ENFORCER®

50ft Reflective Photoelectric Beam Sensor

E-931-S50RRGQ

Installation Manual

The ENFORCER E-931-S50RRGQ 50ft Reflective Photoelectric Beam Sensor provides reliable sensing of objects that enter the space between the sensor and reflector, thus breaking the infrared beam. It is suitable for various types of such as detection such as sensing approaching vehicles to open a garage door or outdoor gate, as an entry notification for stores, to assist in measuring parking distances, or an alarm notification, as well as many other uses.

- Up to 50ft (15m) sensing range
- Weatherproof (IP55) construction
- Anti-condensation housing
- 12-30V DC/AC 60Hz, 100mA
- Round, ø3$\frac{1}{4}$" (82mm) reflector
- Form C relay: 0.5A@30VAC/VDC
- Beam status LED
- N.C. Tamper switch, 500mA@30VAC/VDC

IMPORTANT: The E-931-S50RRGQ conforms to UL Std. 325 for gate operators that use the N.C. or 10kΩ resistor for monitoring.

CAUTION
- This sensor was not designed to prevent bodily injury or loss of life.
- This sensor was not designed for use in environments where explosive gases may be present.
- Use of this sensor in certain security applications may be regulated by local laws or codes. SECO-LARM is not responsible for compliance with such laws or codes.

SECO-LARM®

Parts List

1x **Sensor** 1x **Reflector mounting screw** 1x **Sensor hood** 1x **Reflector hood** 4x **Cover screws**
1x **Reflector** 1x **Wall anchor (for reflector)** 1x **Mounting bracket** 1x **Cable connector** 2x **Mounting screws**
1x **Rubber ring** 1x **Removable terminal block** 1x **Manual**

Specifications

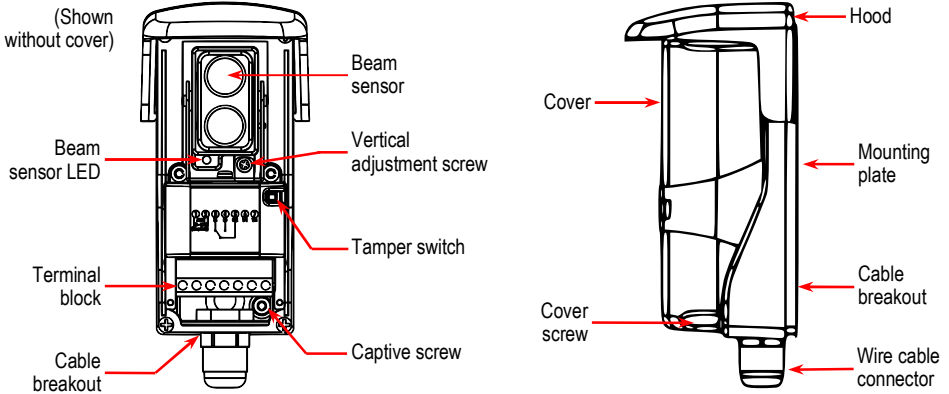| Type		Reflective photoelectric beam sensor
Operating voltage		12-30V DC/AC 60Hz, 100mA
Sensing range		50ft (15m)
Current draw	Standby	55mA@12VDC
	Active	40mA@12VDC
Response time		10ms
Light source		IR LED
LED indicators	Solid green	Good beam signal, properly aligned
	Alternating flash	Poor beam signal
	Solid red	No beam signal, triggered
Trigger output		SPDT Relay output (NO/NC/COM with built-in 10kΩ resistor on N.O. output)
Switching capacity		0.5A@30VAC/VDC
Tamper switch		N.C. 500mA@30VAC/VDC
IP Rating		IP55 Weatherproof
Operating temperature		-13~140° F (-25~60° C)

Dimensions
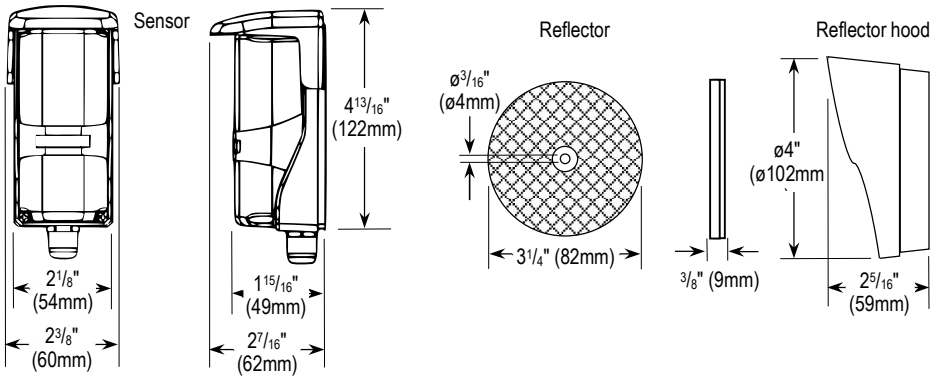
Wiring Diagram

- Polarity is not important for the power input.
- Connect the N.C. tamper terminal to the tamper circuit of an alarm control panel.

