



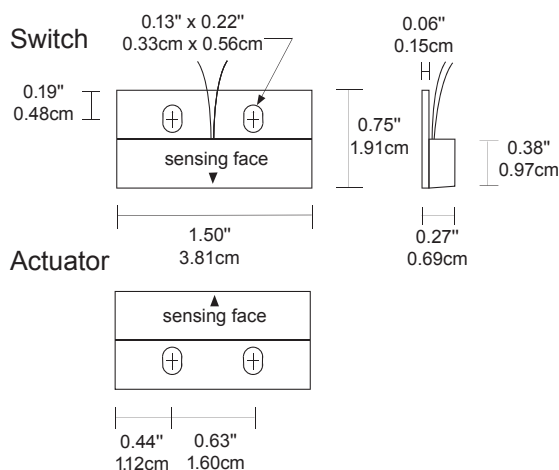
Non-Contact Interlock/Position Switch 104 GuardSwitch

Applications

- Mail Sorting Machines
- Gaming Industry
 - Drop Doors
 - Player Tracking
 - Bill Validators
 - Access Doors
- Scissor Lifts
- Position Sensing

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Type/O.D.	22/2 Flying Lead (V) AWG /0.05"(0.13cm) 22/3 Flying Lead (V) AWG /0.05"(0.13cm)
UL/CSA/CJL	All Models



File E 122942



LR 89176

Order Information

Electrical Specifications

Part Number	Contact ¹ Config.	Load Rating (AC/DC)	Switching Voltage Maximum (AC/DC)	Switching Current Maximum (AC/DC)	Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Lead Length
104-1U-03V	N.O.	15VA	120V (@0.11A)	0.5A (@30V)	0.2 Ohms	0.5" (1.3cm)	1.3" (3.3cm)	3'(0.9m)
104-2U-03V	SPDT	15VA	120V (@0.11A)	0.5A (@30V)	0.2 Ohms	0.5" (1.3cm)	1.3" (3.3cm)	3'(0.9m)
104-U	Actuator Only							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



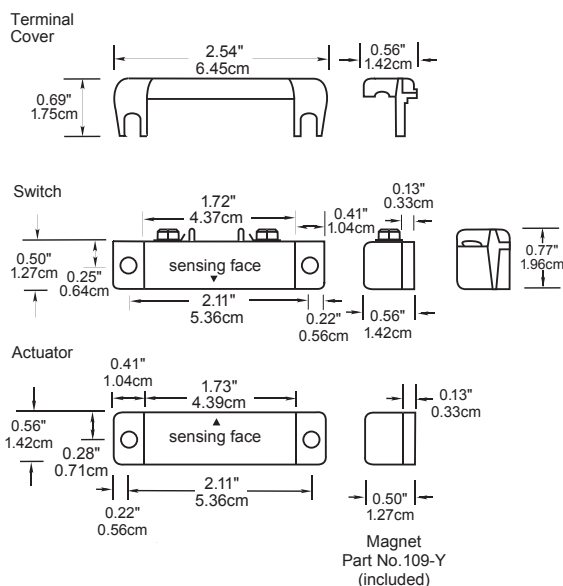
Non-Contact Interlock/Position Switch 109 GuardSwitch

Applications

- Economical Position Sensing
- Terminal Requirement
- Non-Wash Down Environments

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Connection	Screw Terminals
UL/CUL	All Models



CAUS
 File E 122942

INTERLOCK SWITCH
100 SERIES

Order Information		Electrical Specifications									
Part Number	Contact ¹ Config.	Load Rating AC	Load Rating DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Terminal Type
109-3Y	N.C.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.5" (1.3cm)	1.2" (3.0cm)	#6 screw
109-6Y	N.O.	25VA	25W	120V (@0.2A)	120V (@0.2A)	1.0A (@25V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.0cm)	#6 screw
109-7Y	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.5" (1.3cm)	1.2" (3.0cm)	#6 screw
109-Y	Actuator Only										

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.



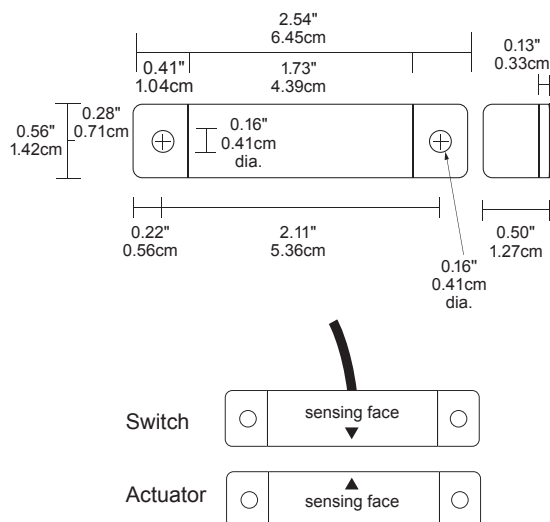
Non-Contact Interlock/Position Switch 111 GuardSwitch

Applications

- Gaming Industry
 - Drop Doors
 - Player Tracking
 - Bill Validators
 - Access Doors
- Farm Equipment
- Emergency Vehicles
- Position Sensing

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 (J) / 0.24" (0.62cm)
UL/CSA	All Models



cULus
File E 122942

CSA
LR8917 S

Order Information

Electrical Specifications

Part Number	Contact ¹ Config.	Load Rating AC DC	Switching Voltage, Max. AC DC	Switching Current, Max. AC DC	Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Lead Length
111-6Y-06J	N.O.	25VA 25W	120V (@0.2A) 120V (@0.2A)	0.7A (@35V) 1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	6' (1.8m)
111-6Y-12J	N.O.	25VA 25W	120V (@0.2A) 120V (@0.2A)	0.7A (@35V) 1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	12' (3.6m)
111-7Y-12J	N.O.	100VA 84W	120V (@0.8A) 28V (@3.0A)	3.0A (@34V) ³ 3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	12' (3.6m)
111-Y	Actuator Only							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.

GuardSwitch™ Series 100

Non-Contact Interlock/Position Switch

113

☐ 113-3Y-06(J)
☐ 113-3Y-12(J)
☐ 113-4Y-06(K)
☐ 113-4Y-12(K)

☐ 113-5N-01(J)
☐ 113-6N-01(K1)
☐ 113-7Y-12(K)
☐ 113-_____

Warning! To avoid switch failure determine the actual load of the switch circuit and take steps to protect the switch from voltage spikes, current inrush and line/load capacitance using the following recommendations.

- Surges from coils, motors, contactors, solenoids and tungsten filaments. Transient protection, such as back-to-back zener diodes (Transorb) or an RC network, is recommended for such loads to ensure that maximum ratings of the switch are not exceeded.
- Line capacitance and load capacitance. An in-line resistor can be added in series immediately before the load to limit the inrush current. The resistor can only be added in series with the last wire just before the load. The voltage drop and the power rating of the resistor must also be calculated as follows:

$$\text{Voltage drop} = I \bullet R$$

$$\text{Watts} = I^2 \bullet R$$

(I = maximum continuous current of the load)

To verify switch operation with an ohmmeter:

Set range at 20 mega ohms (switches with triac output, set ohm range at 20 kilo ohms). For a normally open switch, the meter will read a high impedance with the actuator away. It will read very high to infinity range (triac switches will read high kilo ohm to infinity range) with the actuator within sense range. You will see the opposite reading for a normally closed switch.



Installation

Use non-removable screws, bolts, or nuts to mount the switch and actuator. Do not over-torque mounting hardware.

1. Using the following guidelines, determine a suitable mounting location:

- The switch and actuator must be within the listed sense range. See Ordering/Electrical Specifications.
- The actuator must be aligned with the switch—labels facing the same direction. See Figure 1.

Important: When mounting in proximity to ferrous material (steel), the sense range can be reduced 50% minimum depending on the shape and type of material. Test the switch in specific applications to determine the actual sense range.

- When mounting on a ferrous material (steel), a 1/4" nonferrous (plastic or aluminum) spacer may be used under the actuator and switch to restore most of the lost gap.
- When mounting on a hinged gate or door, mount the switch and actuator at least 6" away from the hinges to achieve the maximum movement.
- The switch and actuator must move in one of the approved directions. See Figure 2.
- The actuator can be mounted at a 90° rotation to the switch.
- Do not mount for parallel actuation. An on-off-on signal may result when the actuator passes by the switch.

2. Mount the switch on the stationary frame of the machine and connect the electrical wiring. When mounting the switch on an ungrounded machine, connect the ground lead to one of the mounting screws.

3. Mount the actuator on the movable guard, door, or gate.

Dimensions

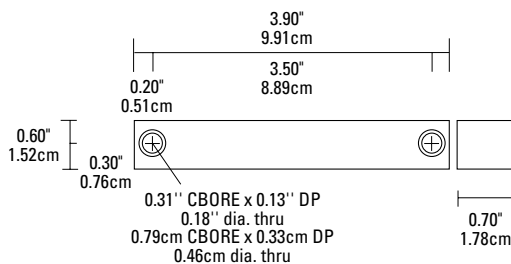
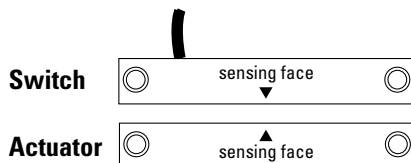
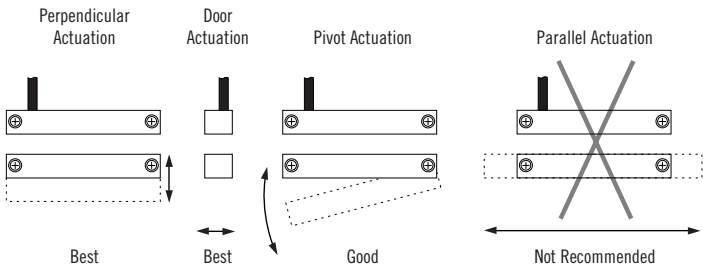


Figure 1



The interlock switch and actuator magnet should be mounted in only three configurations for actuation:

Figure 2



Three configurations are appropriate for interlock applications. The parallel actuation can result in on/off/on signal if the actuator passes by the switch rather than coming to rest in proximity to it. This is NOT a recommended configuration for interlock applications.

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Sealed in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW(K)/0.30" (0.76cm) 18/3 SJTOW(K)/0.33" (0.84cm) 22/2 or 22/3 Jacketed (J)/0.24" (0.62cm)
UL/CSA	All Models

Wire Color Code

Black	COM
White	N.O.
Red	N.C.



Ordering/Electrical Specifications

PART NUMBER	CONTACT ¹ CONFIG.	LOAD RATING AC/DC	SWITCHING VOLTAGE MAXIMUM, AC/DC	SWITCHING CURRENT MAXIMUM, AC/DC	CONTACT RESISTANCE	SENSE RANGE ² NOMINAL	BREAK RANGE NOMINAL	LEAD LENGTH NOMINAL	LEAD SIZE
113-3Y-06(J)	N.C.	100VA/84W	120V@0.8A 28V@3.0A ³	3.0A ³ @34V 3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	6'(1.8m)	22/2
113-3Y-12(J)	N.C.	100VA/84W	120V@0.8A 28V@3.0A ³	3.0A ³ @34V 3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	12'(3.6m)	22/2
113-4Y-06(K)	SPDT	100VA/84W	120V@0.8A 28V@3.0A ³	3.0A ³ @34V 3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	6'(1.8m)	18/3
113-4Y-12(K)	SPDT	100VA/84W	120V@0.8A 28V@3.0A ³	3.0A ³ @34V 3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	12'(3.6m)	18/3
113-5N-01(J)	N.O.	7.5VA/NA	48V 48V	0.5A@48V 0.5A@48V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	1'(0.3m)	22/2
113-6N-01(K)1	N.C.				1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	1'(0.3m)	18/2
113-7Y-12(K)	N.O.	100VA/84W	120V@0.8A 28V@3.0A ³	3.0A ³ @34V 3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	12'(3.6m)	18/2
113-Y	Actuator Only	Included with all switches unless otherwise noted.							
113-Z	Actuator Only	Included with all switches unless otherwise noted.							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.



GE Security
Industrial

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12345 SW Leveton Drive
Tualatin, OR 97062
Phone: 800-247-9447
Fax: 503-691-7563

113-GN-01K1 QTY.10

INSTALLATION INSTRUCTIONS AND ELECTRICAL SPECIFICATIONS

Housing Material: ABS plastic, gray

Cable description: 1 foot SJTO-WA AWG 18/2
WHITE lead to positive
BLACK lead to negative

Temperature: 10 to 50°C

Switch configuration: Form B (Normally Closed)

This “Linear” switch is designed such that no blinking will occur when a test magnet (“Z”) is passed by the switch along an axis of 0.5 inch from the switch.

Actuator: Not Included

Electrical Ratings: *****DC ONLY*****

Maximum voltage:	250 V
Maximum Continuous Current:	1.5 A
Maximum Surge Current:	12 A
Maximum Load Power:	250 W

Warning! To avoid switch failure determine the actual load of the switch circuit and take steps to protect the switch from voltage spikes, current inrush and line/load capacitance using the following recommendations.

- Surges from coils, motors, contactors, solenoids and tungsten filaments. Transient protection, such as back-to-back zener diodes (Transorb) or an RC network, is recommended for such loads to ensure that maximum ratings of the switch are not exceeded.
- Line capacitance and load capacitance. An in-line resistor can be added in series immediately before the load to limit the inrush current. The resistor can only be added in series with the last wire just before the load. The voltage drop and the power rating of the resistor must also be calculated as follows:

$$\text{Voltage drop} = I \bullet R$$

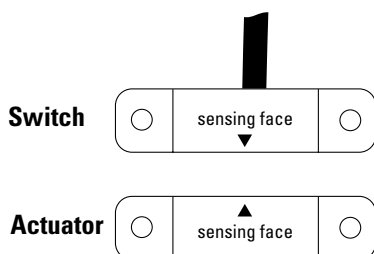
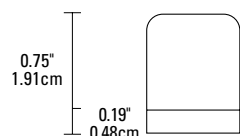
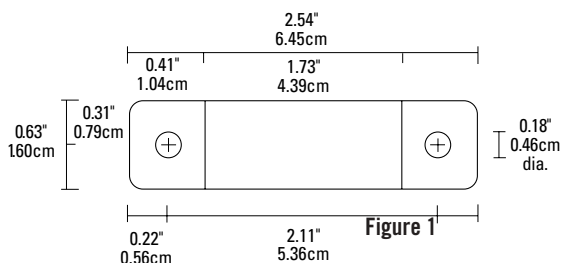
$$\text{Watts} = I^2 \bullet R$$

(I = maximum continuous current of the load)

To verify switch operation with an ohmmeter:

Set range at 20 mega ohms (switches with triac output, set ohm range at 20 kilo ohms). For a normally open switch, the meter will read a high impedance with the actuator away. It will read very high to infinity range (triac switches will read high kilo ohm to infinity range) with the actuator within sense range. You will see the opposite reading for a normally closed switch.

Dimensions



GuardSwitch™ Series 100 Non-Contact Interlock/Position Switch

114	<input type="checkbox"/> 114-1N-08(J)	<input type="checkbox"/> 114-7Y-12(K)
	<input type="checkbox"/> 114-3Y-12(K)	<input type="checkbox"/> 114-8Y-06(K)
	<input type="checkbox"/> 114-4Y-06(K)	<input type="checkbox"/> 114-8Y-06(K)-SER25
	<input type="checkbox"/> 114-6N-06(K)	<input type="checkbox"/> 114-8Y-12(K)
	<input type="checkbox"/> 114-6Y-06(K)(J)	<input type="checkbox"/> 114-17N-06(V)
	<input type="checkbox"/> 114-6Y-12(K)	<input type="checkbox"/> 114-_____
	<input type="checkbox"/> 114-7Y-06(K)	



Installation

Use non-removable screws, bolts, or nuts to mount the switch and actuator. Do not over-torque mounting hardware.

1. Using the following guidelines, determine a suitable mounting location:

- The switch and actuator must be within the listed sense range. See Ordering/Electrical Specifications.
- The actuator must be aligned with the switch—labels facing the same direction. (See Figure 1.)

Important: When mounting in proximity to ferrous material (steel), the sense range can be reduced 50% minimum depending on the shape and type of material. Test the switch in specific applications to determine the actual sense range.

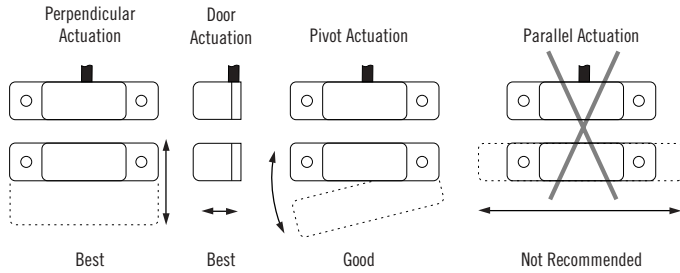
- When mounting on a ferrous material (steel), a 1/4" nonferrous (plastic or aluminum) spacer may be used under the actuator and switch to restore most of the lost gap.
- When mounting on a hinged gate or door, mount the switch and actuator at least 6" away from the hinges to achieve the maximum movement.
- The switch and actuator must move in one of the approved directions. See Figure 2.
- The actuator can be mounted at a 90° rotation to the switch.
- Do not mount for parallel actuation. An on-off-on signal may result when the actuator passes by the switch.

2. Mount the switch on the stationary frame of the machine and connect the electrical wiring. When mounting the switch on an ungrounded machine, connect the ground lead to one of the mounting screws.

3. Mount the actuator on the movable guard, door, or gate.

The interlock switch and actuator magnet should be mounted in only three configurations for actuation:

Figure 2



Three configurations are appropriate for interlock applications. The parallel actuation can result in on/off/on signal if the actuator passes by the switch rather than coming to rest in proximity to it. This is NOT a recommended configuration for interlock applications.

Wire Color Code

Black	COM
White	N.O.
Red	N.C.



