OPTEX

Flexible Range Indoor Detector

FlipX series

PROFESSIONAL MODELS

INSTALLATION INSTRUCTIONS

EN

	Wide/Narrow area Flip lens	PIR	Microwave
FLX-P-ST	✓	✓	-
FLX-P-DT-X5 *1	✓	✓	✓ (10.525GHz)
FLX-P-DT-X8 *2	✓	✓	✓ (10.587GHz)
FLX-P-DT-X9 *3	✓	✓	✓ (9.425GHz)

*1 Not certified to INCERT
*2 Not certified to UL
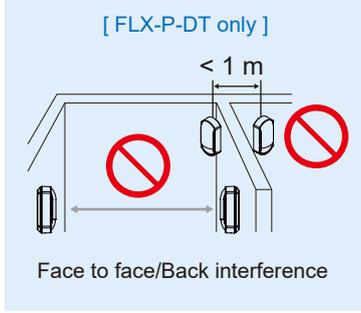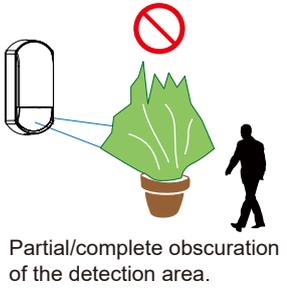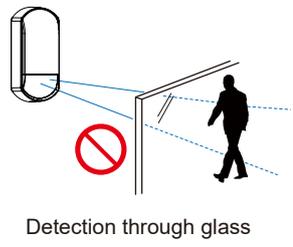*3 Not certified to UL, INCERT and EN 50131

<< Contents >>

- 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.

⚠ **Warning**
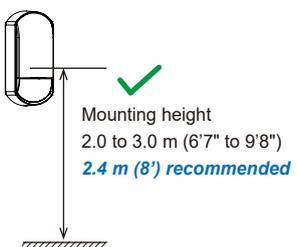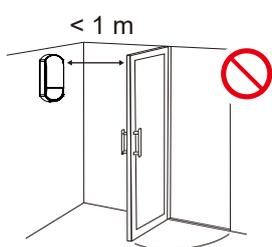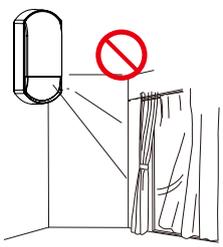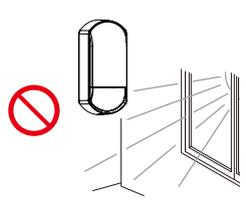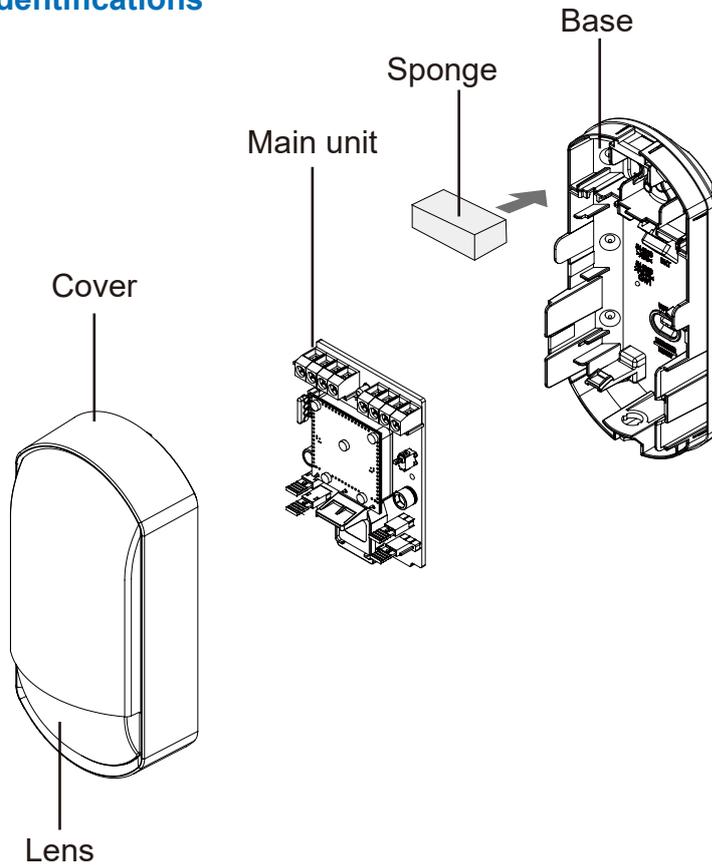
Destroy /Modify

Outdoor installation

Wetting with water

Detection through glass

Partial/complete obscuration of the detection area.

[FLX-P-DT 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

Cover

Lens

Main unit

Sponge
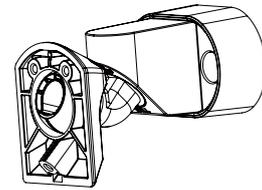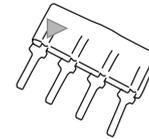
Base

1 Installation

1-1. Disassemble

1 Unlock the cover

180°
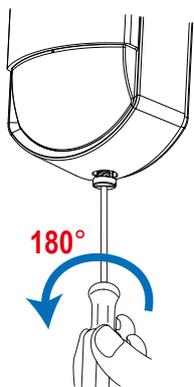
2 Open the cover

3 Remove the main unit

Do not touch MW and PIR units.

