

# F10R REFLECTIVE PHOTOCELL DETECTOR

## INSTRUCTION MANUAL

PC4985 - Rev. 2

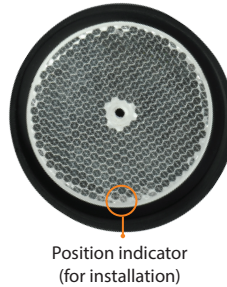


### ▶▶ PHOTOCELL DETECTOR FEATURES:

#### F10R Reflective photocell detector



#### Round Reflector



### ▶▶ PRECAUTIONS



- Make sure the wiring is facing down;
- Install the photocell away from obstacles which could block the beam.

### Connection terminal

(+)(-): The device must be powered by a 12Vdc - 24Vdc auxiliary power supply;

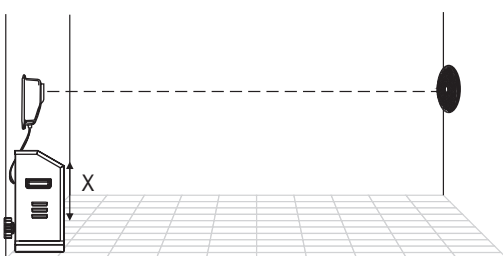
**P:** Pulsed output for PPA Control boards;

**NA, C and NF:** Relay dry contact outputs. Used for circuit keying when the photocell is used in normal mode, either open or closed.

### ▶▶ SPECIFICATIONS

- Max range: 08 meters (~26.25 feet)
- Operating voltage: 12Vdc - 24Vdc;
- Current drain: 80mA;
- NO and NC outputs;
- Immediate triggering;
- Pulsed output for PPA Control boards.

### ▶▶ INSTALLATION



**Step 1:** Attach the photocell detector the same side the control board is installed, since it will both receive commands from it and power it up. The receiver is attached the opposite side, with the transmitter and receiver facing each other. When attaching the round reflector, mind the (Installation) Position Indicator, it must face up. ( ). The photocell detector must be attached so that the opening for the wiring faces down, in order to avoid accidental water entering.

An installation diagram can be seen on the previous page.

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The height indicated by an "X" refers to the height of the possible objects which will be detected by the device, such as vehicles, people and pets. For example, for a 50cm (~1.65f) high vehicle, the photocell detector must be installed over this height, otherwise it will not detect the vehicle. One must observe the minimum height (30 cm - ~0.99f), in order to both ensure a proper operation and avoid false alarms.

**Note:** There is no maximum height for installing the photocell detector.

### Step 2: Set the operation mode according to the following procedures :

#### 'Coded PPA' Mode:

|  |
|--|
| 'P' output of the photocell's connection terminal connected to the 'FOT' output of the control board |
|--|

|  |
|--|
| 'NA', 'C' and 'NF' outputs of the connection terminal not connected. |
|--|

ATIV/PASS Jumper: This jumper changes the relay operation mode.

- Closed: Passive relay (Factory default setting).

- Open: Active relay (In this mode, the relay keeps activated while the photocell detector is aligned, i.e., NO mode becomes NC and vice versa).

#### NO (Normally Open) Mode:

|   |
|---|
| 'NA' output of the photocell's connection terminal connected to the 'FOT' output of the control board |
|---|

|   |
|---|
| 'C' output of the photocell's connection terminal connected to the (-) output of the control board. |
|---|

#### NC (Normally Closed) Mode:

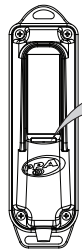
|   |
|---|
| 'NF' output of the photocell's connection terminal connected to the 'FOT' output of the control board |
|---|

|   |
|---|
| 'C' output of the photocell's connection terminal connected to the (-) output of the control board. |
|---|



**STEP 3: Connect power to the sensor by using an auxiliary power supply, such as the control board. Observe the polarity, the wires must be connected to the auxiliary power supply according to the diagrams of the connection terminal .**

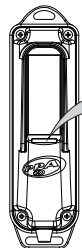
### ▶▶ LED FUNCTIONS



LED indicator on: Misaligned or blocked sensor.



LED indicator off: optimal alignment.



LED indicator blinking: Function used for installation; the blinking LED indicates to the installer that the photocell detector is sending the signal to the control board and it is operating, but it is partially aligned, and only needs a simple adjustment for optimal alignment and proper operation.

**NOTE:** The slower the LED blinks, the closer to the optimal alignment the photocell detector is; if the LED starts blinking faster, it is less aligned.