

MAGNASPHERE® 



Security Contacts Product Catalog

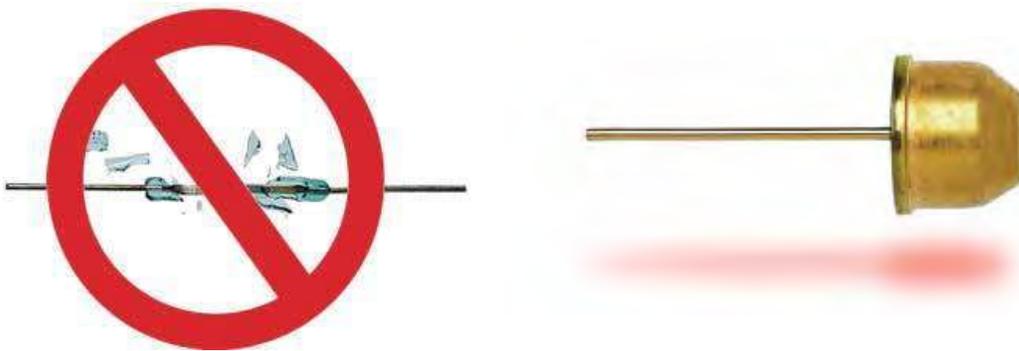
INVENTED and DESIGNED to address the undetected breaches of security that could occur when using easily exploitable and fragile reed switch sensors, MAGNASPHERE'S award-winning and patented technology is virtually unbeatable and unbreakable.

For more product information, visit magnasphere.com 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®



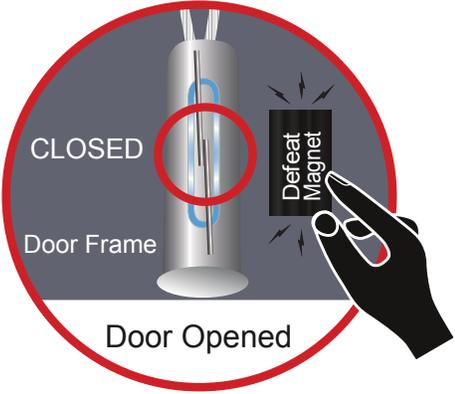
Security contacts are made with a decades-old technology called the Reed switch.

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

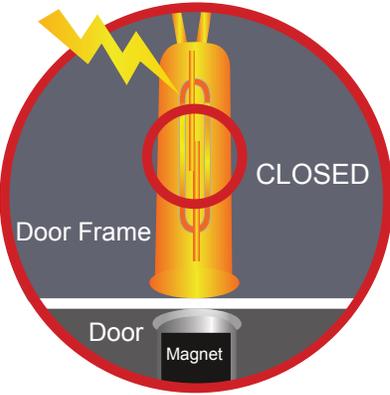


Introducing a defeat magnet OUTSIDE the door will keep the reed contacts closed, allowing an intruder to enter without alerting the security system. They FAIL SECURE.

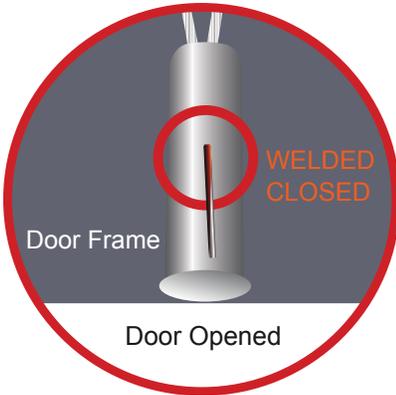
Reed contacts operate on magnetic fields. Most contacts are Closed in the secure position (Closed Loop) when the door is closed and the magnet is near the switch.

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®

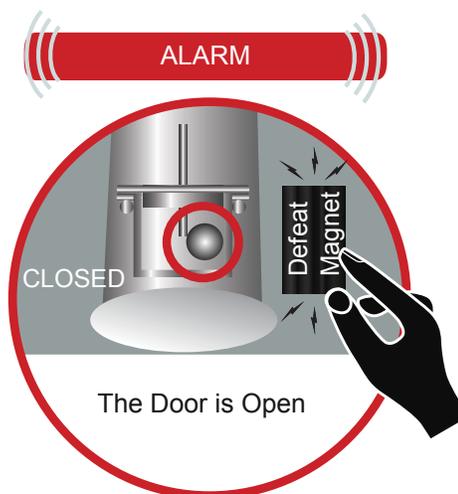
The patented, award-winning MAGNASPHERE switch technology was designed as a security device which over comes the deficiencies of reed contacts. The MAGNASPHERE switch is (1) Resistant to magnetic defeat and tamper, (2) Resistant to permanent contact welding from lightning and power surges, and (3) Robust,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

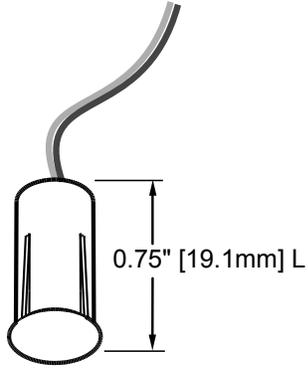
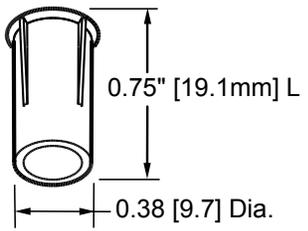
CATALOG

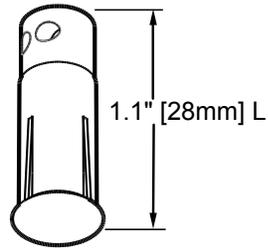
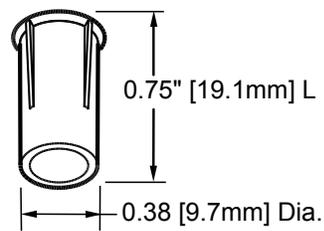
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Magnasphere MSS Contacts

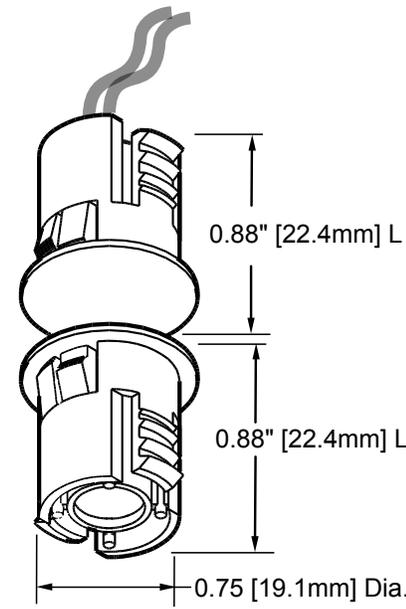
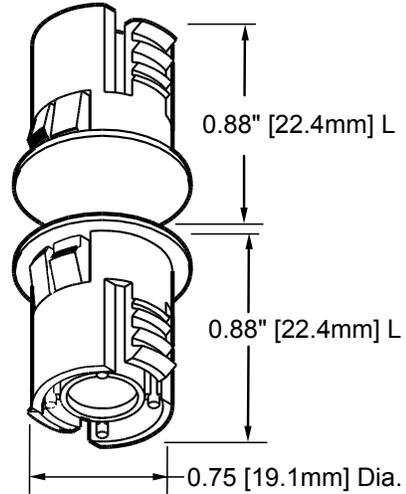
Available Part Numbers

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

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

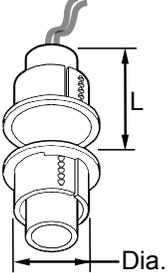
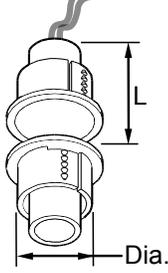
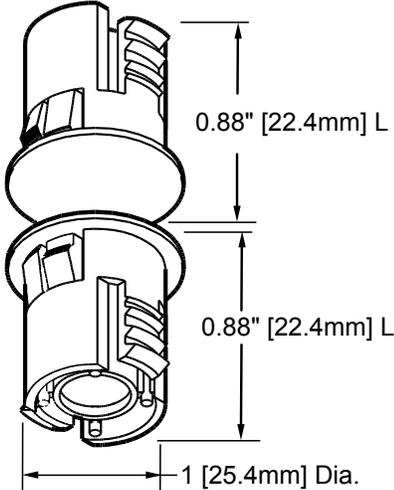
Magnasphere MSS Contacts

Available Part Numbers

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

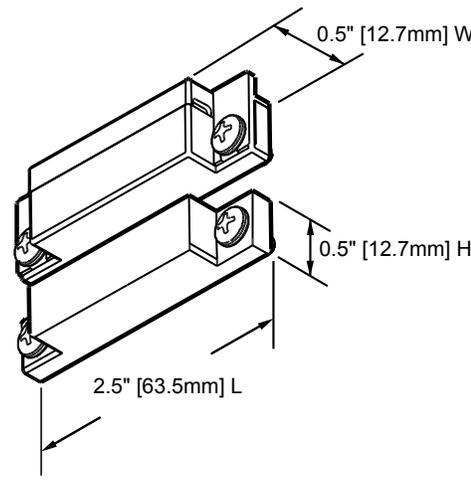
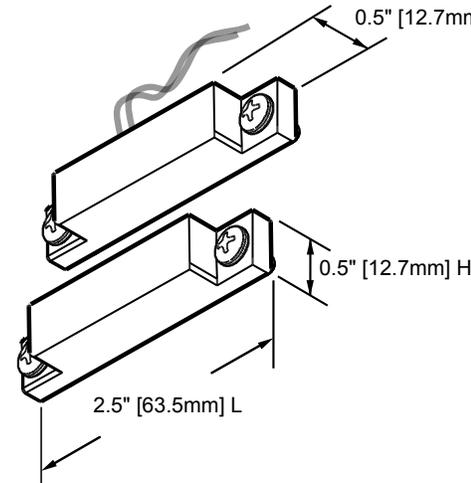
Magnasphere MSS Contacts

Available Part Numbers

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

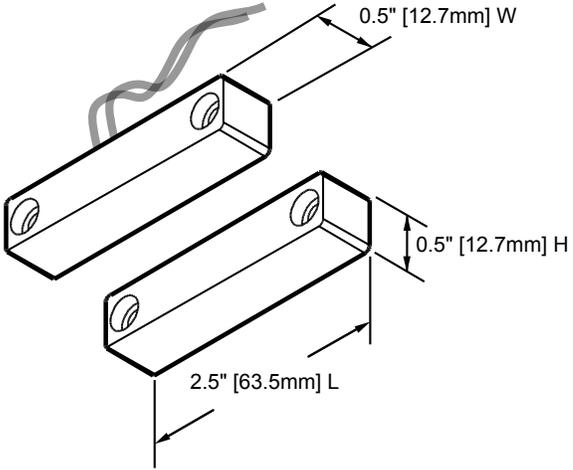
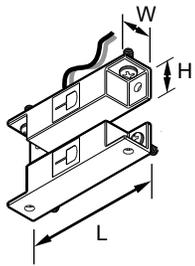
Magnasphere MSS Contacts

Available Part Numbers

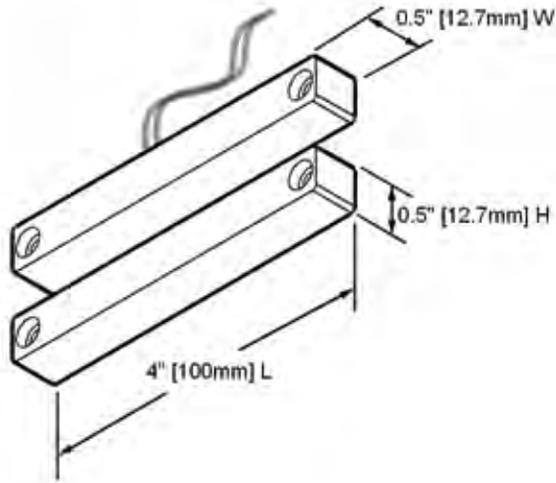
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| <p>MSS-K22 Surface Mount Contact</p>  | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Open Loop" w/ Target Magnet in Place MAX Gap: 1/2" [12.7mm] Conductor: Screw Terminals Color(s): Brown, Grey and White</p> | <p>SIZE</p>  |
| <p>MSS-K24 Surface Mount Contact</p>  <p>CLOSED LOOP</p> | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Closed Loop" w/ Target Magnet in Place MAX Gap: 3/8" [9.7mm] Conductor: Screw Terminals Color(s): Brown, Grey and White</p> | |
| <p>MSS-K22S Surface Mount Contact</p>  | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Open Loop" w/ Target Magnet in Place MAX Gap: 1/2" [12.7mm] Conductor: #22 AWG - 12" [30.5cm] Leads Color(s): Brown, Grey and White</p> | <p>SIZE</p>  |
| <p>MSS-K24S Surface Mount Contact</p>  <p>CLOSED LOOP</p> | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Closed Loop" w/ Target Magnet in Place MAX Gap: 3/8" [9.7mm] Conductor: #22 AWG - 12" [30.5cm] Leads Color(s): Brown, Grey and White</p> | |