Pull

3
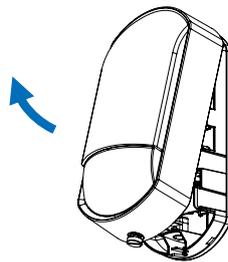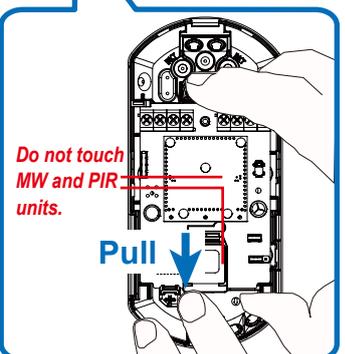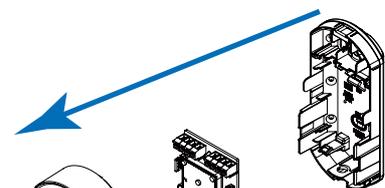
1-2. Wall mount *without bracket*

1 Wire through the base

Wiring knockouts

For Wall/ Corner mount
Surface wiring
● : Upper
● : Lower

For Wall/ Corner mount
Hidden wiring: ●

How to break the knockouts
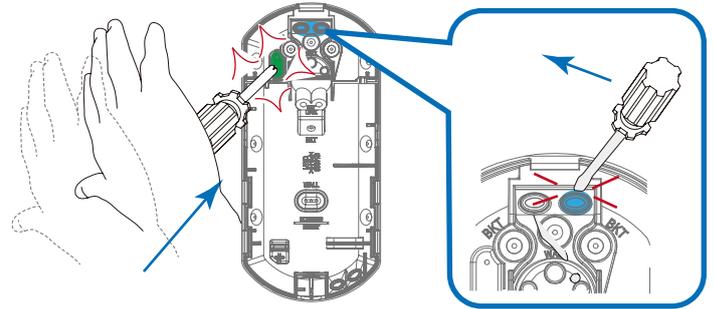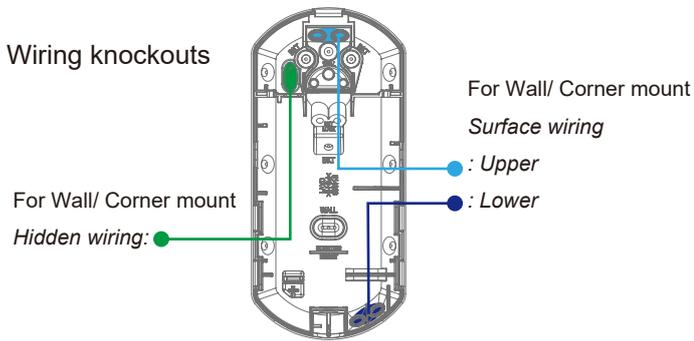
A. Surface wiring

A-1. Upper
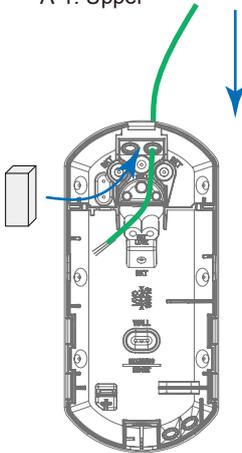
A-2. Lower
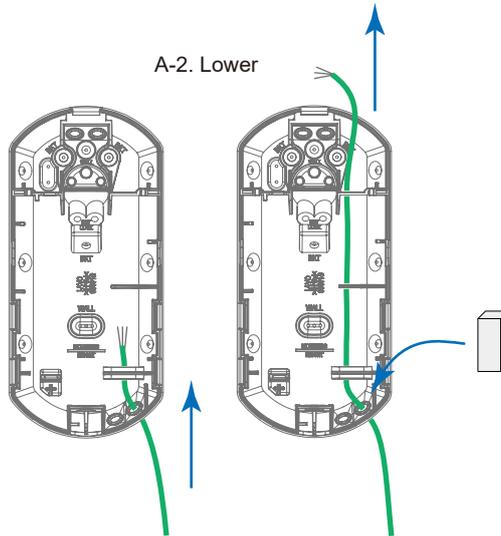
B. Hidden wiring
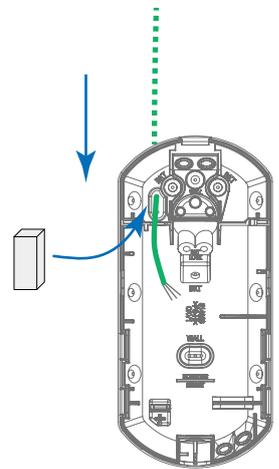
2 Mount the base

Mounting holes

● For Wall mount

● For Corner mount
Select 2 of the 3 on each side.
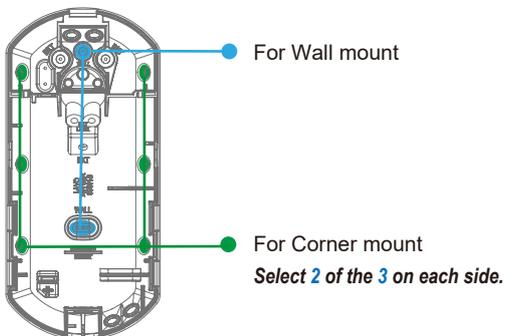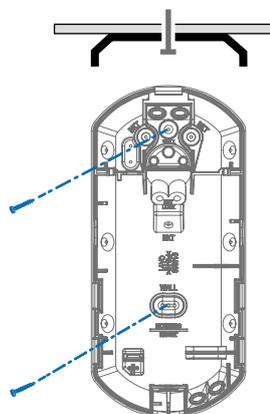
a. Wall mount

b. Corner mount
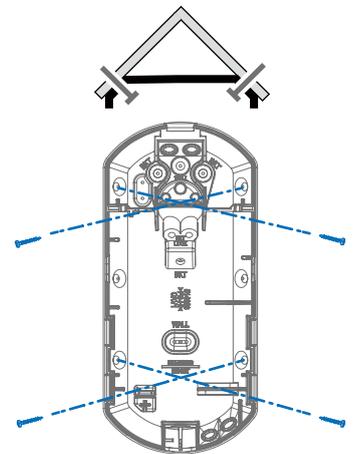
NOTE

Mounting screws are not included.

