ENFORCER®

E-931-S50RRQ

50ft Reflective Photoelectric Beam Sensor

Manual

- Up to 50ft (15m) sensing range
- Weatherproof (IP66)
- Anti-condensation housing
- 12~250 VAC/VDC
- Form C relay: 1A@30VDC
- Beam status LED
- N.C. Tamper switch: 500mA@30VDC

Caution:

- This sensor is not designed to prevent bodily injury or loss of life.
- This sensor is not designed for use in environments where explosive gasses 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.
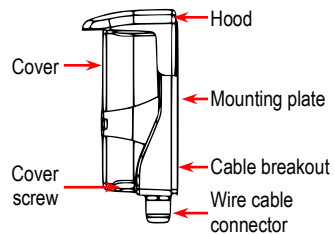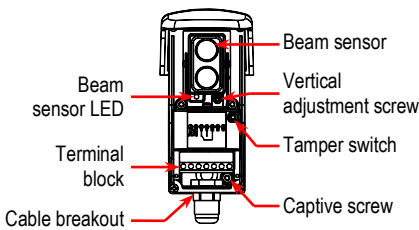
SLI® SECO-LARM®

CE RoHS

Note: Products with model numbers that end with "Q" or that have a round green "Q" sticker are RoHS compliant.

Specifications:

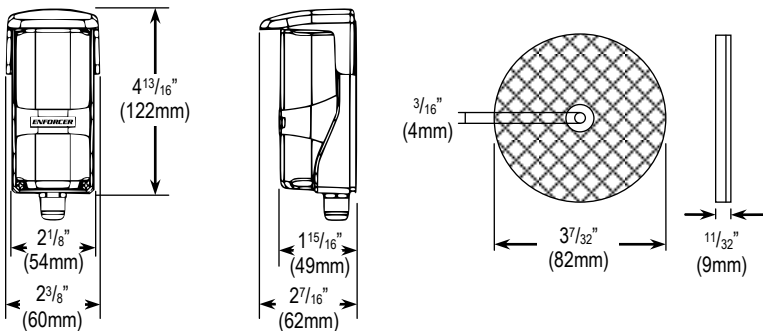| Model		E-931-S50RRQ
Type		Reflective photoelectric beam sensor
Sensing range		50ft (15m)
Operating voltage		12~250 VAC/VDC
Current draw (max.)	12VDC	Standby: 50mA; Active: 25mA
	24VAC	Standby: 30mA; Active: 18mA
Response time		10ms
Light source		IR LED
LEDs	Solid Green	Good beam signal, properly aligned
	Alternating flash	Poor beam signal
	Solid Red	No beam signal, triggered
Trigger output		SPDT Relay output (NO/NC/COM)
Switching capacity		0.5A@120VAC/1A@30VDC
Tamper switch		500mA@30VDC
IP Rating		IP66
Operating temperature		-13 ~140 F (-25 ~60 C)

Parts List:

1x Sensor
1x Reflector
1x Mounting bracket
1x Sensor hood
4x Cover screws
2x Mounting screws
1x Reflector mounting screw
1x Rubber ring
1x Cable connector
1x Manual
1x Removable terminal block

Overview:

(without cover)

Beam sensor
Beam sensor LED
Vertical adjustment screw
Tamper switch
Terminal block
Captive screw
Cable breakout

Hood
Cover
Mounting plate
Cover screw
Cable breakout
Wire cable connector

Dimensions:

4¹³/₁₆" (122mm)
2¹/₈" (54mm)
2³/₈" (60mm)
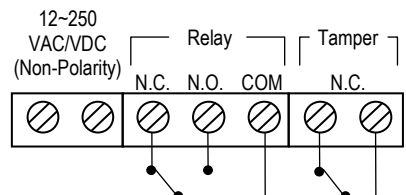1¹⁵/₁₆" (49mm)
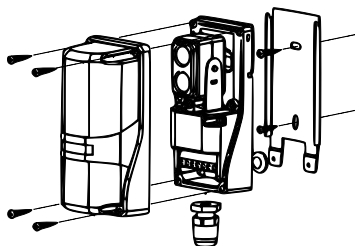2⁷/₁₆" (62mm)
³/₁₆" (4mm)
3⁷/₃₂" (82mm)
¹¹/₃₂" (9mm)

Wiring Diagram:

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

12~250 VAC/VDC (Non-Polarity)
Relay — N.C. N.O. COM
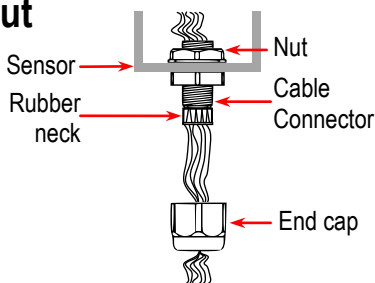Tamper — N.C.

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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, mount 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.
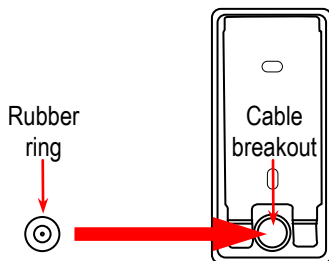6. Re-attach the cover, replace the four screws, and attach the hood to the top of the sensor.

Wiring for the 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. Then screw the end cap into the external side of the cable connector to prevent water from entering the unit.

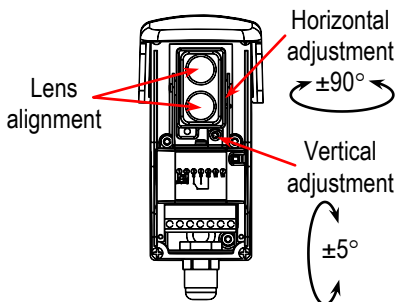Sensor → · Nut · ← Cable Connector · Rubber neck · ← End cap

Wiring for the Rear Cable Breakout

1. Puncture the cable breakout located at the rear of the sensor using a screwdriver or other object.
2. Run wires through the included rubber ring.
3. Install the weatherproofing ring with the wires already installed in the cable breakout hole.
4. Make sure the ring is secure and there is no room for water to get into the unit.
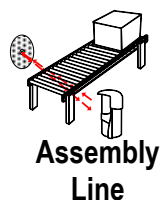
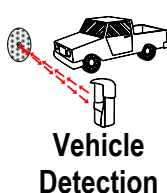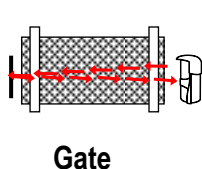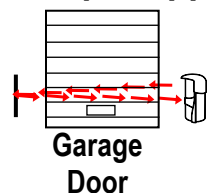Rubber ring · Cable breakout

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 below.
3. Unscrew the 4 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. Place the hood on the sensor by sliding the hood's ridges into the slots on the sides of the sensor.
7. Re-attach the cover, replace the four screws, and attach the hood to the top of the sensor.

Horizontal adjustment ±90° · Lens alignment · Vertical adjustment ±5°

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

Sample Applications:

Garage Door

Gate

Vehicle Detection

Assembly Line

Optional Accessory:

Reflector Hood
E-931ACC-HR

Provides extra protection for the reflector.

Compatible with Reflective Photoelectric Beam Sensor models E-931-S50RRQ, E-931-S35RRQ, and E-931-S33PRQ.

Other Sensors Available:

Reflective Photobeam

Dual and Quad Beam

Curtain and Barrier

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 there is no output.	• Check wiring between the sensor and local alarm device.

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