General Specifications

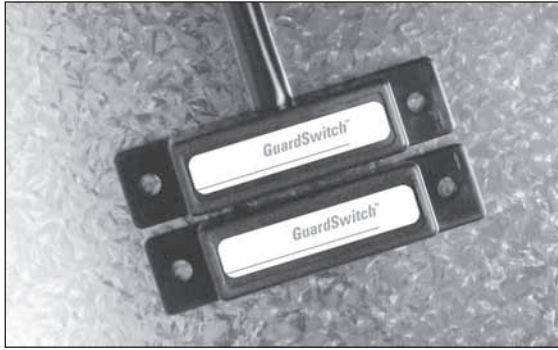
Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Sealed in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec, 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW (K)/0.30" (0.76cm) 18/3 SJTOW (K)/0.33" (0.84cm) 18/2 or 18/3 Jacketed (J)/0.24" (0.62cm) 18-2 Flying Lead (V) AWG/0.05" (0.13cm) 22/2 Jacketed (J)/0.16" (0.41cm)
UL/CSA	All Models

Ordering/Electrical Specifications

PART NUMBER	CONTACT ¹ CONFIG.	LOAD RATING AC/DC	SWITCHING VOLTAGE MAXIMUM, AC/DC		SWITCHING CURRENT MAXIMUM, AC/DC		CONTACT RESISTANCE	SENSE RANGE ² NOMINAL	BREAK RANGE NOMINAL	LEAD LENGTH NOMINAL
114-1N-08(J)	N.O.	15VA/15W	120V@0.11A	120V@0.11A	0.5A@30V	0.5A@30V		Switch Only	Switch Only	8"(2.4m)
114-3Y-12(K)	N.C.	100VA/84W	120V@0.8A	28V@3.0A ³	3.0A ³ @34V	3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	12'(3.6m)
114-4Y-06(K)	SPDT	100VA/84W	120V@0.8A	28V@3.0A ³	3.0A ³ @34V	3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	6'(1.8m)
114-6N-06(K)	N.O.	25VA/25W	120V@0.2A	120V@0.2A	0.7A@35V	1.0A@25V	1.0 Ohms	Switch Only	Switch Only	6'(1.8m)
114-6Y-06(K)(J)	N.O.	25VA/25W	120V@0.2A	120V@0.2A	0.7A@35V	1.0A@25V	0.2 Ohms	1.0" (2.5cm)	2.0"(5.1cm)	6'(1.8m)
114-6Y-12(K)	N.O.	25VA/25W	120V@0.2A	120V@0.2A	0.7A@35V	1.0A@25V	0.2 Ohms	1.0"(2.5cm)	2.0"(5.1cm)	12'(3.6m)
114-7Y-06(K)	N.O.	100VA/84W	120V@0.8A	28V@3.0A ³	3.0A ³ @34V	3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	6'(1.8m)
114-7Y-12(K)	N.O.	100VA/84W	120V@0.8A	28V@3.0A ³	3.0A ³ @34V	3.0A ³ @28V	1.0 Ohms	0.7"(1.8cm)	1.2"(3.0cm)	12'(3.6m)
114-8Y-06(K) ⁵	N.O./ triac output	150VA/NA	120V@1.25A	NA	1.25A@120V ⁴	NA	NA	1.0"(2.5cm)	1.5"(3.8cm)	6'(1.8m)
114-8Y-12(K) ⁵	N.O./ triac output	150VA/NA	120V@1.25A	NA	1.25A@120V ⁴	NA	NA	1.0"(2.5cm)	1.5"(3.8cm)	12'(3.6m)
114-8Y-06(K)-SER25 ⁵	N.O./ triac output	150VA/NA	120V@1.25A	NA	1.25A@120V ⁴	NA	NA	1.0"(2.5cm)	1.5"(3.8cm)	6'(1.8m)
114-17N-06(V)	N.O.	100VA/100W	250V@0.4A	250V@0.4A	250V@0.4A	3.0A@35V		Switch Only	Switch Only	6'(1.8m)
114-Y	Actuator Only	Included with all switches unless otherwise noted.								

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

- ¹ Configuration with actuator away from the switch
- ² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.
- ³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.
- ⁴ Can withstand inrush surge up to 4 amps. Voltage Drop 1.5V. Minimum switch current 30mA.
- ⁵ Maximum 10 switches in series; SER25 — Maximum 25 switches in series.



Non-Contact Interlock/Position Switch

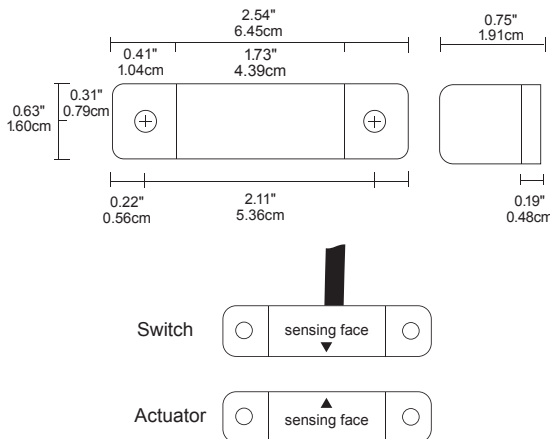
115 GuardSwitch

Applications

- Packaging Industry
- Farm Equipment
- Waste Compactors
- Emergency Vehicles
- Position Sensing

General Specifications

Enclosure	Nylon 6/6
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	1msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW (K) / 0.30" (0.76cm) 18/3 SJTOW (K) / 0.33" (0.84cm) 18/4 SJTOW (K) / 0.34" (0.86cm)
UL/CSA	All Models



UL
File E 122942

CSA
LR8917 S

Order Information		Electrical Specifications									
Part Number	Contact ¹ Config.	Load Rating AC	DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Lead Length
115-3Y-12K	N.C.	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	12'(3.6m)
115-4Y-06K	SPDT	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	6'(1.8m)
115-4Y-12K	SPDT	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	12'(3.6m)
115-6Y-06K	N.O.	25VA	25W	120V(@0.2A)	120V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	6'(1.8m)
115-6Y-12K	N.O.	25VA	25W	120V(@0.2A)	120V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	12'(3.6m)
115-7Y-06K	N.O.	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	6'(1.8m)
115-7Y-12K	N.O.	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A (@34V) ³	3.0A (@28V) ³	1.0 Ohms	0.7" (1.8cm)	1.2" (3.0cm)	12'(3.6m)
115-8Y-06K	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ⁴	NA	NA	1.0" (2.5cm)	1.5" (3.8cm)	6'(1.8m)
115-8Y-12K	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ⁴	NA	NA	1.0" (2.5cm)	1.5" (3.8cm)	12'(3.6m)
115-8Y-06K-SER25 ⁵	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ⁴	NA	NA	1.0" (2.5cm)	1.5" (3.8cm)	6'(1.8m)
115-8Y-12K-SER25 ⁵	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ⁴	NA	NA	1.0" (2.5cm)	1.5" (3.8cm)	12'(3.6m)
115-6Y-06K-D6	2 N.O.	25VA	25W	120V(@0.2A)	100V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	6'(1.8m)
115-6Y-12K-D6	2 N.O.	25VA	25W	120V(@0.2A)	100V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	12'(3.6m)
115-Y	Actuator Only										

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.

⁴ Can withstand inrush surge up to 4 amps. Voltage Drop 1.5V, minimum switch current of 30mA.

⁵ SER25 — Maximum 25 switches in series, triac output.

Warning! To avoid switch failure determine the actual load of the switch circuit and take steps to protect the switch from voltage spikes, current inrush and line/load capacitance using the following recommendations.

- Surges from coils, motors, contactors, solenoids and tungsten filaments. Transient protection, such as back-to-back zener diodes (Transorb) or an RC network, is recommended for such loads to ensure that maximum ratings of the switch are not exceeded.
- Line capacitance and load capacitance. An in-line resistor can be added in series immediately before the load to limit the inrush current. The resistor can only be added in series with the last wire just before the load. The voltage drop and the power rating of the resistor must also be calculated as follows:

$$\text{Voltage drop} = I \bullet R$$

$$\text{Watts} = I^2 \bullet R$$

(I = maximum continuous current of the load)

To verify switch operation with an ohmmeter:

Set range at 20 mega ohms (switches with triac output, set ohm range at 20 kilo ohms). For a normally open switch, the meter will read a high impedance with the actuator away. It will read very high to infinity range (triac switches will read high kilo ohm to infinity range) with the actuator within sense range. You will see the opposite reading for a normally closed switch.

Dimensions

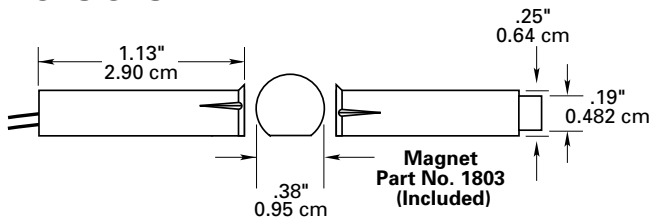
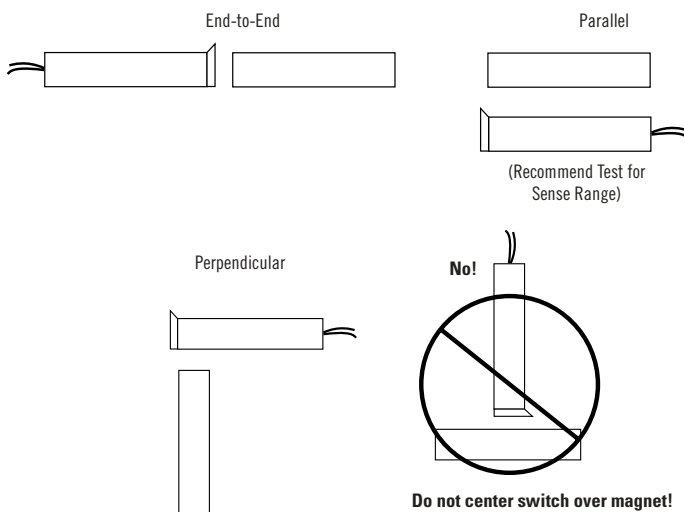


Figure 1

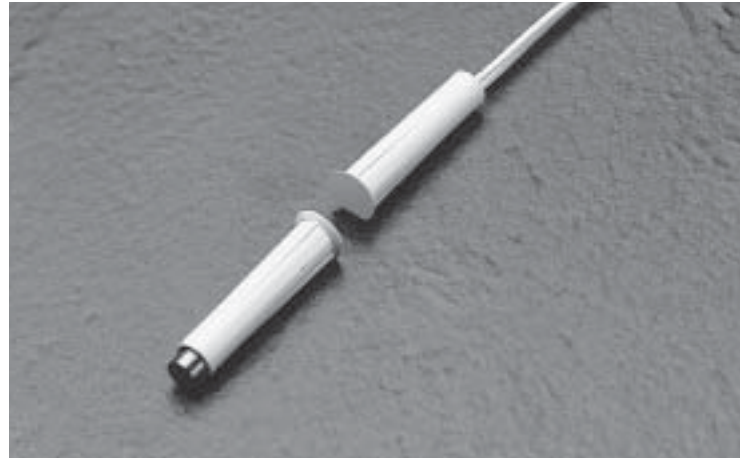


GuardSwitch™ Series 100

Non-Contact Interlock/Position Switch

124 ☐ 124-1U-03V
☐ 124-2U-03V

☐ 124-_____



Installation

1. Determine the position of the switch and the actuator magnet so the labels are end-to-end, parallel or perpendicular (see Figure 1). Do not center switch over the actuator.
2. Mount the switch on or in the stationary frame of the machine and mount the actuator magnet on or in the moveable guard, door or gate. For mounting in the frame, slightly overdrill 1/4" dia. x 1-5/16" holes. Keep the switch and actuator magnet within the listed sense range: 0.2" (0.5cm).
3. Mounting on or in ferrous material will reduce the sense range a minimum of 50%.
4. No hardware is provided with the switch or actuator magnet. 1/4" (0.6cm) pushnuts or split-ring clamps are recommended for securing the cylindrical housing.
5. Particular care must be taken to determine the actual load of the switch circuit. Surges from coils, motors, contactors, solenoids and tungsten filaments must be considered. Transient protection, such as back-to-back zener diodes (Tranzorb®) or an RC network, is recommended for such loads to ensure that maximum ratings of the switch are not exceeded.

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Sealed in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12
Response Time	1 msec
Life Cycles	100,000
Lead Type/O.D.	3' (0.9m) 22 AWG



Ordering/Electrical Specifications

PART NUMBER	CONTACT ¹ CONFIG.	LOAD RATING MAXIMUM, AC/DC	SWITCHING VOLTAGE MAXIMUM, AC/DC	SWITCHING CURRENT MAXIMUM, AC/DC	CONTACT RESISTANCE	SENSE RANGE ² NOMINAL	BREAK RANGE NOMINAL	LEAD LENGTH NOMINAL
124-1U-03V	N.O.	15VA	120V @0.11A	0.5A @30V	0.2 Ohms	0.2"(@0.5cm)	0.8"(@2.0cm)	3'(0.9m)
124-2U-03V	SPDT	15VA	120V @0.11A	0.5A @30V	0.2 Ohms	0.2"(@0.5cm)	0.8"(@2.0cm)	3'(0.9m)
124-U	Actuator Only Included with all switches unless otherwise noted.							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

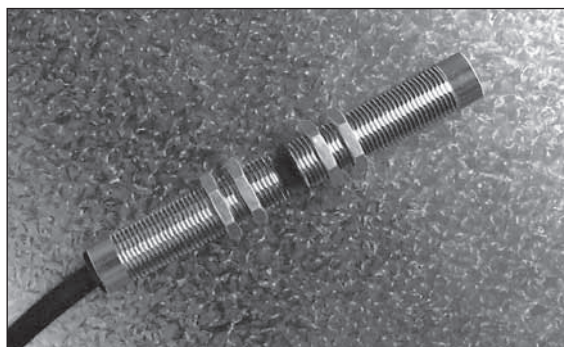
¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



www.ge-security.com/industrial

12345 SW Leveton Drive
Tualatin, OR 97062
Phone: 800-247-9447
Fax: 503-691-7563



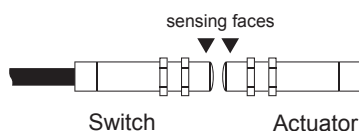
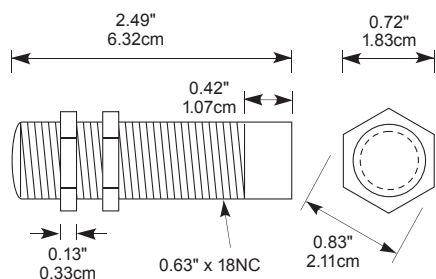
Non-Contact Interlock/Position Switch 125 GuardSwitch

Applications

- Food Processing
- Textile Machines
- Elevator Lifts
- Position Sensing
- Proximity Switches

General Specifications

Enclosure	Nickel-plated Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec; (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW (K) / 0.30" (0.76cm)
UL/CSA	All Models



CAUS
File E 122942

Order Information

Electrical Specifications

Part Number	Contact ¹ Config.	Load Rating		Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ²		Break Range Nominal	Lead Length
		AC	DC	AC	DC	AC	DC		Nominal			
125-6Y-06K	N.O.	25VA	25W	120V(@0.2A)	120V(@0.2A)	0.7A(@35V)	1.0A(@25V)	0.2 Ohms	0.6" (1.5cm)		1.4" (3.6cm)	6'(1.8m)
125-7Y-06K	N.O.	100VA	84W	120V(@0.8A)	28V(@3.0A)	3.0A(@34V) ³	3.0A(@28V) ³	1.0 Ohms	0.5" (1.3cm)		0.9" (2.3cm)	6'(1.8m)
125-Y	Actuator Only											

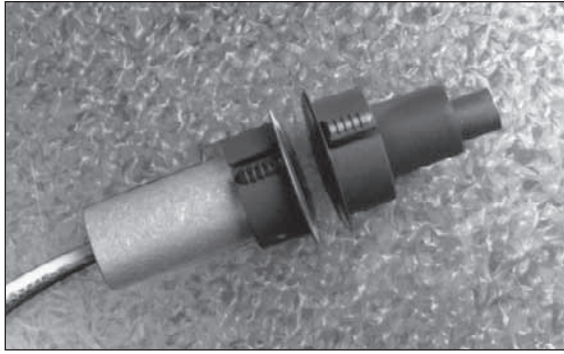
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.

⁴ Can withstand inrush surge up to 4 amps. Voltage Drop 1.5V, minimum switch current of 30mA.



Magnetic Door Position Switch

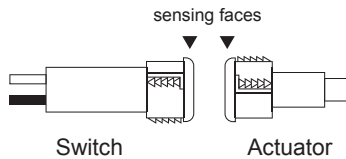
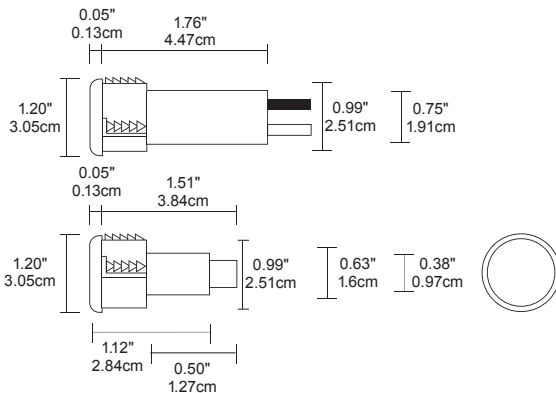
126 GuardSwitch

Applications

- Closet Door Switch
- Environmental Controls

General Specifications

Enclosure	ABS Plastic with Protective Nylon
Switch Sleeve	
Temperature Range	-40°F to 180°F (-40°C to 80°C)
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	10 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	12 AWG (AX) / 0.13" (0.33cm) Flex Conduit (X) / 0.58" (1.5cm)
UL/CSA	All Models



UL
File E 122942



New York
Calendar # 40018

INTERLOCK SWITCH
100 SERIES

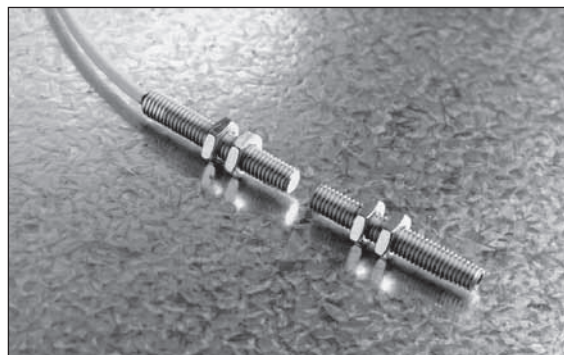
Order Information		Electrical Specifications			AC ONLY			
Part Number	Contact ¹ Config.	Load Rating (AC)	Switching Voltage Maximum (AC)	Switching Current ³ Maximum (AC)	Voltage Drop	Sense Range ² Nominal	Break Range Nominal	Lead Length
126-EY-01AX	N.C.	150VA	120V AC	1.25A	1.5V	1.0" (2.5cm)	1.5" (3.8cm)	1' (0.3m)
126-EY-06X	N.C.	150VA	120V AC	1.25A	1.5V	1.0" (2.5cm)	1.5" (3.8cm)	6' (1.8m)
126-8Y-01AX	N.O.	150VA	120V AC	1.25A	1.5V	1.0" (2.5cm)	1.5" (3.8cm)	1' (0.3m)
126-EY-03AX	N.C.	150VA	120V AC	1.25A	1.5V	1.0" (2.5cm)	1.5" (3.8cm)	3' (0.9m)
126-Y	Actuator Only							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Can withstand inrush surge up to 4 amps. Voltage Drop 1.5V, minimum switch current of 30mA.