Φ 3 mm screws are recommended.

1-3. Wall mount *with bracket*

1 Wire and mount on the wall

Wiring knockout guide

Punch out 3 knockout guides to open the wiring hole to allow wire run.

Wiring knockout hole

NOTE

Mounting screws are not included.

Φ 3 mm screws are recommended.
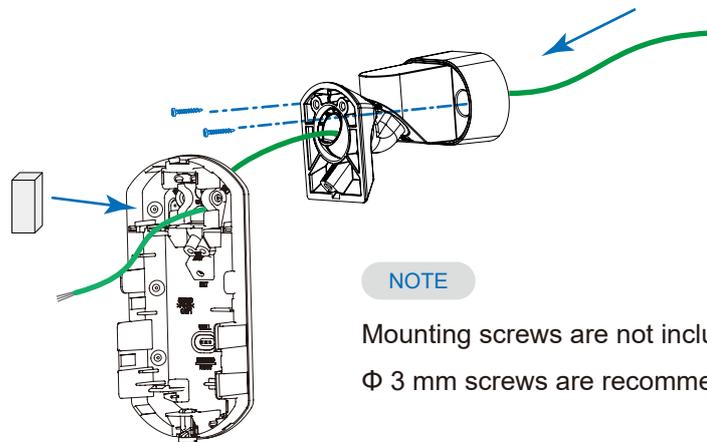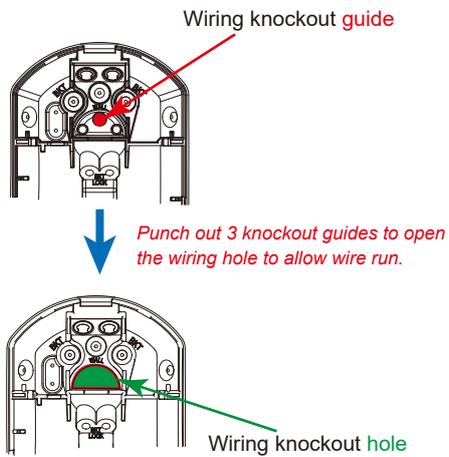
NOTE

See page 4 for how to break the knockouts.

2 Join the base on the bracket
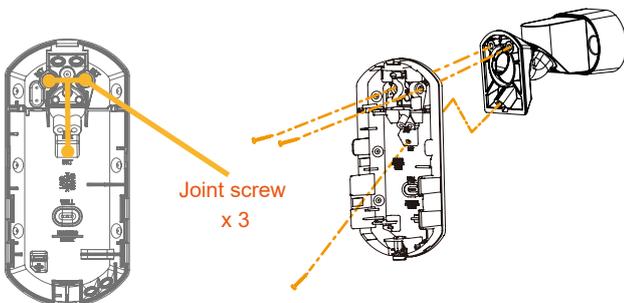
Joint screw
x 3

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)
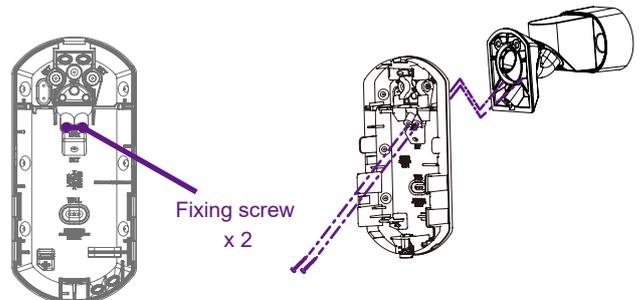
Fixing screw
x 2

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.

How to change the bracket to the ceiling mounting

[1] Loosen the fixing screw.

[2] Rotate the body.

[3] Tighten the fixing screw.

Rear side

WALL

Rear side
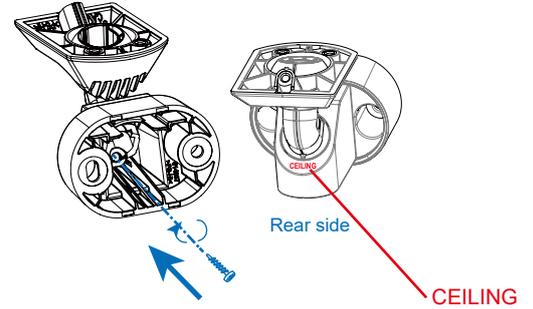
CEILING

1 Wire and mount on the ceiling

Wiring knockout guide

Punch out 3 knockout guides to open the wiring hole to allow wire run.

Wiring knockout hole
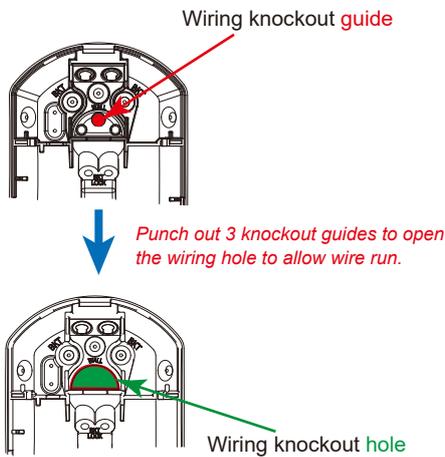
NOTE

See page 4 for how to break the knockouts.
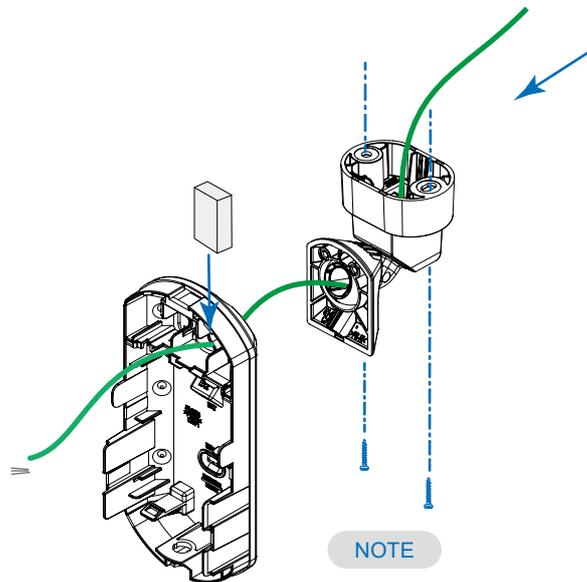
NOTE

Mounting screws are not included.

