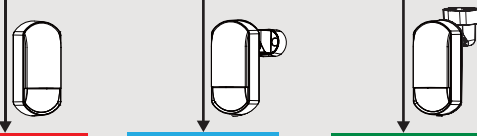


## PROFESSIONAL MODELS

|                | Wide/Narrow area<br>Flip lens | PIR | Microwave      |
|----------------|-------------------------------|-----|----------------|
| IR-D-P1E       | ✓                             | ✓   |                |
| IR-D-P2E       | ✓                             | ✓   | ✓ (10,525 GHz) |
| IR-D-P2E-UK *1 | ✓                             | ✓   | ✓ (10,587 GHz) |

\*1 Not certified to UL

## CONTENTS

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# Before installation

## - Manufacturer's statement

Symbol

Meaning

**Warning**

Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.

**Caution**

Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

Symbol

Meaning



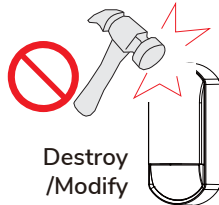
Check mark indicates recommendation.



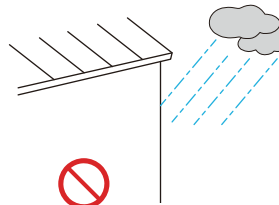
Nix sign indicates prohibition.

NOTE

Special attention is required to the section of this symbol.



Destroy /Modify

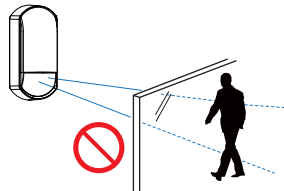


Outdoor installation

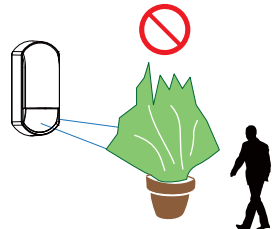


Wetting with water

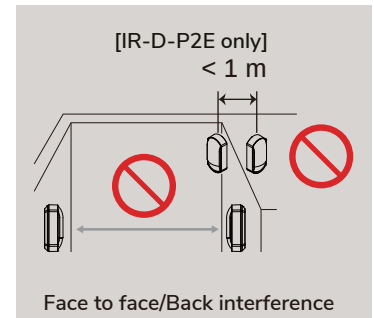
**Warning**



Detection through glass

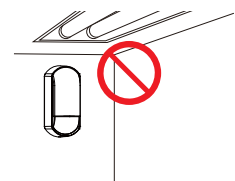
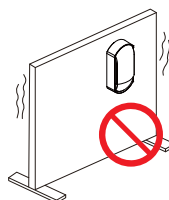
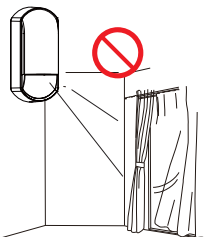
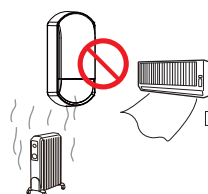
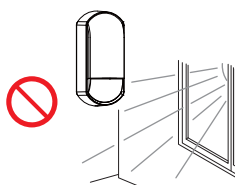


Partial/complete obscuration of the detection area.

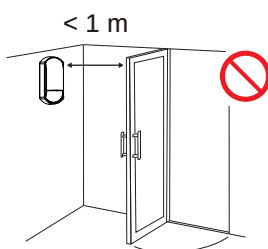


[IR-D-P2E only]  
< 1 m

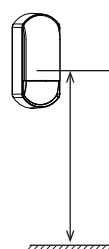
Face to face/Back interference



**Caution**



< 1 m

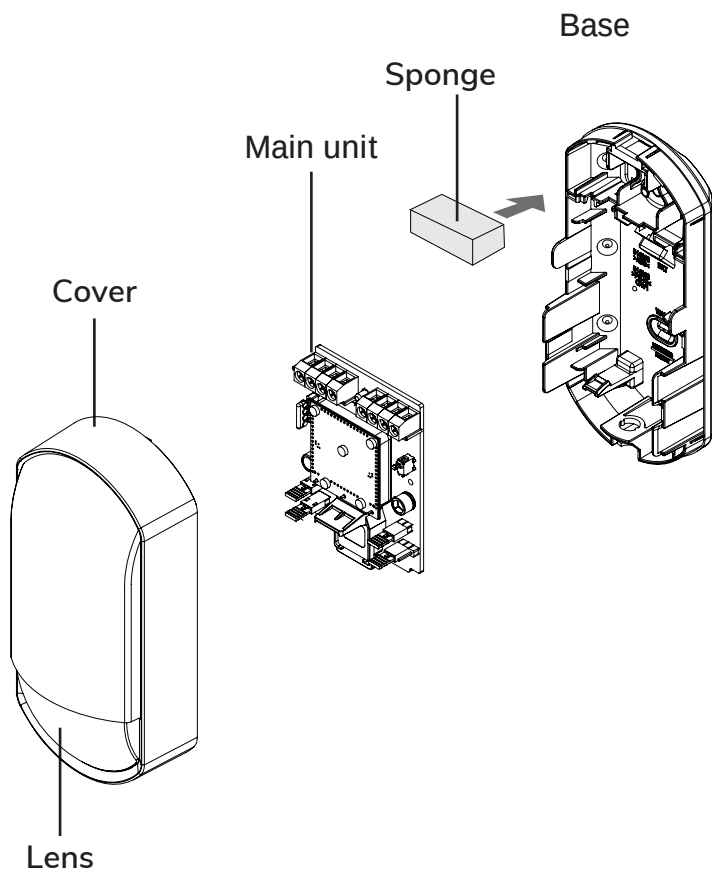


Mounting height  
2.0 to 3.0 m (6'7" to 9'8")  
2.4 m (8') recommended



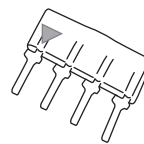
Follow to the Regulations

## - Parts identifications



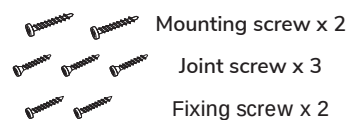
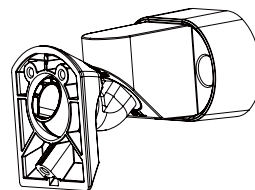
### Accessories