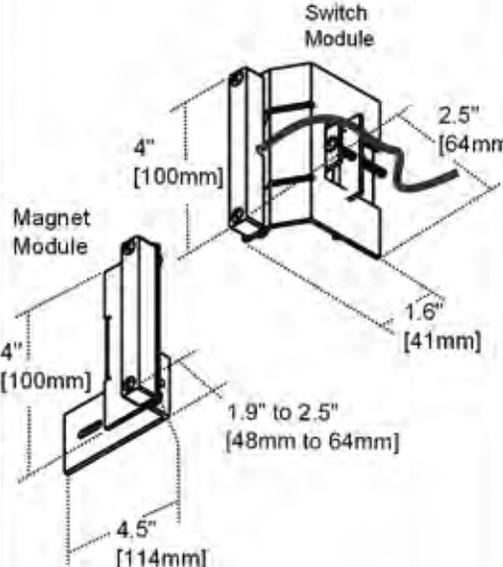
Magnasphere MSS Contacts

Available Part Numbers

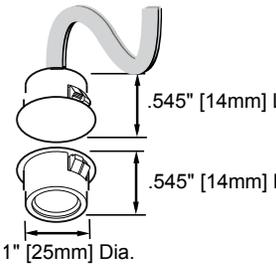
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| <p>MSS-53SL Surface Mount Contact</p>  | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Open Loop" w/ Target Magnet in Place MAX Gap: 1/2" [12.7mm] Conductor: 12" Jacketed Leads Leads Color(s): Brown, Grey and White</p> | <p style="text-align: center;">SIZE</p>  | |
| <p>MSS-54SL Surface Mount Contact</p>  <p style="color: red; transform: rotate(-45deg); font-weight: bold;">CLOSED LOOP</p> | <p>Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Closed Loop" w/ Target Magnet in Place MAX Gap: 3/8" [9.7mm] Conductor: 12" Jacketed Leads Leads Color(s): Brown, Grey and White</p> | | |
| <p>MSS-63S Surface Mount Contact</p>  | <p style="text-align: center;">SIZE</p> <p style="text-align: center;">2.5"L x .55"W x .55"H [64mm L x 14mm W x 14mm H]</p>  | <p style="text-align: center;">MAX Gap</p> <p style="text-align: center;">1/2" [12.7mm]</p> | <p>Magnasphere Electrical Specifications Max Current: 0.25A Resistive Max Voltage: 30 VDC Max Power: .25 W Resistive Configuration: "Open Loop" w/ Target Magnet in Place</p> |
| <p style="text-align: center;">Color(s)</p> <p style="text-align: center;">Brown and White</p> | | <p style="text-align: center;">#22 AWG</p> <p style="text-align: center;">12" [30.5cm] Leads</p> | |

Magnasphere MSS Contacts
 Available Part Numbers

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

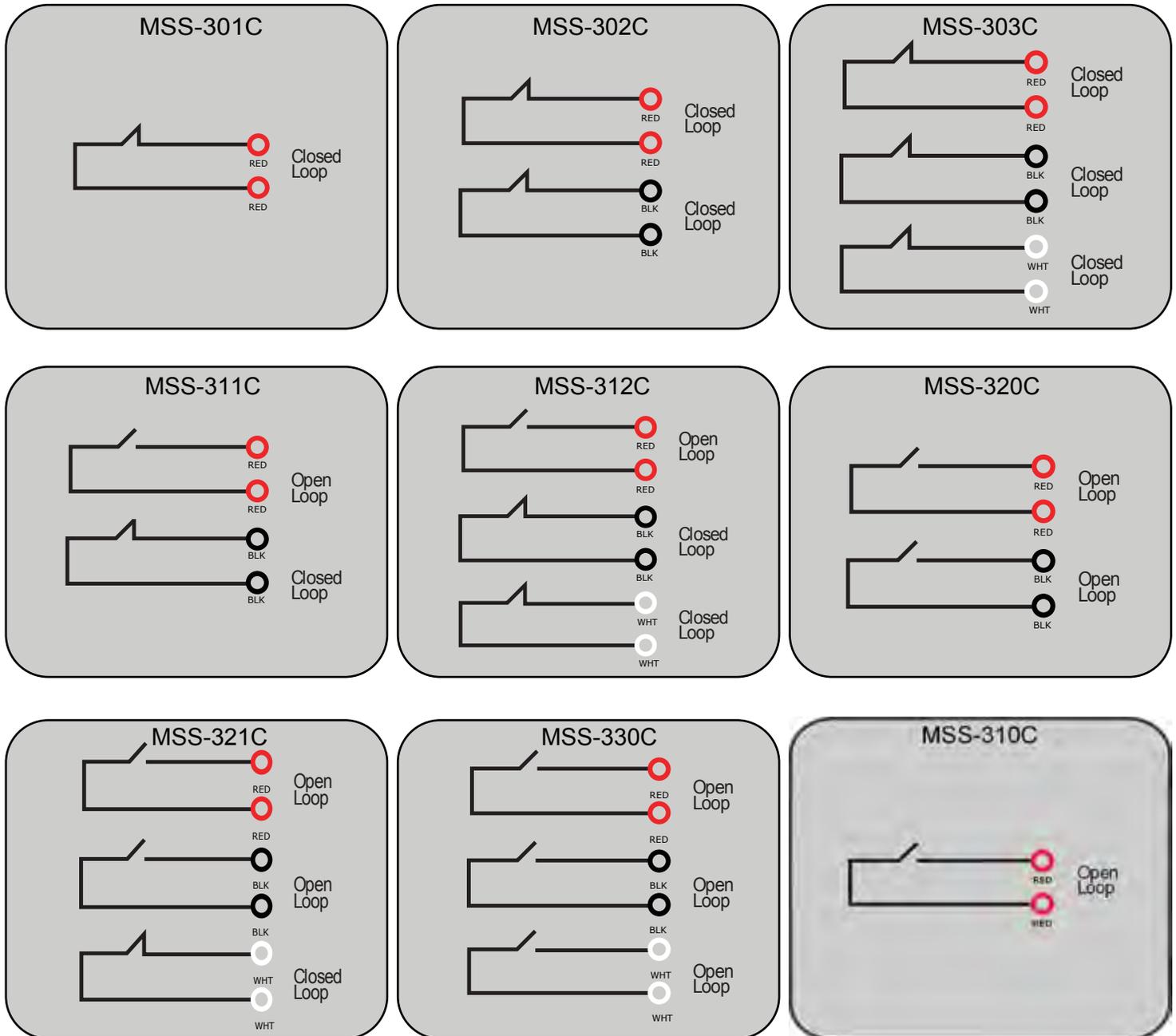
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|--|---|--|
| <p>4" Overhead Door Contacts Available in Jacketed and Armored Leads</p> | | <p>SIZE</p>  |
| <p>OPEN LOOP</p> <p>MSS-105S (60" Jacketed Leads)</p> <p>MSS-105S-C18-L2 (18" Armored Cable)</p> <p>MSS-105S-C36-L3.5 (36" Armored Cable)</p>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

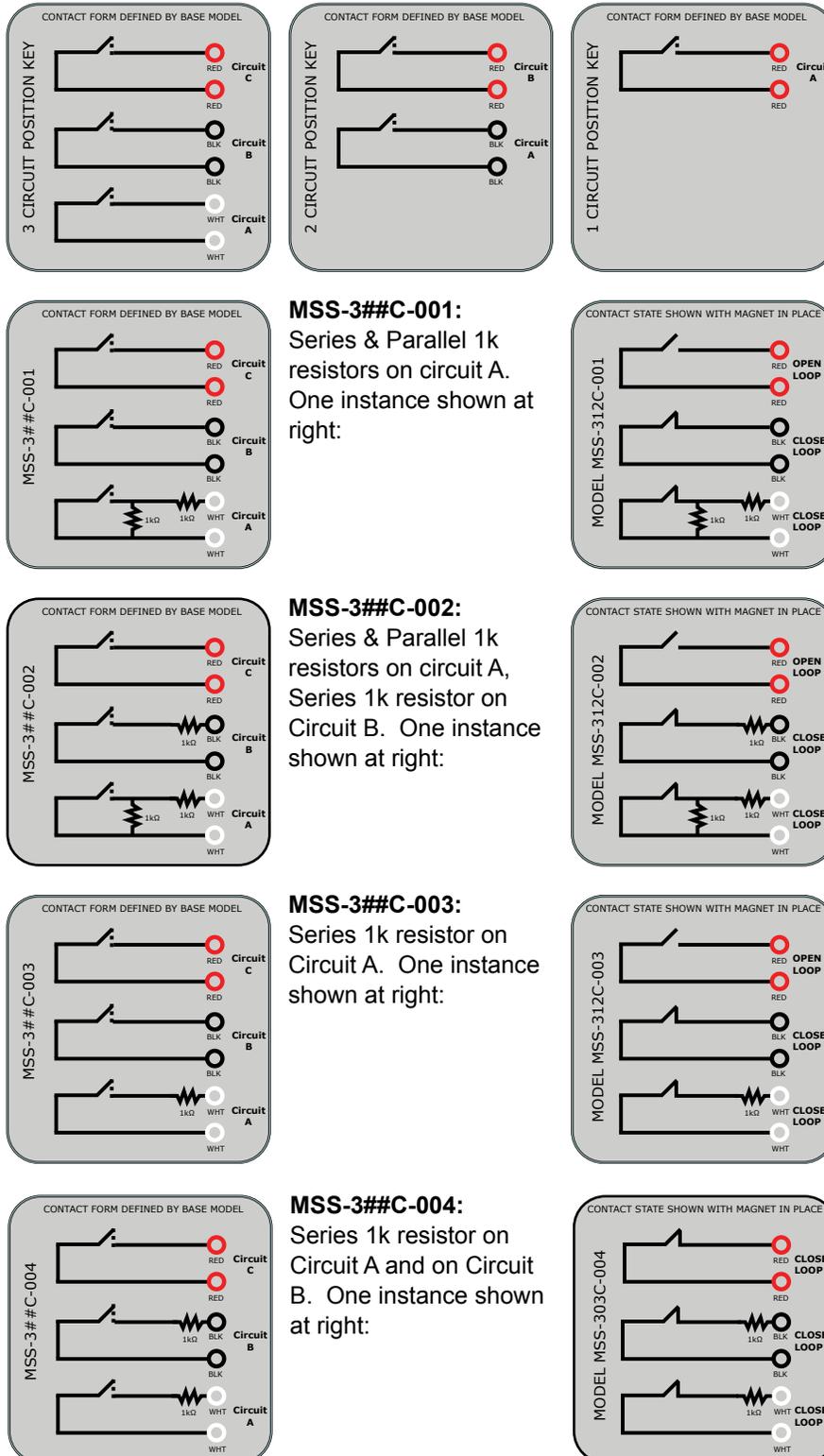
NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers

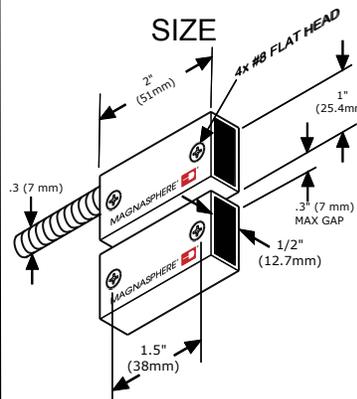


Resistor-Embedded Models of MSS-300C-Series

End-Of-Line Resistor Standard Models (### suffix)

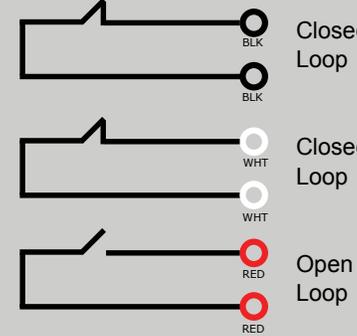
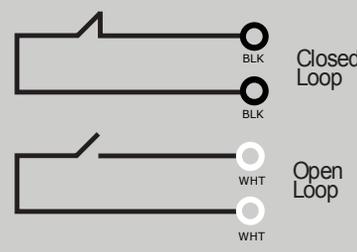
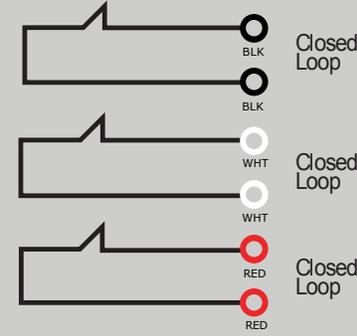
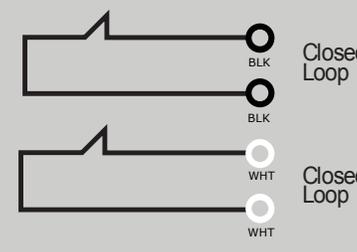
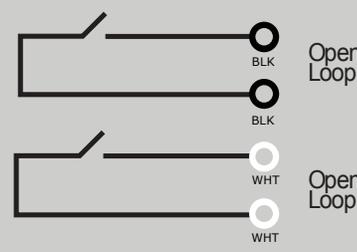
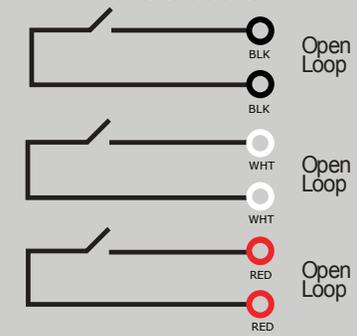
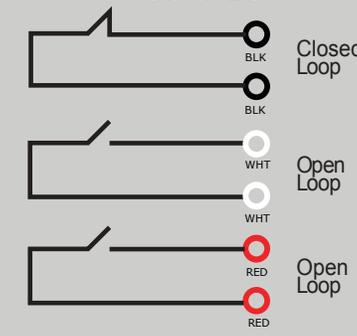