Overview

(Shown without cover)

Beam sensor

Vertical adjustment screw

Beam sensor LED

Tamper switch

Terminal block

Captive screw

Cable breakout

Hood

Cover

Mounting plate

Cover screw

Cable breakout

Wire cable connector
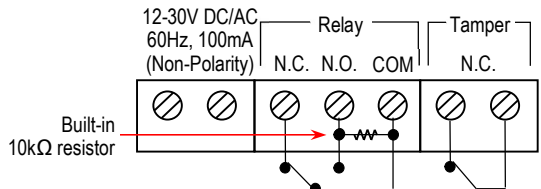
Mounting

1. Unscrew the four cover screws and remove the cover.
2. Loosen the captive screw and remove the sensor from the mounting plate.
3. Using the included mounting screws, attach the mounting plate to the wall.
4. Use the cable breakout and cable connector at the bottom or rear of the sensor to run the wires.
5. Hang the sensor back on the plate and use the captive screw to secure it in place.

6. Re-attach the cover, replace the four screws, and attach the hood to the top of the sensor.
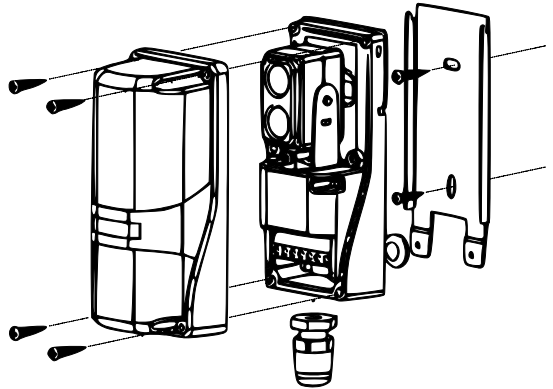
Wiring for Bottom Cable Breakout

1. Puncture the cable breakout located at the bottom of the sensor using a screwdriver or other object.
2. Insert the short end side of the cable connector into the cable breakout hole and use the nut to secure it, tightening with a wrench as needed.
3. Run the wires through the end cap and cable connector.
4. Screw the end cap into the external side of the cable connector to prevent water from entering the unit.

Sensor

Rubber neck

Nut

Cable Connector

End cap
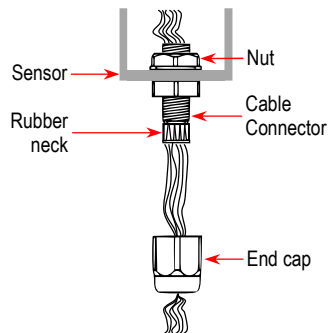
Alignment

1. Mount the sensor and reflector so that they face each other.
2. Connect power to the sensor. The LED will light as indicated in the chart shown at right below.
3. Unscrew the four cover screws and remove the cover.
4. To find the correct alignment, slowly turn the lens assembly left and right to adjust the horizontal angle.
5. Loosen the vertical adjustment screw to adjust the vertical angle.
6. Re-attach the cover, replace the four screws, and attach the hood to the top of the sensor by sliding the hood's ridges into the slots on the sides of the sensor.
7. Close the cover securely to prevent water from entering the sensor.
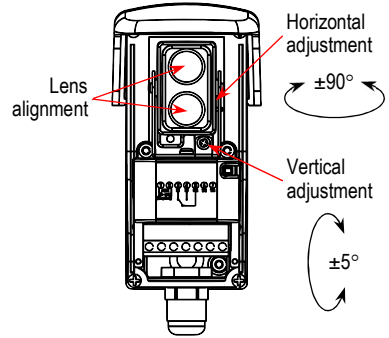
Horizontal adjustment
Lens alignment
±90°
Vertical adjustment
±5°

Solid green	Good beam signal, properly aligned
Alternating flash	Poor beam signal
Solid red	No beam signal, triggered

NOTE: Depending on the monitoring system used by the gate motor, it may be necessary to use either the N.C. output or the N.O. output with the built-in 10kΩ resistor. Please refer to the gate operator manual or the gate operator manufacturer for the preferred monitoring method.

Sample Installations
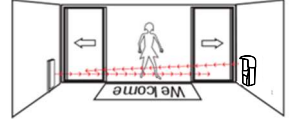
Parking Distance Monitor
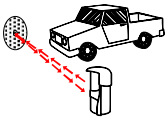
Entry Gate
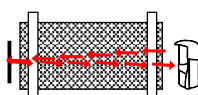
Garage Door
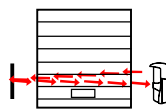
Store Entrance

Welcome

Troubleshooting

Sensor does not detect the object	• Change the angle of the sensor or readjust the sensitivity setting
The beam sensor LED will not turn green	• Clean the sensor and reflector with a damp (not wet) cloth • Adjust the reflector and/or sensor for proper alignment
Beam sensor LED lights when object is detected, but no output	• Check cable from sensor to alarm device and test sensor

SECO-LARM ® U.S.A., Inc.

16842 Millikan Avenue, Irvine, CA 92606
Phone: (949) 261-2999 | (800) 662-0800

Website: www.seco-larm.com
Email: sales@seco-larm.com

PITSW3

MI_E-931-S50RRGQ_231108.docx