PEU \*\*  
Plug-in EOL Unit



### Option

IR-D-CW-G2 \*  
Bracket for wall/ceiling mount



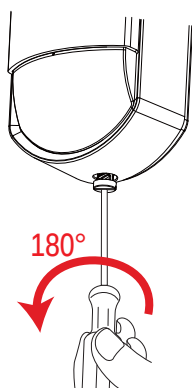
\* Not certified to EN 50131-2-2/4  
\*\* Not evaluated by UL

## 1

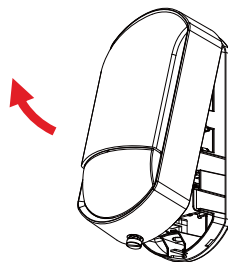
## Installation

### 1-1. Disassemble

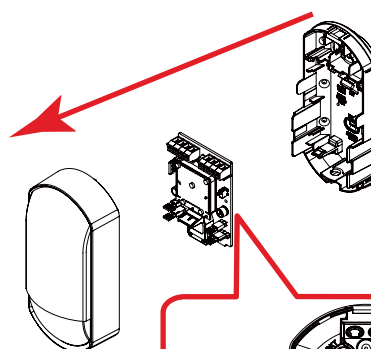
#### 1 Unlock the cover



#### 2 Open the cover

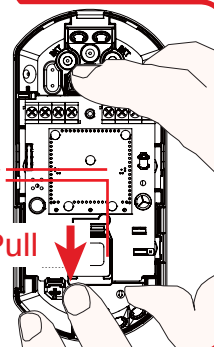


#### 3 Remove the main unit



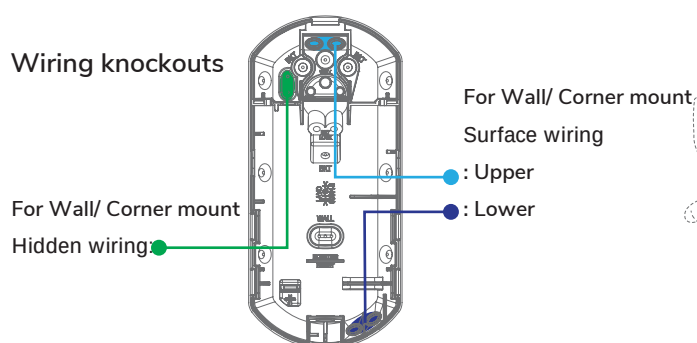
Do not touch MW and PIR units.

Pull

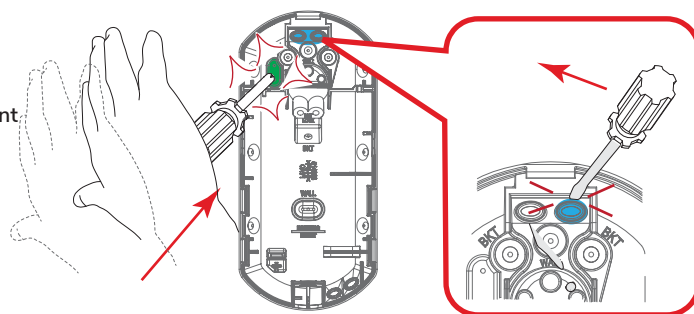


## 1-2. Wall mount without bracket

### 1 Wire through the base

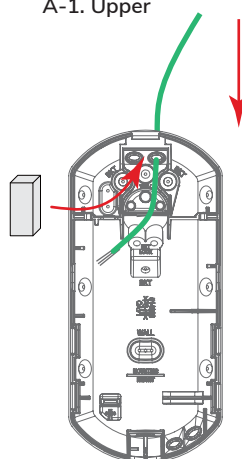


How to break the knockouts

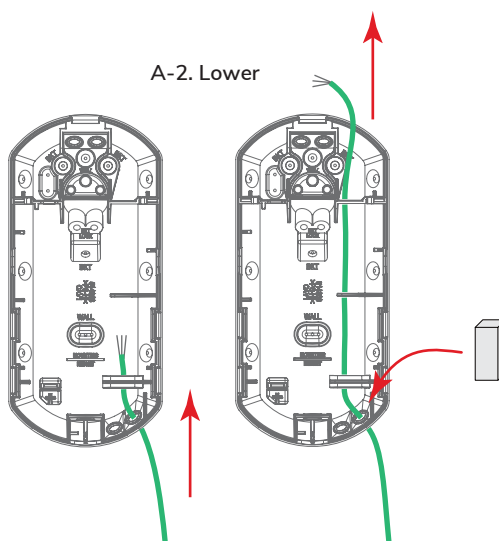


#### A. Surface wiring

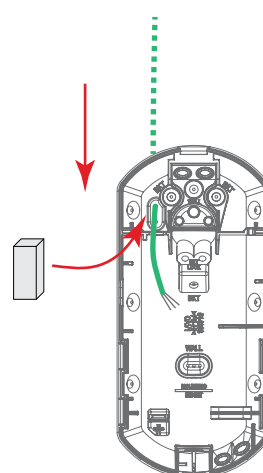
##### A-1. Upper



##### A-2. Lower

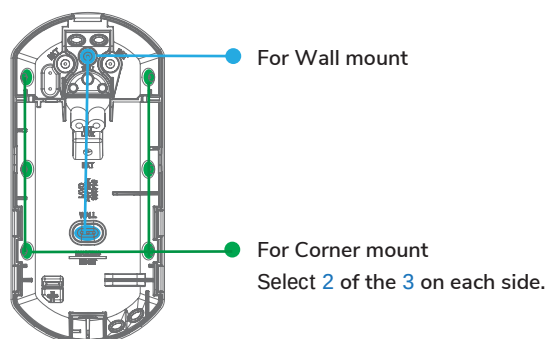


#### B. Hidden wiring



### 2 Mount the base

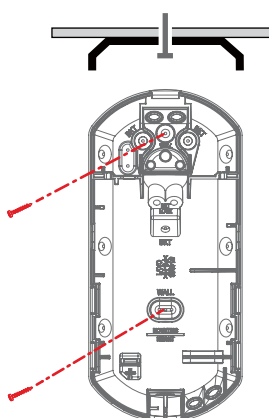
Mounting holes



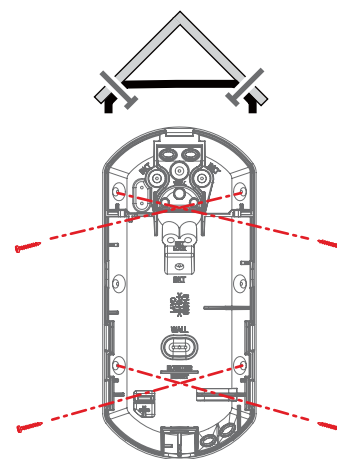
#### NOTE

Mounting screws are not included.  
 $\Phi$  3 mm screws are recommended.