Φ 3 mm screws are recommended.

2 Join the base on the bracket
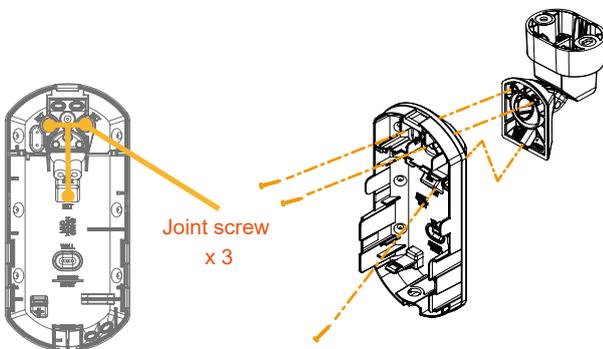
Joint screw
x 3

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)
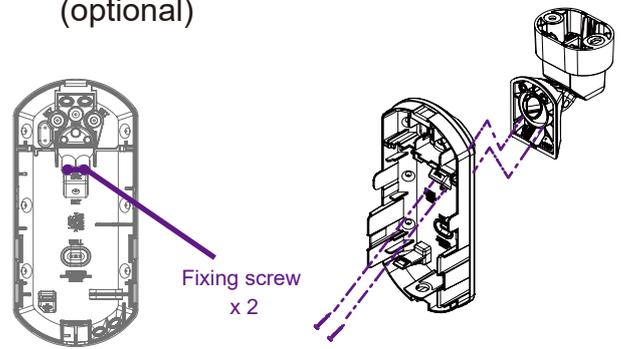
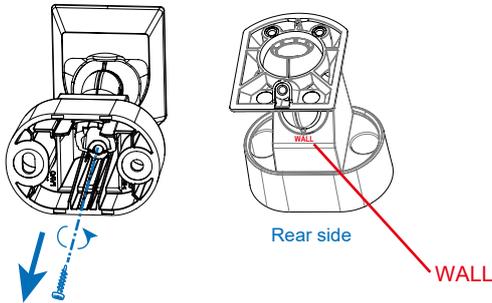Fixing screw
x 2

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.
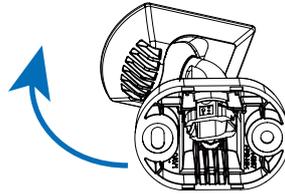
1-5. Assemble and connect

1 Attach the main unit to the base

[1] Hook the top of the PCB on the protrusions on both sides.

[2] Push the bottom of the PCB over the protruding claws.
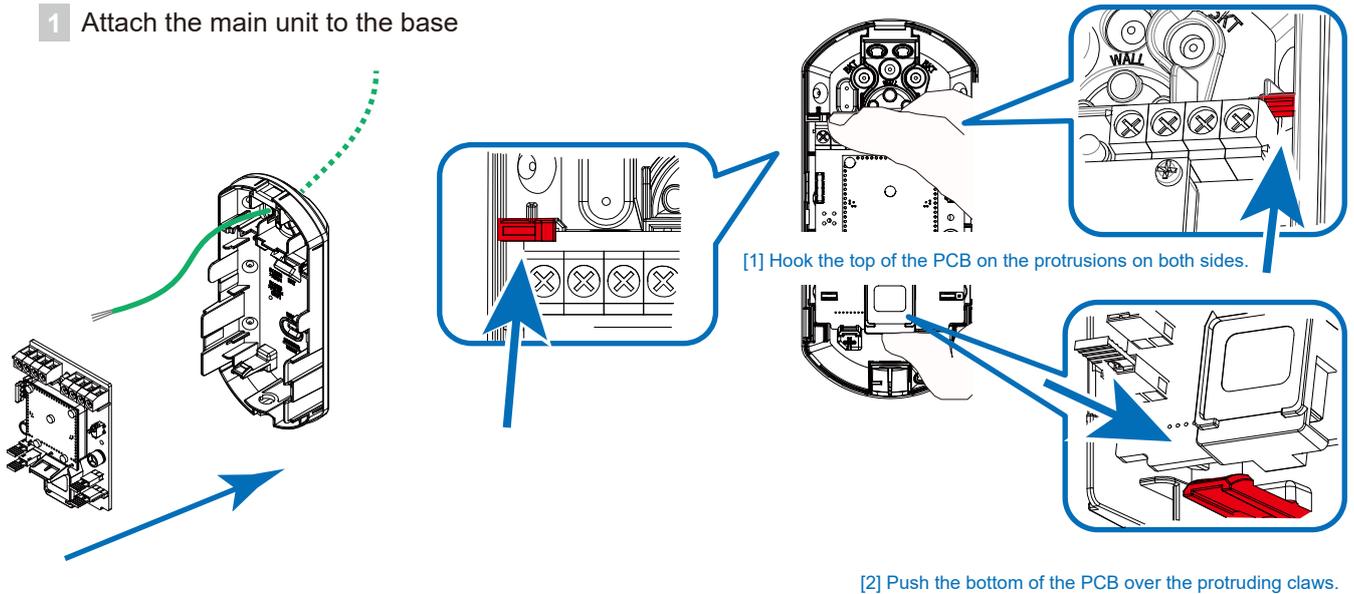
2 Connect wires to the terminal

	+	-	SP	LED		ALARM	TAMP	
						N.C.	N.C.	