Non-Contact Interlock/Position Switch

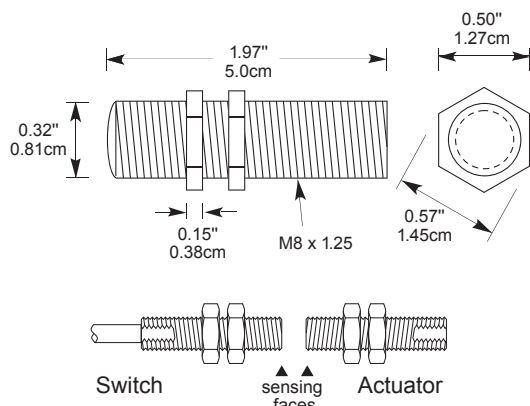
128C GuardSwitch

Applications

- Semi-conductor Equipment
- Packaging Machinery
- Farm Implement
- Conveyers
- Position Sensing
- Economical Proximity Switch Replacement

General Specifications

Enclosure	Stainless Steel Threaded Barrel with 2 Jam Nuts
Dimensions	M8 dia. x 1.25 Thread x 50mm Long
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	22/2 Jacketed / 0.24" (0.62cm)
UL/CSA	All Models



Order Information		Electrical Specifications				ACTUATOR SOLD SEPARATELY			
Part Number	Contact ¹ Config.	Load Rating AC	DC	Switching Voltage, Max. AC DC		Switching Current, Max. AC DC		Contact Resistance	Lead Length
128C-6N-06J	N.O.	25VA	25W	120V(@0.2A)	120V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	6'(1.8m)
128C-6N-12J	N.O.	25VA	25W	120V(@0.2A)	120V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	12'(3.6m)

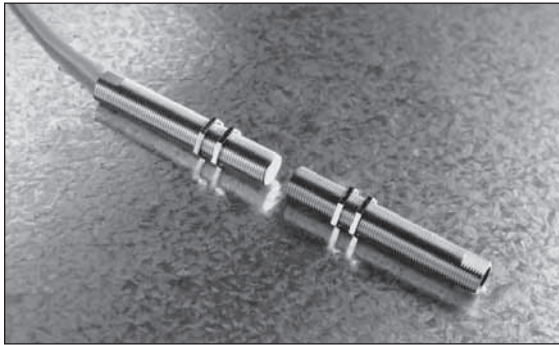
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

Sense range²

Actuator Options	Make, Min.	Break, Max.	Actuator Description
128C-U	0.15	1.00	Alnico Magnet in M8x1.25x50 stainless steel threaded barrel w/2 jam nuts
129-X	0.35	1.35	Alnico Magnet in M12x1x70 stainless steel threaded barrel w/2 panel nuts
1057	0.85	2.15	Bare Alnico Magnet 3/8" dia. x 1-1/2" long
1830	0.15	0.65	Rare Earth 0.375" dia. x 0.12" thick w/#4 countersink hole
IND1835	0.40	1.00	Rare Earth 0.6" dia. x 0.12" thick w/#4 countersink hole

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



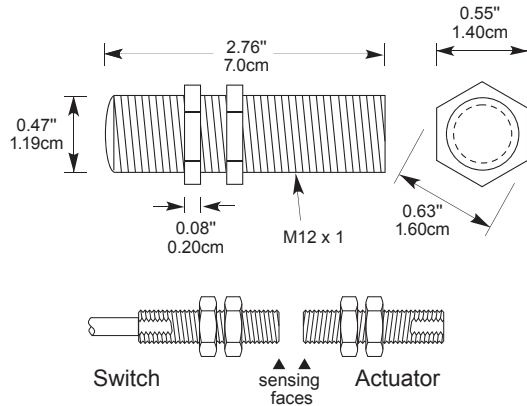
Non-Contact Interlock/Position Switch 129 GuardSwitch

Applications

- Position Sensing
- Semi-conductor Equipment
- Economical Proximity Switch Replacement
- Packaging Machinery
- Farm Implement
- Conveyers

General Specifications

Enclosure	Stainless Steel Threaded Barrel
	Panel Nuts
Dimensions	M12 dia. x 1 Thread x 70mm Long
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	22/2 Jacketed (J) / 0.24" (0.62cm) 22/4 Jacketed (J) / 0.19" (0.48cm)
UL/CSA	All Models



File E 122942



LR89176

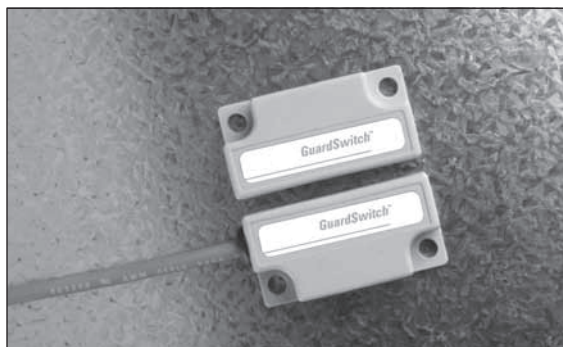
INTERLOCK SWITCH
100 SERIES

Order Information		Electrical Specifications				ACTUATOR SOLD SEPARATELY					
Part Number	Contact ¹ Config.	Load Rating AC	DC	Switching Voltage, Max. AC		DC	Switching Current, Max. AC		DC	Contact Resistance	Lead Length
129-6N-06J	N.O. ²	25VA	25W	120V(@0.2A)	120V(@0.2A)		0.7A (@35V)	1.0A (@25V)		0.2 Ohms	6'(1.8m)
129-6N-12J(-D6)(-DG)	N.O. ²	25VA	25W	120V(@0.2A)	120V(@0.2A)		0.7A (@35V)	1.0A (@25V)		0.2 Ohms	12'(3.6m)

¹ Configuration with actuator away from the switch² D6=DPST: 2 N.O., DG=DPST: 1 N.O., 1 N.C. 15VA³ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles

Sense range ⁴				
Actuator Options	129-6 -DG Make, Min. Break, Max.	129-6 -D6 Make, Min. Break, Max.	Actuator Description	
128C-U	0.25 0.80	0.15 1.00	Alnico Magnet in M8x1.25x50 stainless steel threaded barrel w/2 jam nuts	
129-X	0.45 1.10	0.35 1.35	Alnico Magnet in M12x1x70 stainless steel threaded barrel w/2 panel nuts	
1057	0.90 1.75	0.85 2.15	Bare Alnico Magnet 3/8" dia. x 1-1/2" long	
1830	0.25 0.55	0.15 0.65	Rare Earth 0.375" dia. x 0.12" thick w/#4 countersink hole	
IND1835	0.50 0.85	0.40 1.00	Rare Earth 0.6" dia. x 0.12" thick w/#4 countersink hole	

⁴ Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



Non-Contact Interlock/Position Switch

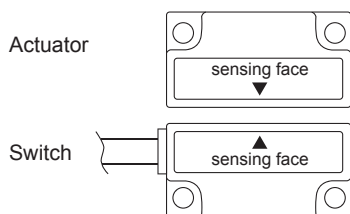
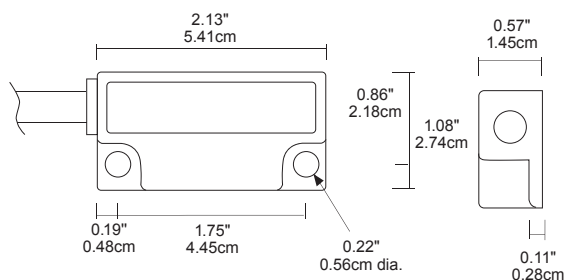
141 GuardSwitch

Applications

- Commercial Dishwashing Machine
- Parts Cleaning Machines
- Chemical Environments

General Specifications

Enclosure	Kynar® Polyvinylidene Flouride with sonic welded lid
Temperature Range	14°F to 150°F (-10°C to 65°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12, 13
Protection Class	IP 67
Response Time	10 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTO / 0.29" (0.74cm)
UL/CSA	All Models



UL **US** **SP**
File E 122942 File LR 89176

Order Information		Electrical Specifications					
Part Number	Contact ¹ Config.	Load Rating Max.(AC/DC)	Switching Voltage Max.(AC/DC)	Switching Current Max.(AC/DC)	Sense Range ² Nominal	Break Range Nominal	Lead Length
141-8Y-06M	N.O.	150VA/NA	120V(@1.25A)/NA	1.25A ⁴ /NA	1"(2.5cm)	1.2"(3cm)	6'(1.8m)
141-18Y-03M	N.O.	220VA/NA	220V(@1.0A)/NA	1.0A/NA	0.7"(1.8)	1.6"(4.1cm)	3'(0.9m)
141-Y	Actuator Only						

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Can withstand inrush surge up to 4 amps, voltage drop 1.5V, minimum switch current of 30 mA, triac output.



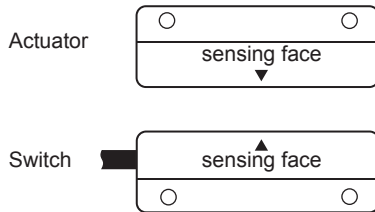
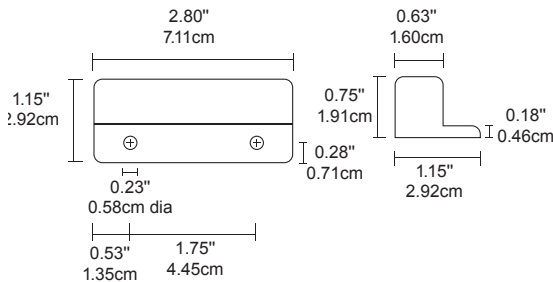
Non-Contact Interlock/Position Switch 151 & 153 GuardSwitch

Applications

- Packaging Machines
- Food Processing Machines
- Waste Compactors
- Mixers, Blenders, and Dryers

General Specifications

Enclosure	Polyurethane Enamel-Coated Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	4, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	1 msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit Load
Types/O.D.	18/2 SJTOW (K) / 0.30" (0.76cm)
(Armored cable available)	18/4 SJTOW (K) / 0.34" (0.86cm)
UL/CSA	All Models



File E 122942



LR89176

Order Information Electrical Specifications

Part Number ¹	Contact ² Config.	Load Rating		Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ³		Break Range	Lead Length
		AC	DC	AC	DC	AC	DC		Nominal	Nominal		
151-6Z-06K	N.O.	25VA	25W	120V (@0.2A)	120V (@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.5" (3.8cm)	2.0" (5.1cm)	6' (1.8m)	
151-6Z-12K	N.O.	25VA	25W	120V (@0.2A)	120V (@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.5" (3.8cm)	2.0" (5.1cm)	12' (3.6m)	
151-7Z-06K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ⁴	3.0A (@28V) ⁴	1.0 Ohms	1.2" (3.0cm)	1.8" (4.6cm)	6' (1.8m)	
153-7Z-06K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ⁴	3.0A (@28V) ⁴	1.0 Ohms	1.2" (3.0cm)	1.8" (4.6cm)	6' (1.8m)	
151-7Z-12K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ⁴	3.0A (@28V) ⁴	1.0 Ohms	1.2" (3.0cm)	1.8" (4.6cm)	12' (3.6m)	
153-7Z-12K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V) ⁴	3.0A (@28V) ⁴	1.0 Ohms	1.2" (3.0cm)	1.8" (4.6cm)	12' (3.6m)	
151-7Z-06K-D3	DPST,N.O.,N.C.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@28V) ⁴	3.0A (@28V) ⁴	1.0 Ohms	1.2" (3.0cm)	1.8" (4.6cm)	6' (1.8m)	
151-8Z-12K	N.O.	150VA	NA	120V (@0.8A)	NA	1.25A (@120V) ⁵	NA	NA	1.4" (3.5cm)	2.1" (5.3cm)	12' (1.8m)	
150-Z	Actuator Only											

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ The part number 153 is the same as 151 in all respects except the cable exits 151 left and 153 right.

² Configuration with actuator away from the switch

³ Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

⁴ Rated at 3.0A for 6,000 cycles only. Other ratings are at 100,000 cycles.

⁵ Can withstand inrush surge up to 4 amps. Voltage Drop 1.5V, minimum switch current, 30mA, triac output.



Non-Contact Interlock/Position Switch

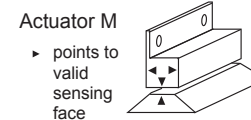
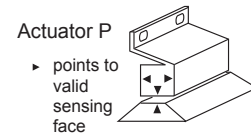
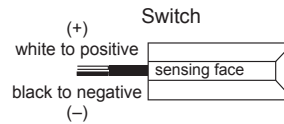
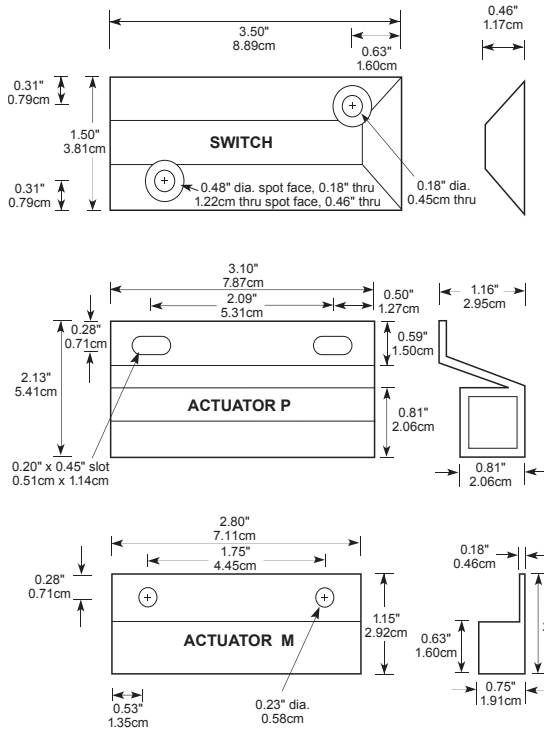
166 GuardSwitch

Applications

- Low Profile Requirements
- Overhead Doors
- Boom Trucks
- Emergency Vehicles
- Rugged Outdoor Use

General Specifications

Enclosure	Epoxy-coated aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch
	Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW (K) / 0.30" (0.76cm)
UL/CSA	All Models



File E 122942 LR 89176

Order Information		Electrical Specifications		DC ONLY				
Part Number	Contact¹ Config.	Load Rating (DC)	Switching Voltage Maximum (DC)	Switching Current Maximum (DC)	Voltage Drop	Sense Range² Nominal	Break Range Nominal	Lead Length³
166-RM-06K	N.C.	100W	24V (@4.0A)	5.0A (@20V)	1.5V	1.6" (4.0cm)	2.1" (5.3cm)	6' (1.8m)
166-RN-06K⁴	N.C.	100W	24V (@4.0A)	5.0A (@20V)	1.5V	Switch Only	Switch Only	6' (1.8m)
166-P	Actuator P Only							
150-Z	Actuator M Only							

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

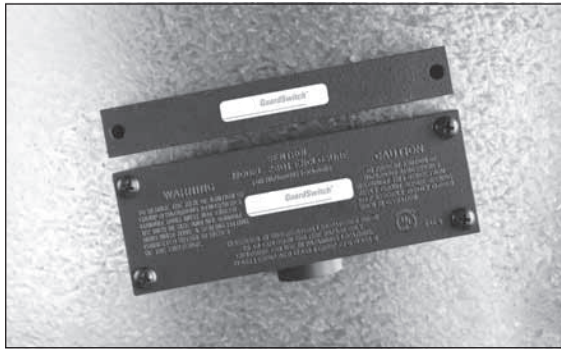
Note: This switch cannot be used for AC applications. In DC applications it is polarity sensitive white to positive, black to negative.