#### a. Wall mount

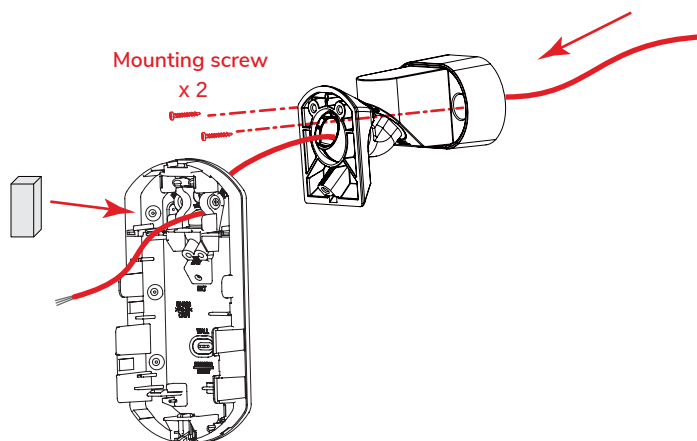
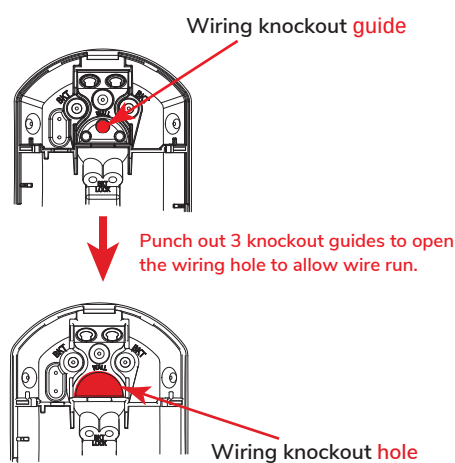


#### b. Corner mount



## 1-3. Wall mount with bracket

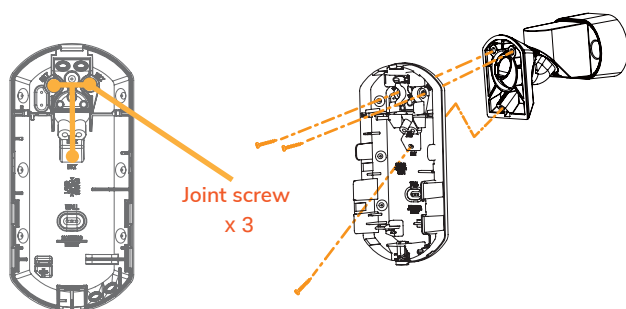
### 1 Wire and mount on the wall



#### NOTE

See page 4 for how to break the knockouts.

### 2 Join the base on the bracket



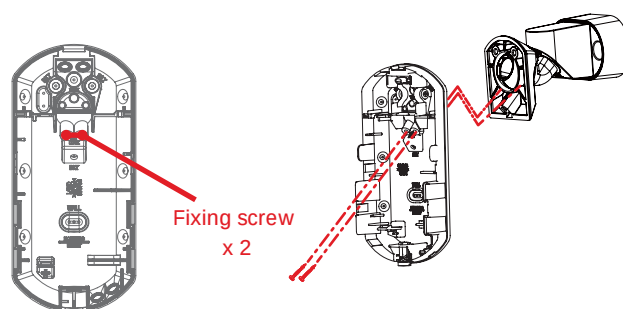
#### NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to "3-1. Walk test"

### 3 Fix the base with the fixing screws (optional)



The bracket is basically jointed using 3 holes and 3 joint screws. Also use 2 additional fixing screws if stronger support is required.

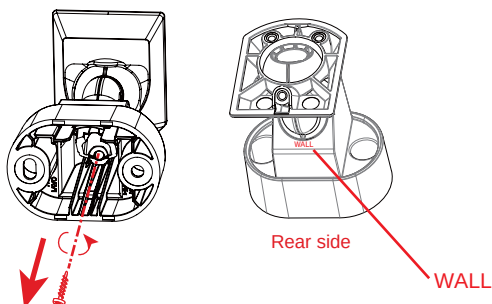
#### NOTE

2 fixing screws are required for the Grade 2 and higher grade installation.

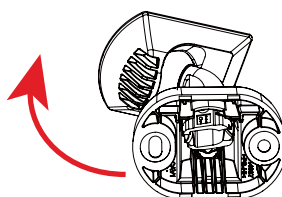
## 1-4. Ceiling mount with bracket

### How to change the bracket to the ceiling mounting

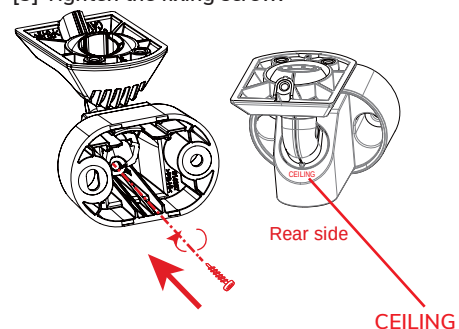
[1] Loosen the fixing screw.



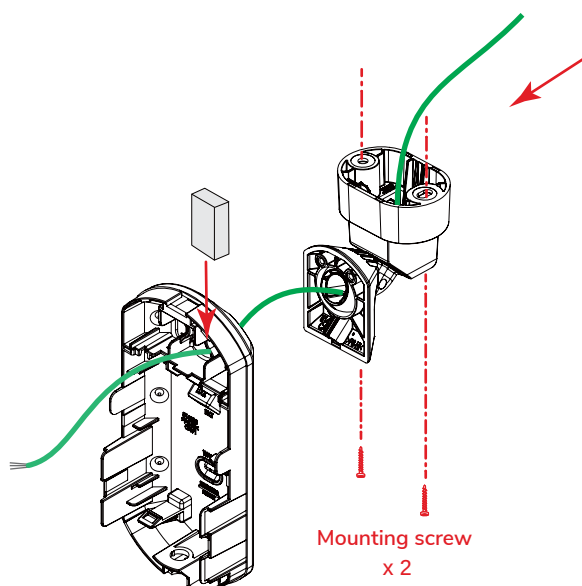
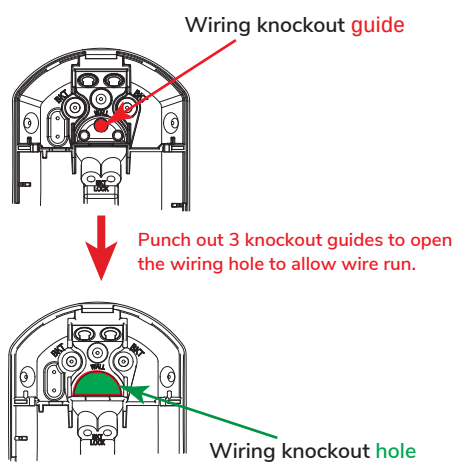
[2] Rotate the body.



