:** CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

**Available Part Numbers**



**Legend / Notes**

SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K = Resistor

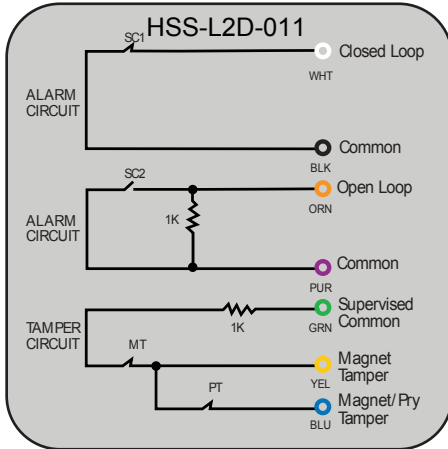
36" [91cm] Armored Cable (Std.),  
 (See Page 41 for Custom Cable Length)

**Magnasphere HSS-L2D (Dual Alarm Contacts) Continued**

UL 634 Level 2 High Security Contacts (Surface Mount)

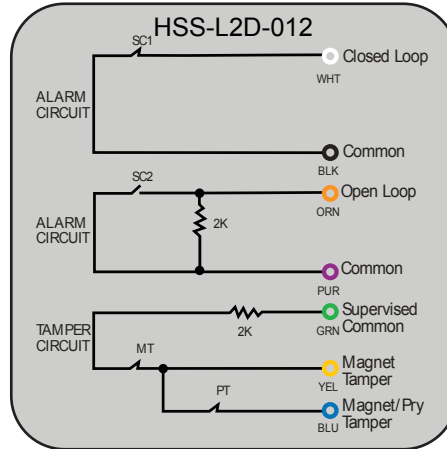
NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

**Available Part Numbers**



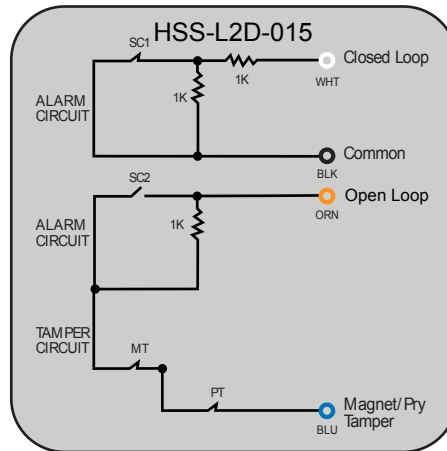
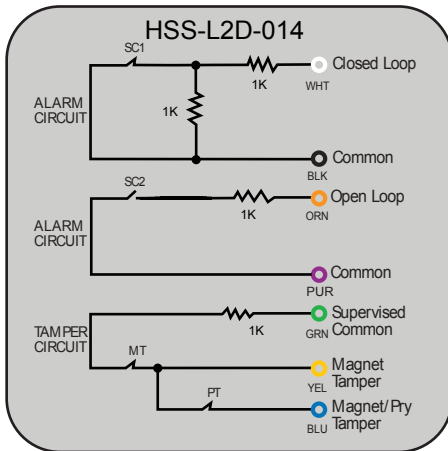
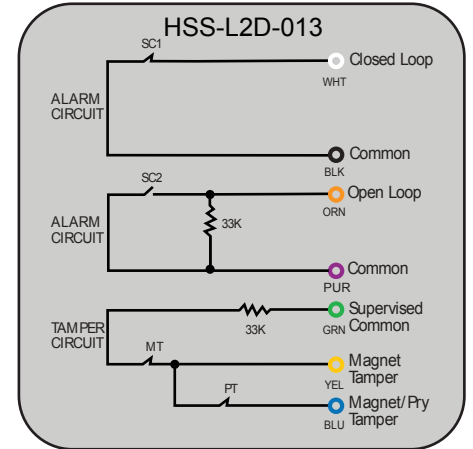
L2D-014-

