ENFORCER®

Infrared Proximity Sensors

Manual
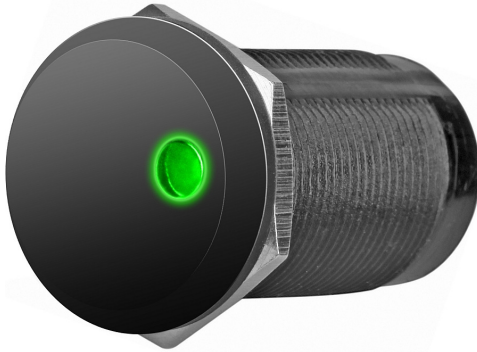
CS-PD115-PAQ shown

Model	Size	Material
CS-PD115-PAQ	ø$^3/_4$" (ø19mm)	Polycarbonate
CS-PD419-PQ	ø$^3/_4$" (ø19mm)	Stainless steel and polycarbonate
CS-PD422-PQ	ø$^7/_8$" (ø22mm)	Stainless steel and polycarbonate
CS-PD438-PQ	ø1$^1/_2$" (ø38mm)	Stainless steel and polycarbonate

- No-touch operation reduces the risk of spread of germs, viruses, etc., through cross-contamination
- Triggers a warning or locking device when the sensor is triggered
- Form C relay output (1A@30VDC)
- Adjustable output time (0.5~30 s) or toggle
- Adjustable sensor range up to 6" (15cm)

- Selectable LED colors (turns from red to green or green to red on activation)
- 12~24 VDC Operation
- Variety of sizes allow for a wide range of applications
- Filters out interference from other infrared sources
- Weatherproof front panel (IP65)*

*When properly installed, see pg. 2

SECO-LARM® **SLI**™

CE RoHS

Introduction:

ENFORCER IR Proximity Sensors are compact and can be programmed to unlock an electronic door lock when an object (such as a hand) is passed in front of the sensor or trigger an alarm when an object (such as a valuable possession) is removed from the sensing area. This flexibility makes the sensors ideal for both anti-theft and access control applications.

- Access control: Mount the sensor to a wall or plate in a protected area. A user can wave a hand in front of the sensor to unlock an electric lock for no-touch, protected egress.

- Anti-theft: Place the sensor under or behind a painting or other valuable object. If the object is removed, the sensor will trigger an alarm to alert the owner.
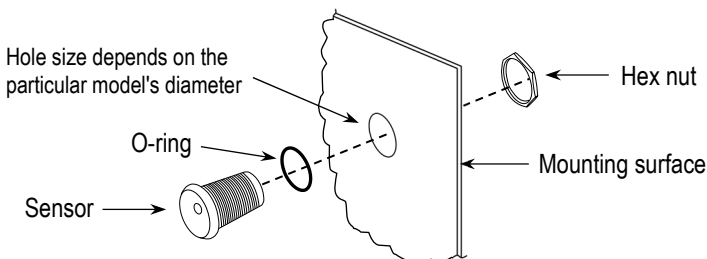
Parts List:

1x IR proximity sensor   1x Wiring harness   1x Hex nut   1x O-ring   1x Manual

Specifications:

Model		CS-PD438-PQ	CS-PD422-PQ	CS-PD419-PQ	CS-PD115-PAQ
Diameter		ø1^1/$_2$" (ø38mm)	ø^7/$_8$" (ø22mm)	ø^3/$_4$" (ø19mm)	
Case material		Stainless steel and polycarbonate			Polycarbonate
Operating voltage		12~24 VDC			
Power consumption	12VDC	35mA@12VDC	30mA@12VDC		
	24VDC	45mA@24VDC	35mA@24VDC	30mA@12VDC	
Relay type		Form C dry contact, NO/NC/COM, 1A@24VDC, 0.5A@12VAC			
Connectors		Wire terminals			
Response time		10ms			
Output time		0.5~30 s or Toggle			
Sensing range		1^9/$_{16}$"~6" (4~15 cm)			
LED Status indicator		Selectable red/green or green/red			
Operating life	Relay	1,000,000 cycles			
	Sensor	100,000 Hours			
IP Rating		IP65 (front panel only)			
Operating temperature		4°~131° F (-20°~55° C)			

Installation:

Hole size depends on the particular model's diameter

Hex nut

O-ring

Mounting surface

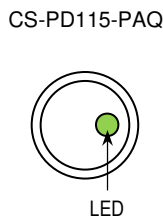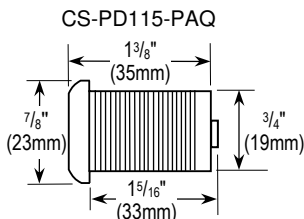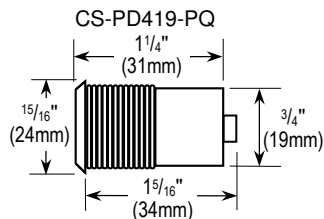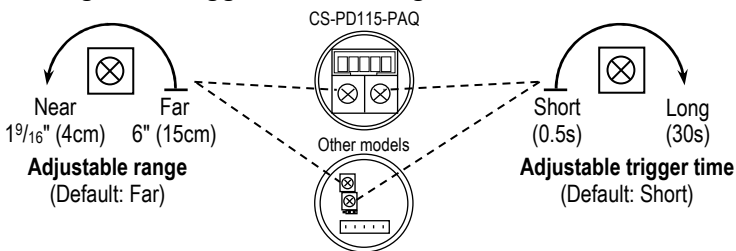Sensor