Magnasphere MSS-300S Series (Surface Mount)

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

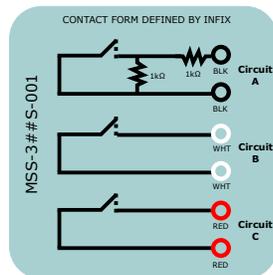
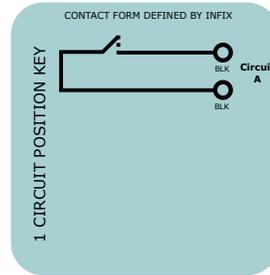
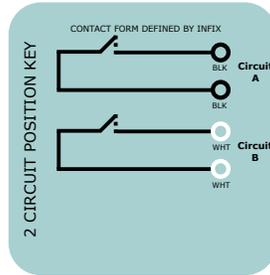
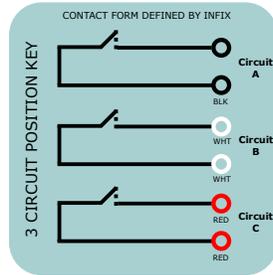
NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers

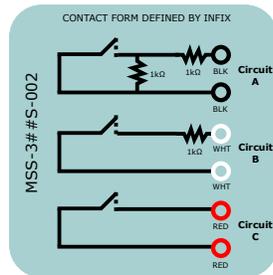
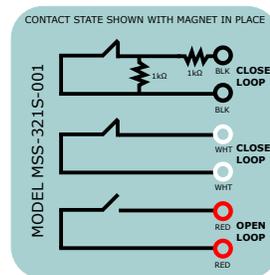
| | | |
|---|--|---|
| <p>MSS-310S</p>  <p>Closed Loop</p> | <p>MSS-301S</p>  <p>Open Loop</p> | <p>MSS-321S</p>  <p>Closed Loop</p> <p>Closed Loop</p> <p>Open Loop</p> |
| <p>MSS-311S</p>  <p>Closed Loop</p> <p>Open Loop</p> | <p>MSS-330S</p>  <p>Closed Loop</p> <p>Closed Loop</p> <p>Closed Loop</p>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

Surface MSS 300 Series

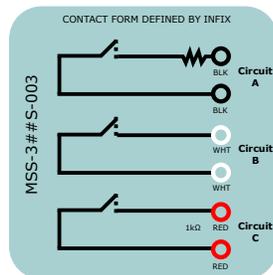
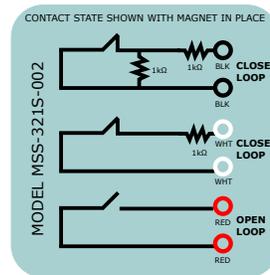
End-Of-Line Resistor Standard Models (-### suffix)



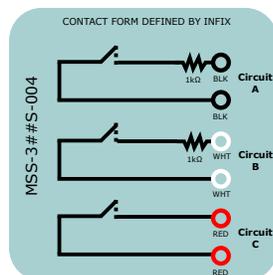
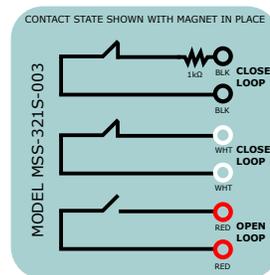
MSS-3##S-001:
Series & Parallel 1k resistors on circuit A. One instance shown at right:



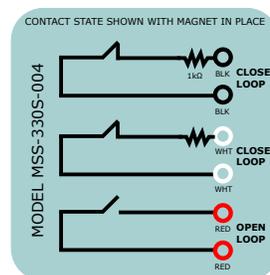
MSS-3##S-002:
Series & Parallel 1k resistors on circuit A, Series 1k resistor on Circuit B. One instance shown at right:



MSS-3##S-003:
Series 1k resistor on Circuit A. One instance shown at right:

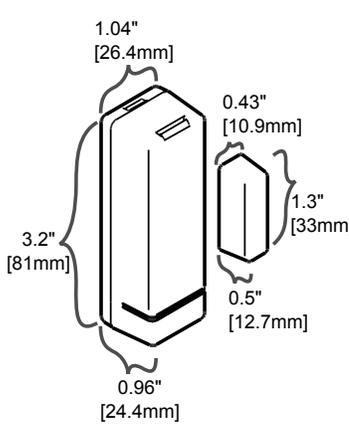


MSS-3##S-004: Series 1k resistor on Circuit A and on Circuit B. One instance shown at right:



For End-Of-Line Resistor Custom Models Contact Magnasphere Corp.

Magnasphere MSS-RFS Series Wireless Surface Mount Contact

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

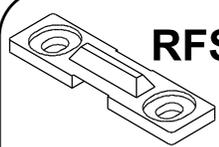
RFS-158# SPACER KIT FOR THE MSS-RFS WIRELESS SERIES

25pc Spacer Kit

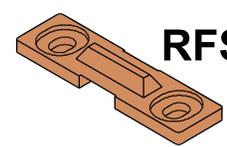
WHITE

BROWN

2mm
.079"

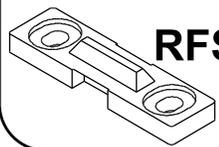


RFS-1586

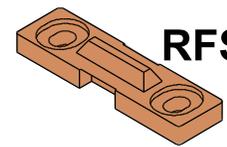


RFS-1587

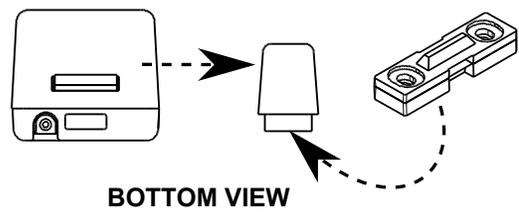
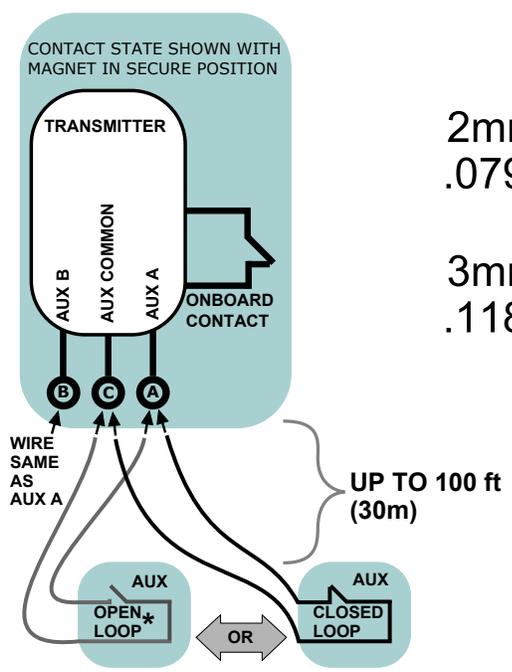
3mm
.118"



RFS-1588



RFS-1589



BOTTOM VIEW

Accessories

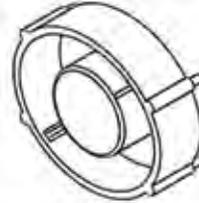
Available Part Numbers

MSS Series

P/N : 1605

DESCRIPTION: Channel Magnet for Aluminum Doors

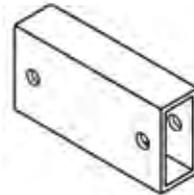
QTY: 1



P/N : 1595

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

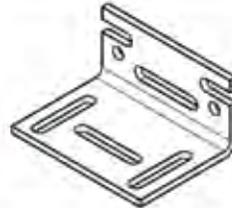
QTY: 1



P/N : 1643

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

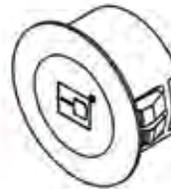
QTY: 1



P/N : 1694

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

QTY: 1



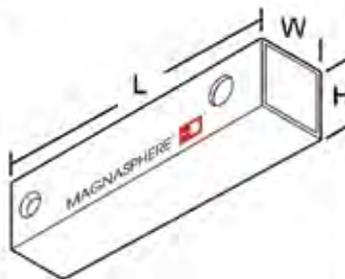
Note : Images are **NOT** to scale.

Magnasphere UL-634 Level 1

HSL-1.5 (Dual Alarm Contact)
 UL634 Level 1



SIZE

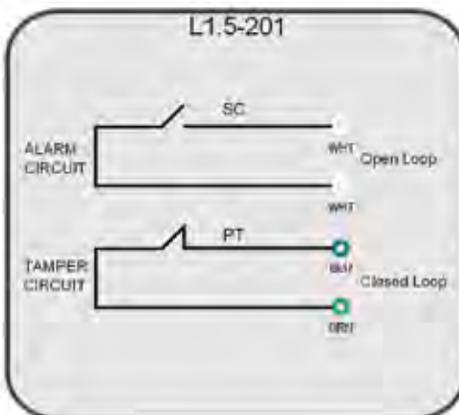
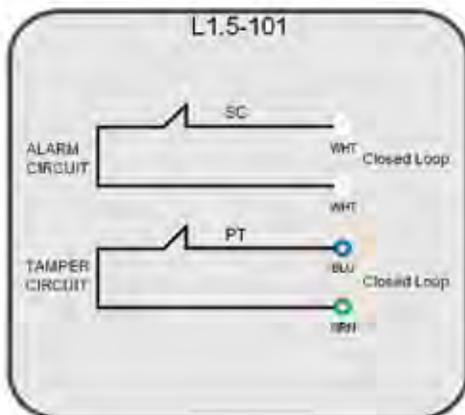
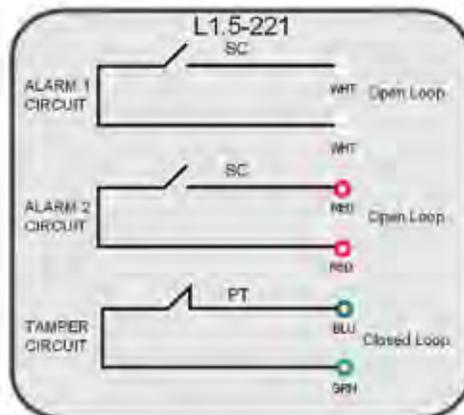
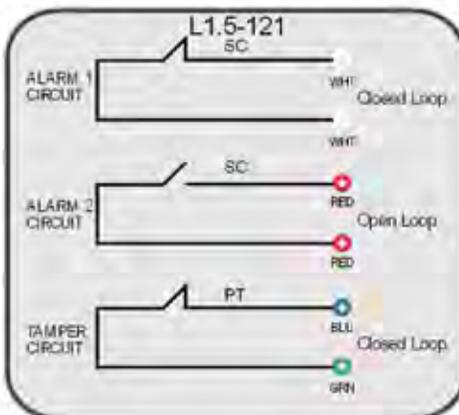
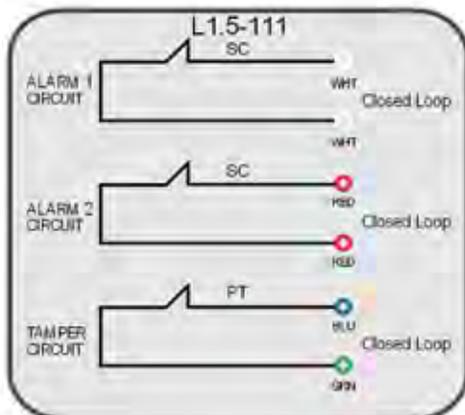


4.25" [107.9mm] L x 1" [25.4mm] W
 1" [25.4mm] H

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



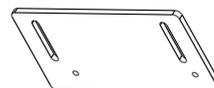
P/N : 1251
KIT: Removal Tamper Cap
QTY: 5pcs



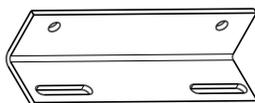
P/N : 1270
KIT: 1/16" Spacers for HSL-1.5
QTY: 4pcs



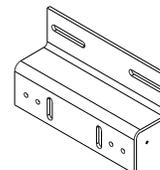
P/N : 1524
KIT: 1/8" Out-Swing Spacer for HS-L1.5
(For use with narrow door stops.)
QTY: 1pc



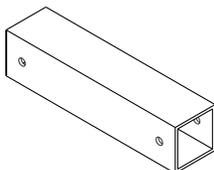
P/N : 1618
KIT: L1.5 L-Bracket
QTY: 1



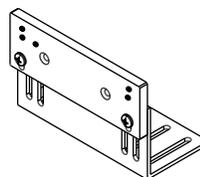
P/N : 1612
KIT: Z Bracket
QTY: 1



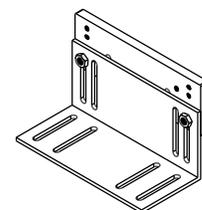
P/N : 1615
KIT: 1" x 1" Aluminum Spacer
QTY: 1



