


**TAKEX**

# FLAME SENSOR

CE 

FS-1000E



## The FLAME DETECTION AT 33ft. (10m) AHEAD! SUPER HIGH SENSITIVITY IN A SMART DESIGN.

The flame sensor FS-1000E quickly detects ultraviolet rays contained in flames and activates a built-in alarm sound, as well as an open collector output.

#### Power supply

The FS-1000E can be powered from either 2 type, 3-alkaline batteries or an external power source 9 to 30V DC depending on the application. Another optional power source can come from a long life lithium battery.

#### External output to a security system

Equipped with a form A (N.O.) open collector output, the FS-1000E can be connected to a security control panel. Alternatively, the output signal can be used to initiate a warning device e.g.: bell, siren etc., when used with an external DC power supply.

#### Operation set-up by detection timer

The alarm will be activated only when the sensor detects a flame (ultraviolet rays), in accordance with the detection timer. The 4 following detection times are selectable using the slide switch located on the sensor body.

1sec. 6sec. 15sec. 30sec.

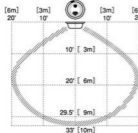
#### Other functions

- The internal alarm sounder output is greater than 80dB at 3.3ft. (1m) in front of the sensor. The internal sounder can be disconnected by cutting the jumper wire, if required, when using an external DC power supply.
- Compact design enables the FS-1000E to be installed in any location. Easy separation of the sensor unit from the base simplifies installation and maintenance.
- Low battery  
When using a battery power source, low battery condition is announced by an internal buzzer and external LED.
- Power up  
When the power is turned on, an alarm sound is activated. If no alarm sound is activated, check the power source.

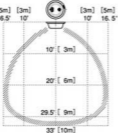
# FLAME SENSOR

## ■ PATTERN

(FRONT VIEW : CEILING MOUNT)  
(TOP VIEW : WALL MOUNT)



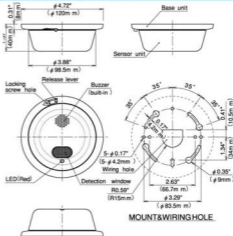
(SIDE VIEW : CEILING &  
WALL MOUNT)



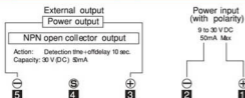
### CONDITION OF DETECTION AREA

DETECTION TIMER : H(0.2 sec.)  
SIZE OF FLAME : APPROX. 2.76" (7cm)  
ORIGIN OF FLAME : GAS LIGHTER

## ■ EXTERNAL DIMENSIONS



## ■ TERMINAL ARRANGEMENT



## ■ OPTIONAL ACCESSORIES

Ceiling/wall  
mount attachment



BCW-401

Exclusive lithium  
battery



CR17450E-R-2-CM2

## ■ SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Model No.                 | FS-1000E   |
| Detection system          | Ultraviolet raya detection<br>(Detected wave length 180 to 280nm)  |
| Detection distance        | 33ft. (10m) (2.76"/7cm) lighter flame, in front)   |
| Detection angle           | Approx. 120° (conically)   |
| Detection adjustment      | 4 steps changeover by slide switch<br>1sec. 6sec. 15sec. 30sec.  |
| Power supply              | <ul style="list-style-type: none"> <li>Type-3 alkaline battery (LR6) × 2 (3V) – accessory</li> <li>Exclusive lithium battery (CR17450E-R-2-CM2) × 1 (3V) – optional</li> </ul> External power supply 9 to 30V DC with polarity<br>Stand by: 50μA Max. with battery power supply<br>5mA Max. with external power supply |
| Power consumption         | Alarm: 50mA Max. with buzzer sounds  |
| LED                       | Indication: Red LED<br>Alarm: Flashing every 0.2sec.; during offdelay approx. 1.0sec.<br>Low battery: Light on 0.1 sec. approx. every 5sec.  |
| Buzzer                    | Alarm: Sounds intermittently every 0.2sec.; during off-delay 10sec.<br>Low battery: Sound 0.1 sec. intermittently approx. every 5sec.<br>Volume: 80dB or more 3.3ft. (1m) ahead<br>(Silent setting is available by cutting internal jumper line)   |
| External output           | NPN open collector output<br>(Useful as an output with voltage when external power is used)<br>30V DC 50mA, offdelay 1.0sec. continuous output   |
| Wiring                    | Terminals<br>+14F to +140F (-10C to +60C) without condensation   |
| Ambient temperature range | Binary performance may decrease under +32F (0C) or beyond +104F (+40C)<br>Indoor (Ceiling or wall mount)   |
| Weight                    | Approx. 7oz (200g) including battery (accessory) 1.8oz (50g)   |
| External dimensions       | φ4.72" (120mm) × H1.57" (40mm)   |
| Appearance                | ABS resin (white)  |
| Accessories               | <ul style="list-style-type: none"> <li>Exclusive battery case of Type-3 × 2pcs. × 1</li> <li>Type-3 alkaline battery LR6 × 2</li> <li>Sensor locking screw φ3 × 6, × (1)</li> <li>Tapping screws φ4 × 2.5, × (2)</li> </ul>  |

**Please note :** This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglary or a crime prevention 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.

LEAF07-04E7-6

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