[3] Tighten the fixing screw.



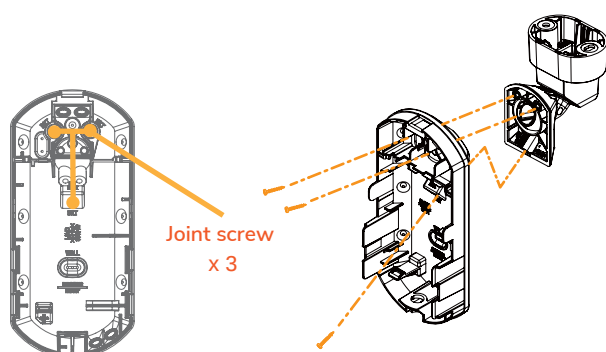
### 1 Wire and mount on the ceiling



#### NOTE

See page 4 for how to break the knockouts.

### 2 Join the base on the bracket



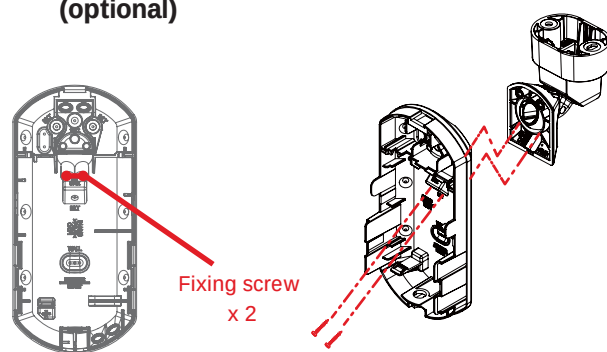
#### NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to "3-1. Walk test"

### 3 Fix the base with the fixing screws (optional)



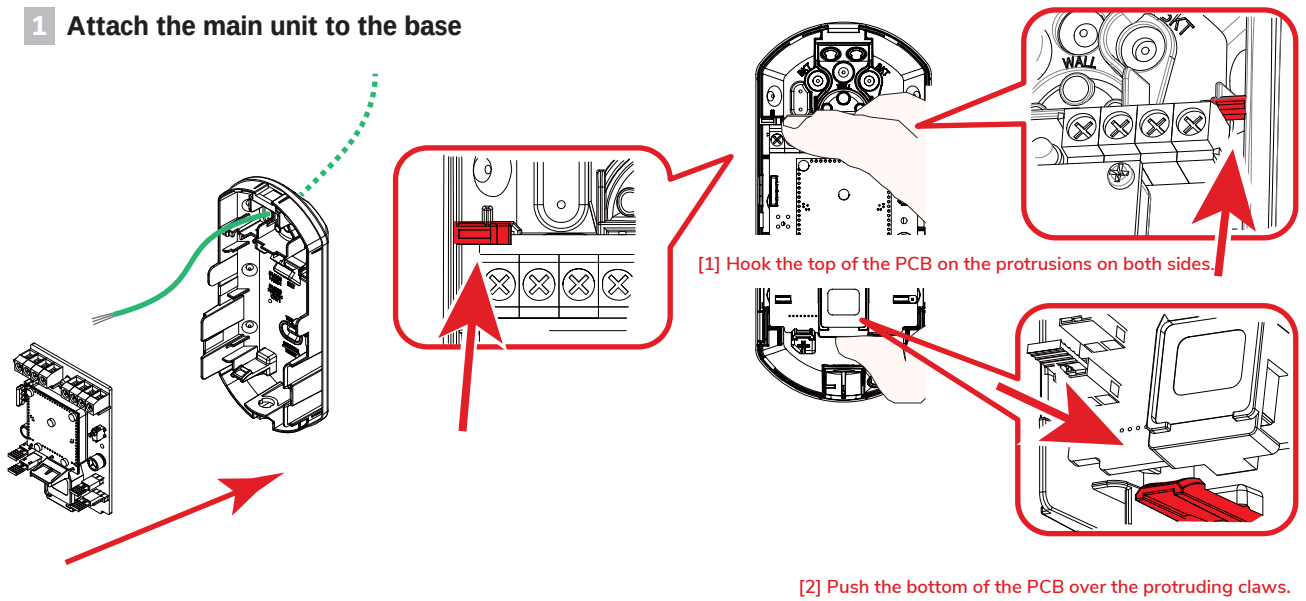
The bracket is basically jointed using 3 holes and 3 joint screws. Also use 2 additional fixing screws if stronger support is required.

#### NOTE

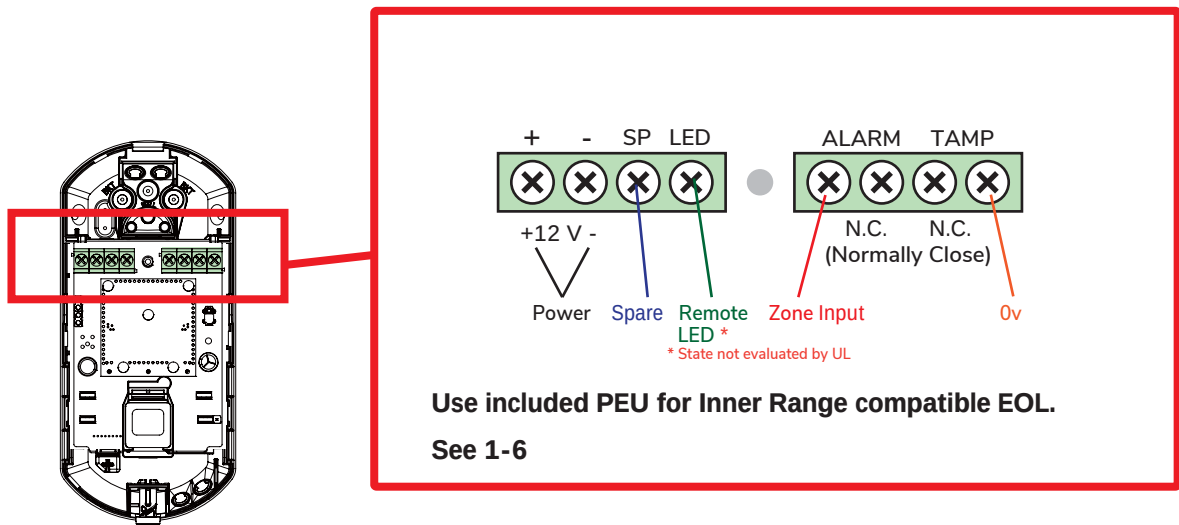
2 fixing screws are required for the Grade 2 and higher grade installation.

