# FLAME PASSIVE SENSOR

## FP-2500E

CE ⟨RCM⟩

FLAME DETECTION AT 10m(33ft.) AND INTRUSION DETECTION
WIDE ANGLE 10m(33ft.), WITH COMPACT DESIGN!
IDEAL COMBINATION SENSOR TO MINIMIZE NUISANCE ALARM AND
REALIZE SAFER INDOOR PROTECTION OF YOUR PREMISE

### TWO OUTPUT MODES SELECTABLE

Two output modes are available; "AND" detection mode and "Individual" detection mode.

• In "AND" detection mode, an alarm signal is output when both flame and passive infrared sensor detect during the selected AND timer.

• In "Individual" detection mode, flame or passive alarm signal is output when either the flame sensor or passive sensor detects.

### FORCED OUTPUT OPERATION

The flame sensor outputs flame alarm signal after continued detection for a certain period of time, or detects twice during the selected AND timer even in "AND" detection mode, without any detection by passive sensor.

### ALARM MEMORY

It can be easily identified by Alarm memory indication (flame and passive sensor individually) which sensor is activated. Memory LED blinks for 3 min. and lights on for 47 min. after alarm activation.

### PET IMMUNITY (Passive Sensor)

Multiple Zone Technology ensures 40 lbs. (20kg) pet immunity with outstandingly high performance and reliability.

### AREA ADJUSTMENT (Passive Sensor)

The coverage pattern can be adjusted to different mounting heights by moving the inner unit.

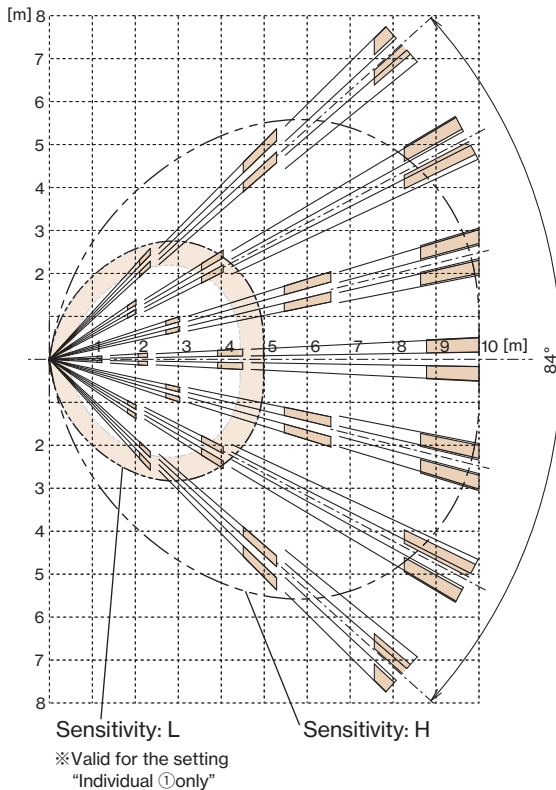### OPERATION SET-UP BY DETECTION TIMER (Flame Sensor)

The alarm will be activated only when the sensor detects a flame (ultraviolet rays)  for longer time than set time. Two detection times are selectable by DIP switch on the sensor. < 1 sec., 3 sec. >
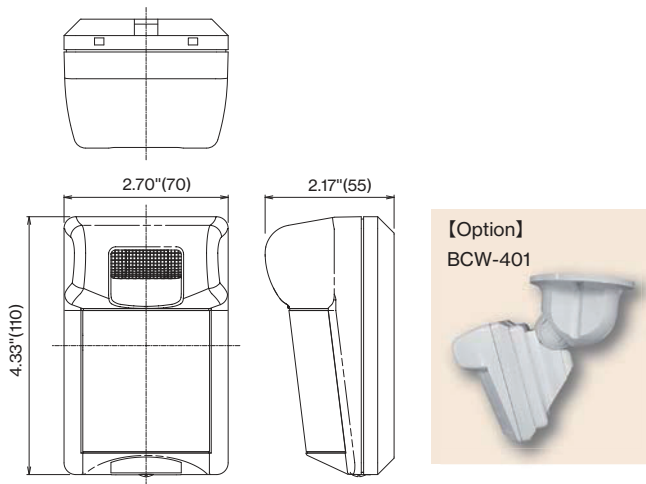
# FLAME PASSIVE SENSOR

## Detection area

### ■Wide Angle
unit : m

Setting conditions
Detection timer : 1sec.
Origin of flame : Gas lighter
Size of flame : Approx. 2.75"(7cm)

Sensitivity: L          Sensitivity: H

※Valid for the setting
"Individual ① only"

## External dimensions

Unit : inch (mm)

2.70"(70)          2.17"(55)

4.33"(110)

【Option】
BCW-401

## Terminal configuration

POWER     ALARM① ALARM②     TAMPER
10 to 30VDC (FLAME) (PASSIVE)     30V(AC/DC)
20mA     30V(AC/DC) 0.25A     0.1A
non-polarity     N.C./N.O.     N.C.