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

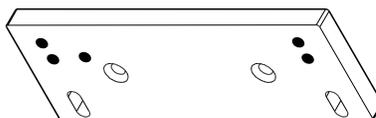


Orthographic Front View



Orthographic Back View

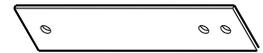
P/N : 1600
KIT: Bracket for HSL1.5 Direct
Replacment to 2700 Series
QTY: 1



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**



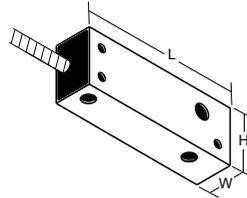
Magnasphere UL 634 Level 2 High Security Contacts (Surface Mount)

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

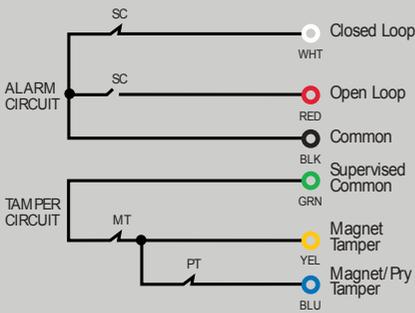
4.25"L x 1"W x 1.5"H

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

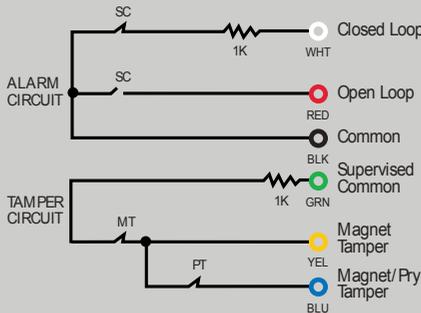
NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers

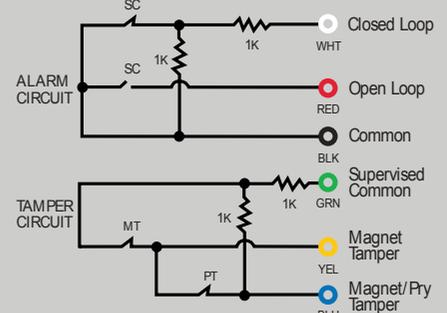
HSS-L2S-000



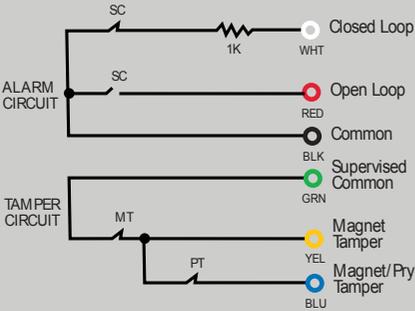
HSS-L2S-001



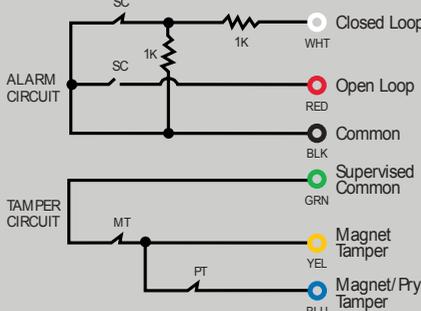
HSS-L2S-002



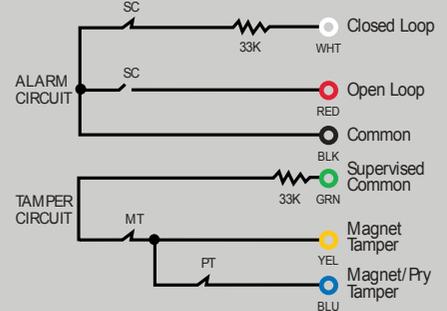
HSS-L2S-003



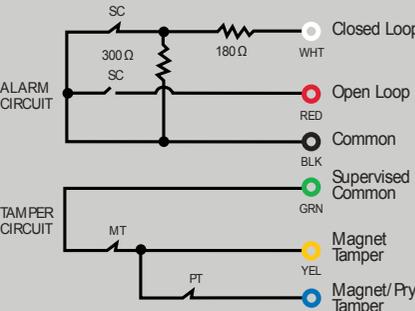
HSS-L2S-004



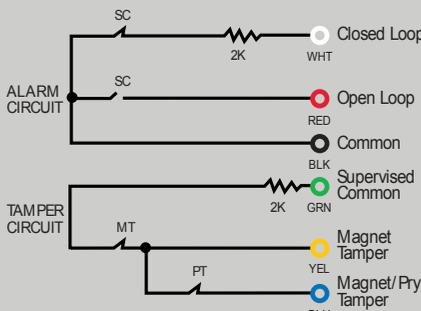
HSS-L2S-005



HSS-L2S-006



HSS-L2S-007



Legend / Notes

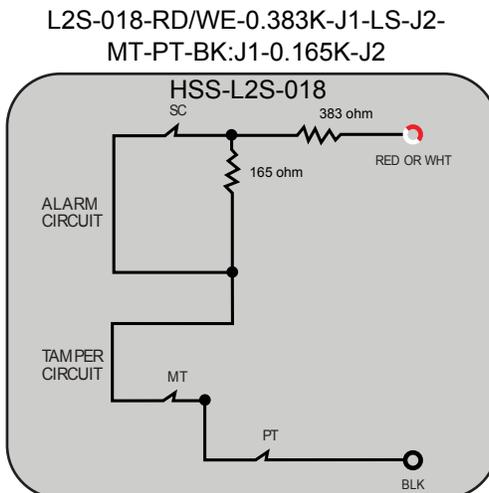
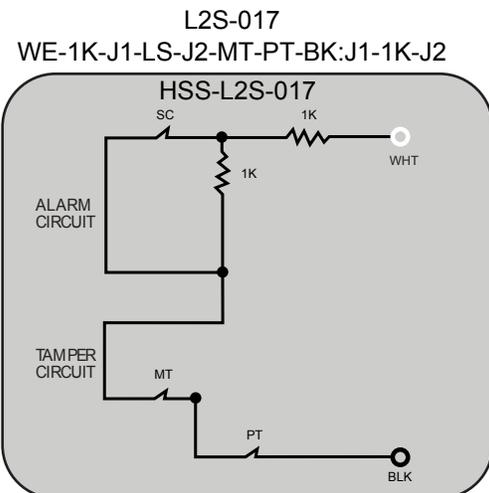
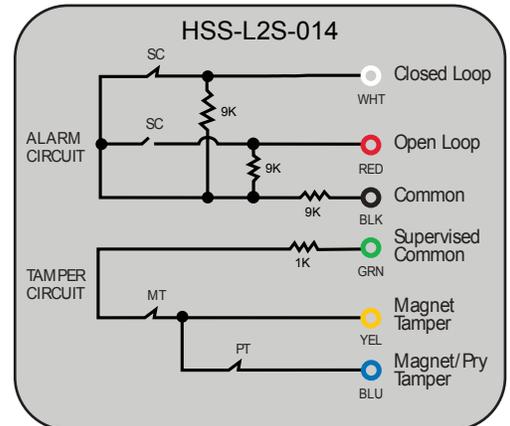
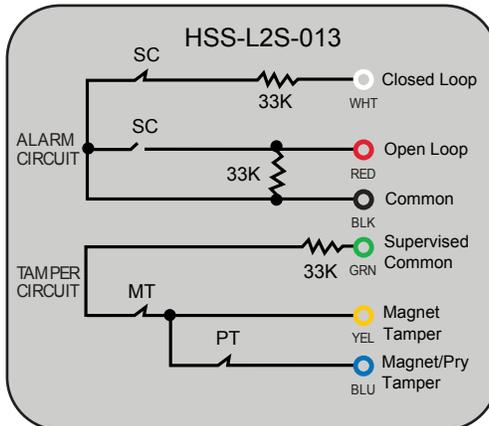
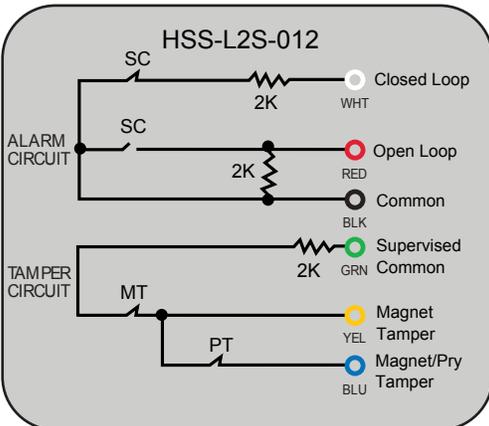
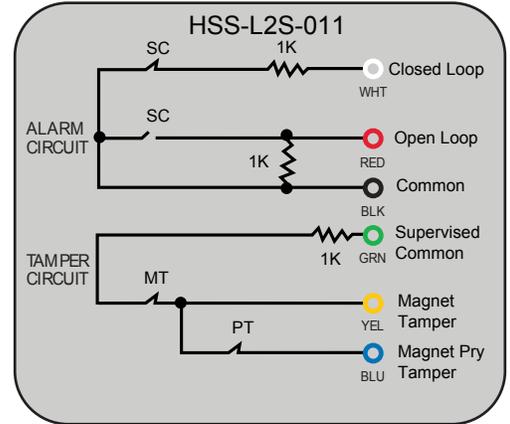
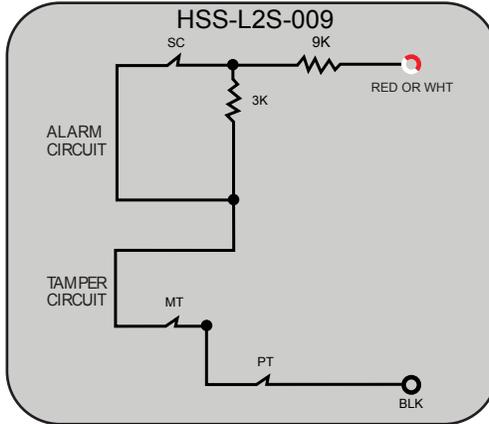
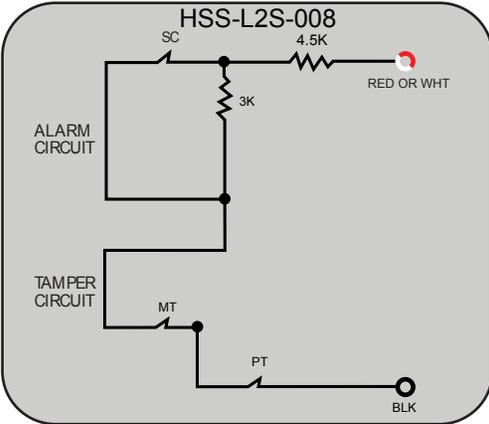
SC = Secure Contact
 MT = Magnet Tamper
 PT = Pry Tamper
 ##K = Resistor

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)

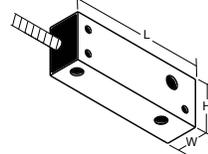
Magnasphere UL 634 Level 2 High Security Contacts (Surface Mount)