1-5. Assemble and connect

1 Attach the main unit to the base



2 Connect wires to the terminal



Power cable length

The power cable should be limited to the following length.

IR-D-P1E

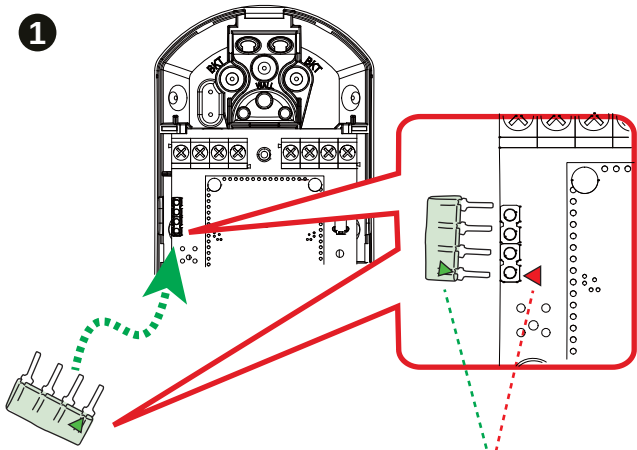
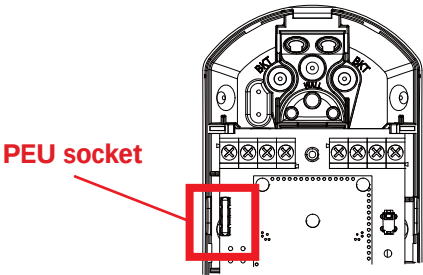
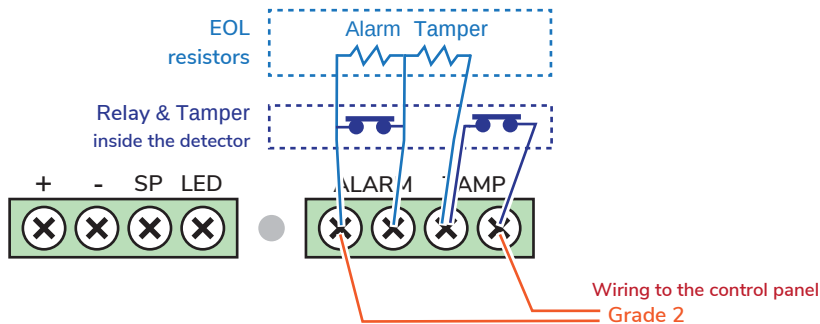
| WIRE GAUGE                        | 12 V DC                | 14 V DC                 |
|-----------------------------------|------------------------|-------------------------|
| AWG 22<br>(0.33 mm <sup>2</sup> ) | 520 m<br>(1,710 ft.)   | 1,130 m<br>(3, 718 ft.) |
| AWG 20<br>(0.52 mm <sup>2</sup> ) | 820 m<br>(2,690 ft.)   | 1,790 m<br>(5,870 ft.)  |
| AWG 18<br>(0.83 mm <sup>2</sup> ) | 1,320 m<br>(4,330 ft.) | 2,850 m<br>(9,350 ft.)  |

IR-D-P2E

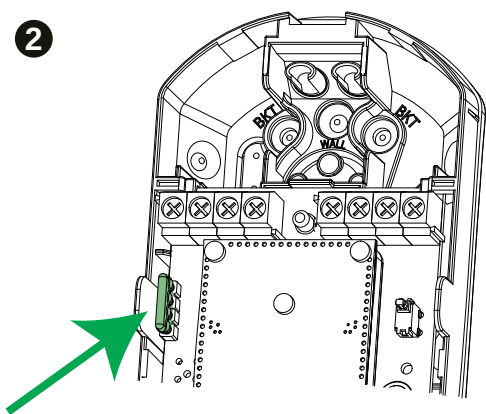
| WIRE GAUGE                        | 12 V DC                | 14 V DC                |
|-----------------------------------|------------------------|------------------------|
| AWG 22<br>(0.33 mm <sup>2</sup> ) | 410 m<br>(1,350 ft.)   | 890 m<br>(2,920 ft.)   |
| AWG 20<br>(0.52 mm <sup>2</sup> ) | 650 m<br>(2,130 ft.)   | 1,400 m<br>(4,590 ft.) |
| AWG 18<br>(0.83 mm <sup>2</sup> ) | 1,030 m<br>(3,380 ft.) | 2,240 m<br>(7,350 ft.) |

## 1-6. PEU settings

When using a PEU (Plug-in End of line Unit), no resistors need to be fitted.  
The PEU packaged with this detector is designed for Inner Range systems.



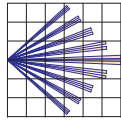
NOTE  
Align both triangle marks.



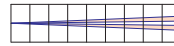
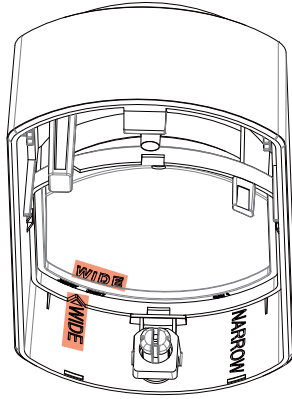
## 2-1. Wide/Narrow setting

1 Set the Flip lens to "Wide" or "Narrow"

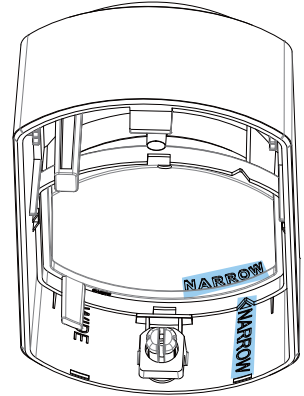
Go to 2-2 on **9** to skip 2-1 when using the default "Wide" setting.



