



DIGITAL

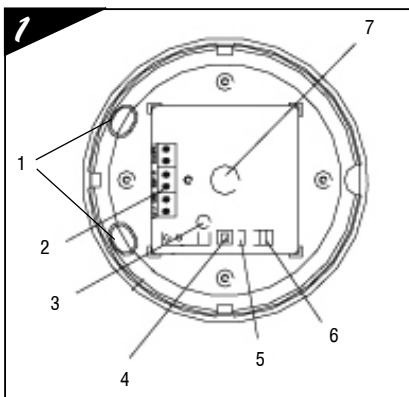
BIC100



## CEILING-MOUNT DUAL PASSIVE INFRARED DETECTOR

The ceiling-mount BIC100 is a Dual PIR motion detector. It senses for the infrared spectrum of the human body. This principle, enhanced with a sophisticated signal discrimination technique provides an extremely stable and reliable detector suitable for installation in a vast variety of residential and commercial applications.

### FRONT VIEW



1. WIRE-ENTRY
2. TERMINAL BOARD
3. ALARM LED
4. TAMPER SWITCH
5. BYPASS ALARM-LED JUMPER (LED ON)
6. ALARM PULSE JUMPER (DELAY)
7. SENSOR

### FEATURES

The main features of the BIC100 are:

- Bypassable Alarm LED
- Automatic Temperature Compensation
- Customizable alarm pulse duration (5, 10 or 30 seconds)
- High EMI Immunity
- Digital signal analysis

### TECHNICAL SPECIFICATIONS

|                       |                                         |
|-----------------------|-----------------------------------------|
| Supply voltage        | 9V to 16V dc                            |
| Current draw (max.)   | 20mA @ 12V dc                           |
| Operating Temperature | 0°C to +50°C (14F to 122F)              |
| Sensor type           | Low noise Dual PIR                      |
| Alarm pulse duration  | 5, 10 or 30 seconds (options 3, 2 or 1) |
| Installation method   | Ceiling mount                           |
| Installation height   | 2.5 to 6m                               |
| Detection range       | 6m (at a height of 3.6m)                |
| Detection angle       | 360°                                    |
| Alarm output          | N.C., 28V dc, 80mA max.                 |
| Tamper output         | N.C., 28V dc, 100mA max.                |
| Size (HxLxD)          | 116x116x28.2mm                          |

### Installation

1. Choose a suitable mounting location.
2. Remove the retaining screw and detector cover.
3. Remove the electronic board retaining screw and detach the electronic board from its housing. Using a screwdriver, push out the wire entry and, if necessary, the wall plug knockouts on the detector mounting plate.
4. Bracket mount: using wall plugs, attach the bracket to the ceiling, pull the wires through the wire entry on the mounting plate. Push the mounting plate onto the lock-on twist grips and turn it clockwise until it locks firmly in place. Plate mount: using wall plugs, attach the mounting plate to the ceiling, pull the wires through the wire entry on the mounting plate. Replace the electronic board and reattach it to its location by means of the screw.
5. Complete the connections on the terminal board.
6. Replace the detector cover and tighten the retaining screw.

### Note:

- a) Recommended installation height: 2.5m to 6m.
- b) Do not drill in the vicinity of electrical wiring or plumbing, etc.
- c) The detector should be located in place that is far from sources of interference, such as: reflective surfaces, direct air flow, air-conditioning systems, windows, steam, oil vapour, infrared sources and appliances which may cause temperature changes (heaters, ovens, refrigerators, etc.).
- d) Ensure that no objects are placed in such way as to blind the detector.

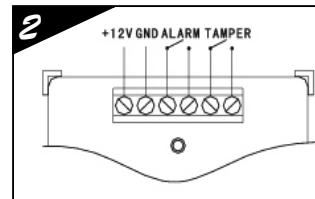
### Operating principles

1. On first 12V power up, the LED will go On and the detector will initialise the auto-test phase.
2. After approximately 60 seconds the detector will stabilise and become operational and the LED will go Off.
3. If motion is detected in the protected area, the LED will go On and the alarm contact will open for the time set (set using the jumper). (fig. 1 and 3).

### Note:

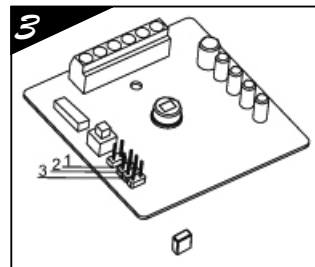
The "LED ON" jumper (fig. 1) influences the LED only, and in no way influences the functionality of the detector.

### TERMINAL BOARD



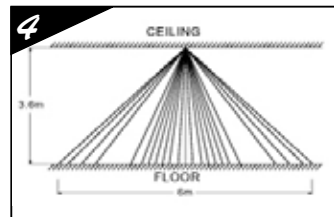
- +12V: Positive  
GND: Negative  
ALARM: Alarm signal output contact (N.C. during standby)  
TAMPER: Tamper signal output contact (N.C. during standby)

### ALARM PULSE DURATION



- 1) Option 1: 30s (+/- 2s)
- 2) Option 2: 10s (+/- 2s)
- 3) Option 3: 5s (+/- 2s)

### COVERAGE



### Warning

1. This detector must be installed in compliance with the laws and standards in force.
2. Do not touch the electronic components as this may damage the circuits and reduce the reliability of the detector. If necessary, clean the detector with a soft cloth only.
3. Do not install the detector in locations where there is risk of rapid temperature changes.
4. Install the detector strictly in accordance with the instructions in this leaflet.
5. The device should be tested on a regular basis.

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