**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



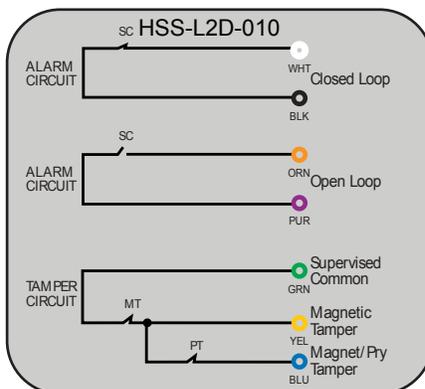
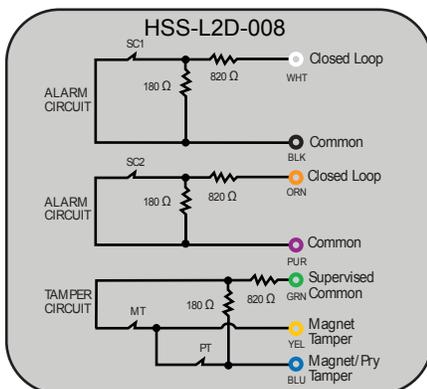
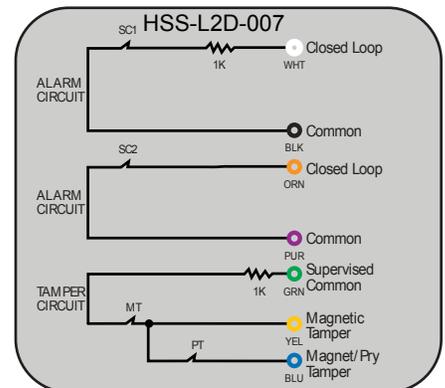
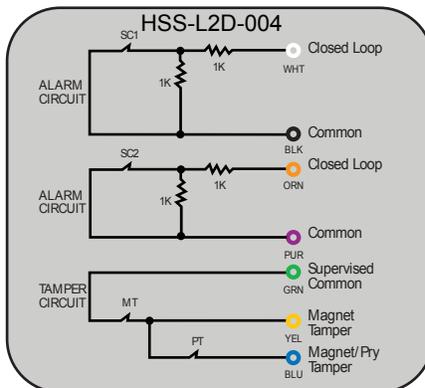
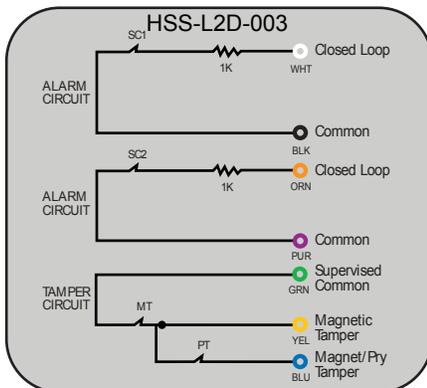
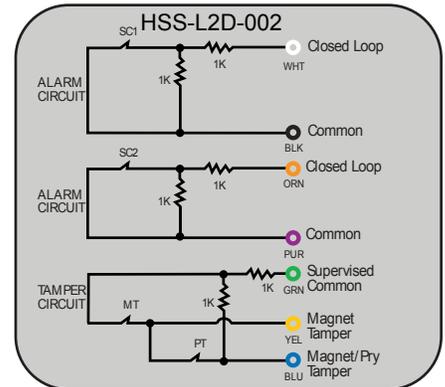
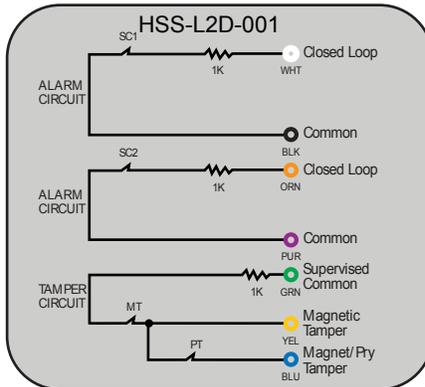
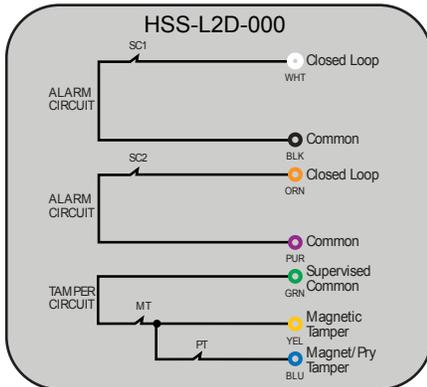
SIZE

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

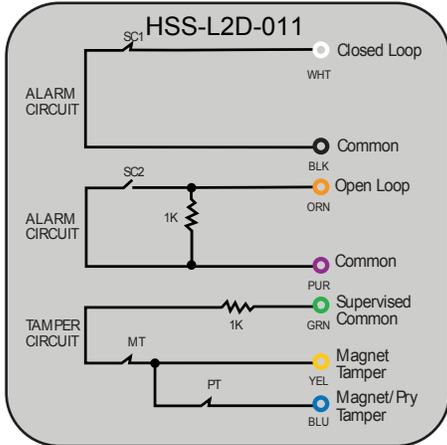
SC = Secure Contact
 MT = Magnet Tamper
 PT = Pry Tamper
 ##K = Resistor

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)

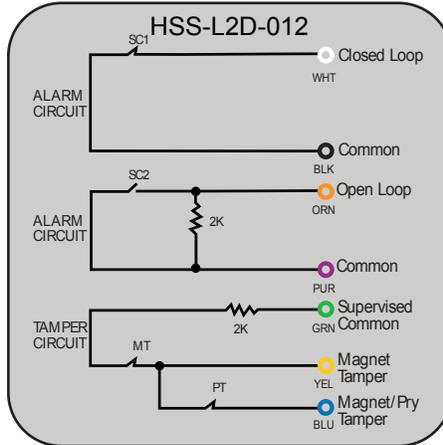
NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers



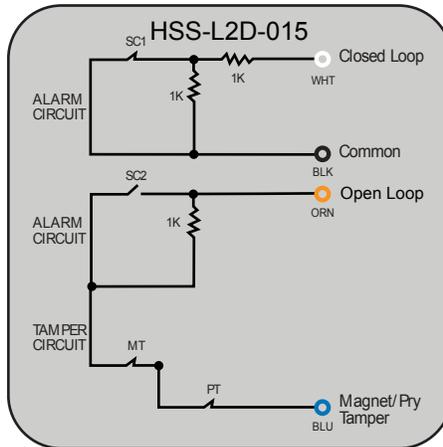
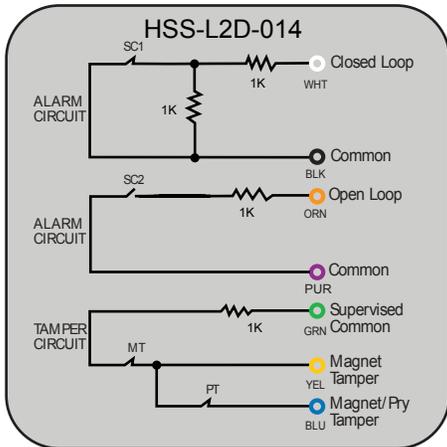
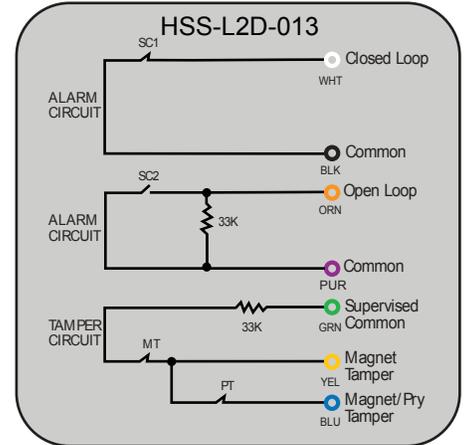
L2D-014-

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**

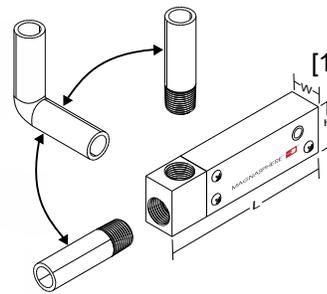


Magnasphere General Information

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)

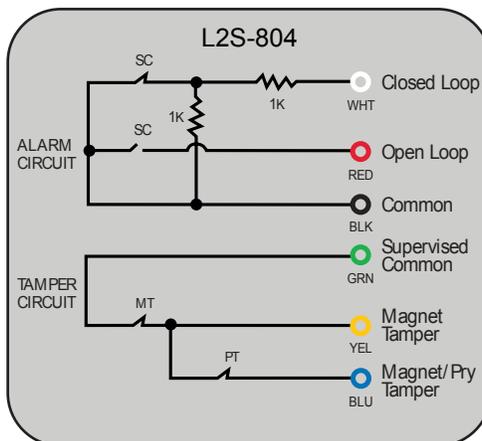
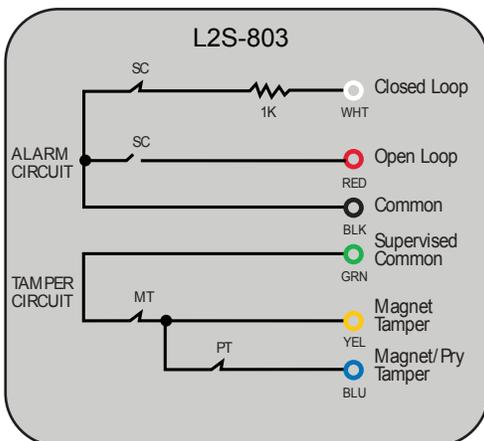
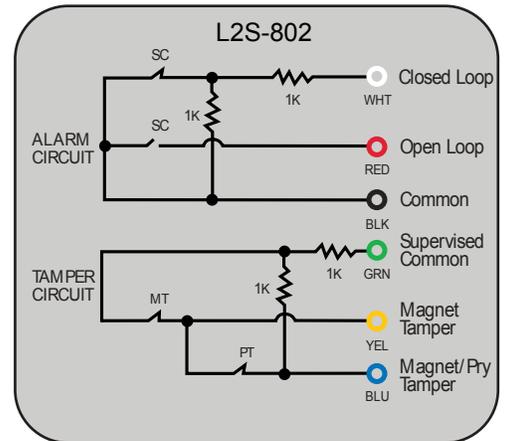
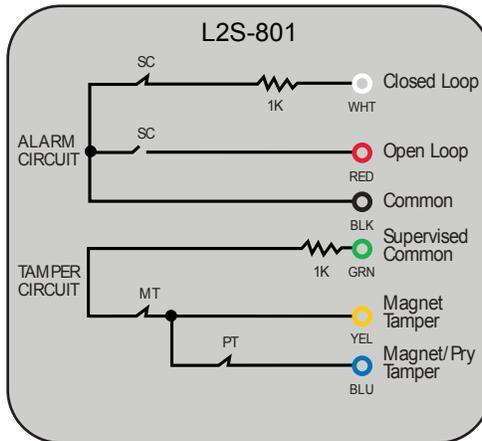
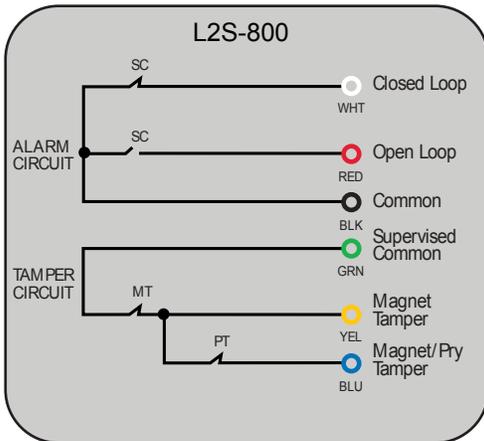
SIZE

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

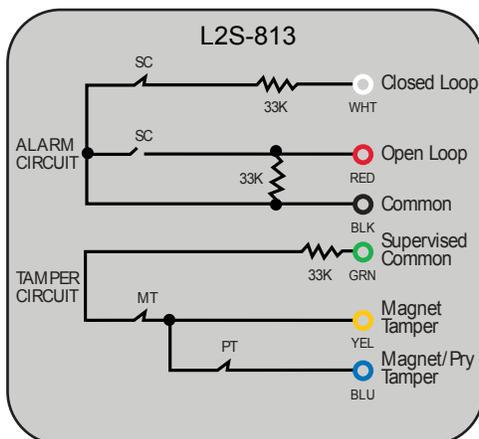
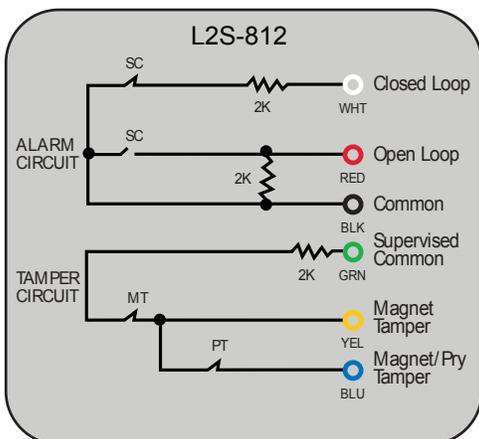
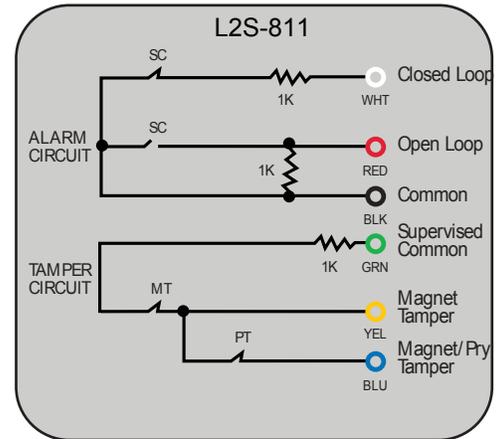
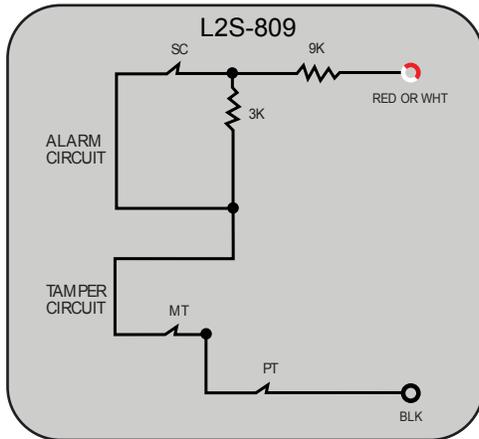
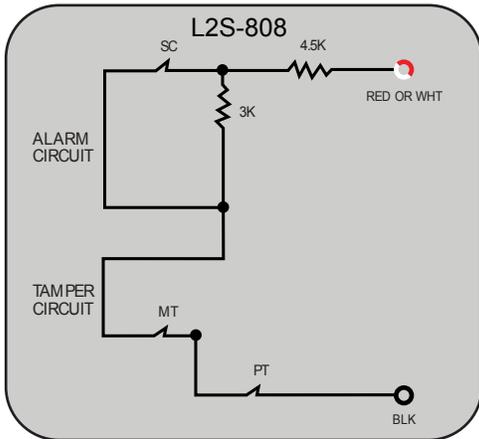
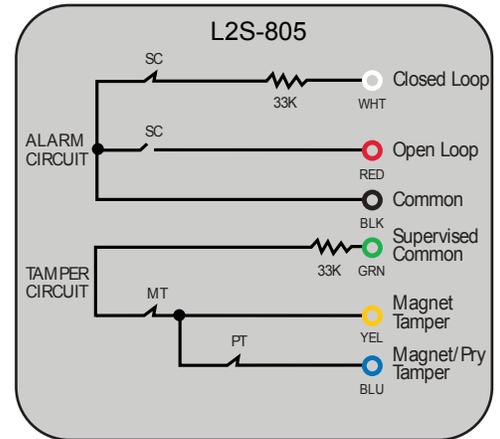
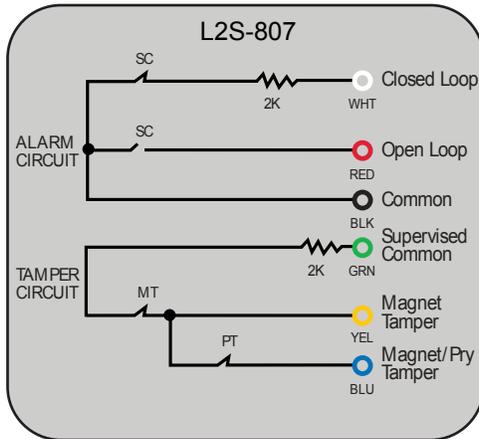
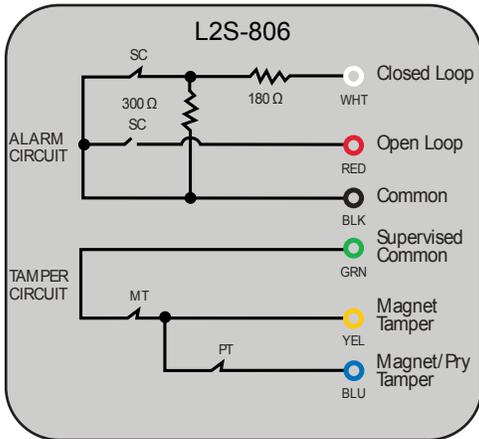
SC = Secure Contact
 MT = Magnet Tamper
 PT = Pry Tamper
 ##K = Resistor