**WIDE**  
Default



**NARROW**

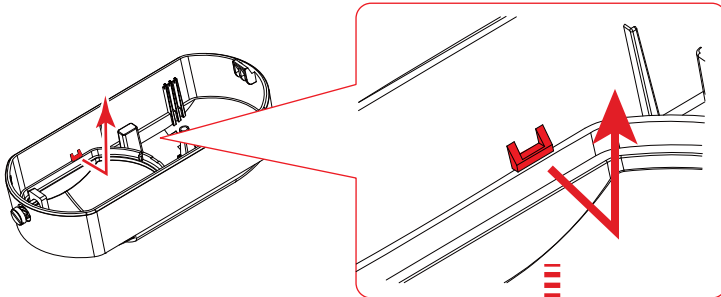


## NOTE

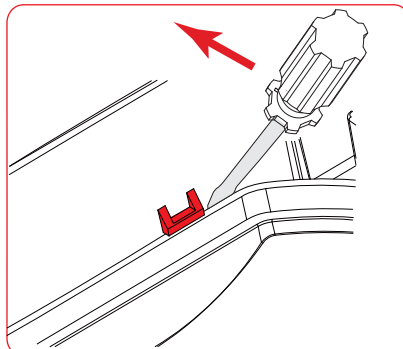
Install the lens so that the letters on the cover and on the lens match your intention.

## How to remove the lens

Get over the rib, then pull up the lens.

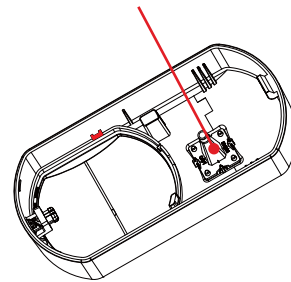


If it is difficult to get over, use a flathead screwdriver.



## ⚠ Caution

- Be careful not to damage the light path of the LED.
- Also, be careful not to allow the light path to pinch the wiring when closing the cover.

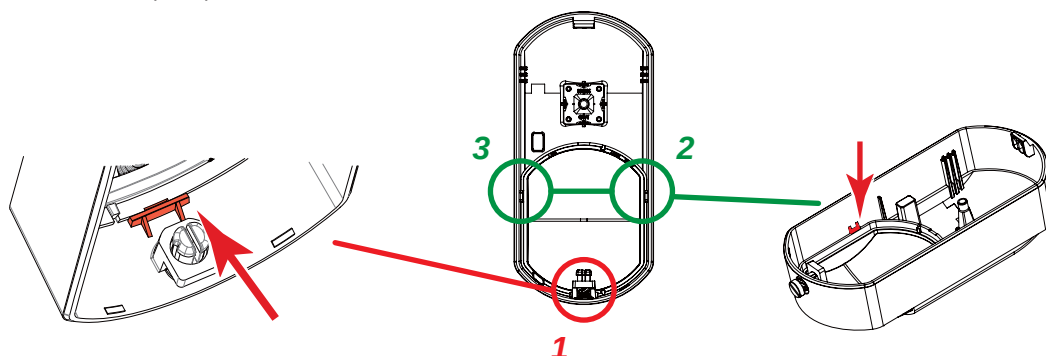


## ⚠ Caution

- Be careful not to damage the lens with a screwdriver.

## How to install the lens

Push the lens firmly at 3 points in **numerical order**.



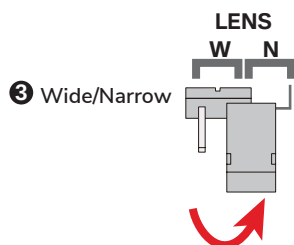
## 2 Set the jumper pin to "Wide" or "Narrow"

### ⚠ Caution

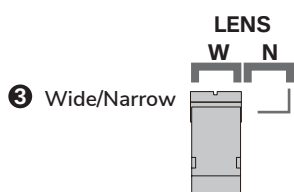
- The jumper pin must be "Narrow", when the lens is set to "Narrow".

### NOTE

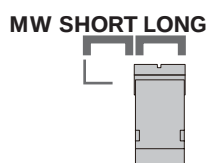
- Default setting is "Wide".
- When "Narrow" is selected, MW detection will be disabled.



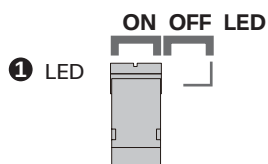
## 2-2. Jumper pin settings



③ Wide/Narrow

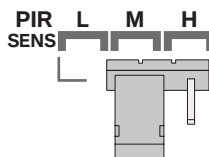


④ MW sensitivity  
[IR-D-P2E only]



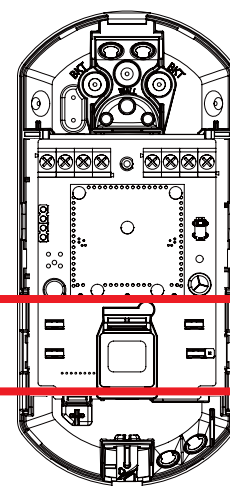
① LED

ON: LED is activated always.  
OFF: LED can be controlled through the Remote LED terminal.  
[Open; OFF 0 V; ON]



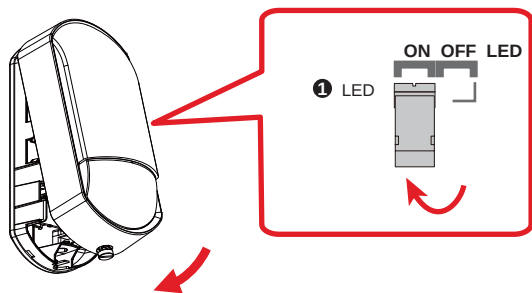
② PIR sensitivity  
H: High sensitivity  
M: Medium sensitivity  
L: Low sensitivity

Illustrations show the **default** position.



