

33ft Polarized Reflective Photoelectric Beam Sensor

E-931-S33PRGQ

Installation Manual



The ENFORCER E-931-S33PRGQ 33ft Polarized Reflective Photoelectric Beam Sensor provides reliable sensing of shiny objects that enter the space between the sensor and reflector, thus breaking the infrared beam. It is suitable for various types of 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.

- Polarized sensor is immune to shiny objects:
Triggers only when correctly reflected light is detected
- Weatherproof (IP55) construction
- Anti-condensation housing
- 12-30V DC/AC 60Hz, 100mA
- Up to 33ft (10m) sensing range
- Round, $\varnothing 3\frac{1}{4}$ " (82mm) reflector
- Form C relay: 0.5A@30VAC/VDC
- Beam status LED
- N.C. Tamper switch, 500mA@30VAC/VDC

IMPORTANT: The E-931-S33PRGQ conforms to UL Std. 325 for gate operators that use the N.C. or 10k Ω 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.

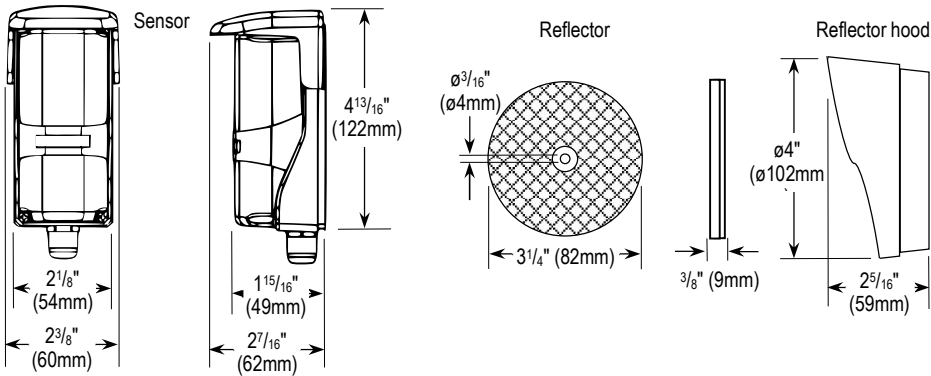
Parts List

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

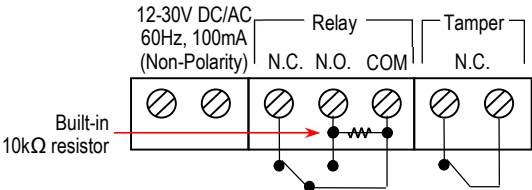
Type		Polarized reflective photoelectric beam sensor
Operating voltage		12-30V DC/AC 60Hz, 100mA
Sensing range		33ft (10m)
Current draw	Standby	55mA@12VDC
	Active	40mA@12VDC
Response time		10ms (max.)
Light source		IR LED,,wavelength 740nm
LED indicators	Solid green	Good beam signal, properly aligned
	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		-4~131° F (-20~55° C)

Dimensions

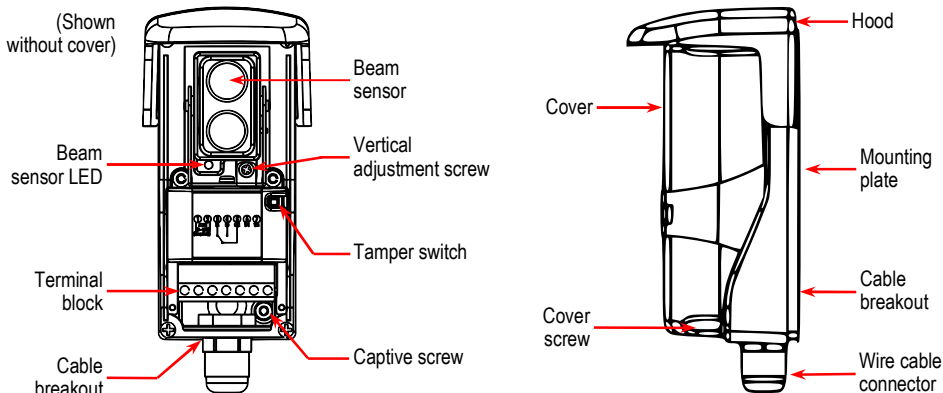


Wiring Diagram

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

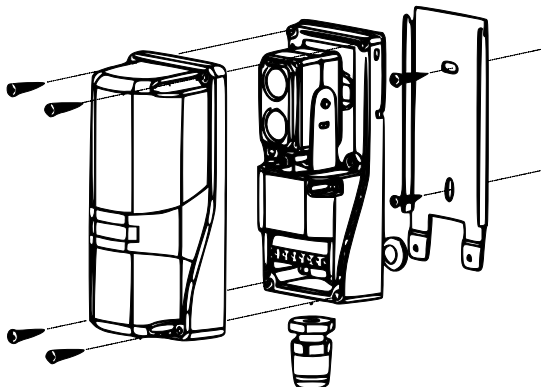


Overview



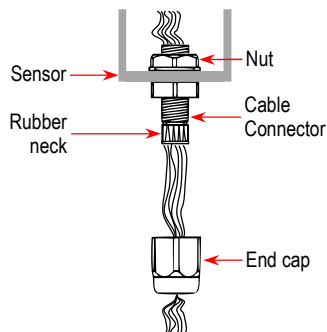
Mounting

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.



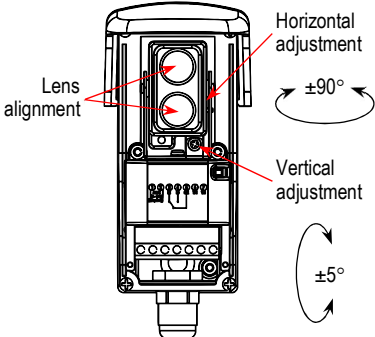
Wiring for Bottom Cable Breakout

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.



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.

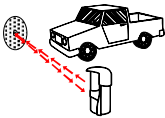


Solid green	Good beam signal, properly aligned
Alternating flash	Poor beam signal
Solid red	No beam signal, triggered

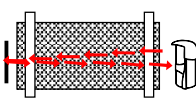
NOTE: Depending on the monitoring system used by the gate motor, it may be necessary to use either the N.C. output or the N.O. output with the built-in 10k Ω resistor. Please refer to the gate operator manual or the gate operator manufacturer for the preferred monitoring method.

Sample Installations

Parking Distance Monitor



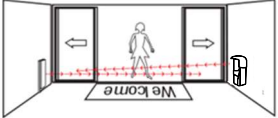
Entry Gate



Garage Door



Store Entrance



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

IMPORTANT: Users and installers of this product are responsible for ensuring that the installation and configuration of this product complies with all national, state, and local laws and codes. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

California Proposition 65 Warning: These products may contain chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

WARRANTY: This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

NOTICE: The SECO-LARM policy is one of continual development and improvement. For that reason, SECO LARM reserves the right to change specifications without notice. SECO-LARM is also not responsible for misprints. All trademarks are the property of SECO-LARM U.S.A., Inc. or their respective owners. Copyright © 2024 SECO-LARM U.S.A., Inc. All rights reserved.

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