[Allowable wiring distance between sensor and power source]

| Size of wire | Distance at 12VDC |
|---|---|
| AWG 22 (Dia. 0.65mm) | 830 ft. (250m) |
| AWG 20 (Dia. 0.80mm) | 1470 ft. (450m) |
| AWG 18 (Dia. 1.00mm) | 2300 ft. (700m) |

●The maximum wire length, when two or more units are connected,is the above distance divided by the number of units.

## Specifications

| | | |
|---|---|---|
| | Product name | FLAME PASSIVE SENSOR |
| | Model No. | FP-2500E |
| Flame sensor part | Detection system | Ultraviolet rays (Detection wave length 185 to 260nm) |
| | Detection distance | 33'(10m) , 2.75"(7cm) lighter flame in front |
| | Detection area angle | Approx. 120° conically |
| | Detection setting | Detection timer (1sec, 3sec)<br>Detection sensitivity (H [100%], L[50%])<br>*Detection sensitivity can be set at only "Individual" mode.<br>*H[100%] is fixed at "AND" mode. |
| | Alarm LED (RED) | Part of flame sensor<br>• Lighting at alarm<br> (Detection time + off delay. Approx. 2 sec.)<br>• Blinking (3 min) and Lighting (47 min) at memory |
| Passive sensor part | Detection system | Passive infrared |
| | Detection area | Wide Angle 33'(10m) Max. 29 pairs |
| | Detection area angle adjustment | 3 steps |
| | Alarm LED (RED) | Part of passive sensor<br>• Lighting at alarm (One shot, Approx. 2 sec.)<br>• Blinking (3 min) and Lighting (47 min) at memory<br>• Lighting at trouble. |
| | Power supply | 10V to 30VDC (non-polarity) |
| | Current consumption | 20mA Max. |
| | Alarm output | Individual mode<br>Flame sensor output (From ALARM① terminal)<br>• Dry contact relay (Semi-Conductor) (N.O./N.C. selectable)<br>• Contact operation : Detection time + off delay. (Approx. 2 sec.)<br>• Contact capacity : 30V (AC/DC) 0.25A Max. (resistive load)<br>Passive sensor output (From ALARM② terminal)<br>• Dry contact relay (Semi-Conductor) (N.O./N.C. selectable)<br>• Contact operation : One shot (Approx. 2 sec.)<br>• Contact capacity : 30V (AC/DC) 0.25A Max. (resistive load)<br>AND mode<br> Forced flame signal output (From ALARM① terminal)<br> When the flame sensor detects a flame twice during the selected AND timer.<br> (Detection time + off delay. Approx. 2 sec.)<br> Or<br> When the flame sensor continues to detect a flame for flame duration time 15 or 30 sec.<br> (Detection time after 15/30 sec + off delay. Approx. 2 sec.)<br>• Dry contact relay (Semi-Conductor) (N.O./N.C. selectable)<br>• Contact capacity : 30V (AC/DC) 0.25A Max. (resistive load)<br>AND detection signal output (From ALARM② terminal)<br> When both passive and flame sensors detect during the selected AND timer. (Detection time, Min. 2 sec.)<br>• Dry contact relay (Semi-Conductor) (N.O./N.C. selectable)<br>• Contact capacity : 30V (AC/DC) 0.25A Max. (resistive load) |
| | Tamper output | Dry contact relay N.C.<br> (Activated when the front cover is detached)<br>Contact capacity : 30V (AC/DC) 0.1A Max. (resistive load) |
| | Alarm memory | Reset after blinking (3 min) and lighting (47 min)<br>(Operate flame and passive LED individually) |
| | Ambient temperature range | 5°F to+131°F (-15°C to +55°C) without condensation |
| | Mounting position | Indoor wall surface (Ceiling with option attachment "BCW-401") |
| | Connections | Self-up terminal |
| | Weight | Approx. 120g |
| | Appearance | Resin |

## Maintenance

● Check the operation once a week.
● Do not fail to check operation whenever a funiturein the place is moved in and out of detection area.

When housing is stained, remove the stain with a soft cloth using water or mild detergent.
Do not use such chemicals as thinner or benzine to clean the heusing.

# TAKEX

Please note :
This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglary or a crime preventing device. TAKEX is not responsible for damage, injury or losses caused by accident, theft, Acts of God (including inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation or improper maintenance.