+12 V -

Power   Spare   Remote LED *   Alarm   Tamper

N.C. (Normally Close)

* State not evaluated by UL
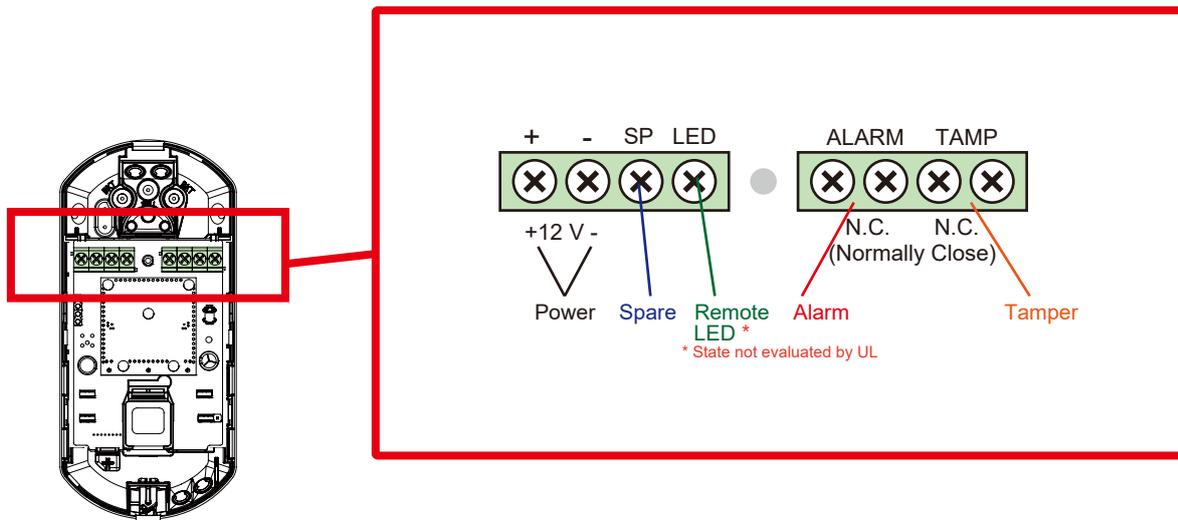
Power cable length

The power cable should be limited to the following length.

FLX-P-ST

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

FLX-P-DT

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

② Settings

2-1. Wide/Narrow setting

1 Set the Flip lens to "Wide" or "Narrow"
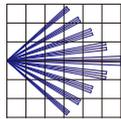
WIDE
Default
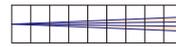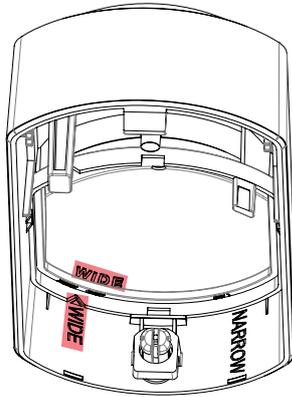
NARROW
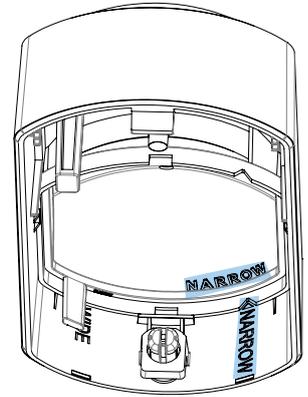
NOTE

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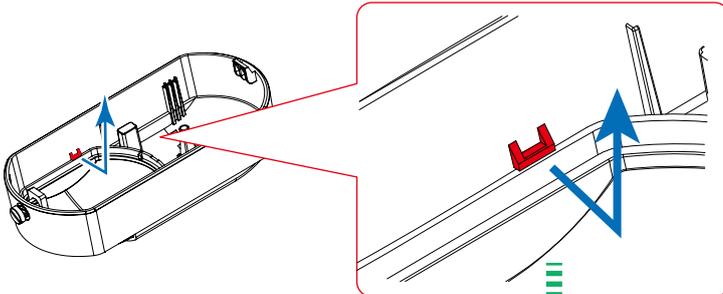
If it is difficult to get over, use a flathead screwdriver.
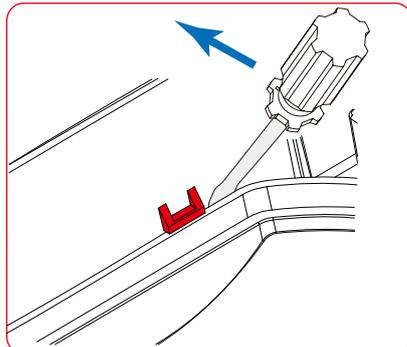
⚠ **Caution**

● 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.
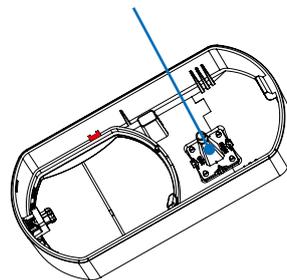
⚠ **Caution**

● 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*.