WE-1K-J1-LS-J2-BK:J1-1K-J2:OE-1K-LS-PE:GN-1K-MT-J3-YW:J3-PT-BE



L2D-015

WE-1K-J1-LS-J2-BK:J1-1K-J2:OE-J3-NS-J4-MT-PT-BE:J3-1K-J4



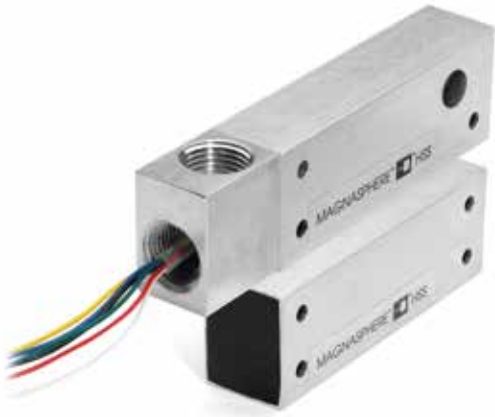
**Legend**

SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K = Resistor

36" [91cm] Armored Cable (Std.),  
 (See Page 41 for Custom Cable Length)

**Magnasphere UL 634 Level 2 High Security Contacts (Surface Mount w/ Conduit Fitting )**

**HSS 800 Series (Intrinsically Safe)  
UL634 Level 2**

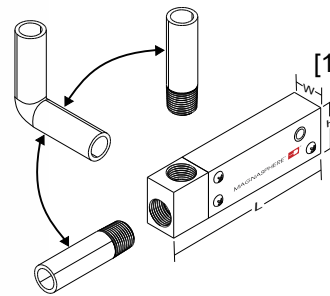


**Magnasphere General Information**

**Aluminum Case:** Silver-Gray Anodized  
**Wire Lead Type:** Solid Color-Coded Lead Wires, 22 AWG, 36"  
**Max Current:** 0.25 A Resistive  
**Max Voltage:** 30 VDC  
**Max Power:** 0.250 W  
**Operating Temperature:** -40° C to +80°C  
**Max Gap:** 3/16" (Note: .125" Gap for UL634 Level 2 Installation)

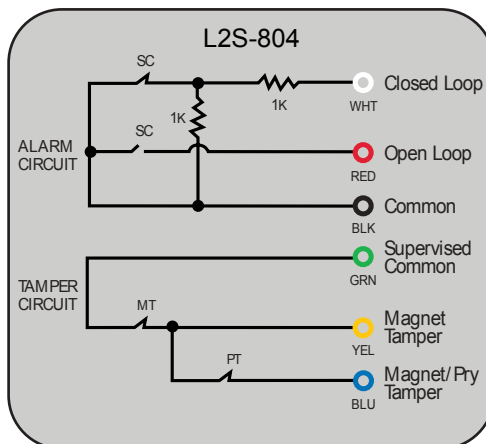
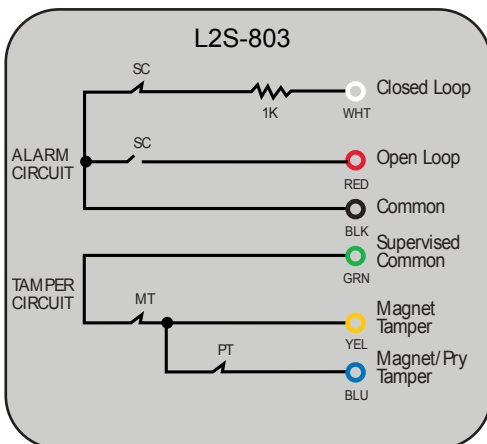
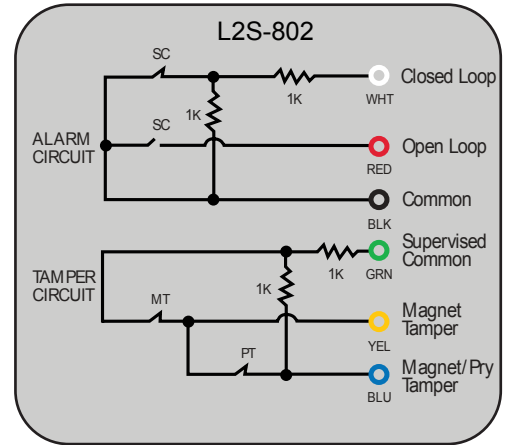
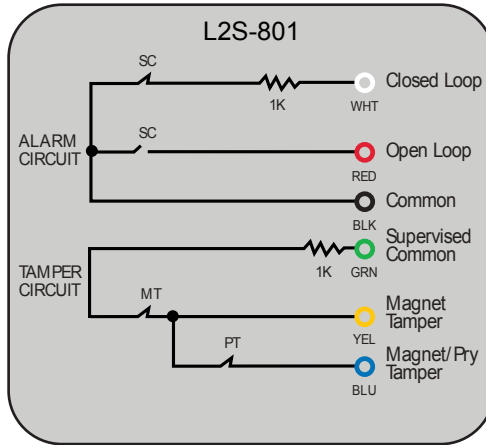
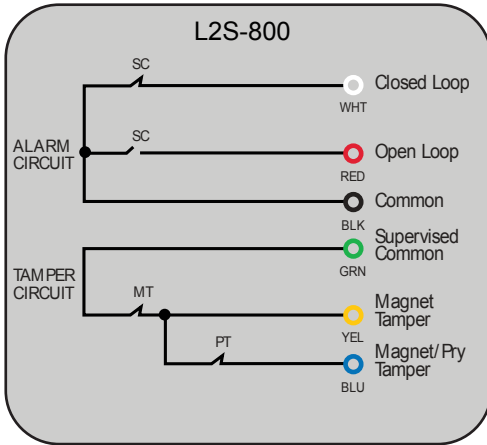
**SIZE**