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.)



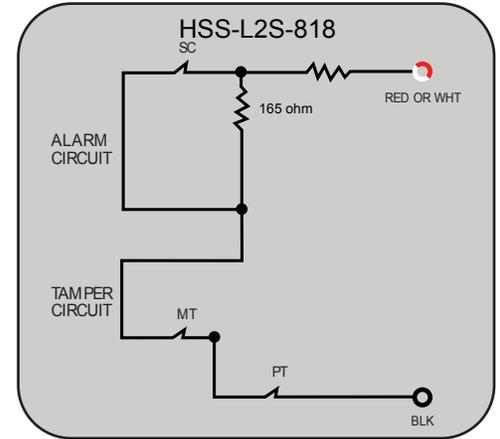
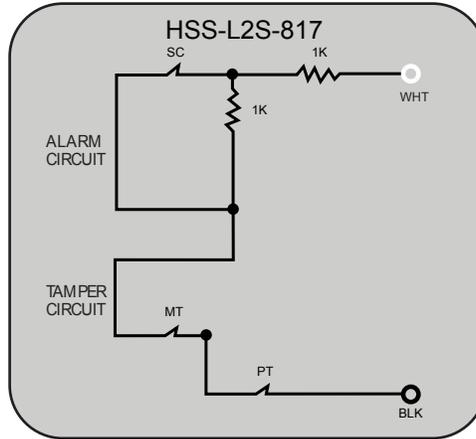
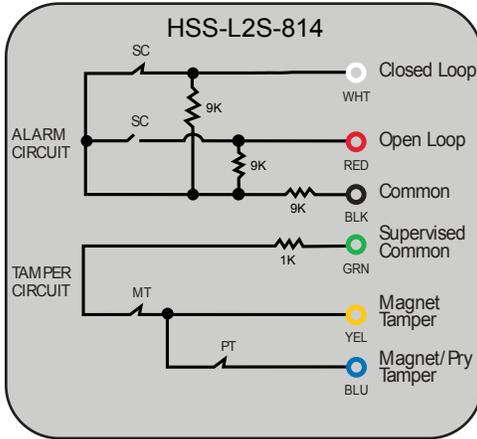
Magnasphere L2S-800 (Single Alarm Contact) Continued
 UL 634 Level 2 High Security Contacts (Surface Mount)

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers

L2S-817
 WE-1K-J1-LS-J2-MT-PT-BK:J1-1K-J2

L2S-818-RD/WE-0.383K-J1-LS-J2-
 MT-PT-BK:J1-0.165K-J2



Legend

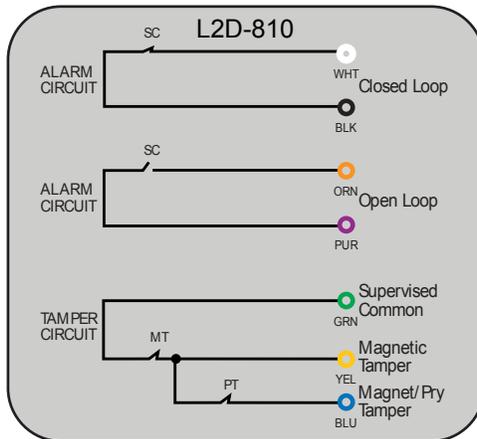
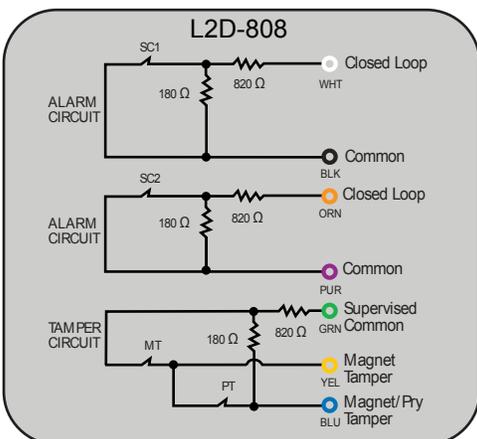
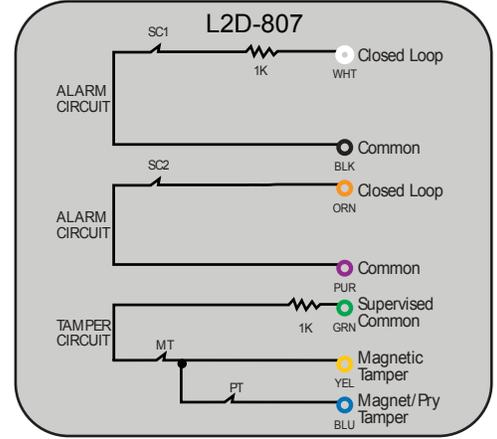
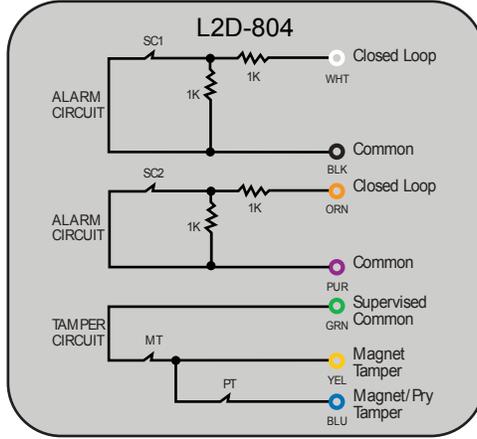
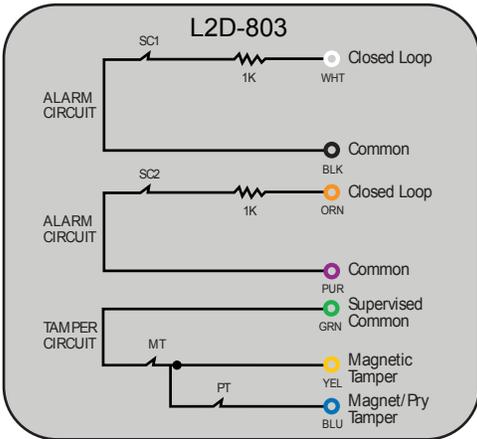
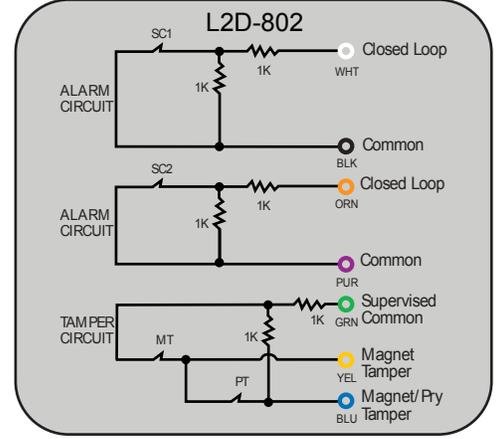
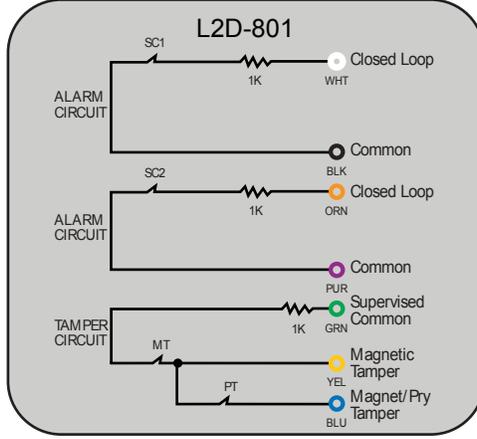
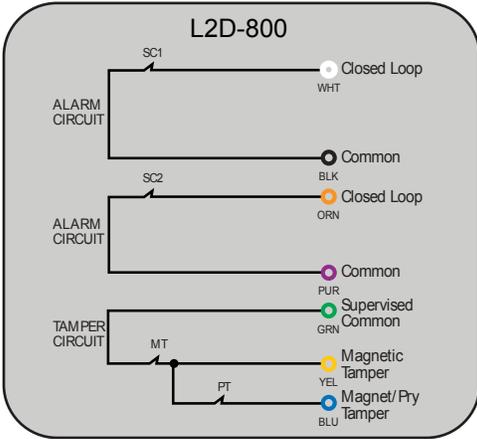
- SC = Secure Contact
- MT = Magnet Tamper
- PT = Pry Tamper
- ##K= Resistor

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

Magnasphere L2D-800 (Dual Alarm Contacts)
 UL 634 Level 2 High Security Contacts (Surface Mount)

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers



Legend / Notes

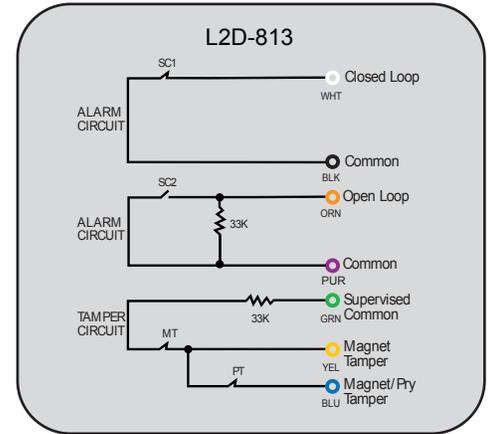
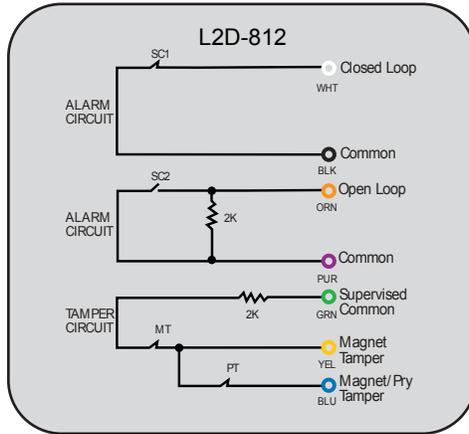
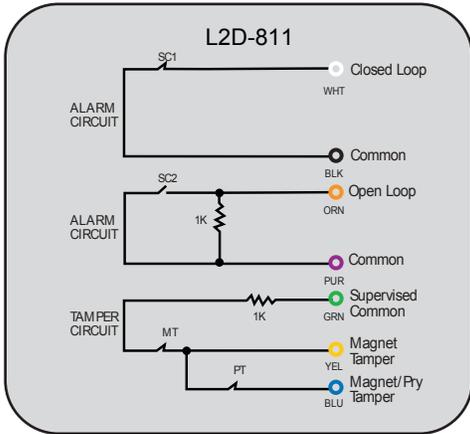
SC = Secure Contact
 MT = Magnet Tamper
 PT = Pry Tamper
 ##K = Resistor

36" [91cm] Leads (Std.)