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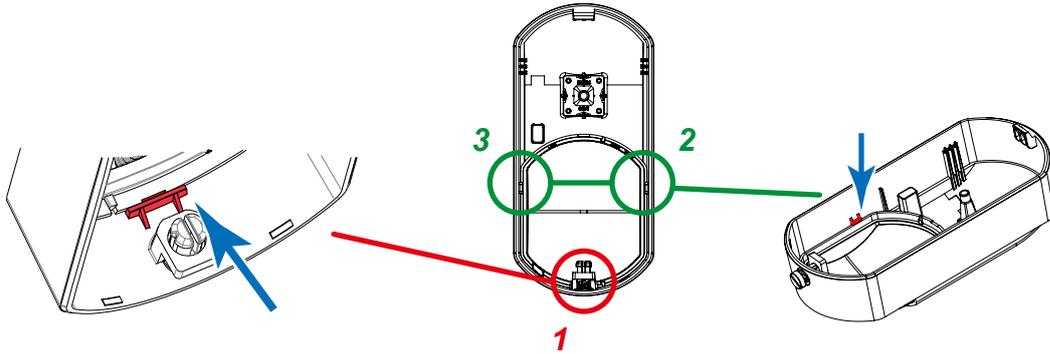
2 Set the jumper pin to "Wide" or "Narrow"

LENS
W   N
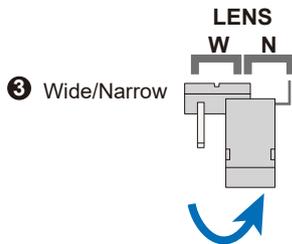
❸ Wide/Narrow

⚠ **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

LENS
W   N

❸ Wide/Narrow

MW SHORT LONG

❹ MW sensitivity
(FLX-P-DT only)

ON OFF LED

❶ LED

PIR
SENS   L   M   H

❷ PIR sensitivity

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

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

*Illustrations show the **default** position.*

2-3. PEU settings

EOL resistors

Alarm Tamper

Relay & Tamper
inside the detector

+   -   SP   LED   ALARM   TAMP

Wiring to the control panel
Grade 2

PEU socket

1

2
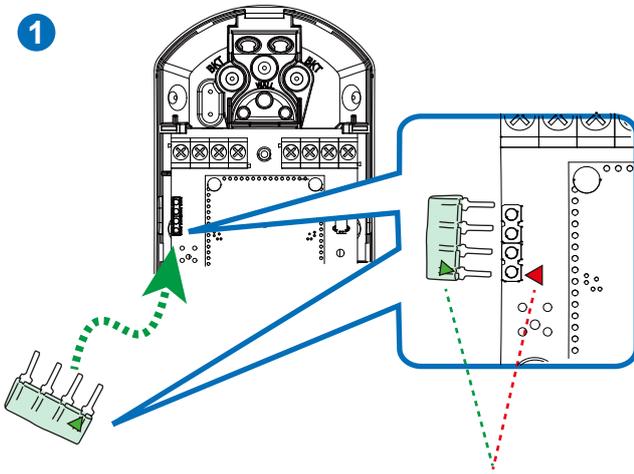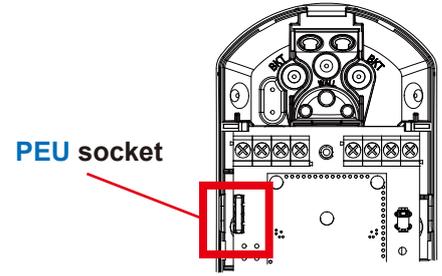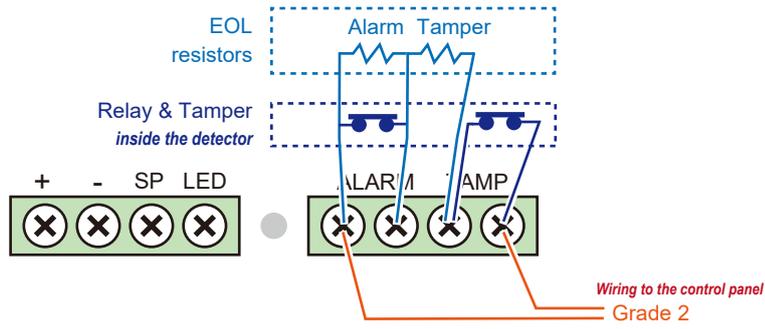
NOTE

Align both triangle marks.
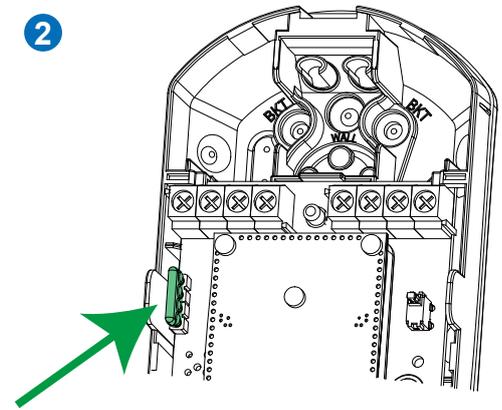
3 Checking

3-1. Walk test

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

❶ LED

ON OFF LED
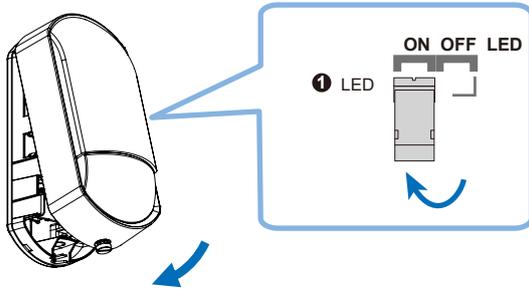
2 Walk in the detection area to check the detecting performance via LED indication.
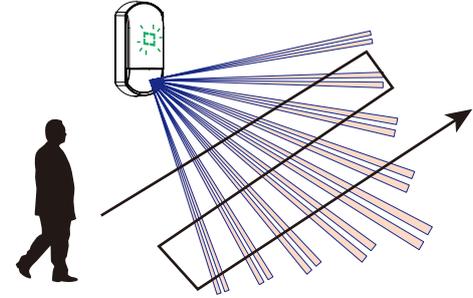
3 Return the LED pin to "OFF" after the walk test, if necessary.

❶ LED

ON OFF LED

(optional)

NOTE

Conduct a walk test at least once a year.

4 Lock the cover

180°

Click !

