

# ENFORCER®

## E-936-S35RRGQ

### 35ft Retro-Reflective Photoelectric Beam Sensor

#### Manual



**Intertek**  
Conforms to UL325-2016



#### Features:

- Up to 35ft (11m) sensing range
- Weatherproof (IP66) construction for indoor/outdoor usage
- Pre-wired 6-foot cord
- Bracket and mounting hardware included for both sensor and reflector
- Adjustable sensing range
- Compact size

#### Typical Applications:

- Sensor for garage doors or outdoor gates
- Entry detection for store fronts
- Assist in measuring parking distance
- Light on type

**IMPORTANT:** The E-936-S35RRGQ conforms to UL325-2016 for gate operators that use the N.C. or 10k $\Omega$  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.

# ENFORCER 35ft Retro-Reflective Photoelectric Beam Sensor

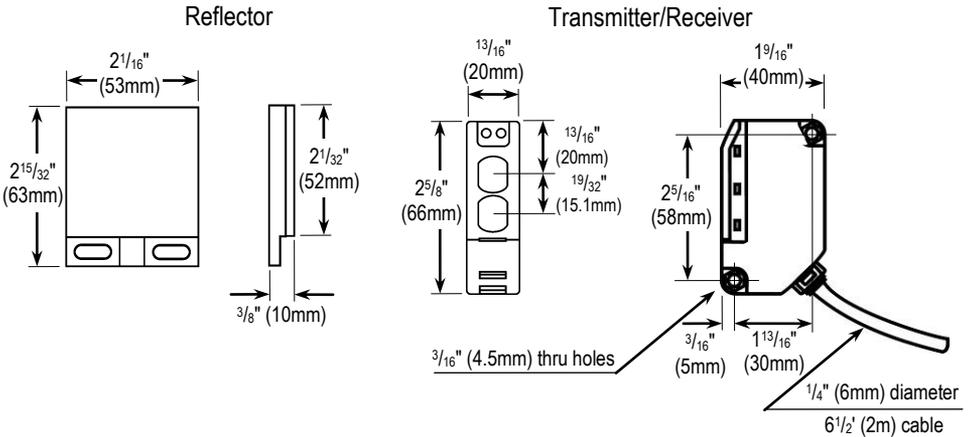
## Parts List:

1x Transmitter/Receiver	1x Reflector	4x Lock Washers	4x Hex Nuts
1x Sensor Mounting Bracket	1x Reflector Mounting Bracket	4x Flat Washers	1x Manual
2x Sensor Mounting Screws	2x Reflector Mounting Screws		

## Specifications:

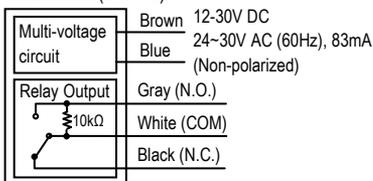
Type	Retro-reflective		
Sensing range	0.5~35 ft (0.2~11 m)		
Operating voltage	12-30V DC/24-30V AC 60Hz, 83mA		
Current draw	Standby	60mA@12VDC	
	Active	25mA@12VDC	
Response time	10ms (max.)		
Light source	IR LED		
LED indicators	Yellow LED (alignment), Red LED (power on, triggered off)		
Trigger output	SPDT Relay output (NO/NC/COM, with built-in 10KΩ resistor on N.O. output)		
Switching capacity	2A@30VAC/VDC		
Enclosure	IP66 Weatherproof		
Operating temperature	-4°~131° F (-20°~55° C)		
Mounting brackets for sensor and reflector	Included		

## Dimensions:



## Wiring:

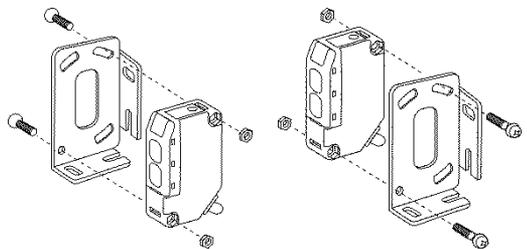
Connection (5 wires)



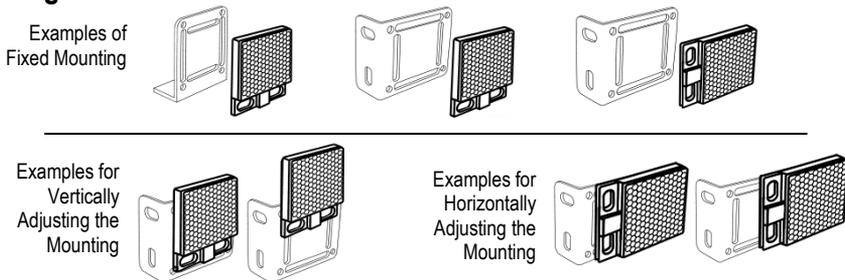
### Note:

1. Can be connected to AC or DC voltage
2. Maximum cable extension length is 325 ft (100 m)

## Mounting the Sensor:



## Mounting the Reflector:



## Installation and Adjustment:

### LED Functions:

- Red LED – When ON, indicates the sensor is powered and the sensor is not triggered.
- Yellow LED – When ON, indicates the sensor is properly aligned with the reflector and the sensor is not triggered.