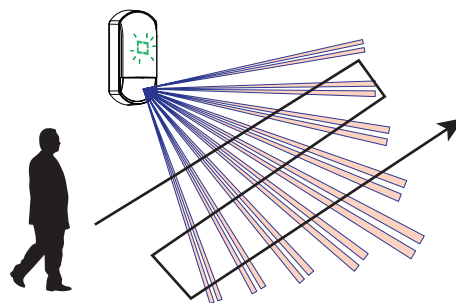
## 3-1. Walk test

1 Confirm that the LED pin is "ON", then close the cover.

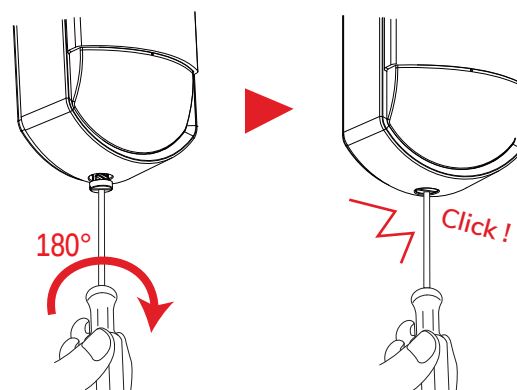
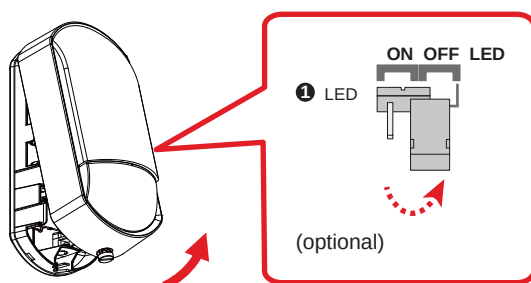


2

Walk in the detection area to check the detecting performance via LED indication.



3 Return the LED pin to "OFF" after the walk test, if necessary. 4 Lock the cover



## NOTE

Conduct a walk test at least once a year.

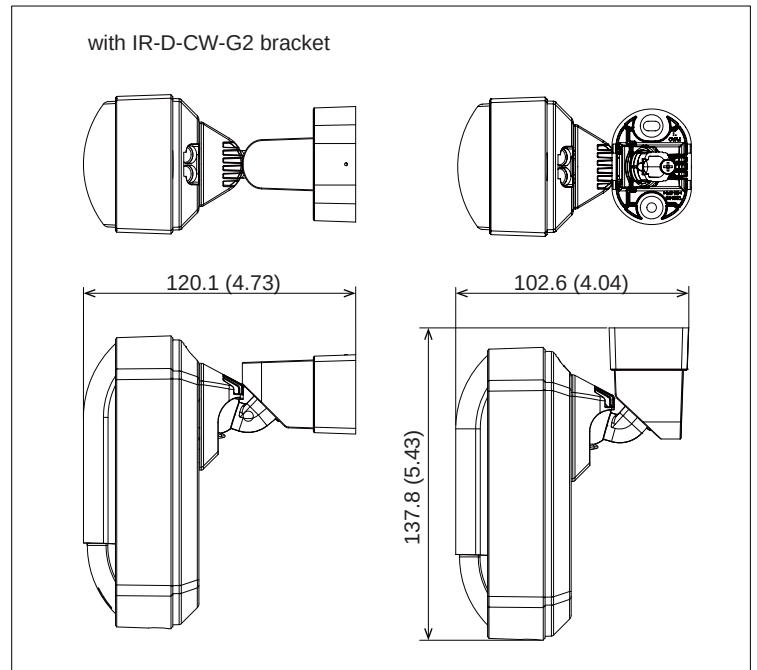
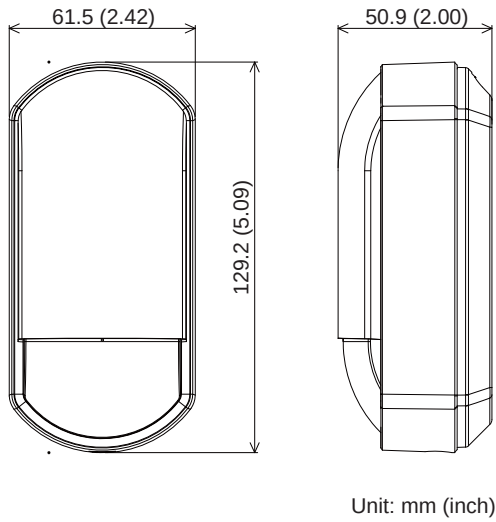
## - Specifications

| Model                    |        | IR-D-P1E                                                                                             | IR-D-P2E / UK                                                       |
|--------------------------|--------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Installation             |        |                                                                                                      |                                                                     |
| Detection method         |        | Passive infrared                                                                                     | Passive infrared and Microwave                                      |
| Coverage                 |        | Wide: 15 m (50 ft.) 85° Narrow: 24 m (80 ft.) 5°<br>( No MW detection at "Narrow" setting )          |                                                                     |
| Detection zones          |        | Wide: 78 zones/ Narrow: 18 zones                                                                     |                                                                     |
| Mounting height          |        | 2.0 to 3.0 m (6'7" to 9'8")                                                                          |                                                                     |
| Alarm period             |        | 2.0 ± 0.5 s                                                                                          |                                                                     |
| Warm-up period           |        | Approx. 60 s (LED blinks)                                                                            |                                                                     |
| LED indicator            |        | Switchable ON/OFF<br>Green: [1] Warm-up [2] Alarm                                                    |                                                                     |
| Electrical               |        |                                                                                                      |                                                                     |
| Power input              |        | 9.5 to 16 V DC  * |                                                                     |
| Current draw             |        | 8 mA (normal)<br>11 mA (max.) at 12 V DC                                                             | 11 mA (normal)<br>14 mA (max.) at 12 V DC                           |
| Relay output             | Alarm  | N.C. 24 V DC 0.1 A max. (Resistive load)                                                             |                                                                     |
|                          | Tamper | N.C. 24 V DC 0.1 A max. (Resistive load)<br>(Open when the cover is removed.)                        |                                                                     |
| Remote LED               |        | Terminal: open = OFF 0 V = ON                                                                        |                                                                     |
| Environmental            |        |                                                                                                      |                                                                     |
| Operation temperature    |        | -20°C to +50°C (-4°F to +122°F)                                                                      | -20°C to +45°C (-4°F to +113°F)                                     |
| Temperature compensation |        | Digital (SMDA)                                                                                       |                                                                     |
| Environmental humidity   |        | 95% max.                                                                                             |                                                                     |
| RF interference          |        | No alarm 10 V/m                                                                                      |                                                                     |
| Mechanical               |        |                                                                                                      |                                                                     |
| Dimension                |        | H: 129.2 x W: 61.5 x D: 50.9 mm (H: 5.09" x W: 2.42" x D: 2.00")                                     |                                                                     |
| Weight                   |        | Approx. 95 g (3.35 oz)<br>(with Bracket : Approx. 125 g (4.41 oz))                                   | Approx. 110 g (3.88 oz)<br>(with Bracket : Approx. 140 g (4.94 oz)) |
| Mounting                 |        | Wall, Corner (Indoor)<br>(with Bracket : Wall, Corner, Ceiling)                                      |                                                                     |

- Specifications and designs are subject to change without prior notice.
- These units are designed to detect an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.