- Specifications

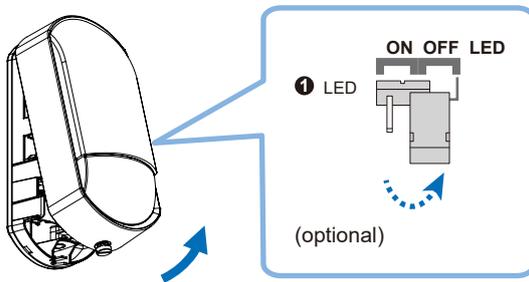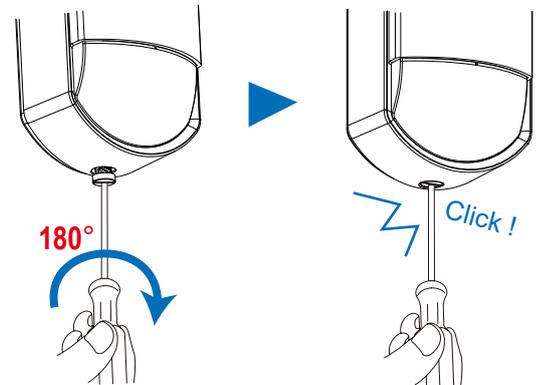| Model	FLX-P-ST	FLX-P-DT-X5/-X8/-X9
Installation		
Detection method	Passive infrared	Passive infrared and Microwave
Coverage	Wide：15 m (50 ft.) 85°/ Narrow：24 m (80 ft.) 5° (*No MW detection at "Narrow" setting*)	
Detection zones	Wide: 78 zones/ Narrow: 18 zones	
Mounting height	2.0 to 3.0 m (6'7" to 9'8")	
Alarm period	2.0 ± 0.5 s	
Warm-up period	Approx. 60 s (LED blinks)	
LED indicator	Switchable ON/OFF Green: [1] Warm-up [2] Alarm	
Electrical		
Power input	9.5 to 16 V DC [UL] *	
Current draw	8 mA (normal) 11 mA (max.) at 12 V DC	11 mA (normal) 14 mA (max.) at 12 V DC
Relay output — Alarm	N.C. 24 V DC 0.1 A max. (Resistive load)	
Relay output — Tamper	N.C. 24 V DC 0.1 A max. (Resistive load) (Open when the cover is removed.)	
Remote LED	Terminal: open = OFF 0 V = ON	
Environmental		
Operation temperature	-20℃ to +50℃(-4°F to +122°F)	-20℃ to +45℃(-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) *(with Bracket : Approx. 125 g (4.41 oz))*	Approx. 110 g (3.88 oz) *(with Bracket : Approx. 140 g (4.94 oz))*
Mounting	Wall, Corner (Indoor) (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.

[UL] * 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

61.5 (2.42)

50.9 (2.00)

129.2 (5.09)

Unit: mm (inch)

with CW-G2 bracket

120.1 (4.73)

102.6 (4.04)

137.8 (5.43)
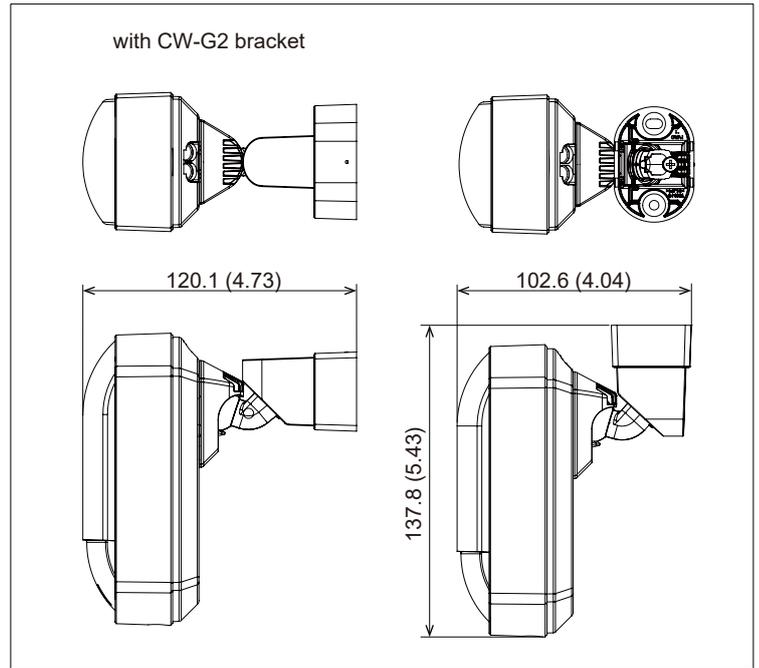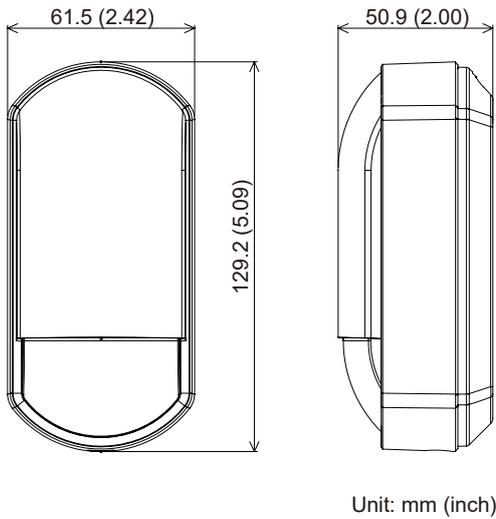
- Detection area