### Sensing Range Adjustment Functions:

- Min. Setting – The infrared power signal emitted by the sensor is at its minimum or weakest.
- Max. Setting – The infrared power signal emitted by the sensor is at its maximum or strongest.

The purpose of this function is to adjust the infrared signal's power to correspond to the distance between the sensor and the reflector. The factory default setting is set at "Max."

**Note:** If the infrared signal is too strong, the sensor may not trigger. If the infrared signal is too weak, the sensor may be susceptible to false alarms.

### Installation:

1. Mount the reflector and the sensor so they face each other (see pg. 2, "Mounting the Sensor").
2. Connect power to the sensor (see pg. 2, "Wiring"). The red LED (power) should turn ON. If the yellow LED is ON, the sensor and reflector are aligned (although some adjustment may still be necessary).
3. Turn the sensing range knob to Max.
4. To find the correct alignment, slowly adjust the angles of the sensor (and/or reflector) up, down, left or right.

**Note:** Correct alignment is reached when the yellow LED turns ON.

**Note:** If adjusting the sensor will not turn the yellow LED on, the sensor is at the edge of sensing the signal, and may not work properly.

### Adjusting the Sensing Range:

After the sensor and reflector have been properly installed, the next step is to adjust the sensor range (See Fig. 1).

Starting from the Max. position, slowly turn the knob counter-clockwise until the yellow LED turns OFF. This position represents the weakest point of the infrared signal

for this particular application. The setting of the sensing range must be a little higher than this point, so turn the knob clockwise somewhat from the weakest point. The ideal setting is midway between the weakest point and Max.

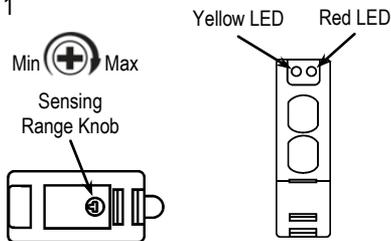
**Note:** When turning the knob counter-clockwise from the Max. position, if the weak point is near the Max. position then the knob should be set at Max.

### Testing:

1. Power up the sensor. Both LEDs should be ON.
2. Pass the object to be detected between the sensor and reflector. Both LEDs should turn OFF. This indicates that the object has been detected.

**Note:** If a shiny object, such as a chrome-plated item or something with reflective tape, is within close proximity of the path of the IR beam, the sensor may not be able to detect the passing object. It may be necessary to turn the sensing range knob counter-clockwise until the desired setting is obtained.

Fig. 1



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

The E-936-S35RRGQ will not work with gate operators that monitor using the "heartbeat" method.

# ENFORCER 35ft Retro-Reflective Photoelectric Beam Sensor

## Troubleshooting:

- |  |   |
|--|---|
| Sensor does not detect the object.                   | • Change the angle of the sensor or readjust the sensitivity setting  |
| Yellow LED does not turn on                          | • Clean the sensor and reflector with a damp (not wet) cloth<br>• Adjust the reflector and/or sensor for proper alignment |
| LEDs turn off when object is detected, but no output | • No continuity between sensor and alarm device. Check cable from sensor to alarm device. Test sensor.                    |

## Optional Accessories Available from SECO-LARM®:



E-931ACC-R2Q  
Square Reflector



E-931ACC-RC1Q  
Round Reflector



E-931ACC-HR1Q  
Reflector Hood for  
Round/Square Reflector



E-931ACC-BLR2Q  
Reflector Bracket



E-931ACC-BLS1Q  
Sensor Bracket



E-931ACC-BLS7Q  
Wall Bracket



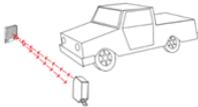
E-931ACC-BLS8Q  
Door Frame Bracket



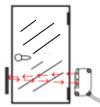
E-931ACC-BLS6Q  
Single-gang Bracket

## Sample Installations:

Parking Distance Monitor



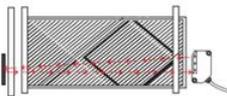
Main Entrance Door



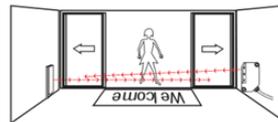
Garage Door



Entry Gate



Store Entrance



**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for 1 (one) 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.

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