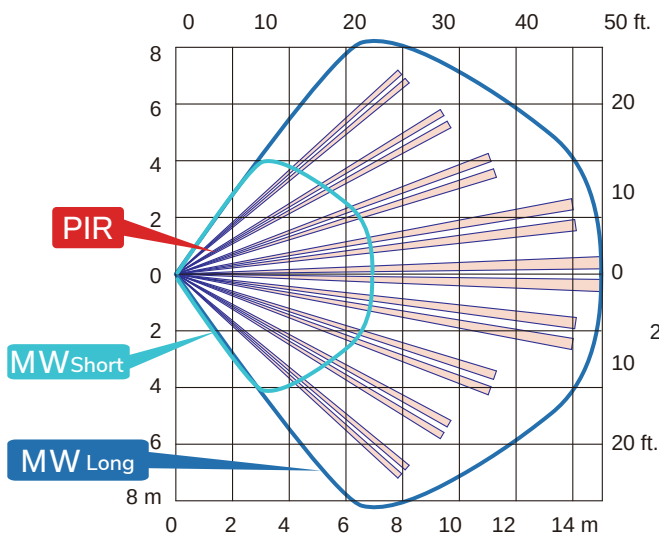
\* Shall be powered via a UL listed burglar alarm class 2 output power limited power supply that has a min standby power of 4 hrs.

## - Dimensions

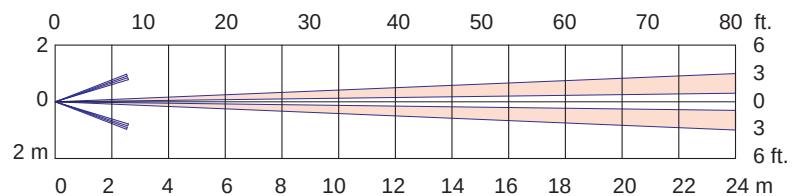


## - Detection area

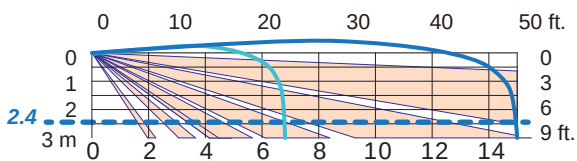
Wide - Top view -



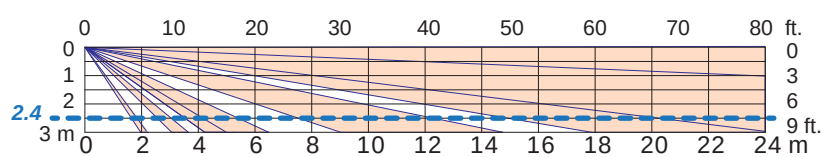
Narrow - Top view -



Wide - Side view -



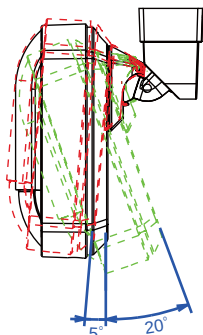
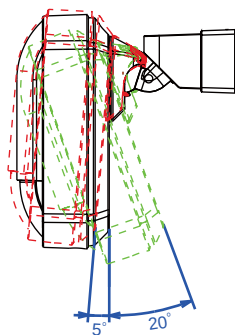
Narrow - Side view -



### NOTE

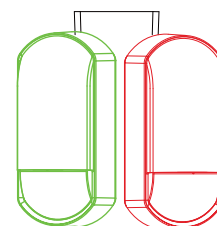
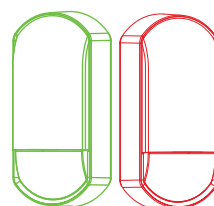
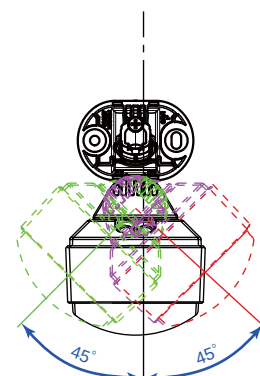
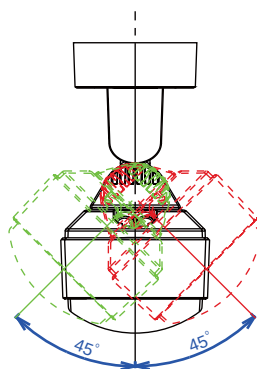
- The \* 2.4 m dotted line indicates the recommended mounting height.
- When "Narrow" is selected at the jumper pin, MW detection will be stopped.

## - Angle adjustment with bracket IR-D-CW-G2



### NOTE

\* If the detector cover does not reach the ceiling, it can be swung up to +5°.



## - Compliance

### RE Directive 2014/53/EU

- IR-D-P2E and IR-D-P2E-UK comply with RE Directive 2014/53/EU.
- Microwave emission Frequency and Power
 

|              |            |                  |
|--------------|------------|------------------|
| IR-D-P2E:    | 10.525 GHz | 15.78 mW e.i.r.p |
| IR-D-P2E-UK: | 10.587 GHz | 8.93 mW e.i.r.p  |
- The following list indicates the areas of intended use of the equipment and any known restrictions.  
For countries not included in this list, please consult the responsible Spectrum Management Agency.
 

|             |                                                                                                                             |
|-------------|-----------------------------------------------------------------------------------------------------------------------------|
| 10.525 GHz: | Belgium, Denmark, Finland, Germany, Greece, Italy, Luxembourg, The Netherlands, Spain, Sweden, Iceland, Norway, Switzerland |
| 10.587 GHz: | Belgium, France, Germany, Ireland, Luxembourg, The Netherlands, United Kingdom                                              |
- IR-D-P2E and IR-D-P2E-UK also comply with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

### UK Radio Equipment Regulations 2017

- IR-D-P2E-UK also comply with UK radiation exposure limits set forth for an uncontrolled environment.  
This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.
- The radio equipment type IR-D-P2E-UK is in compliance with Radio Equipment Regulations 2017.

### FCC/IC

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
- This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
  - (1) This device may not cause interference.
  - (2) This device must accept any interference, including interference that may cause undesired operation of the device
- The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

- EN 50131-1 Grades and Environmental Class; Security Grade 2, Environmental Class II  
Applied Standards; EN 50131-2-2 (IR-D-P1E), EN 50131-2-4 (IR-D-P2E and IR-D-P2E-UK )  
Tested and certified by Kiwa
- PD6662:2017



**inner range**

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