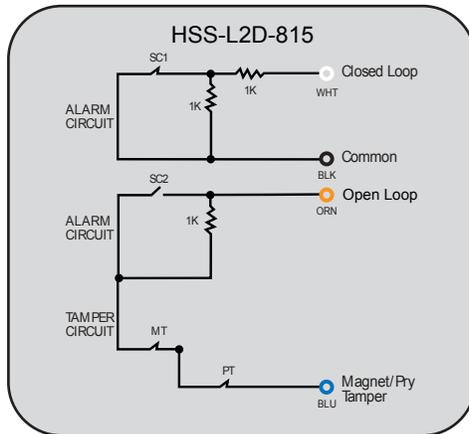
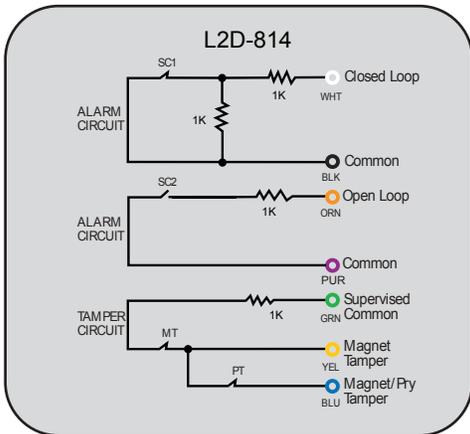
Magnasphere L2D-800 (Dual Alarm Contacts) Continued
 UL 634 Level 2 High Security Contacts (Surface Mount)

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers



L2D-815
 WE-1K-J1-LS-J2-BK:J1-1K-J2:OE-
 J3-NS-J4-MT-PT-BE:J3-1K-J4



Legend / Notes

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

36" [91cm] Leads (Std.)

Accessories
Available Part Numbers

HSS

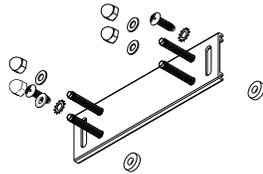
P/N : 1250
KIT: Removal Tamper Magnet
QTY: 3pcs



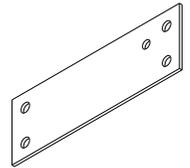
P/N : 1251
KIT: Removal Tamper Cap
QTY: 5pcs



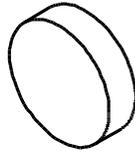
P/N : 1229
KIT: Adjustable Magnet Bracket
QTY: 1



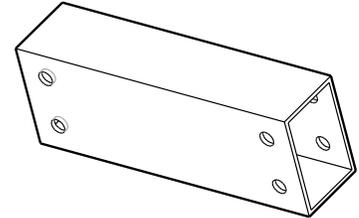
P/N : SP062
KIT: HSS Plastic Shims
QTY: 10pcs



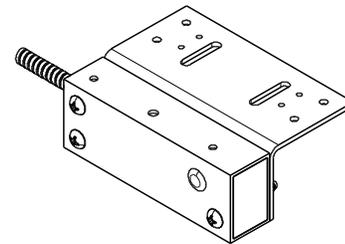
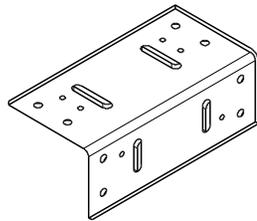
P/N : HSS-1565
KIT: HSS Series Calibration Magnet Spacer
QTY: 10 pcs



P/N : 1102
KIT: HSS Magnet Housing 1" Spacer
QTY: 1

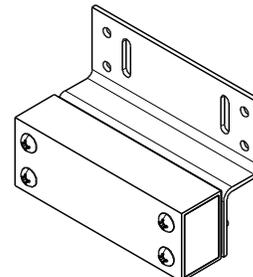
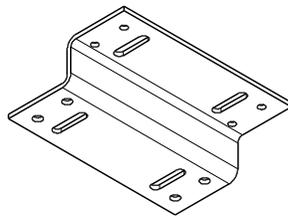


P/N : 1625
KIT: HSS L-Bracket
QTY: 1



Reference View

P/N : 1620
KIT: HSS Z-Bracket
QTY: 1



Reference View

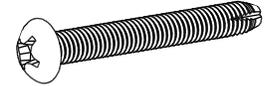
Note : Images are **NOT** to scale.

INSTALLER COMPONENTS FOR HSS L2X-0XX SERIES

REPLACEMENT KIT P/N: 1528

Description (Note: Images are **NOT** to scale)

#10 x 2" Length / Screws / Type F / **Qty: 7**



#6 x 1" Length / Screws / Type F / **Qty: 2**



#8-32 x 7/16" Length / SS Set Screw / **Qty: 1**



Calibration Magnet Spacer (Metal) / **Qty: 1**



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**



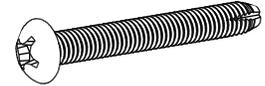
Poly Bag / **Qty:1**

INSTALLER COMPONENTS FOR HSS L2X-8XX SERIES

REPLACEMENT KIT P/N: HSS-1543

Description (Note: Images are **NOT** to scale)

#10 x 2" Length / Screws / Type F / **Qty: 7**



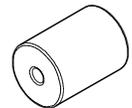
#6 x 1" Length / Screws / Type F / **Qty: 2**



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**

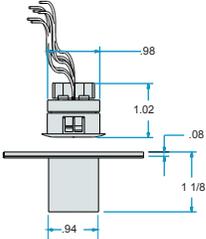


1/2" NPT Plug / **Qty: 1**



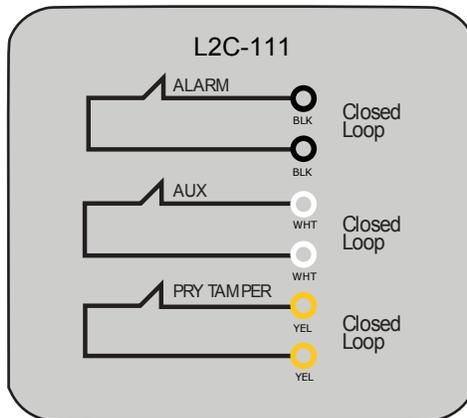
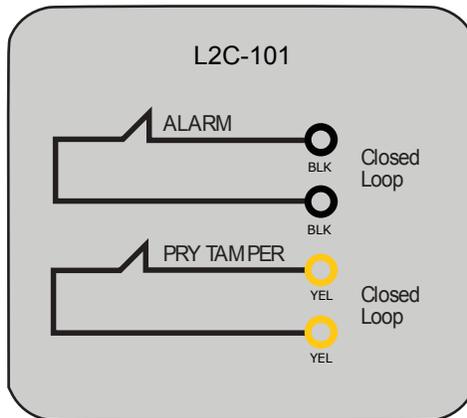
Poly Bag / **Qty:1**

Magnasphere UL 634 Level 2 High Security Contacts (Recessed/Concealed)

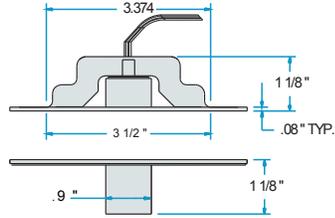
| | |
|---|---|
| <p>HSS-L2C UL634 Level 2</p>  | <p>Magnasphere General Information Housing: Brass (Magnet Housing) and ABS (Switch Housing) Wire Lead Type: Solid Color-Coded Wires, 12"L [30 cm] ,22 AWG Max Current: 0.25 A Resistive Max Voltage: 30 VDC Max Power: 0.250 W Max Gap: .125"</p> <hr/> <p>SIZE</p>  |
|---|---|

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

Available Part Numbers

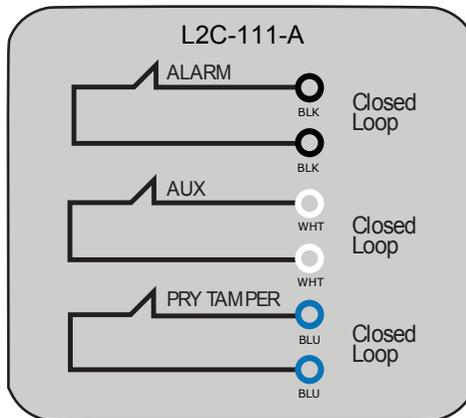
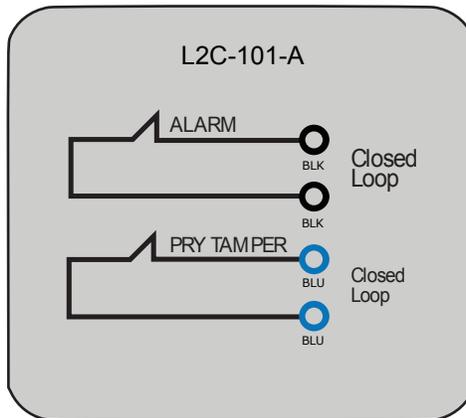


Magnasphere UL 634 Level 2 (Recessed/Concealed: Fits to an ANSI style cutout)

| | |
|---|--|
| <p>HSS-L2C-A UL634 Level 2</p>  | <p>Magnasphere General Information Housing: Brass Wire Lead Type: Color-Coded Lead Wires, 12" [30cm] , 22 AWG Max Current: 0.25 A Resistive Max Voltage: 30 VDC Max Power: 0.250 W Max Gap: .125"</p> |
| | <p>SIZE</p>  |

NOTE: CONTACT STATE SHOWN WITH TARGET MAGNET IN PLACE

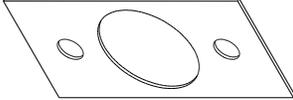
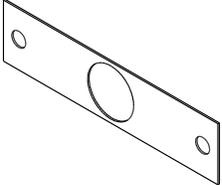
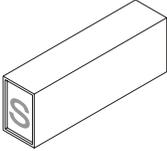
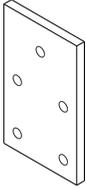
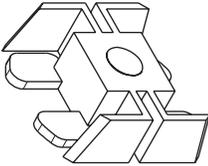
Available Part Numbers



Accessories

Available Part Numbers

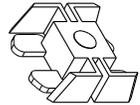
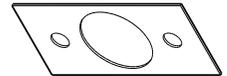
L2C-XXX & L2C-ANSI

| | |
|---|---|
| <p>P/N : 1222 KIT: 1/32" Spacers for L2C-XXX Magnet Module QTY: 10pcs</p>  | <p>P/N : 1367 KIT: L2C ANSI 1/32" spacer QTY: 10pcs</p>  |
| <p>P/N : 1384 KIT: L2C Series Pry Tamper Test Magnet QTY: 1</p>  <p>Magnetic South Pole at Face</p> | <p>P/N : 1640 KIT: Mounting Tab Kit for one L2C-A Switch Module - For Retrofit ANSI Cutout QTY: 2pcs</p>  |
| <p>P/N : 1710 KIT: L2C-XXX Removal tamper magnet caps QTY: 3pcs</p>  | |

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

INSTALLER COMPONENTS FOR HSS L2C

REPLACEMENT KIT P/N: HSS-1544

Description (Note: Images are **NOT** to scale)Tamper Bracket (Plastic) / **Qty: 1**Plastic Spacer (1/32" Thk.) / **Qty: 3**#10 x 1" Length / Phillips Undercut Flathead Screw / **Qty: 2**Poly Bag / **Qty:1**

INSTALLER COMPONENTS FOR HSS L2C-A

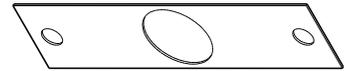
REPLACEMENT KIT P/N: HSS-1545

Description (Note: Images are **NOT** to scale)

#8-32 x 3/8" Length / SS Phillips Undercut Flathead Screws
(Tamper Bracket) / **Qty: 2**



Plastic Spacer (1/32" Thk.) / **Qty: 3**



#8-32 x 1/2" Length / Brass Slotted Flathead Screw
(Switch and Magnet) / **Qty:4**



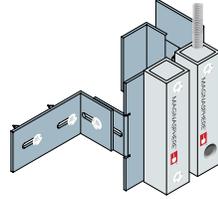
Poly Bag / **Qty: 1**

Overhead Door Brackets (OHD)

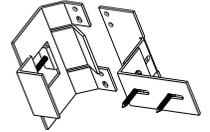
Available Part Numbers

Over Head Rail Mount Brackets (OHD) for HSL-1.5 (Level 1)

P/N : HS-OHD-111
 KIT: HS-L1.5-111 mounted on HS-1271
 QTY: 1 pc(s)

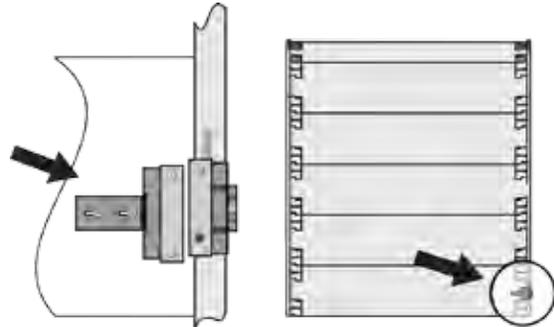


P/N : 1271
 KIT: Overhead Door Rail Mount Bracket for HS-L1.5
 QTY: 1 pc(s)



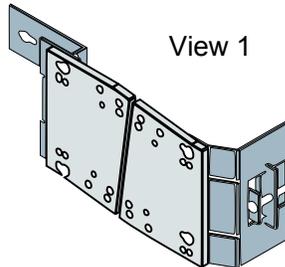
P/N : HS-OHD-121
 KIT: HS-L1.5-121 mounted on HS-1271
 QTY: 1 pc(s)

Assembled Representation * for
 HSL-1.5 Over Head Rail Mount Bracket
 For reference only, see page 42 for link
 to HS-L1.5 installation instructions.



