

PASSIVE INFRARED SENSOR

Digital Quad Series

PA-7012 Wide angle

PA-7030 Long range

PA-7100 360° round



TAKEX[®]

The TAKEX PA-7000 series passive infrared sensors offer a complete range of coverage options all of which use the new TAKEX 'Digital Quad' sensing system.

Features

- **DIGITAL-QUAD SENSING**

A custom-made integrated circuit is linked to a low noise quad element sensor. The output from the sensor is converted into a digital signal before being analysed using the patented MAC system. This results in a detector which will reject common false alarm problems, such as turbulence (heating, air conditioning) and external lights.

- **COVERAGE PATTERNS**

The PA-7000 series is the first range of detectors to offer wide angle, long range and full 360° coverage options in the same enclosure.

- **ATC CIRCUIT**

An automatic temperature compensation circuit is included to adjust the sensitivity of the unit relative to its environmental temperature. The sensitivity becomes maximum at body temperature range and decreases when the temperature differential changes either higher or lower. This eliminates the need for seasonal adjustment.

- **MEMEORY**

Upon indication from the control panel that the system is armed the sensor will memorise an alarm condition and display this via the walk test LED when the control panel is next disarmed.

- **EMI/RFI REJECTION**

A special noise eliminator system provides excellent RFI and electrical induction noise immunity.

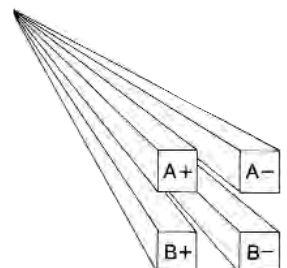
- **SIMPLE INSTALLATION**

The PA-7000 series features a separate mounting base which includes all connections for ease of installation and maintenance.

- **DIGITAL-QUAD SENSING**

The MAC process takes the difference of the sum of zones A and zones B to perform the following calculation. This ensures that the sensor will only generate an alarm when a target is sizable with sufficient infrared content.

$$A + B - A - B =$$



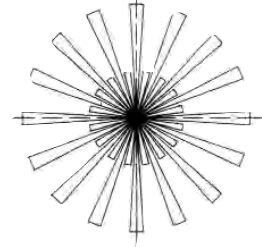
Specifications

Model	Passive Infrared Sensor (Digital-Quad)		
Model Number	PA-7012	PA-7030	PA-7100
Protection Area	12m x 12m	30m x 2m	12m @ 3.6m
Protection Zones	56	24	264
Alarm Signal	Dry contact relay output form 1C Reset 3-5 seconds Relay contact 30V (AC/DC) 0.1A		
Supply Voltage	(9-18V DC (non-polarity))		
Installation	Wall / Ceiling	Wall / Ceiling	Ceiling only
Power Consumption	15mA		
Ambient Temperature	-15°C to +55°C (+14°F to +135°F)		
Weight	350g (12 oz)		
Case Material	Body: ABS resin Cover: PE resin		

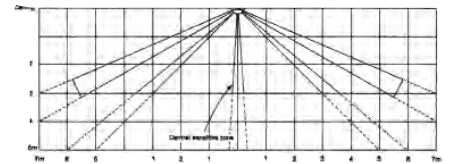
Coverage (m/feet)

PA-7100(360°) Radial Pattern.
Unique mirror structure provides a total of 33 quad zones. 16 zones on the outer circumference, 16 zones inner circumference and 1 central zone.

• Top View



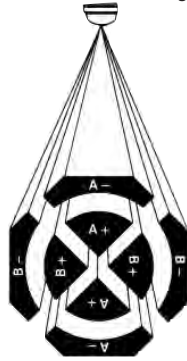
• Side View



Due to ongoing product improvements, specifications may change without notice.

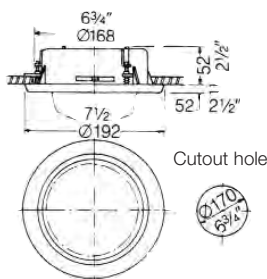
PA-7100 Special note

Each detection zone of the PA-7100 has eight individual sensing areas. These areas combine to form four balanced outputs to the microprocessor. This patented method ensures reliable quad detection throughout the detector's 360° coverage pattern.

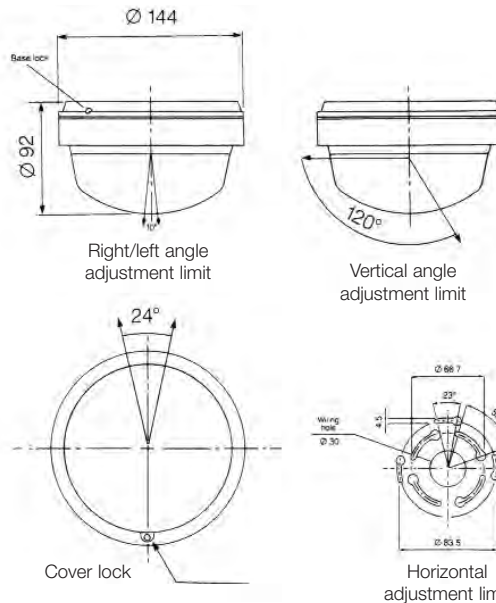


Optional Accessories

Flush Mount Kit
BU-7000



External dimensions (mm/inch)



PA-7012 (Wide Range)

Covers an area of 12m x 12m three dimensionally, with 56 (14 quad) zones.



PA-7030 (Long Range)

Covers an area of 30m x 2m vertical field, with 24 (6 quad) zones.



Note: This sensor is designed to detect intrusion and to initiate an alarm. It is not a burglar-preventing device. TAKEX is not responsible for damages or losses caused by accidents, thefts, Acts of God (including inductive lightning), abuses, misuses, abnormal usages, faulty installation or improper maintenance.



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