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Armored cable available

⁴ Switch only



Non-Contact Interlock/Position Switch

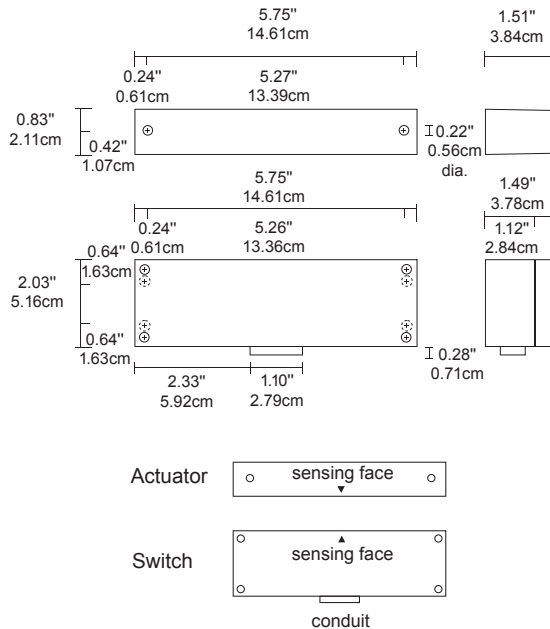
171 GuardSwitch Explosion Proof

Applications

- Explosive Environments
 - Automotive Paint Companies
 - Industrial Paint Companies
 - Grain Mills
 - Chemical/Toxic Environments
 - Fertilizer Manufacturers
- Enclosure UL classified for hazardous locations classes:
 - Class I, Group B, C, D
 - Class II, Group E, F, G
 - Class III, Divisions 1 & 2

General Specifications

Enclosure	UL Explosion proof, Die Cast Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time	1 msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection	1/2" Threaded NPT
UL	Enclosure Only



Order Information		Electrical Specifications									
Part Number	Contact ¹ Config.	Load Rating AC	Load Rating DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Terminal Type
171-6Z	N.O.	25VA	25W	120V(@0.2A)	100V(@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.5"(3.8cm)	2.4"(6.1cm)	#6 Screw

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



Non-Contact Interlock/Position Switch

181 GuardSwitch

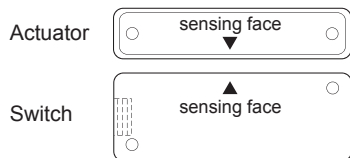
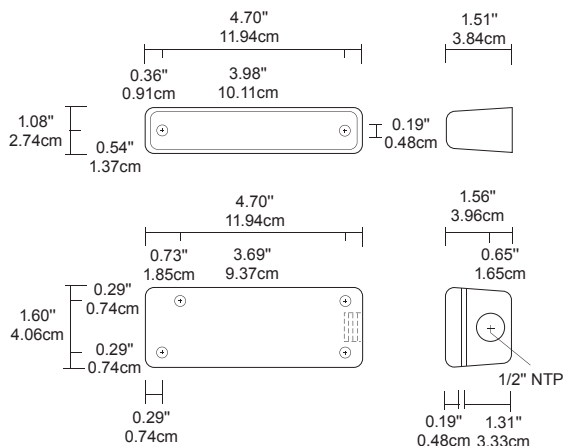
1/2" Conduit Enclosure

Applications

- Requiring Conduit Connection
- Non-wash Down Environment
- Heavy-duty Housing

General Specifications

Enclosure	Coated aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time	1 msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection	1/2" Threaded NPT



Order Information

Electrical Specifications

Part Number	Contact ¹ Config.	Load Rating AC DC	Switching Voltage, Max. AC DC	Switching Current, Max. AC DC	Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Terminal Type
181-7Z	N.O.	100VA 84W	120V(@0.8A) 28V(@3.0A)	3.0A (@34V) ³ 3.0A (@28V) ³	1.0 Ohms	1.4" (3.5cm)	1.8" (4.6cm)	#6 Screw

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



Non-Contact Interlock Position/Switch

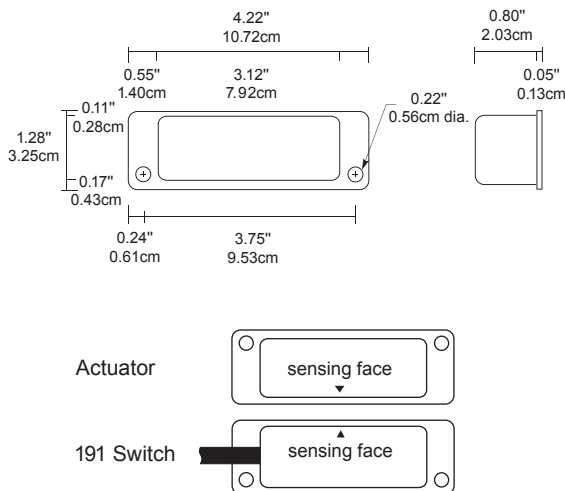
191 GuardSwitch

Applications

- USDA approved
- Food Processing Machines
- Chemical Industry Machinery
- Wash-down Environments

General Specifications

Enclosure	Seamless 304 Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch
	Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	1 msec; 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/2 SJTOW (K) / 0.30" (0.76cm) 18/4 SJTOW (K) / 0.34" (0.86cm)
UL/CSA	All Models



Order Information		Electrical Specifications									
Part Number	Contact ¹ Config.	Load Rating AC	Load Rating DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Lead Length
191-6Z-12K	N.O.	25VA	25W	120V (@0.2A)	120V (@0.2A)	0.7A (@35V)	1.0A (@25V)	0.2 Ohms	1.0" (2.5cm)	2.0" (5.1cm)	12' (3.6m)
191-7Z-06K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V)	3.0A (@28V) ³	1.0 Ohms	0.5" (1.3cm)	1.8" (4.6cm)	6' (1.8m)
191-7Z-12K-D3	DPST ³	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V)	3.0A (@28V) ³	1.0 Ohms	0.5" (1.3cm)	1.8" (4.6cm)	12' (3.6m)
191-7Z-12K	N.O.	100VA	84W	120V (@0.8A)	28V (@3.0A)	3.0A (@34V)	3.0A (@28V) ³	1.0 Ohms	0.5" (1.3cm)	1.8" (4.6cm)	12' (3.6m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ DPST: 1 N.O., 1 N.C



Patented Non-Contact Safety Interlock Switch

251 F7 GuardSwitch

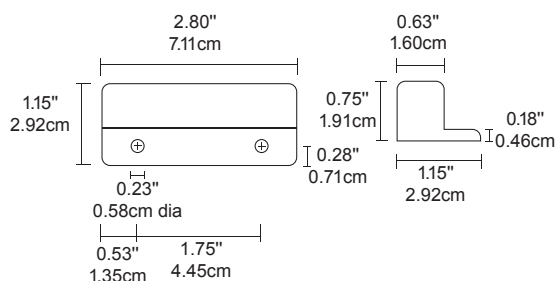
Applications

- Requiring a "Fail-Safe" Switch
- Packaging Machinery
- Waste Compactors
- Food Products Machinery
- Mixers, Blenders and Dryers

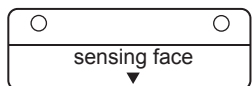
General Specifications

Enclosure	Polyurethane Enamel-Coated Aluminum
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12, 12K
Protection Class	IP 67
Response Time	5 msec
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	SJTOW-A (K) 18/3 AWG / 0.33" (0.84cm)
UL/CSA	All Models

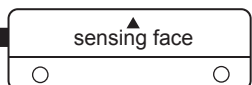
Note: The F7 model has a patented "watch-dog" circuit which, when switch failure occurs, the fused watch-dog circuit will draw 4.0 Amps. The voltage supply must have a current capacity of 4.0 Amps. This results in an open, fail-safe condition.



Actuator



251 Switch



Order Information

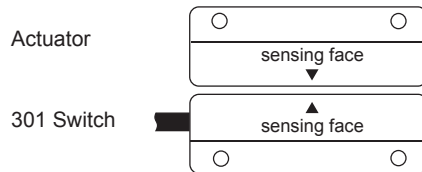
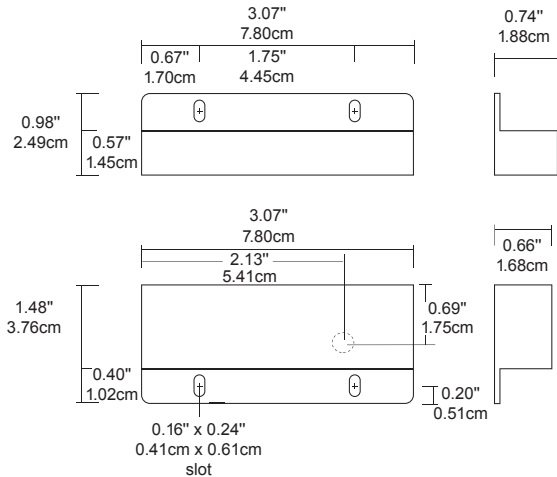
Electrical Specifications

Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Voltage Range (AC/DC)	Switch Current Max. (AC/DC)	Contact Resistance	Sense Range ² Nominal	Break Range Nominal	Break at Failure Max.	Lead Length
251-F7Z-12K	N.O.	100VA	100-120V AC	0.83A	0.5 Ohms	1.0" (2.5cm)	1.8" (4.5cm)	2.7" (6.8cm)	12' (3.6m)
150-Z	Actuator Only								

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



U9880128199005
 When used with INT
 Safety Monitor Relay



Safety Switch 301-BT GuardSwitch

Applications

- Requiring Highly Defeat Resistant Switches
- Meets ANSI, Semi S2 & European Safety Standard for the Highest Machine Risk Category 4 when used with the INT Safety Relay
- Packaging Machinery
- Pharmaceutical Equipment
- Semiconductor Equipment
- Machine Tool Equipment
- Food Processing Machinery

General Specifications

Enclosure	Folded 304 Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 4, 4X, 5, 12, 12K
Protection Class	IP 66
Response Time (individual circuits)	1 msec The two circuits do not switch simultaneously and depend on the speed of the guard closure. A delay less than 50 msec is typical.
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/4 SJTOW (K) / 0.34" (0.86cm) 22/4 PVC Jacketed (J) / 0.19" (0.48cm) 22/6 PVC Jacketed (J) / 0.21" (0.53cm)
UL/CSA/TUV	All Models

Electrical Specifications (Applies to all models)

Circuit	Circuit	Contact	Load	MAX Switching	MAX Switching
1	Switch	N.O.	40W/VA	48VAC/VDC	1.0ADC, 0.7AC
2	Tamper	N.C.	10W/VA	48VAC/VDC	0.3A
2	w/optional LED	N.C.	0.1-1.4W	48VDC(3V drop)	30mA
3	Monitor	N.O.	10W/VA	48VAC/VDC	0.3ADC, 0.3AC

Order Information

Part Number	Contact ² Configuration	Sense Range ³ Minimum	Sense Range ³ Maximum	Break Range	Lead Length
301-BT-12(J)or(K)	DPST: 1 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)
301-BT-12(J)-NH ¹	DPST: 1 N.O., 1 N.C.		0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)
301-BLT-12(J)or(K)	DPST: 1 N.O., 1 N.C. w/ LED	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)
301-B3T-12(J)	TPST: 2 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)
301-B3LT-12(J)	TPST: 2 N.O., 1 N.C. w/LED	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ NH—no minimum sense range

² Configuration with actuator away from the switch

³ Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



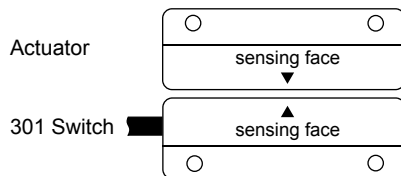
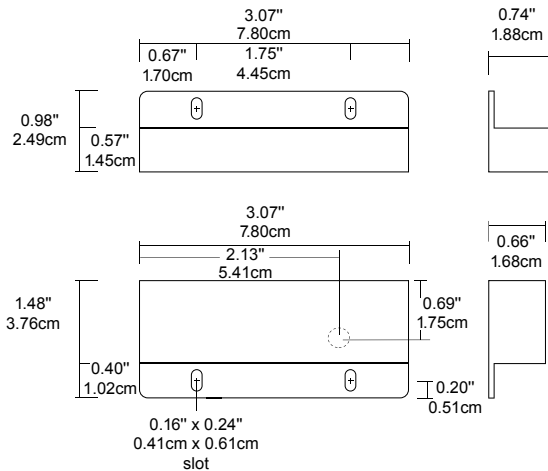
Interlock Switch 301 GuardSwitch

Applications

- Requiring Highly Defeat Resistant Switches
- Grinder Machines
- Augur Machines
- Chopper Machines

General Specifications

Enclosure	Folded 304 Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 4, 4X, 5, 12, 12K
Protection Class	IP 66
Response Time	1 msec (5.4 VA); 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	SJTOW (K) 18/2 AWG / 0.30" (0.76cm) SJTOW (K) 18/4 AWG / 0.34" (0.86cm)
UL/CSA	All Models



UL **US** **SP**
File E 115761 LR89176

Order Info. Electrical Specifications

Part Number	Contact ¹ Config.		Load Rating		Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ²		Break Range	Lead Length
	AC	DC	AC	DC	AC	DC	AC	DC		Max.	Min.		
301-CT-06K	N.O.	2.5VA 2.5W	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	6' (1.8m)		
301-CT-12K	N.O.	2.5VA 2.5W	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	12' (3.6m)		
301-CT-12K-CD	DPST	2.5VA	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	12' (3.6m)		
301-DT-06K ⁴	N.O.	150VA NA	120V @1.25A	NA	1.25A(@120V ³)	NA	NA	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	6' (1.8m)		
301-DT-12K ⁴	N.O.	150VA NA	120V @1.25A	NA	1.25A(@120V ³)	NA	NA	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	12' (3.6m)		

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Can withstand inrush surge up to 4 amps. Voltage drop is 1.5V, minimum switch current, 30 mA, triac output.

⁴ Do not exceed 10 switches in series.



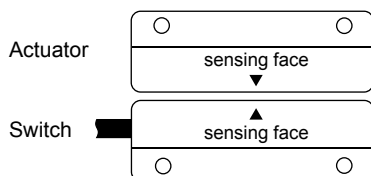
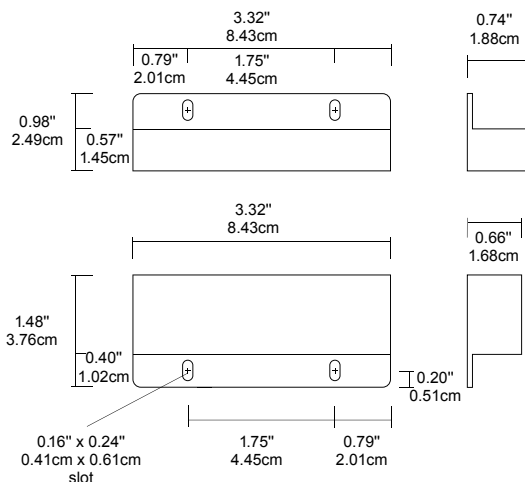
Interlock Switch 302 GuardSwitch

Applications

- Requiring Highly Defeat Resistant Switches
- Grinder Machines
- Augur Machines
- Chopper Machines

General Specifications

Enclosure	Folded 304 Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 4, 4X, 5, 12, 12K
Protection Class	IP 66
Response Time	1 msec (5.4VA); 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	Armored Cable (A) 3/16" Stainless Steel with two 18/2 AWG wires / 0.28" (0.59cm)
UL/CSA	All Models



File E 115761



LR89176

Order Info. Electrical Specifications

Part No.	Contact ¹ Config.	Load Rating		Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ²		Break Range	Lead Length
		AC	DC	AC	DC	AC	DC		Max.	Min.		
302-DT-06A ⁴	N.O.	150VA	NA	120V @1.25A	NA	1.25A(@120V ³)	NA	NA	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	6' (1.8m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Can withstand inrush surge up to 4 amps. Voltage drop is 1.5V, minimum switch current, 30 mA, triac output.

⁴ Do not exceed 10 switches in series.



Safety Switch

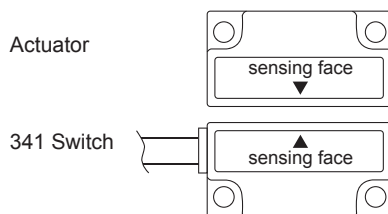
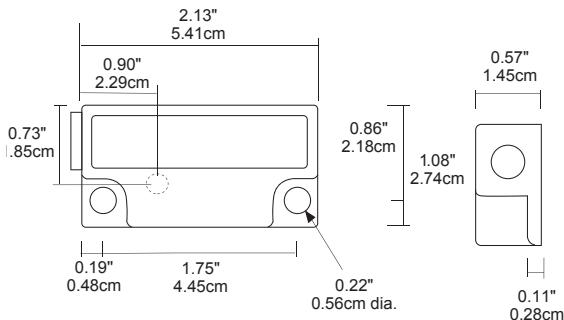
341-BT GuardSwitch

Applications

- Requiring Highly Defeat Resistant Switches
- Meets ANSI, Semi S2 & European Safety Standard for the Highest Machine Risk Category 4 when used with the INT Safety Relay
- Washdown Environments
- Packaging Machinery
- Pharmaceutical Equipment
- Semiconductor Equipment
- Food Processing Machinery

General Specifications

Enclosure	Kynar® Polyvinylidene Fluoride with sonic welded lid
Temperature Range	14°F to 150°F (-10°C to 65°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 4, 4X, 5, 12, 12K, 13
Protection Class	IP 67
Response Time (individual circuits)	1 msec The two circuits do not switch simultaneously and depend on the speed of the guard closure. A delay less than 50 msec is typical.
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/4 SJTOW (K) / 0.34" (0.86cm) 22/4 PVC Jacketed (J) / 0.19" (0.48cm) 22/6 PVC Jacketed (J) / 0.21" (0.53cm)
UL/CSA/TUV	All Models



File E 122942



LR89176



U9880128199005
When used with INT
Safety Monitor Relay



Electrical Specifications (Applies to all models)

Circuit No.	Circuit Type	Contact Configuration	Load Rating	MAX Switching Voltage	MAX Switching Current
1	Switch	N.O.	10W/VA	48VAC/VDC	0.2A
2	Tamper	N.C.	10W/VA	48VAC/VDC	0.2A
2	w/optional LED	N.C.	0.1-1.4W	48VDC(3V drop)	30mA
3	Monitor	N.O.	10W/VA	48VAC/VDC	0.2A

Order Information

Part Number	Contact ¹ Configuration	Sense Range ² Minimum	Sense Range ² Maximum	Break ² Range	Lead Length
341-BT-06K	DPST: 1 N.O., 1 N.C.	0.12"(0.3cm)	0.38"(1.0cm)	0.75"(1.9cm)	6' (1.8m)
341-BT-12(J)OR(K)	DPST: 1 N.O., 1 N.C.	0.12"(0.3cm)	0.38"(1.0cm)	0.75"(1.9cm)	12' (3.6m)
341-BLT-12K	DPST: 1 N.O., 1 N.C. w/ LED	0.12"(0.3cm)	0.38"(1.0cm)	0.75"(1.9cm)	12' (3.6m)
341-B3T-12J	TPST: 2 N.O., 1 N.C.	0.12"(0.3cm)	0.38"(1.0cm)	0.75"(1.9cm)	12' (3.6m)
341-B3LT-12J	TPST: 2 N.O., 1 N.C. w/LED	0.12"(0.3cm)	0.38"(1.0cm)	0.75"(1.9cm)	12' (3.6m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



Interlock Switch

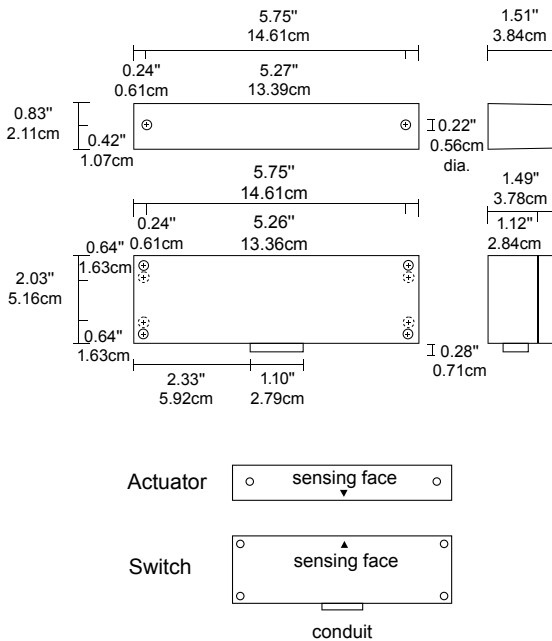
371 GuardSwitch Explosion Proof

Applications

- Explosive Environments
 - Automobile Paint Booths
 - Industrial Paint Booths
 - Chemical/Toxic Environments
 - Fertilizer Manufacturers
 - Grain Mills
- Requiring Highly Defeat Resistant Switches
- Enclosure UL classified for hazardous locations classes:
 - Class I, Group B, C, D
 - Class II, Group E, F, G
 - Class III, Divisions 1 & 2

General Specifications

Enclosure	UL Explosion Proof, Black Anodized Die Cast Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time	1 msec (5.4VA); 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection	1/2" Threaded NPT
UL	All Models



Order Info.		Electrical Specifications										
Part No.	Contact ¹ Config.	Load Rating AC	Load Rating DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ²		Break Range	Terminal Type
371-CT	N.O.	2.5VA	2.5W	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.5"(1.3cm)	0.25"(0.635cm)	1.2"(3.0cm)	#6 Screws
371-DT ⁴	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ³	NA	NA	0.5"(1.3cm)	0.25"(0.635cm)	1.2"(3.0cm)	#6 Screws

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

³ Can withstand inrush surge up to 4 amps. Voltage drop is 1.5V, minimum switch current, 30 mA, triac output.