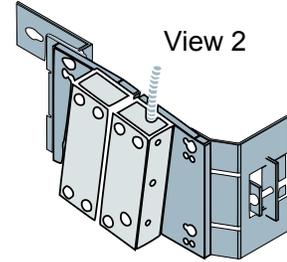
Over Head Rail Mount Brackets (OHD) for HSS (Level 2)

P/N : HSS-1670
 KIT: Over Head Rail Mount Bracket Kit
 (OHD) for HSS (Level 2) - Right Side
 QTY: 1 pc(s)



View 1

P/N : HSS-1671
 KIT: Over Head Rail Mount Bracket Kit
 (OHD) for HSS (Level 2) - Left side
 QTY: 1 pc(s)



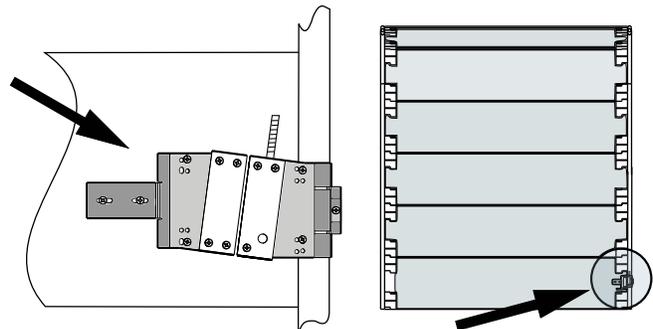
View 2

HSS Security Module Set NOT Included

P/N: HSS - 1670 - L2S/D - XXX
 KIT: Overhead Door Bracket w/ HSS-L2 - Right Side *
 QTY: 1 pc(s)

P/N: HSS - 1671 - L2S/D - XXX
 KIT: Overhead Door Bracket w/ HSS-L2 - Left Side *
 QTY: 1 pc(s)

Assembled Representation * for
 HSS Over Head Rail Mount Bracket Kit
 For reference only, see page 42 for link
 to HSS-L2 installation instructions.



Notes: 1. Images are **NOT** to scale.
 2. *Interior Reference Point

Roll Up Door Bracket Kit

Available Part Numbers

Roll-up Door Contact (HSL-1.5) Level 1 (Brackets w/ contacts pre-mounted)

P/N : HS1452-L1.5-111 & -121

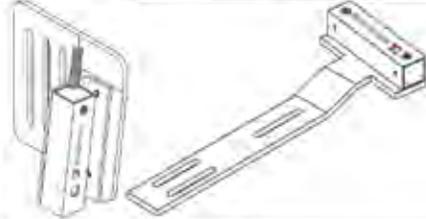
KIT: Roll Up Door Bracket w/HSL1.5 - Right Side*

QTY: 1 Set

P/N : HS1453-L1.5-111 & -121

KIT: Roll Up Door Bracket w/HSL1.5 - Left Side*

QTY: 1 Set



Roll-up Door Contact (HSS) Level 2 (Brackets w/ contacts pre-mounted)

P/N : HSS-1450-L2S/D-XXX

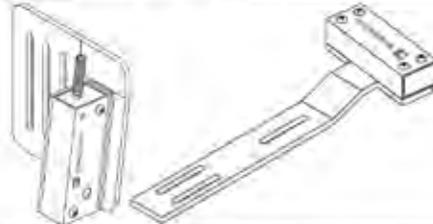
KIT: Roll Up Door Bracket w/HSS L2 - Right Side*

QTY: 1 Set

P/N : HSS-1451-L2S/D-XXX

KIT: Roll Up Door Bracket w/HSS L2 - Left Side*

QTY: 1 Set



Roll-up Door Bracket Set for HSL1.5 and HSS (Brackets Only)

P/N : 1450

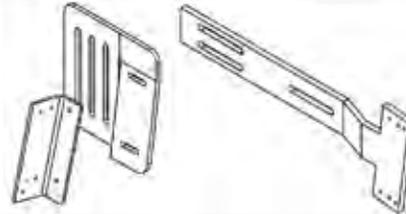
KIT: Roll Up Door Bracket Set for HSS or HSL1.5 - Right Side*

QTY: 1 Set

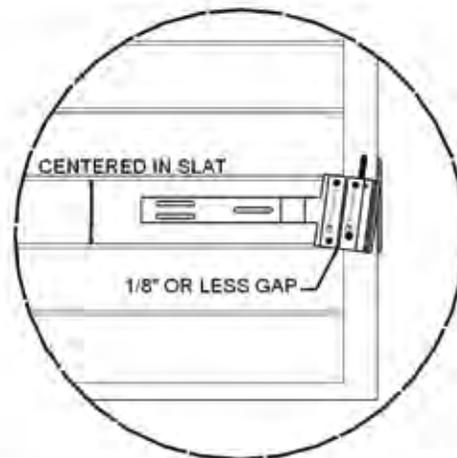
P/N : 1451

KIT: Roll Up Door Bracket Set for HSS or HSL1.5 - Left Side*

QTY: 1 Set



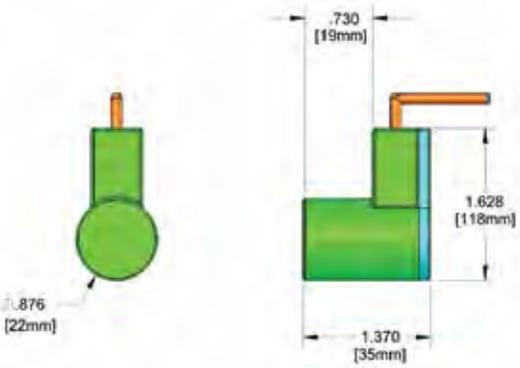
Assembled Representation * for
Roll-up Door Contact (HSS / HSL-1.5)
For reference only, see page 42 for
link to HSS-L2 installation instructions.



Notes: 1. Images are **NOT** to scale.
2. *Interior Reference Point

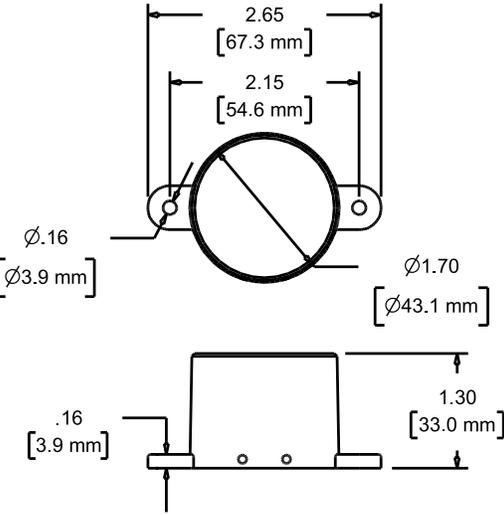
Magnasphere T1-AB-JS Unidirectional Tilt / Disturbance Switch



| | | |
|--|--|---|
| <p>T1-AB-JS</p>  | <p>SIZE</p>  | <p>Mechanical and Electrical Specifications Poles and Circuits: SPST (ON/OFF) Max Current: 0.25A Max Voltage: 30 VDC Resistive Max Power: .25 W Mechanical Life: 1 Million Operations (Typical) Angles of Operation: ON = 180° (+/- 4°) OFF = 180° (+/- 4°)</p> <p>Color(s) Black ABS (Flame Rated: 94HB min)</p> <p>Wire Leads JACKETED 22/2 ASG 0.11" OD x12"</p> |
|--|--|---|

Magnasphere T3-B-LS Omnidirectional Tilt / Disturbance Switch

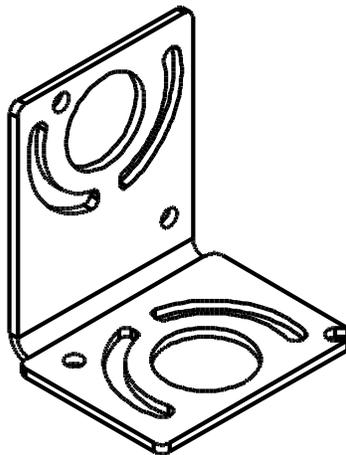


| | | |
|---|--|--|
| <p>T3-B-LS</p>  | <p>SIZE</p>  | <p>Mechanical and Electrical Specifications Poles and Circuits: SPST (ON/OFF) Max Current: 0.25A Max Voltage: 30 VDC Resistive Max Power: .24 W Mechanical Life: 1 Million Operations (Typical) Angles of Operation: 11° above horizontal typical actuation. 6° above horizontal typical return.</p> <p>Color(s) Black ABS (Flame Rated: 94HB min)</p> <p>Wire Leads 12" [30.5cm] - 2x 20 AWG Stranded, Black SXL Insulated</p> |
|---|--|--|

L Bracket for use with T1-AB-JS Unidirectional Tilt Switch and T3-B-LS Omni-Directional Tilt / Disturbance Switch
Qty:1

P/N: 1608

Description (Note: Image(s) are NOT to scale)

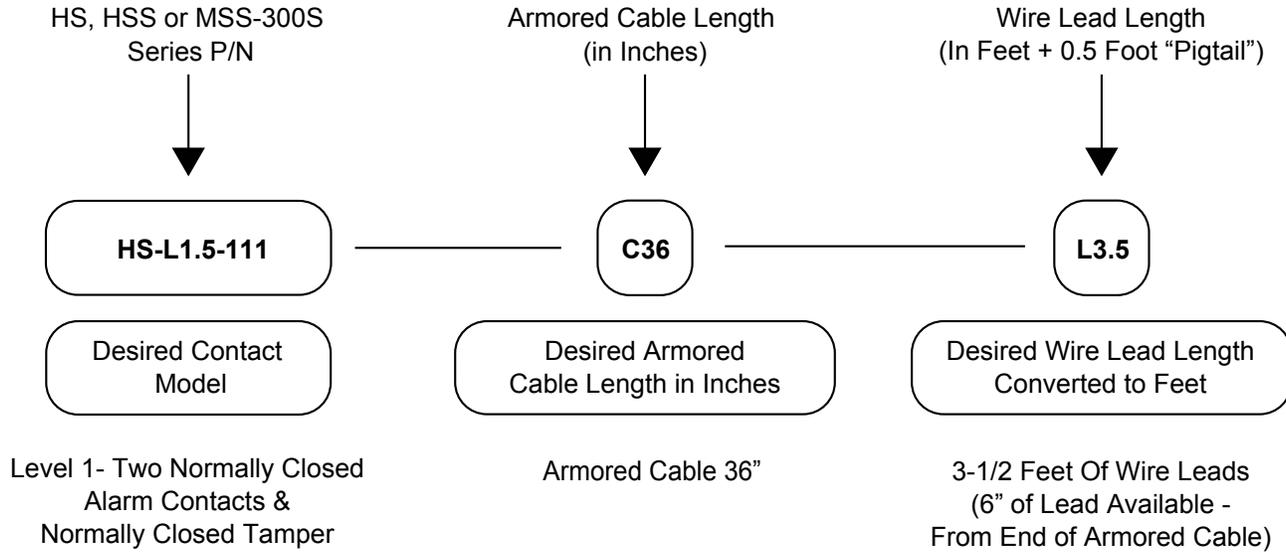


MAGNASPHERE®

How To Order Magnasphere Contacts With Longer Than Standard Armored Cable/Leads

Max Armored Cable Length 10'

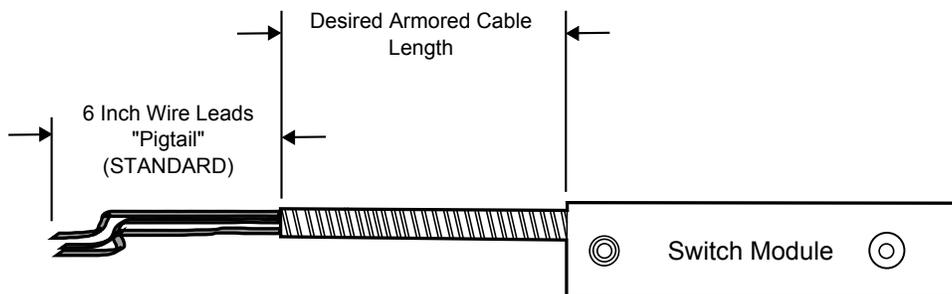
(Example)



HS-L1.5-111-C36 L3.5

(Example)

Visual Reference



Note: Same ordering convention applies to HSS, HSL1.5 and MSS-3XXS contacts.

MAGNASPHERE®



Links to Product Fact Sheets, Install instructions / Accessories
and A&E Specifications



<http://magnasphere.com/documents/>