5.6"L x 1"W x 1.5"H  
 [143mm L x 25.4mm W x 38.1mm H]



Dual fitting note: either or both

**Available in all L2D / L2S Schematic Variants**



**Legend / Notes**

SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K = Resistor

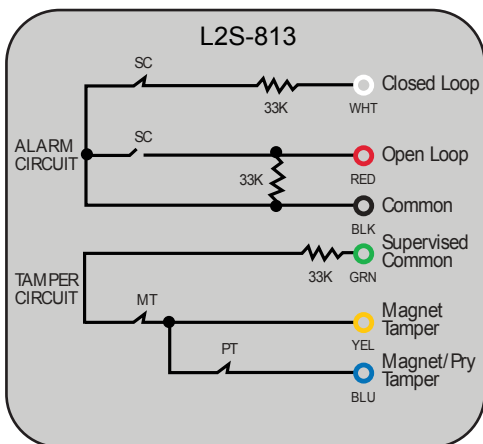
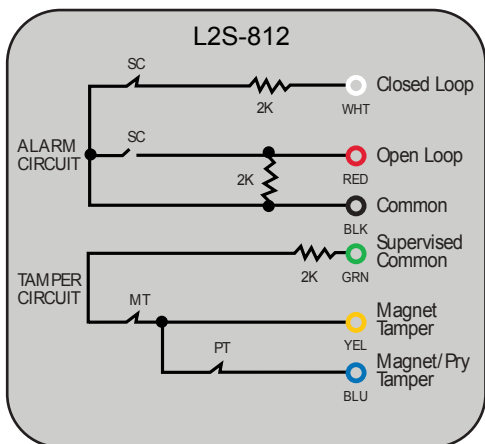
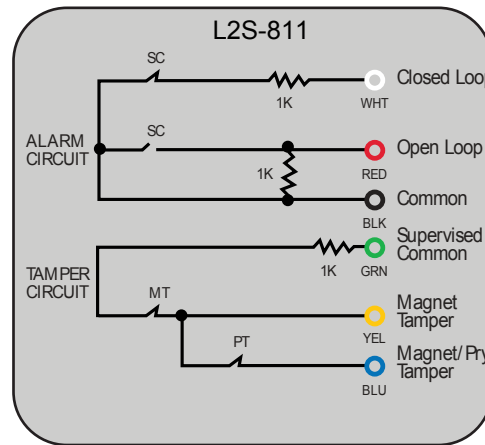
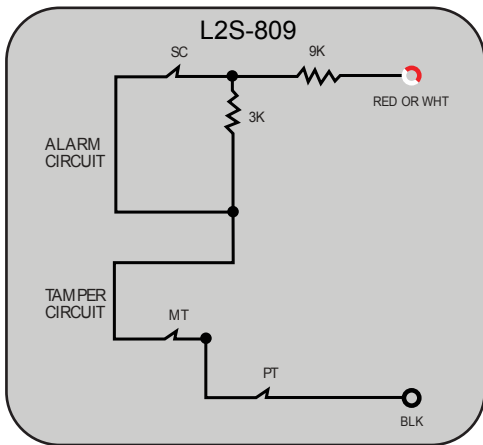
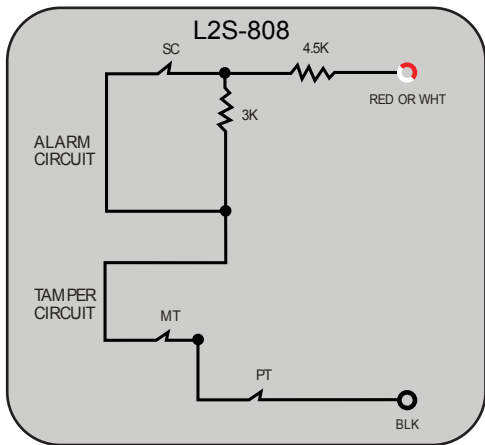