⁴ Do not exceed 10 switches in series.



Safety Switch

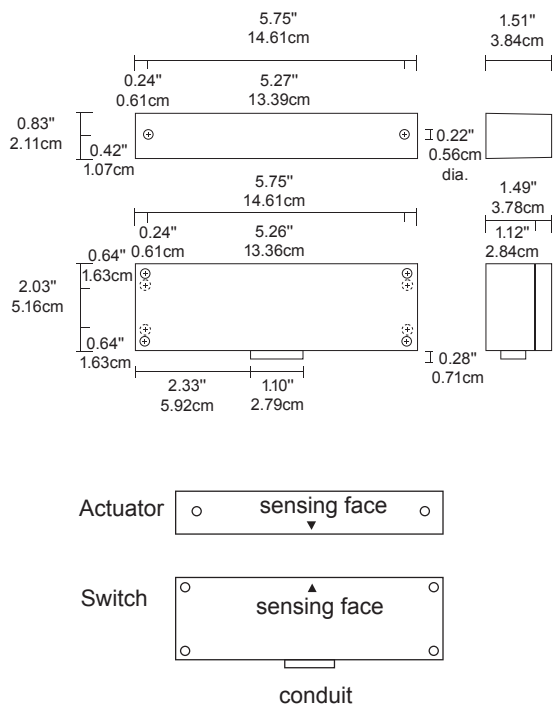
371-BT GuardSwitch Explosion Proof

Applications

- Requiring Explosion-Proof Enclosure for Hazardous Locations
- Meets ANSI, Semi S2 & European Safety Standard for the Highest Machine Risk Category 4 when used with the INT Safety Relay
- UL Enclosure Classified for Use in Hazardous Locations:
Class I, Group B, C, D
Class II, Group E, F, G
Class III, Divisions 1 & 2

General Specifications

Enclosure	UL Explosion Proof Black Anodized, Die Cast Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time (individual circuits)	1 msec The two circuits do not switch simultaneously and depend on the speed of the guard closure. A delay less than 50 msec is typical.
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection UL/CSA/TUV	1/2" Threaded NPT All Models



Electrical Specifications

Circuit No.	Circuit Type	Contact Configuration	Load Rating	MAX Switching Voltage	MAX Switching Current
1	Switch	N.O.	40W/VA	48VAC/VDC	1.0ADC, 0.7AC
2	Tamper	N.C.	10W/VA	48VAC/VDC	0.3A



U9880128199005
When used with INT
Safety Monitor Relay

Order Information

Part Number	Contact ¹ Configuration	Sense Range ² Minimum	Sense Range ² Maximum	Break Range	Terminal Type
371-BT	DPST: 1 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	#6 screws

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



Interlock Switch

381 GuardSwitch

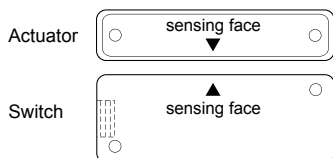
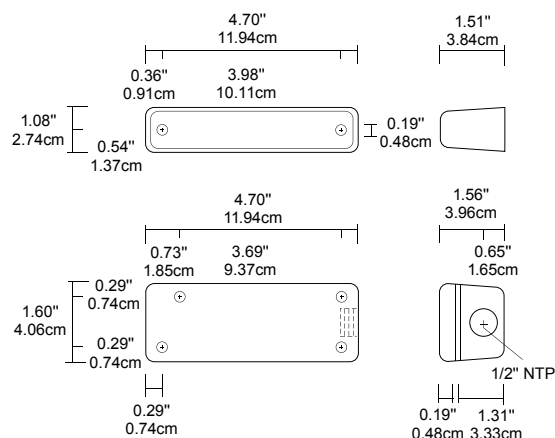
1/2" Conduit Enclosure

Applications

- Requiring Highly Defeat Resistant Switches
- Heavy-duty Housing
- Conduit Connection
- Terminals
- Non-wash down Environment

General Specifications

Enclosure	Coated Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time	1 msec (5.4VA); 10 msec (150VA)
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection	1/2" Threaded NPT
UL/CSA	All Models



Order Info.		Electrical Specifications										
Part No.	Contact ¹ Config.	Load Rating AC	DC	Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ²		Break Range	Terminal Type
381-CT	N.O.	2.5VA	2.5W	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	#6 Screw
381-DT ⁴	N.O.	150VA	NA	120V(@1.25A)	NA	1.25A(@120V) ³	NA	NA	0.75"(1.9cm)	0.375"(1.0cm)	1.2"(3.0cm)	#6 Screw

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

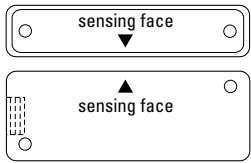
- ¹ Configuration with actuator away from the switch
- ² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.
- ³ Can withstand inrush surge up to 4 amps. Voltage drop is 1.5V, minimum switch current, 30 mA, triac output.
- ⁴ Do not exceed 10 switches in series.



The voltage drop and the power rating of the resistor must be considered. Voltage drop = $I \cdot R$; Watts = $I^2 R$ (I = maximum continuous current of the load).

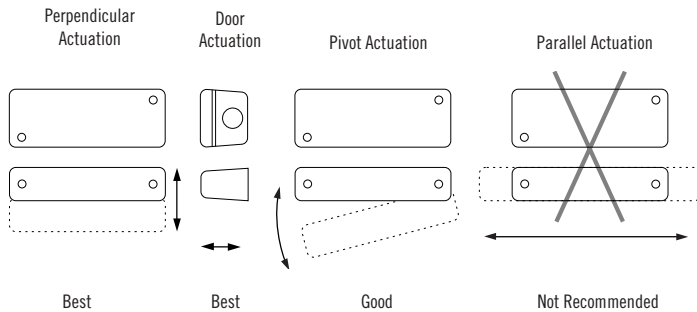
- When mounting the switch on an ungrounded machine, ground the switch housing by connecting your ground lead to one of the switch mounting screws.

Figure 1

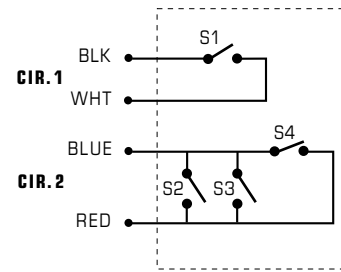


Mounting Configurations

Figure 2



The parallel actuation can result in on/off/on signal if the actuator passes by the switch rather than coming to rest in proximity to it. This is NOT a recommended configuration for safety interlock applications.



*Circuits shown with magnet actuator away from switch.

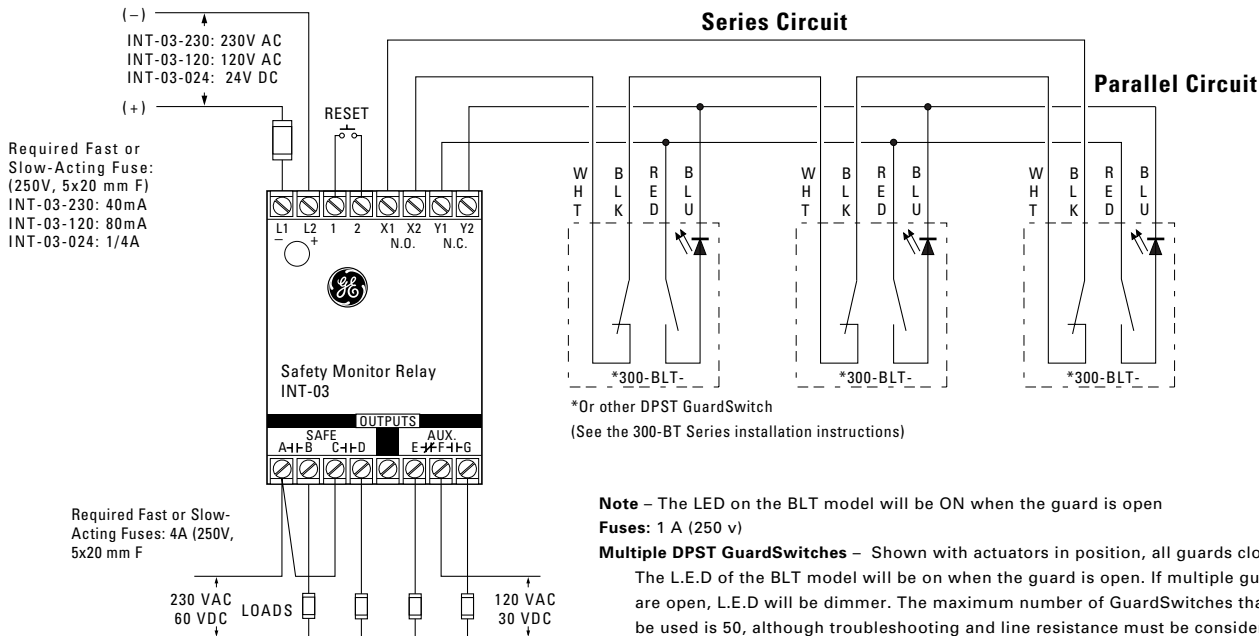
- S1** Normally open reed switch, closed when actuator is within 0.6"
- S2, S3** Normally open reed switches, will close if misaligned or tampered with a standard magnet
- S4** Biased closed reed switch, open when actuator is between 0.3" and 0.6"

N.O. circuit: Black and white wires.

N.C. biased tamper circuit: Red and blue wires.

Wiring Diagram for Category 3

Inputs shown with safety gates/guards in closed position. One Series 300-BT GuardSwitch™ required for each safety gate.



Note – The LED on the BLT model will be ON when the guard is open

Fuses: 1 A (250 v)

Multiple DPST GuardSwitches – Shown with actuators in position, all guards closed.

The L.E.D of the BLT model will be on when the guard is open. If multiple guards are open, L.E.D will be dimmer. The maximum number of GuardSwitches that can be used is 50, although troubleshooting and line resistance must be considered. (Do not exceed 30 Ohms of combined contact and line resistance. Each GuardSwitch will have less than 0.5 Ohms of resistance.)

CE Compliance Information

These switches are TUV certified for CE applications only when used with the INT Safety Monitor Relays. See Risk Category 3 and Category 4 wiring diagrams above.



Declaration of Conformity
available upon request.

General Specifications

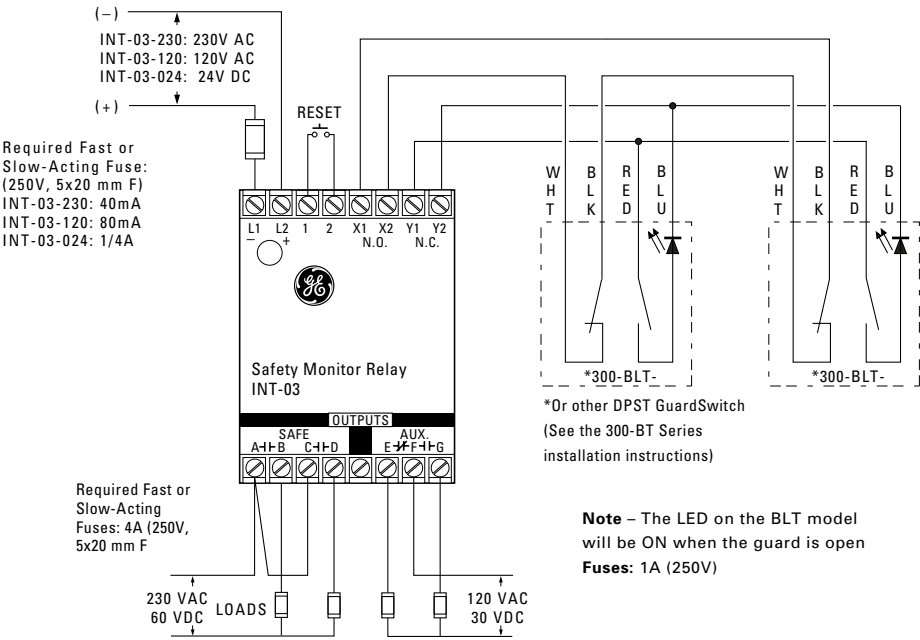
Enclosure	Coated Aluminum
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 5
Protection Class	IP 64
Response Time	1 msec
Individual circuits	The two circuits do not switch simultaneously, and depend on the speed of the guard closure. Based on closure speed of 1' per second and a gap of 1/8", a delay less than 50 msec is typical.
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Conduit Connection	1/2" Threaded NPT
UL/CSA/TUV	All Models



Wiring Diagram for Category 4

Inputs shown with safety gate/guard in closed position. Two Series 300-B GuardSwitches™ with one INT relay are required for each safety gate.

When first applying the INT Safety Monitor Relay, the inputs must be cyclced to check for proper operation before the output contacts close. To cycle the inputs, the guard must be opened and then closed. This start-up test is sufficient; however, we recommend that the proper operation of the switches and relay be checked at least every 24 hours.



Electrical Specifications

CIRCUIT NUMBER	CIRCUIT TYPE	CONTACT CONFIGURATION	LOAD RATING	SWITCHING VOLTAGE	SWITCHING CURRENT
1	Switch: S1	N.O.	40W/VA	48VAC/VDC	1.0ADC, 0.7AAC
2	Tamper: S2, S3, S4	N.C.	10W/VA	48VAC/VDC	0.3A

Ordering Information

PART NUMBER ¹	CONTACT ² CONFIGURATION	SENSE RANGE ³ MINIMUM	SENSE RANGE ³ MAXIMUM	BREAK RANGE	TERMINAL TYPE
381-BT	DPST: 1 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	#6 screws
383-BT	DPST: 1 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	#6 screws

Accessories

PART NUMBER	TAMPER PROOF SCREWS & SCREWDRIVER
1953	#6 x 3/4"L Tampruf Roundhead Screw
1954	#8 x 1-1/2"L Tampruf Roundhead Screw
1955	Tampruf® Screwdriver
1956	Tampruf® 1/4" Drive Bit for #6 and #8 Screws

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ The part numbers 381 and 383 are the same in all respects except the conduit connection exits 381 left and 383 right.

² Configuration with actuator away from the switch

³ Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



GE Security
Industrial

www.ge-security.com/industrial

12345 SW Leveton Drive
Tualatin, OR 97062
Phone: 800-247-9447
Fax: 503-691-7563



Interlock Switch

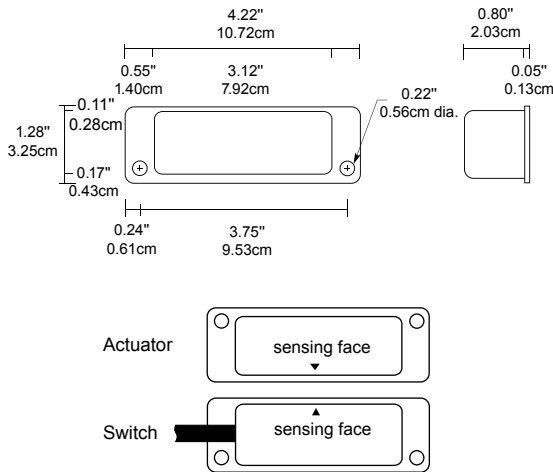
391 & 393 GuardSwitch

Applications

- USDA Approved Housing
- Food Processing Machines
- Rugged, Seamless SS Housing
- Requiring Highly Defeat Resistant Switches
- Wash-down and Corrosive Environments

General Specifications

Enclosure	304 Seamless Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
Response Time	1 msec (5.4VA); 10 msec (150VA)
NEMA Rating	1, 2, 3, 4, 4X, 5, 6, 12, 12X
Protection Class	IP 67
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	SJTOW (K)/18/2, 0.30" (0.76cm)
UL/CSA	All Models



UL **us** **SP**
File E 122942 LR89176

Order Info. Electrical Specifications

Part No. ¹	Contact ² Config.	Load Rating		Switching Voltage, Max.		Switching Current, Max.		Contact Resistance	Sense Range ³		Break Range	Lead Length
		AC	DC	AC	DC	AC	DC		Max.	Min.		
391-CT-06K	N.O.	2.5VA	2.5W	30V(@0.08A)	30V(@0.08A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	6' (1.8m)
391-CT-12K	N.O.	2.5VA	2.5W	30V(@0.18A)	30V(@0.18A)	0.18A(@13.8V)	0.18A(@13.8V)	0.5 Ohms	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	12' (3.6m)
391-DT-06K ⁵	N.O.	150VA	NA	120V @1.25A	NA	1.25A(@120V ⁴)	NA	NA	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	6' (1.8m)
391-DT-12K ⁵	N.O.	150VA	NA	120V @1.25A	NA	1.25A(@120V ⁴)	NA	NA	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	12' (3.6m)
393-DT-06K ⁵	N.O.	150VA	NA	120V @1.25A	NA	1.25A(@120V ⁴)	NA	NA	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	6' (1.8m)
393-DT-12K ⁵	N.O.	150VA	NA	120V @1.25A	NA	1.25A(@120V ⁴)	NA	NA	0.8"(2cm)	0.1"(0.25cm)	1.2"(3.0cm)	12' (3.6m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ The part number 391 and the 393 are the same in all respects except the cable exits 391 left and 393 right.

² Configuration with actuator away from the switch

³ Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.

⁴ Can withstand inrush up to 4 amps. Voltage drop is 1.5V. Minimum switch current, 30 mA, triac output.

⁵ Do not exceed 10 switches in series.