Wide - Top view -

PIR

MW Short

MW Long
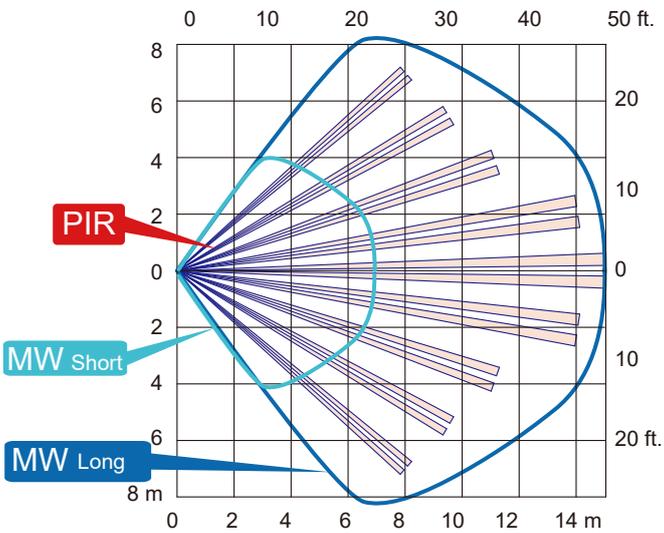
Narrow - Top view -

Wide - Side view -

2.4

Narrow - Side view -

2.4
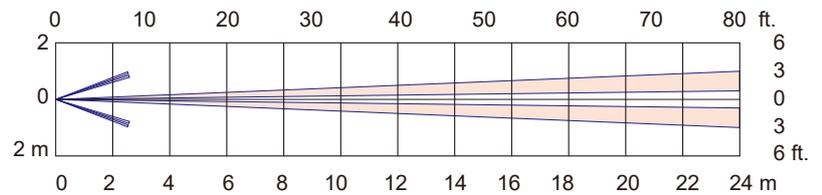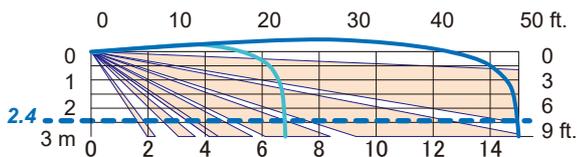
NOTE

● The * 2.4 m dotted line indicates the recommended mounting height.

● When "Narrow" is selected at the jumper pin, MW detection will be stopped.

13

- Angle adjustment with bracket CW-G2

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

- Compliance

RE Directive 2014/53/EU

- OPTEX declares that FLX-P-DT-X5, FLX-P-DT-X8, and FLX-P-DT-X9 comply with RE Directive 2014/53/EU.
  Doc documents can be found on our website; **www.optex.net**
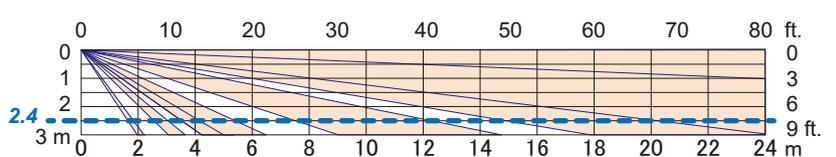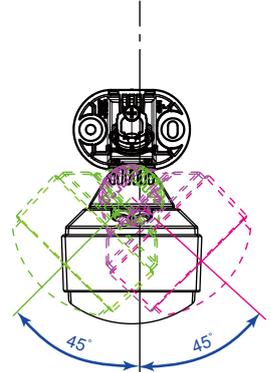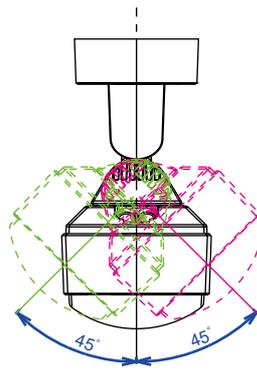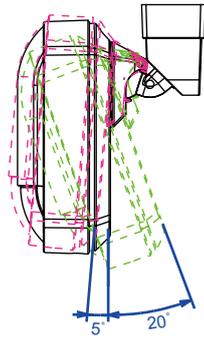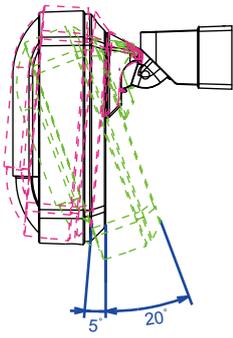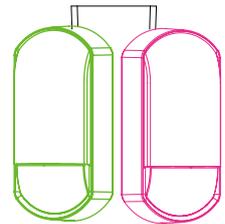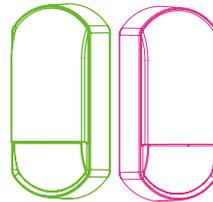
- Microwave emission Frequency and Power

FLX-P-DT-X5:	10.525 GHz	15.78 mW e.i.r.p
FLX-P-DT-X8:	10.587 GHz	8.93 mW e.i.r.p
FLX-P-DT-X9:	9.425 GHz	14.50 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
  9.425 GHz: Austria, Czechia, Estonia, Germany, Slovakia, Turkey, Russia

- FLX-P-DT-X5, FLX-P-DT-X8 and FLX-P-DT-X9 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

- FLX-P-DT-X8 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.

- Hereby, OPTEX declares that the radio equipment type FLX-P-DT-X8 is in compliance with Radio Equipment Regulations 2017.
  The full text of the UK declaration of conformity is available at the following internet address:**www.optex.net**

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

- EN 50131-1 Grades and Environmental Class; Security Grade 2, Environmental Class II
  Applied Standards; EN 50131-2-2 (FLX-P-ST), EN 50131-2-4 (FLX-P-DT-X5 and FLX-P-DT-X8)
  Tested and certified by Telefication
- larm klass 2, miljö klass II, SSF 1014
- PD6662:2017
- UL/c-UL listed (FLX-P-ST and FLX-P-DT-X5)

OPTEX **OPTEX CO., LTD. (JAPAN)**
www.optex.net

■ EU & UK contact information

https://navi.optex.net/cert/contact/

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