NOTES:
1. Only the front is IP65 rated. For weatherproof installation, the O-ring must be used as shown and the area behind the mounting surface must be protected from moisture incursion.
2. To ensure proper operation, make sure no objects sit or come within 11^3/$_4$" (30cm) (60° to the left and right) of the front of the IR proximity sensor to avoid interference.
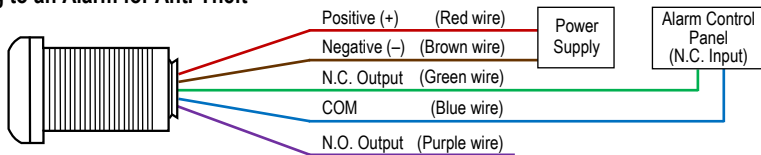
Overview:

CS-PD419-PQ

1¹/₄" (31mm)
¹⁵/₁₆" (24mm)
³/₄" (19mm)
1⁵/₁₆" (34mm)

CS-PD115-PAQ

1³/₈" (35mm)
⁷/₈" (23mm)
³/₄" (19mm)
1⁵/₁₆" (33mm)

CS-PD115-PAQ

LED

CS-PD422-PQ

1¹/₈" (28mm)
1" (25mm)
⁷/₈" (22mm)
1¹/₄" (31mm)

CS-PD438-PQ

¹¹/₁₆" (17mm)
1⁵/₈" (41mm)
1¹/₂" (38mm)
⁹/₁₆" (15mm)

CS-PD419-PQ
CS-PD422-PQ
CS-PD438-PQ

Ring LED

IR Range and Trigger Time Settings:

CS-PD115-PAQ

Near
1⁹/₁₆" (4cm)

Far
6" (15cm)

Adjustable range
(Default: Far)

Other models

Short
(0.5s)

Long
(30s)

Adjustable trigger time
(Default: Short)
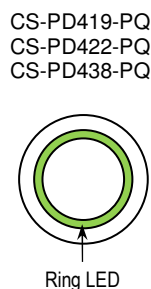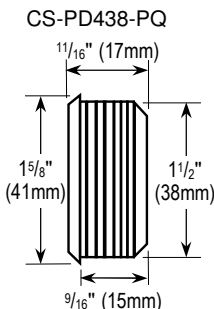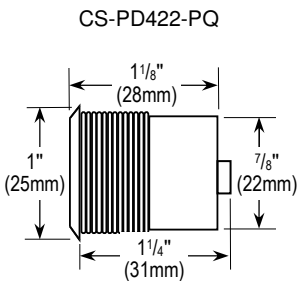
Toggle mode:
Set the trigger time to maximum.

Sample Wiring:

Wiring to an Alarm for Anti-Theft*

Positive (+)   (Red wire)
Negative (−)   (Brown wire)
N.C. Output   (Green wire)
COM   (Blue wire)
N.O. Output   (Purple wire)

Power Supply

Alarm Control Panel (N.C. Input)

*Sensor covered (relay active) in normal state

Wiring to an N.O. Door Strike for Wave-to-Open Egress

Positive (+)   (Red wire)
Negative (−)   (Brown wire)
N.C. Output   (Green wire)
COM   (Blue wire)
N.O. Output   (Purple wire)

Power Supply

Door Strike Power Supply

Electric Door Strike

Diode[†]   MOV[†]
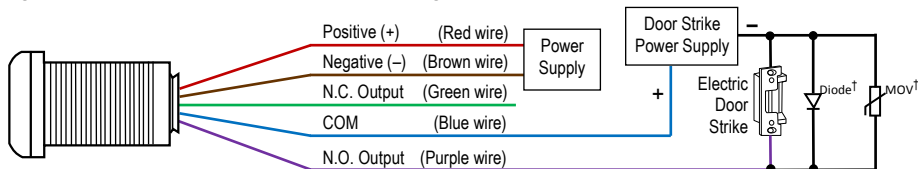
[†]Suggest connecting a metal oxide varistor (MOV) and diode (both not included) as close as possible and in parallel with the controlled output device. This absorbs possible electromagnetic interference to prevent damaging the IR proximity sensor.
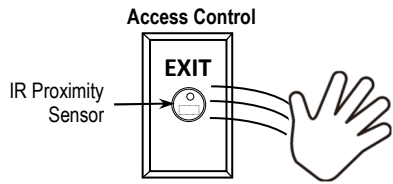
Sample Applications:

CS-PD115-PAQ

Anti-Theft

IR Proximity Sensor
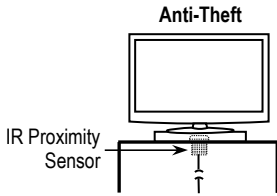
Place the sensor under or behind a valuable object. If the object is removed from the sensor, the sensor will trigger an alarm to alert the owner that the item is out of place.

Access Control

EXIT

IR Proximity Sensor

Mount the sensor to a wall or plate in a protected area. A user can wave his or her hand in front of the sensor to unlock an electronic door lock, allowing germ-free, protected egress.

Available Models:

CS-PD115-PAQ | CS-PD419-PQ | CS-PD422-PQ | CS-PD438-PQ

Troubleshooting:

The indicator light is continuously green	• Check that there are no objects in front of the sensor • Adjust the sensor's range to be shorter (see IR Range and Trigger Time Settings on page 3) • Check that the power supply's voltage is 12~24 VDC • Adjust the trigger time setting – a long delay or enabling toggle mode could affect the sensor's operation
The indicator light will not turn green	• Adjust the sensor's range to be longer (see IR Range and Trigger Time Settings on page 3) • Check that the power supply's voltage is 12~24 VDC

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 related to locking and egress devices. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

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.

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