Safety Switch

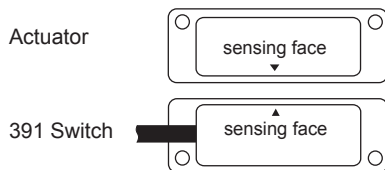
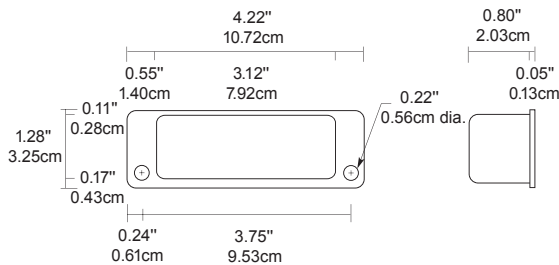
391-BT GuardSwitch

Applications

- Machine Tool Machinery
- Withstands Corrosive and Extreme Washdown Environments
- Packaging Machinery
- Food Processing Machinery
- Presses
- Meets ANSI, Semi S2 & European Safety Standard for the Highest Machine Risk Category 4 when used with the INT Safety Relay

General Specifications

Enclosure	Seamless 304 Stainless Steel
Temperature Range	-40°F to 180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Contact Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 4, 4X, 5, 12, 12K
Protection Class	IP 67
Response Time (individual circuits)	1 msec The two circuits do not switch simultaneously and depend on the speed of the guard closure. A delay less than 50 msec is typical.
Life Cycles	100,000 Under Full Load; Up to 200,000,000 Under Dry Circuit
Lead Types/O.D.	18/4 SJTOW (K) / 0.34" (0.86cm) 22/4 PVC Jacketed (J) / 0.19" (0.48cm)
UL/CSA/TUV	All Models



Electrical Specifications

Circuit No.	Circuit Type	Contact Config.	Load Rating	MAX Switching Voltage	MAX Switching Current
1	Switch	N.O.	40W/VA	48VAC/VDC	1.0ADC, 0.7AC
2	Tamper	N.C.	10W/VA	48VAC/VDC	0.3A
2	w/optional LED	N.C.	0.1-1.4W	48VDC(3V drop)	30mA

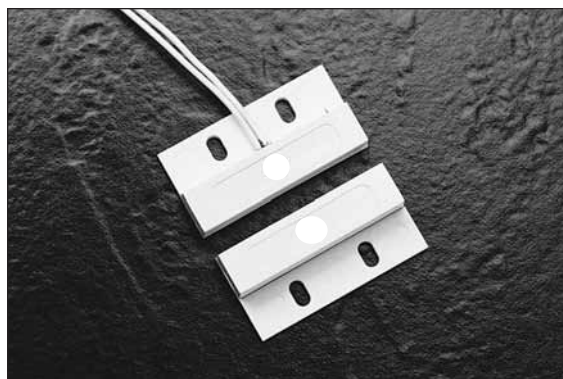
Order Information

Part Number	Contact ¹ Configuration	Sense Range ² Minimum	Sense Range ² Maximum	Break Range	Lead Length
391-BT-06K	DPST: 1 N.O., 1 N.C.	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	6' (1.8m)
391-BLT-12J	DPST: 1 N.O., 1 N.C. w/ LED	0.3"(0.8cm)	0.6"(1.5cm)	1.2"(3.0cm)	12' (3.6m)

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications.



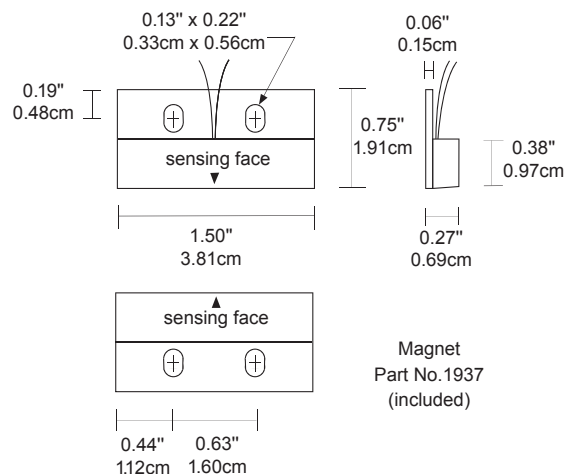
Miniature Flange Mount With Wire Leads 1032 Series

Applications

- Flanges for rapid mounting
- Convenient surface mounting
- Includes adhesive mounting strips
- Mounting screws

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color	Natural
UL/ULC Listed	All Models



Order Information

Electrical Specifications

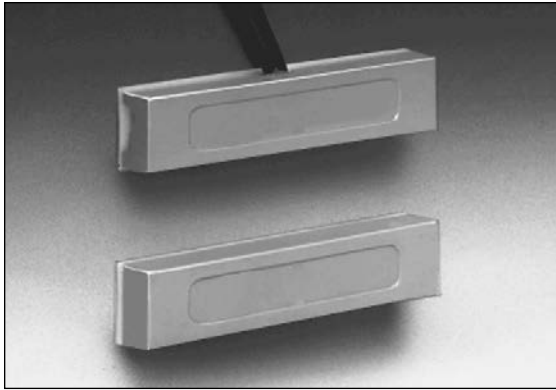
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1032-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.6"(1.6cm)	1'
1032W-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.0"(2.5cm)	1'
1937-N	Actuator Only						

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



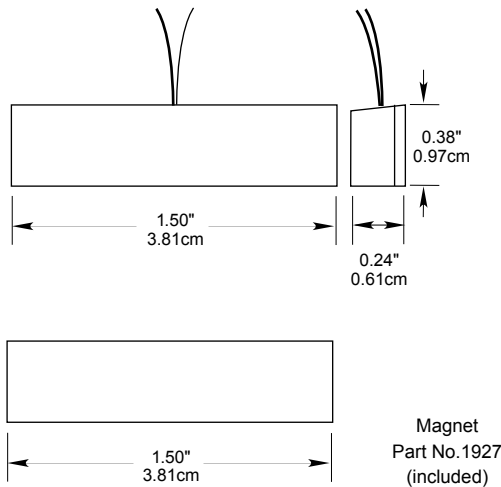
Miniature Self-Adhesive With Wire Leads 1035 Series

Applications

- Quick tape mounting: no screws or glues needed
- Urethane/acrylic tape bonding improves with age
- Convenient surface mounting

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color	Natural
UL/ULC Listed	All Models



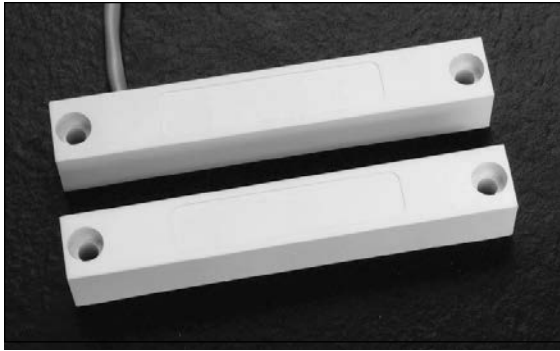
Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1035-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.6"(1.6cm)	1'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



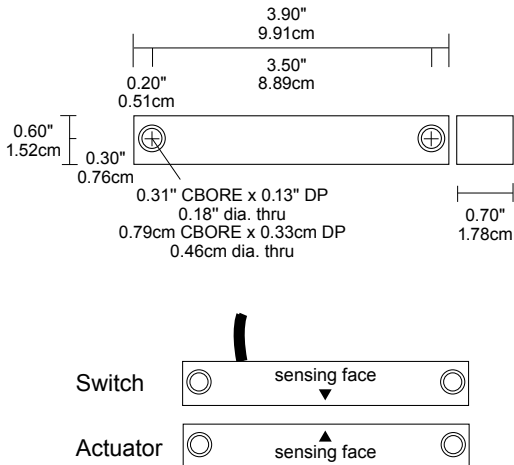
Surface Mount With Wire Leads 1045 Series

Applications

- Models for use on steel without time-consuming brackets
- Rugged construction
- Convenient surface mount wiring
- Mounting screws

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	Jacketed #22 AWG / 0.187" (0.48cm)
Color	Grey
UL/ULC Listed	All Models



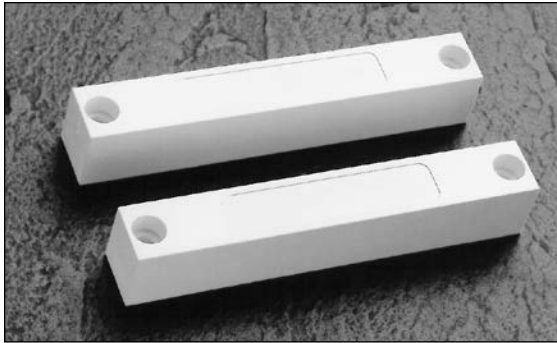
Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage Maximum (AC/DC)	Switching Current Maximum (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1045W-G	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3.0" (7.6cm)	3'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.

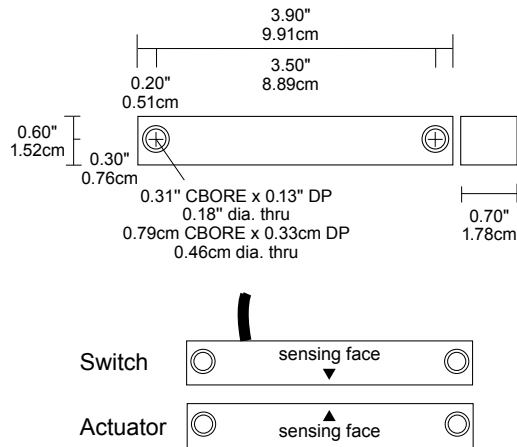


Industrial Screw Terminal 1045T Series

Applications

- Models for use on steel without time-consuming brackets
- Rugged construction
- Concealed terminals resist tampering and inadvertent shorting
- Easy clamping terminals speed installation
- Mounting screws

Test Points (Top)



General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically sealed reed switch
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load 10,000,000 Under Dry Circuit
Connection	#6 screw terminal
Color Choices	Natural(N), Grey(G), Mahogany(M)
UL/ULC Listed	All Models



Order Information

Electrical Specifications

Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance ³	Sense Range ² Nominal
1045T-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.3" (3.2cm)
1047T-N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1.3" (3.2cm)
1042TW-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3.0" (7.6cm)
1044TW-N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	3.0" (7.6cm)
1933-N	Acuator Only (For 1045T, 1046T, 1047T, 1047TH)					

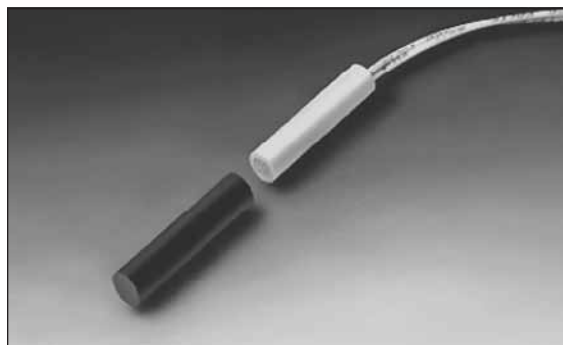
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.

³ Biased for higher security applications

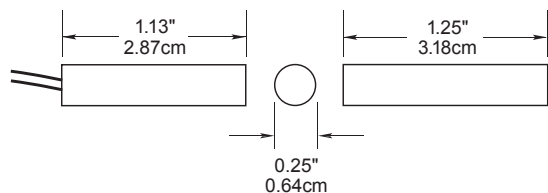


1/4" Diameter Switch With Wire Leads 1055 Series

Applications

- Economical
- Versatile
- Fits in limited space

General Specifications



Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color	Natural
UL/ULC Listed	All Models



Order Information

Electrical Specifications

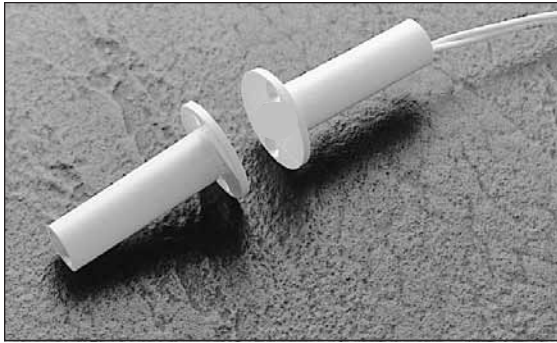
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1055-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.5" (1.3cm)	1'
1055W-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.3" (3.2cm)	1'

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects.

Testing is required to determine actual sense range for specific applications.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



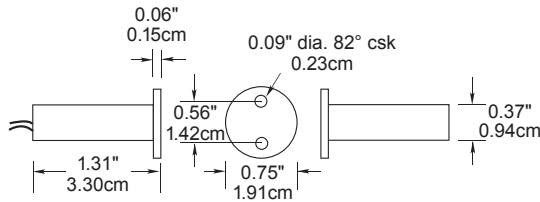
3/8" Diameter Flanged With Wire Leads 1072 Series

Applications

- Flanges for positive mounting; over-size holes
- Mounting screws included

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color	Natural
UL/ULC Listed	All Models



Order Information

Electrical Specifications

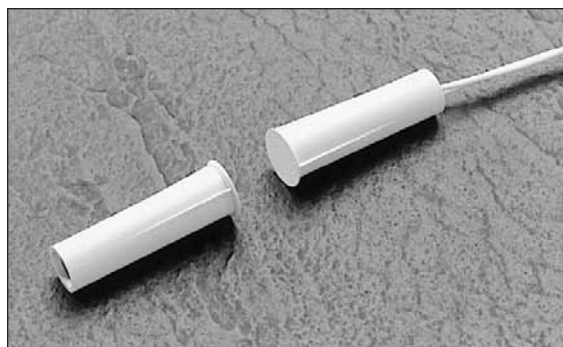
Part Number	Contact Configuration ¹	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1072-N	N.O.	7.5VA	100V	0.5A	0.2 Ohms	0.5" (1.3cm)	1'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



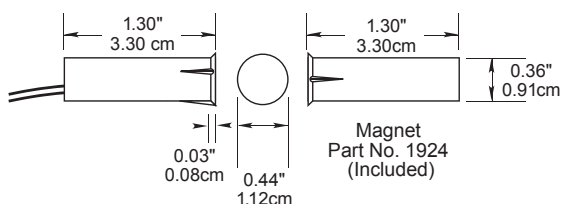
3/8" Diameter Press Fit With Wire Leads 1075 Series

Applications

- 3/8" press-fit mounting; no screws or glue needed
- Heavy-duty housing resists crushing

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M)
UL/ULC Listed	All Models



Order Information

Electrical Specifications

Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1075-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.5" (1.3cm)	1'
1075W-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.3" (3.2cm)	1'
1070-N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.5" (1.3cm)	1'
1924-M, N	Actuator Only						

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



1" Diameter Steel Door With Wire Leads 1078 Series

Applications

- Special design for special mounting
- Self-lock mounting
- Rugged construction
- 15/16" dia. hole required
- UL approved for specific fire doors

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05"(0.15cm)
Color Choices	Natural(N), Mahogany(M), Grey(G)
UL/ULC Listed	All Models



Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1078-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.5" (1.3cm)	1'
1078W-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.0" (2.5cm)	1'
1076-G, M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.5" (1.3cm)	1'
1076H-M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.5" (1.3cm)	1'
1076W-M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1.0" (2.5cm)	1'
1076D-M, N	DPDT	3W/VA	30V	0.25A	0.2 Ohms	0.4" (1.0cm)	1'

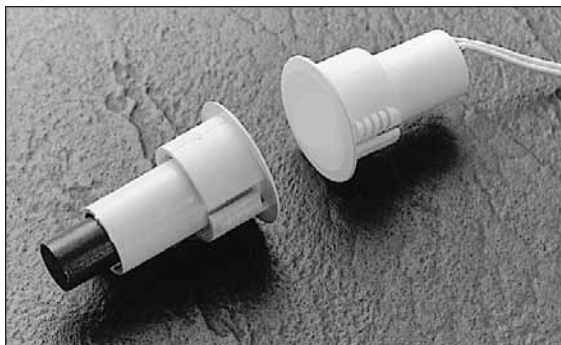
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.

³ Biased for higher defeat resistance.



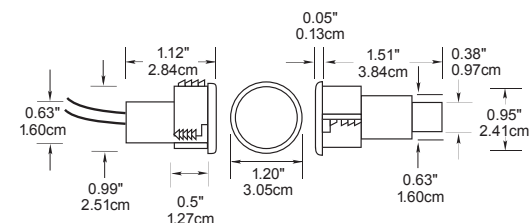
3/4" Steel Door With Wire Leads 1078C Series

Applications

- 3/4" diameter for easier drilling in metal
- Self-lock mounting
- Rugged construction

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M), Grey(G)
UL/ULC Listed	All Models



Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1078C-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.4" (1.0cm)	1'
1078CW-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.8" (1.9cm)	1'
1076C-M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.4" (1.0cm)	1'
1076CW-M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.8" (1.9cm)	1'

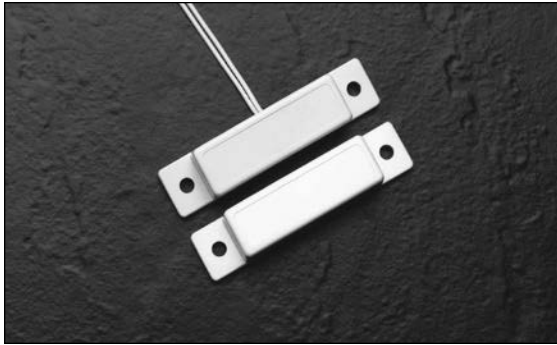
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects.

Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



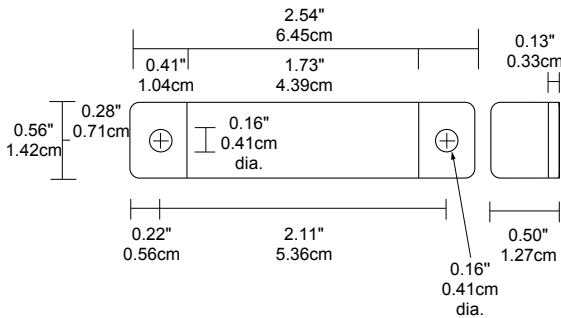
Screw Mount With Leads 1082 Series

Applications

- Convenient surface mounting
- Mounting screws included

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M), Grey(G)
UL Listed	All Models



Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1082-G, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.0" (2.5cm)	1'
1084-M	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1.0" (2.5cm)	1'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



Screw Terminal 1085T Series

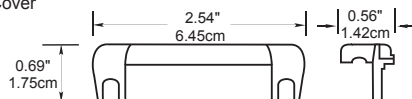
Applications

- Easy clamping terminals speed installation
- Convenient surface mounting
- Built-in resistors available; consult factory
- Cover, spacer, screws included

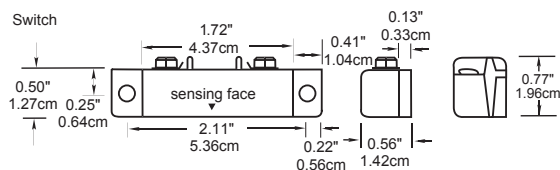
General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Connection	#6 screw terminal
Color Choices	Natural(N), Mahogany(M), Grey(G)
UL/ULC Listed	All Models

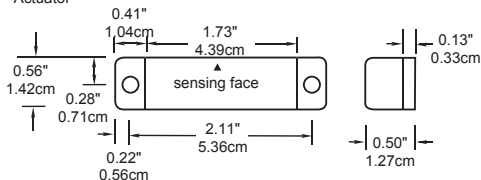
Terminal
Cover



Switch



Actuator



Magnet
Part No. 109-Y
(included)



Order Information

Electrical Specifications

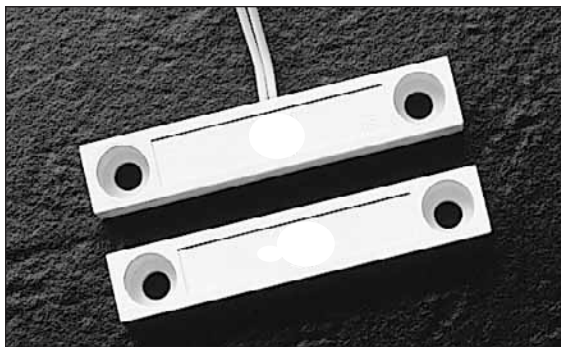
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal
1085T-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.8" (1.9cm)
1085TW-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.5" (3.8cm)
1084TW-N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	2.0" (5.1cm)
1086T-N	N.C.	3W/VA	30V	0.25A	0.2 Ohms	0.8" (1.9cm)
1087T-M, N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	0.8" (1.9cm)
1087TW-N	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1.5" (3.8cm)
1080T-N	Actuator Only (For 1082T, 1083T, 1084T, 1082TW, 1083TW, 1084TW)					
1081T-N	Actuator Only (For 1085T, 1086T, 1087T, 1085TW, 1086TW, 1087TW)					

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous material usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



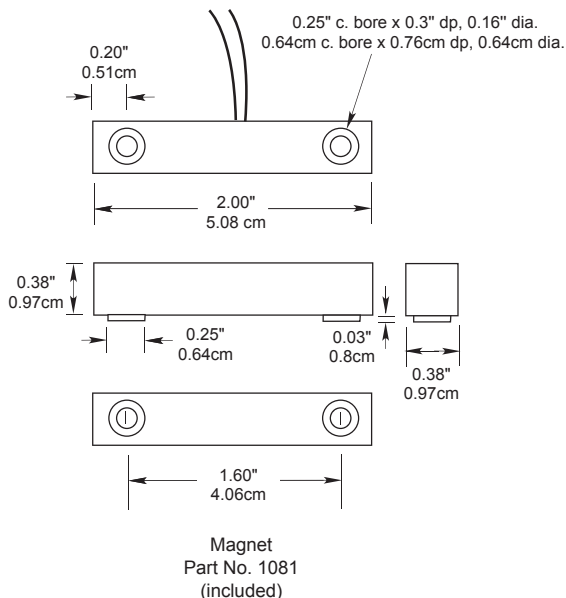
Screw Mount With Wire Leads 1085 Series

Applications

- Convenient surface mounting
- Mounting screws included

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M), Grey(G)
UL/ULC Listed	All Models



Order Information		Electrical Specifications					
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
1085-G, M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.6" (1.6cm)	1'
1085W-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1.5" (3.8cm)	1'
1086-N	N.C.	3W/VA	30V	0.25A	0.2 Ohms	0.6" (1.6cm)	1'
1086W-M	N.C.	3W/VA	30V	0.25A	0.2 Ohms	1.5" (3.8cm)	1'
1081-N	Actuator Only						

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



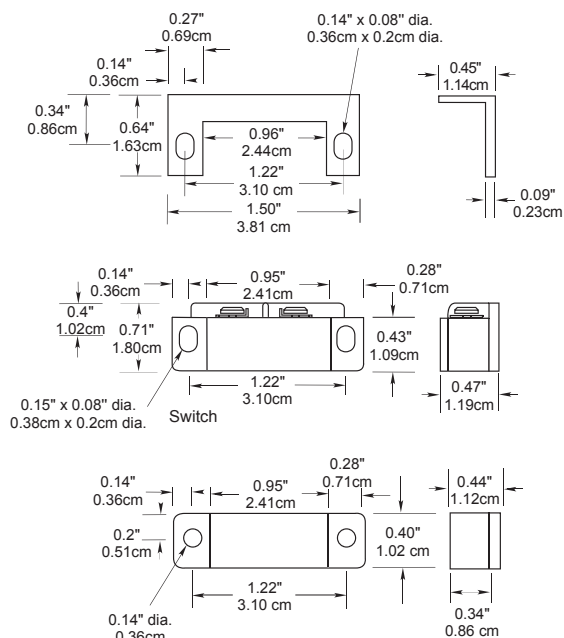
Miniature With Screw Terminals 1135T Series

Applications

- Ideal for limited space applications
- Hermetically sealed switches resist corrosion and build up
- Ideal for use in dusty areas
- Cover, spacer, screws included

General Specifications

Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Connection	#6 screw terminal
Color Choices	Natural(N), Mahogany(M)



Order Information		Electrical Specifications				
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal
1135T-N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	0.6" (1.6cm)
1136T-M	N.C.	3W/VA	30V	0.25A	0.2 Ohms	0.6" (1.6cm)

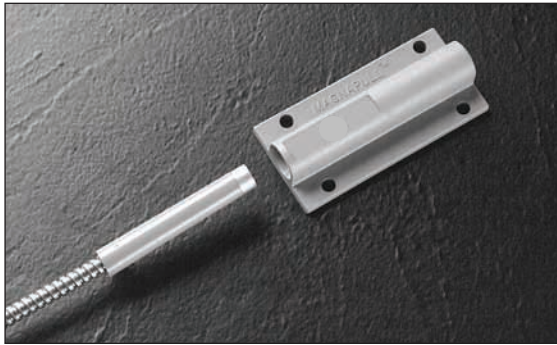
Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects.

Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

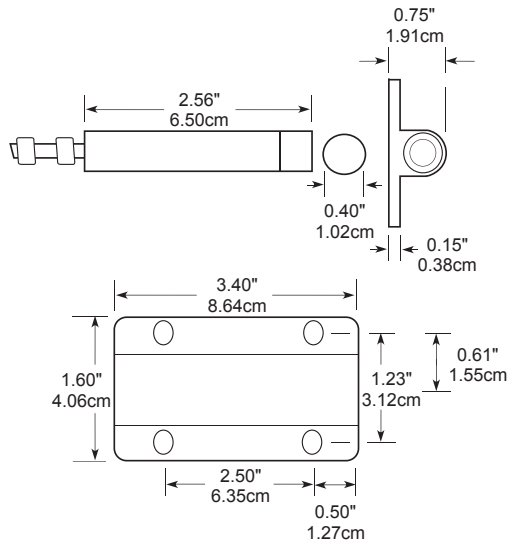
Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



Magnapull™ Heavy Duty Magnetic Pull-Apart Cords 2100 Series

Applications

- Protect boats, trailers, heavy equipment
- Secures almost any loose item
- Positive magnetic retention
- Reed-actuated for high reliability
- Durable, heavy guage construction for long life
- Mounting hardware included



General Specifications

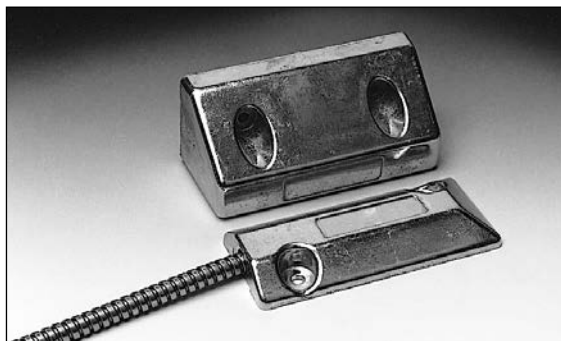
Enclosure	ABS Plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load 10,000,000 Under Dry Circuit
Lead Types/O.D.	Stainless Steel Armored Cable with #22 wire / 0.28" (0.71cm)
Color	Grey



Order Information		Electrical Specifications				
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Lead Length
2105A-G	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3'
2107A-G	SPDT	3W/VA	30V	0.25A	0.2 Ohms	3'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch



Miniature Surface Mount With Armored Cable

2200 Series

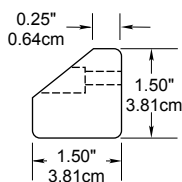
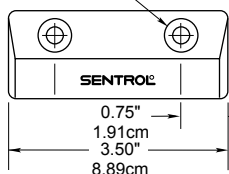
Applications

- Miniature, low-profile design
- Stainless steel armored cable for added reliability
- Wide working gap for overhead doors
- Small size less likely to be damaged by forklifts
- Aluminum bar stock resists corrosion in harsh environments
- Mounting hardware included
- Jacketed lead available

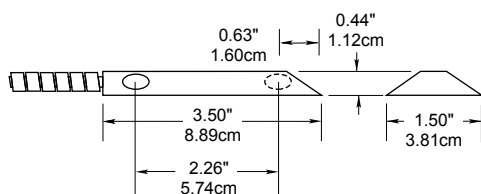
General Specifications

Enclosure	Aluminum (L)
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	Stainless Steel Armored Cable with #22 Wire / 0.28"(0.71cm)
UL/ULC Listed	All Models

0.47" c. bore, 0.18" thru
1.19cm c. bore, 0.46cm thru



Magnet
Part No. 1958
(included)



Magnet
Part No. 1982



Order Information

Electrical Specifications

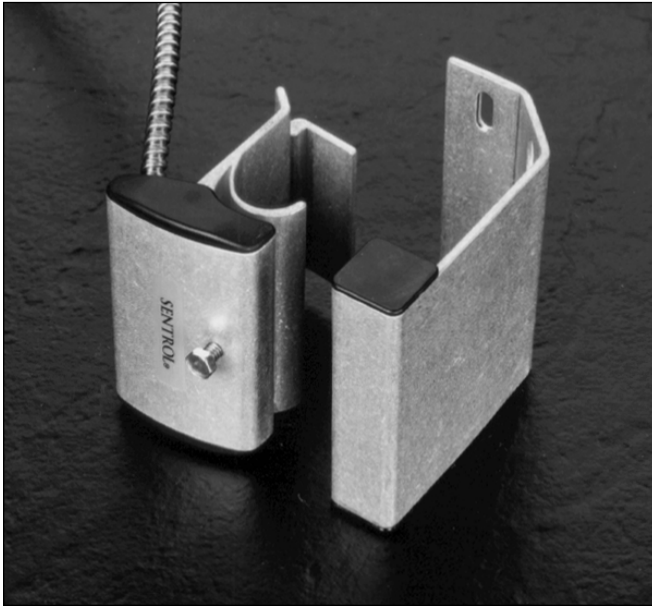
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Minimum	Lead Length
2202A/2202AU-L	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3.0" (7.6cm)	1.5'
2204A/2204AU-L	SPDT	3W/VA	30V	0.25A	0.2 Ohms	3.0" (7.6cm)	1.5'
2205AU-L	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3.0" (7.6cm)	3'
2207A/2207AU-L	SPDT	3W/VA	30V	0.25A	0.2 Ohms	3.0" (7.6cm)	3'
1982	Flange Mount Universal Actuator Only						

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



2300 SERIES PANEL DOOR MAGNETIC CONTACT

Model numbers: 2315, 2317, 2325, 2327



- **Designed specifically for panel or sectional style overhead doors**
- **Integrated mounting bracket**
- **Adjusts to fit most doors**
- **Fast installation with minimal effort**
- **Wide operating gap distance**
- **Fewer service calls**
- **All necessary mounting hardware included**

The Sentrol 2300 Series Panel Door magnetic contacts are designed specifically for panel or sectional style overhead doors. The unique design allows the contact to be mounted directly to the door channel, with the magnet mounted vertically on the door – off the floor and out of harm's way. This eliminates service calls and false alarms that occur when typical floor-mount contacts become damaged or as the door becomes misaligned with normal usage. The contact's integrated mounting bracket is adjustable to fit most door channel widths. Installation requires no special tools and takes only a few minutes. The 2300 Series contacts are constructed with a rugged extruded aluminum housing potted with Sentrol's exclusive polyurethane potting compound which makes the unit corrosion resistant.

continued

Sentrol 2315 Series Panel Door Magnetic Contacts

Contact and magnet shall be in extruded aluminum type housing. Contact shall be sealed in Sentrol's exclusive polyurethane potting compound. Mounting brackets shall be furnished with contact.

Specifications:

Form A (2315, 2325)

Voltage..... 100 V AC/DC max.

Current 0.5 A max.

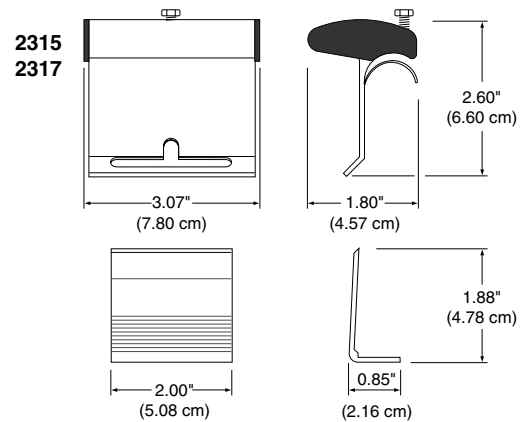
Power..... 7.5 W max.

Form C (2317, 2327)

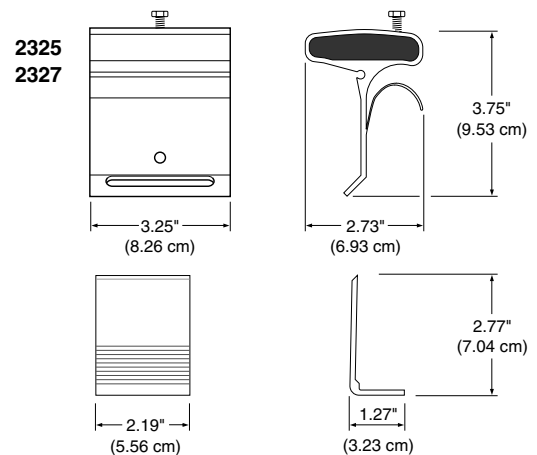
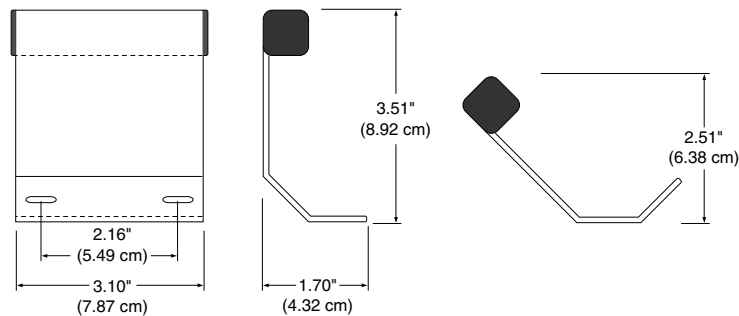
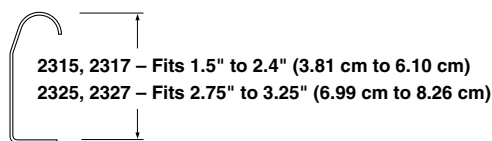
Voltage..... 30 V AC/DC max.

Current 0.25 A max.

Power..... 3.0 W max.



2315 / 2325



ORDERING INFORMATION

Model Number	Loop Type	Electrical Configuration	Gap Distance (Make)*	Lead Type	Listing
2315A	Closed	N.O.	Up to 3"	2' stainless steel armored cable	UL
2317A	Open or Closed	S.P.D.T.	Up to 3"	2' stainless steel armored cable	UL
2325A	Closed	N.O.	Up to 3"	2' stainless steel armored cable	UL
2327A	Open or Closed	S.P.D.T.	Up to 3"	2' stainless steel armored cable	UL

Note: *Gap distances are nominal make distance $\pm 20\%$. Gap specifications are for switch to make.

Break distance is approximately 1.1 to 1.5 times make.

Protected by U.S. Patent 6,011,469.



SENTROL

CORPORATE HEADQUARTERS

12345 SW Leveton Dr., Tualatin, OR 97062

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<http://utcsfiresecurityproducts.com>

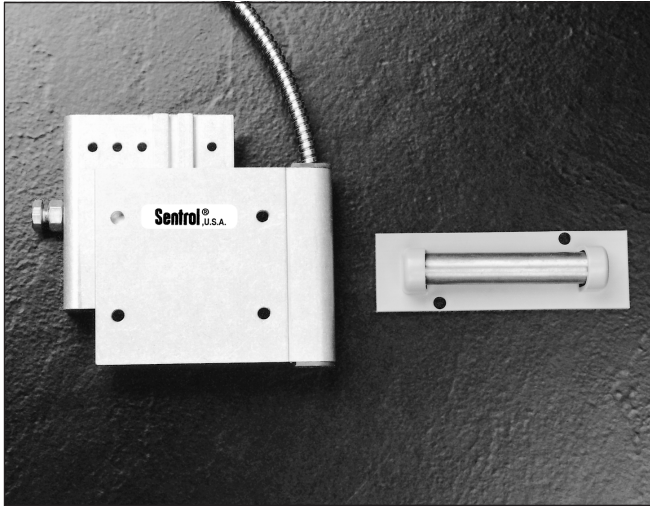
U.S. & Canada: 800.336.4206

Technical Service: 800.454.2363

Sentrol reserves the right to change specifications without notice.

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2302 SERIES CURTAIN DOOR MAGNETIC CONTACTS

Model numbers:
2302, 2304



- **Designed specifically for curtain style overhead doors**
- **Interlocking mounting bracket**
- **Magnet mounts in door channel**
- **Fits most any door**
- **Reduced installation time**
- **Fewer service calls**
- **Mounting hardware included**

The **Sentrol 2302 Series Curtain Door** magnetic contacts are designed specifically for curtain style overhead doors. The unique design allows the contact to be mounted directly to the channel of the door, with the magnet mounted horizontally in the door slats, off the floor and out of harm's way. This eliminates the service calls and alarm situations that are created when typical floor-mount contacts become damaged, or as the door becomes misaligned with normal usage.

The interlocking mounting bracket adjusts to fit any size channel width. The 2302 Series contacts are constructed with a rugged extruded aluminum housing potted with Sentrol's exclusive polyurethane potting compound.

continued

Sentrol 2302 Series Curtain Door Magnetic Contacts

Architects and Engineering Specifications

The contact shall be a hermetically sealed reed switch nominally 3.6" L x 3" H x .65" D with actuating magnet. Each switch housing has two sets of mounting holes that shall be on 2.2" centers. Contact and magnet shall be in brushed extruded aluminum type housing. Contact shall be sealed in Sentrol's exclusive polyurethane potting compound. Mounting brackets shall be furnished with contact. Contacts shall be specified as Sentrol part numbers 2302 and 2304.