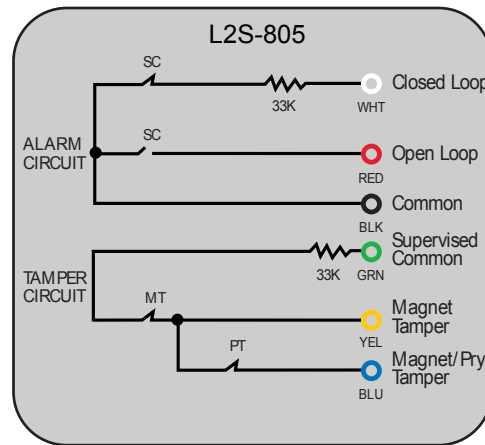
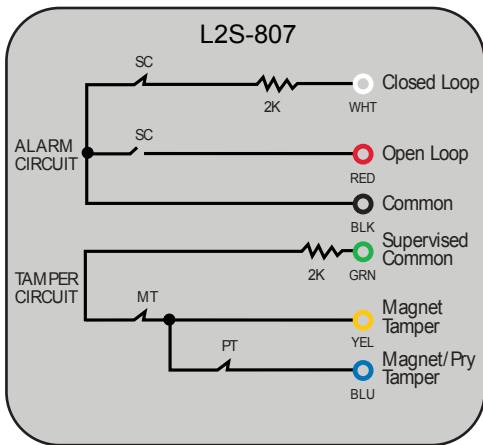
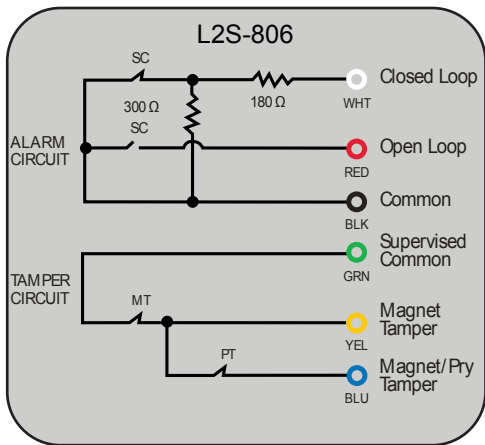
36" [91cm] Leads (Std.)



**Magnasphere L2S-800 (Single Alarm Contact) Continued**  
 UL 634 Level 2 High Security Contacts (Surface Mount)

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers



**Legend / Notes**

SC = Secure Contact  
 MT = Magnet Tamper  
 PT = Pry Tamper  
 ##K = Resistor

36" [91cm] Leads (Std.)