ENFORCER®

Infrared Proximity Sensor
Installation Manual

CS-PD535-TAQ shown

ETL LISTED US
Intertek
5024193
Conforms to
UL Std. 294

CE RoHS

- No-touch operation reduces the risk of spread of germs, viruses, etc., through cross-contamination
- Adjustable sensor range $2^3/_8$"-8" (6~20 cm), 3A relay, adjustable trigger duration 0.5~30 seconds or toggle
- LED illuminated sensor area for easy identification
- Selectable LED colors (CS-PD535-TAQ turns from red to green or green to red, CS-PD535-TBQ turns from blue to green or green to blue) when the sensor is activated

Model	LED (standby/triggered)
CS-PD535-TAQ	Green/Red
CS-PD535-TBQ	Green/Blue

Parts List

1x **Proximity sensor**   1x **Manual**

Specifications

Model	CS-PD535-TAQ	CS-PD535-TBQ
Operating voltage	12~24 VAC/VDC	
Current draw (max.)	120mA@12VDC	
Relay type	Form C dry contact, 3A@24VDC	
Connectors	Quick-connect, screwless terminal block	
Response time	10ms	
Output time	Adjustable, 0.5~30 sec., toggle, or as long as sensor is triggered	
Sensing range	Adjustable, $2^3/_8$"~8" (6-20 cm)	
LED Indicators — Standby	Red*	Blue*
LED Indicators — Triggered	Green*	Green*
Operating life — Relay	500,000 cycles	
Operating life — Sensor	100,000 hours	
Case material	ABS Plastic	
Operating temperature	-4°~131° F (-20°~55° C)	
Dimensions	$1^3/_4$"x$2^1/_8$"x$1^7/_{16}$" (44x55x37 mm)	
Destructive attack level	Level I	
Line security	Level I	
Endurance level	Level IV	
Standby power	Level I	

*Default, reversible by jumper

Overview

$1^7/_{16}$" (37mm)
$1^1/_4$" (32mm)
$5/_{16}$" (8mm)
$2^1/_8$" (55mm)
$1^1/_8$" (29mm)
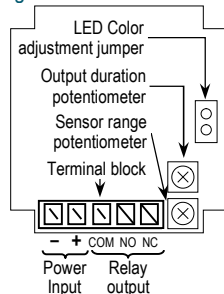
$1^3/_4$" (44mm)
2" (50mm)
$1^{11}/_{16}$" (43mm)
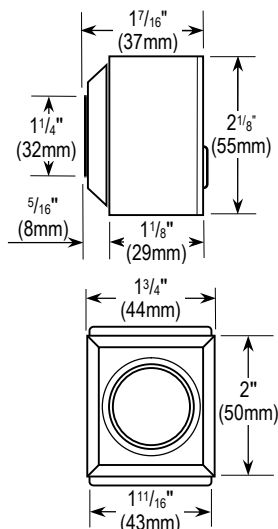
Installation

1. The sensor is meant to be installed on a rigid thin surface, maximum thickness $1/_{16}$" (2mm).
2. Disassemble the sensor and cut a hole in the mounting surface slightly smaller than the front sensor plate $1^3/_8$" (35mm) wide and $1^3/_4$" (45mm) high.
3. Reassemble as illustrated on pg. 2 except for the back cover.
4. Punch and thread the wires through the wiring grommet. Connect them to the terminal block. Power must be provided by a low-voltage power-limited/Class 2 power supply and low-voltage field wiring not to exceed 98.5ft (30m).
5. To adjust the sensor's range, turn the trimpot counterclockwise (decrease) or clockwise (increase) (see Fig. 1).
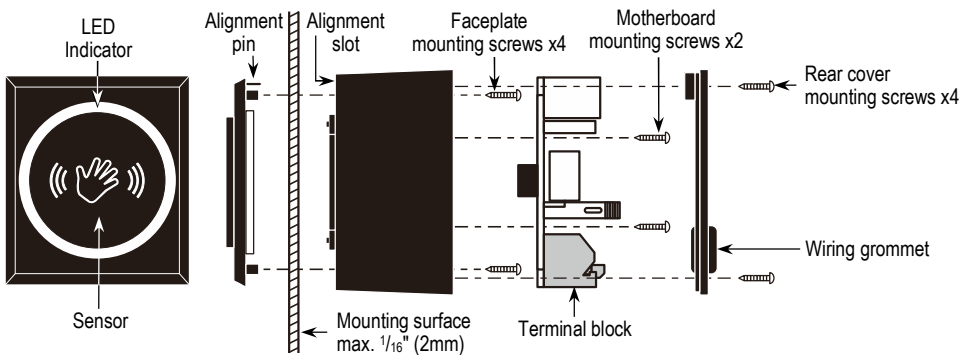
Fig. 1

LED Color adjustment jumper
Output duration potentiometer
Sensor range potentiometer
Terminal block
− + COM NO NC
Power Input
Relay output

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Installation (Continued)

6. To adjust the output time, turn the trimpot counterclockwise (decrease) or clockwise (increase). To set to toggle, turn the trimpot all the way counterclockwise (see pg. 1, Fig. 1).
7. To reverse the default LED colors, remove the jumper pin (see pg. 1, Fig. 1).
8. Install the back cover.

INSTALLATION NOTES:

- Power must be provided by low-voltage power-limited/Class 2 power supply.
- Use only low-voltage field wiring and do not exceed 98.5ft (30m).
- This product must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with National Electric Code ANSI/NFPA 70-latest edition or the Canadian Electrical Code CSA C22.1.
- Due to the nature of IR technology, an IR sensor can be triggered by a direct light source such as sunlight, reflected light from a shiny object, or other direct light. Consider how to protect as needed.

Overview

LED Indicator — Sensor — Alignment pin — Alignment slot — Faceplate mounting screws x4 — Motherboard mounting screws x2 — Rear cover mounting screws x4 — Wiring grommet — Terminal block — Mounting surface max. $1/16$" (2mm)

Troubleshooting

Sensor triggers unexpectedly	• Ensure that no strong direct or reflected light source is reaching the sensor. • Ensure that sensor is sheltered from direct sunlight
Sensor remains triggered	• Check that there are no objects in front of the sensor including a cone of 60º from the centerline. • Adjust the sensor's range to be shorter (see *Sensor Settings* on pg. 3). • Check that the power supply's voltage is correct for your model. • Adjust the output duration setting – a long delay or enabling toggle mode could affect the sensor's operation (see *Sensor Settings* on pg. 3).
Sensor will not trigger	• Adjust the sensor's range to be longer (see *Sensor Settings* on pg. 3). • Check that the power supply's voltage is correct for your model.

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