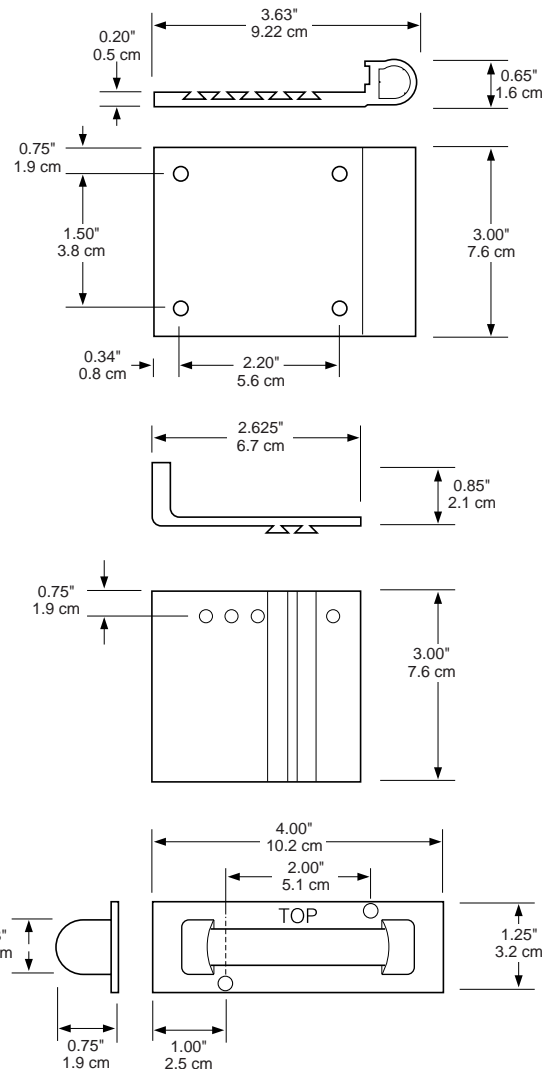
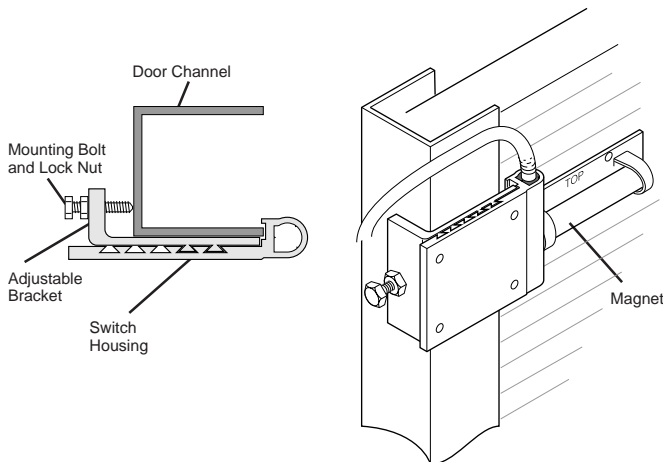
Specifications:

Form A (2302)

Voltage 100 V AC/DC max.
Current 0.5 A max.
Power 7.5 W max.

Form C (2304)

Voltage 30 V AC/DC max.
Current 0.25 A max.
Power 3.0 W max.



ORDERING INFORMATION

Model Number	Loop Type	Electrical Configuration	Color Choice	Gap Distance (Make)*	Lead Type	Listing
2302	Closed	N.O.	Aluminum	Up to 3"	2' stainless steel armored cable	UL
2304	Open or Closed	S.P.D.T.	Aluminum	Up to 3"	2' stainless	UL

NOTE: *Gap distances are nominal make distance $\pm 20\%$. Gap specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.

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Protected by U.S. Patent 5,777,552.



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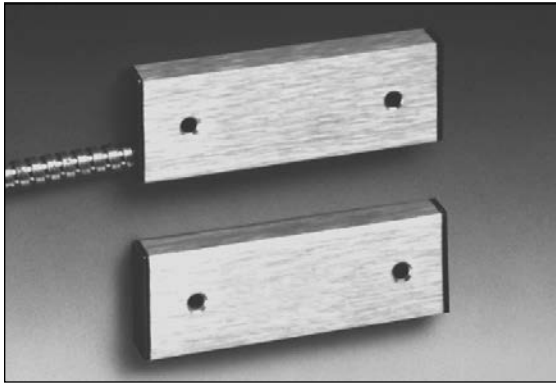
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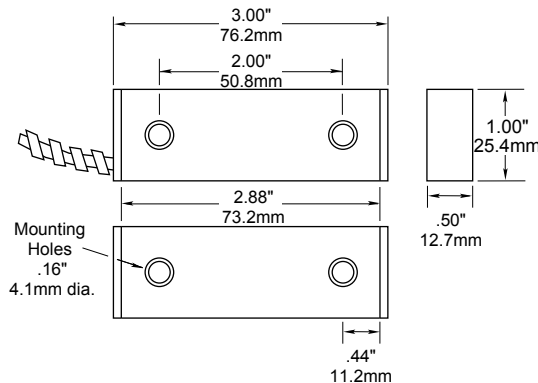
Aluminum Housing Armored Cable Wide Gap 2500 Series

Applications

- Mounting brackets available for gates, garage doors, freezers
- Rugged construction for long life
- Convenient surface mounting
- 2507AH is polarity-sensitive with reference to magnet direction

General Specifications

Enclosure	Brushed anodized aluminum with ABS plastic end caps (L)
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	Stainless Steel Armored Cable with #22 wire / (0.28") (0.71cm)
UL/ULC Listed	Most Models

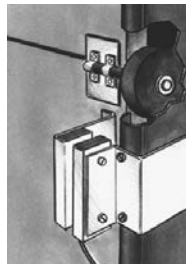


Mounting Kits for 2500 Series

1092A Garage Door Track Mounting Kit for Model 2505A

Includes:

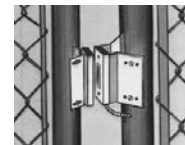
- 1- 1940 bracket
- 1-1912 bracket
- 1-2505A contact, mounting screws and instructions



1094A Curtain Door Mounting Kit for Model 2507AH

Includes:

- 1- 1941 bracket
- 1-1942 bracket
- 1-2507AH contact, mounting screws and instructions



Order Information

Electrical Specifications

Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Nominal	Lead Length
2505A-L	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	3.0" (7.6cm)	3'
2507A-L	SPDT	3W/VA	30V	0.25A	0.25 Ohms	3.0" (7.6cm)	3'
2507AD ⁴ -L	DPDT	3W/VA	30V	0.25A	0.25 Ohms	1.5" (3.8cm) Min	3'
2507AH ^{3,4} -L	SPDT	3W/VA	30V	0.25A	0.25 Ohms	0.8" (1.9cm) Min	3'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

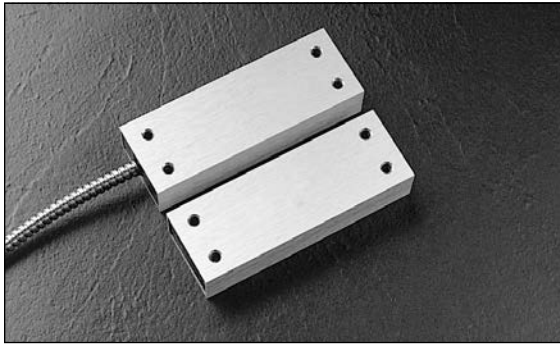
¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance \pm 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.

³ Note: 2507AH biased type temperature rating: -20°F to 150°F (-28°C to 65°C).

⁴ Not ULC Listed

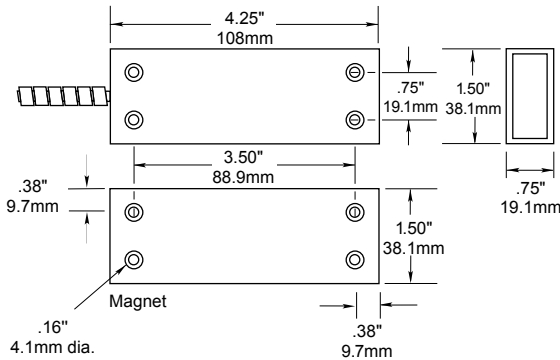


Anodized Alloy Housing with Armor Cable

2700 Series

Applications

- Triple-biased reeds make defeat of switch with external magnet virtually impossible
- Magnetic field tamper for added protection
- Factory compensated for effects of steel
- Available for several applications
 - overhead door
 - outside gate



General Specifications

Enclosure	Anodized Aluminum (L)
Temperature Range	-20°F to 150°F (-28°C to 65°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 4, 4x, 5, 6, 12
Protection Class	IP 67
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	Stainless Steel Armored Cable with #22 wire / 0.28" (0.71cm)
UL Listed	All Models



Order Information		Electrical Specifications						
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Sense Range ² Minimum	Sense Range Maximum	Lead Length
2707A-L	SPDT	3W/VA	30V	0.25A	1.5 Ohms	0.18" (0.5cm)	0.6" (1.6cm)	3'
2707AD-L	DPDT	3W/VA	30V	0.25A	1.5 Ohms	0.18" (0.5cm)	0.6" (1.6cm)	3'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects. Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



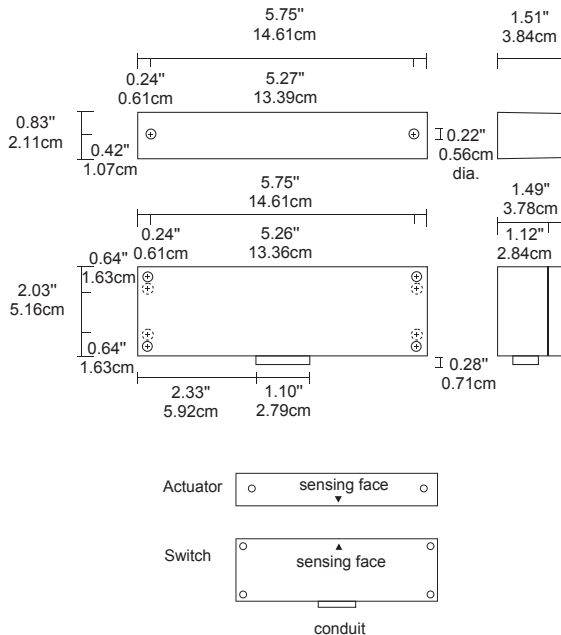
Explosion-Proof With Terminals 2800T Series

Applications

- Explosion-proof; UL listed for hazardous location classes:
 - Class I Group C, D
 - Class II Group E, F, and G
 - Class I Group B housing available
- Options include remote test, resettable current limiting device, custom modifications available
- Switch has pry-tamper plate

General Specifications

Enclosure	UL Explosion Proof, Die Cast Aluminum
Temperature Range	-40°F to -180°F (-40°C to 80°C)
Environmental	Hermetically Sealed Reed Switch Encapsulated in Polyurethane
NEMA Rating	1, 2, 3, 5, 12
Protection Class	IP 64
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Conduit Connection	1/2" Thread NPT
UL Listed	All Models



Order Information		Electrical Specifications				
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Sense Range ² Nominal	Terminal Type
2807T-M	SPDT	3W/VA	30V	0.25A	0.18" (0.5cm) to 0.62" (1.6cm)	#6 Screw
2845T-M	N.O.	7.5W/VA	100V	0.5A	1.0" (2.5cm)	#6 Screw
2847T-M	SPDT	3W/VA	30V	0.25A	1.0" (2.5cm)	#6 Screw

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with actuator away from the switch

² Proximity of ferrous materials usually reduces sense range — typically by 50%. The shape and type of material cause a wide diversity of effects.

Testing is required to determine actual sense range for specific applications. As measured on a nonferrous surface.

Gap distances are nominal make distance ± 20%. Gap Specifications are for switch to make. Break distance is approximately 1.1 to 1.5 times make.



Recessed Roller Plunger With Wire Leads 3008 Series

Applications

Model 3008 "Shorty"

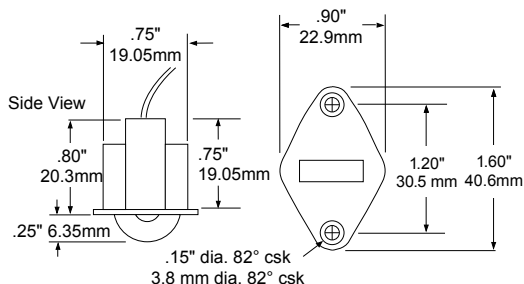
- Short housing (3/4") fits in tight quarters
- Ideal for replacing short mechanical switches
- Flow-through design to ensure operation in dirty environment

- Model 3007
- Versatile; three different mounting configurations
- Ideal for doors
- Works as plunger or ball switch
- Flanges for reliable, positive retention
- Spacers, mounting screws included

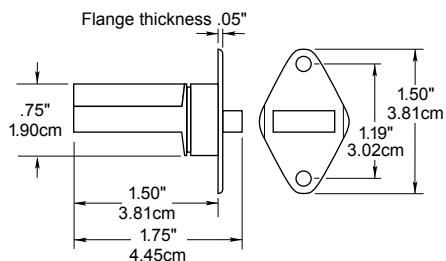
General Specifications

Enclosure	ABS plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Contact Housing is made of flame-retardant ABS plastic. Reed switch is protected and held in place by a polyurethane potting material
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M)
UL Listed	All Models

Model 3008



Model 3007



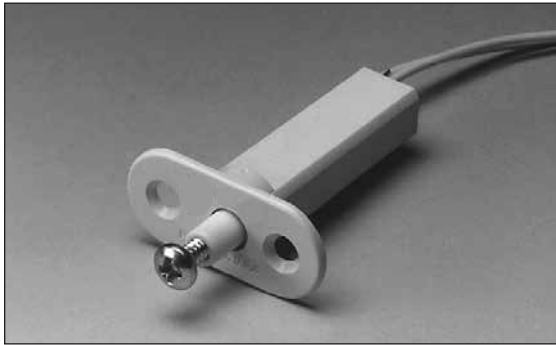
Order Information

Electrical Specifications

Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Load Length
3008-M	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1'
3007-M	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1'

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with plunger out.



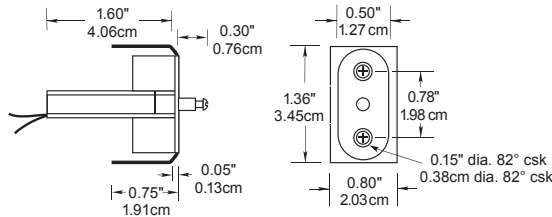
Recessed Pin Plunger 3010 Series

Applications

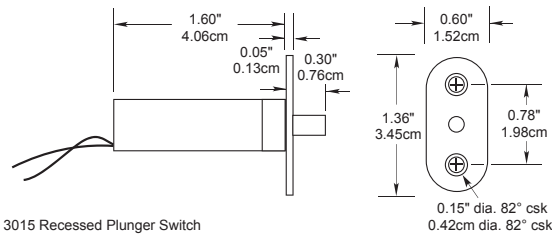
- Model 3015 available in plate mount or clip mount configuration
- Model 3025 plunger self-adjusts to proper reach
 - Pulling out on plunger shunts switch
 - Disconnection while servicing equipment is unnecessary

General Specifications

Enclosure	ABS plastic
Temperature Range	-40°F to 150°F (-40°C to 65°C)
Environmental	Contact Housing is made of flame-retardant ABS plastic. Reed switch is protected and held in place by a polyurethane potting material
NEMA Rating	1
Protection Class	IP 62
Response Time	1 msec max.
Life Cycles	100,000 Under Full Load, 10,000,000 Under Dry Circuit
Lead Types/O.D.	#22 wire / 0.05" (0.15cm)
Color Choices	Natural(N), Mahogany(M)
UL Listed	All Models

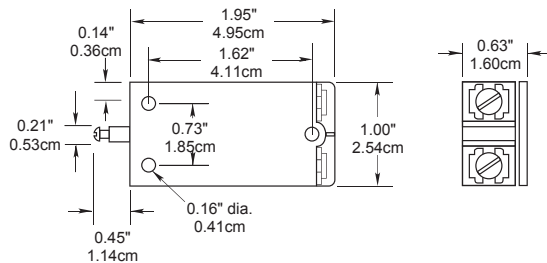


3012 Clip Mount Plunger



3015 Recessed Plunger Switch

Includes: 1— Adjustable #6 x 32 1/2" Phillips screw



3025 Tamper Switch



Order Information		Electrical Specifications				
Part Number	Contact ¹ Configuration	Load Rating (AC/DC)	Switching Voltage (AC/DC)	Switching Current (AC/DC)	Contact Resistance	Lead Length
3012-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1'
3015-M, N	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	1'
3027-M	SPDT	3W/VA	30V	0.25A	0.2 Ohms	1'
3025T-M	N.O.	7.5W/VA	100V	0.5A	0.2 Ohms	#6 Screw Terminal

Warning— Each electrical rating is an individual maximum and cannot be exceeded!

¹ Configuration with plunger out.

Magnets & Accessories

$\frac{3}{8}$ " dia. x $1\frac{1}{2}$ " L



Part Number 1057

Ceramic
 $\frac{1}{2}$ " dia. x $\frac{1}{4}$ " thick



Part Number 1802

$\frac{1}{4}$ " dia. x $\frac{5}{8}$ " L



Part Number 1804
Discontinued

Rare Earth
Mini-Max standard gap
 $\frac{3}{8}$ " dia. x $\frac{1}{8}$ " thick



Part Number IND1830

Rare Earth
Mini-Max wide gap
 $\frac{5}{8}$ " dia. x $\frac{1}{8}$ " thick



Part Number IND1835

$\frac{3}{8}$ " dia. x $2\frac{1}{2}$ " L



Part Number 1923

Tampruf® Screws Discontinued

Installation Tools for Tampruf®

Screws

- Tampruf screwdriver (1955)
- Fits $\frac{1}{4}$ " drive for #6 and #8 screws (1956)
(Bit not included with screwdriver)

Tampruf® Roundhead Metal/Wood Screw

- #6 x $\frac{3}{4}$ " L
- Cadmium plated
- Case hardened

Tampruf® Roundhead Metal/Wood Screw

- #8 x $1\frac{1}{2}$ " L
- Cadmium plated
- Case hardened



Part Number 1955
Discontinued

Part Number 1956
Discontinued



Part Number 1953
Discontinued



Part Number 1954
Discontinued