BRAVO™ 5

Ceiling Mount PIR Detector

INSTALLATION INSTRUCTIONS

The Bravo5 is a ceiling mount detector designed to provide reliable motion detection for residential and commercial applications. The Bravo5 uses a special Fresnel lens made for 360° detection in conjunction with a quad element PIR sensor optimized for uniform detection all around its field of view. Special attention is given to false alarm immunity against RF, static, electrical transient to ensure trouble free operation for many years.

Features

- Multi-Level Signal Processing *
- 360° coverage
- Quad element PIR sensor
- High level static and transient protection
- Excellent RF immunity
- Temperature compensation
- Fast/Slow detection jumper
- LED ON/OFF jumper
- SMD construction
- Super quiet operation
- 5 year warranty

Specifications

Electrical

- Input Voltage: 9 - 14.5 VDC
- Current (nominal): 18/15 mA (alarm on/off) @12 VDC

Contact Rating

- Alarm Relay: 0.1A @24VDC
- Tamper Switch: 0.1A @24VDC

Size (diameter x height)

4.6" x 1.4" / 117 mm x 36 mm

*** Patented**

Operation

- Maximum detection range (diameter)
  Detector placed 8 ft./ 2.4 m from floor: 24 ft./ 7.3 m
  Detector placed 10 ft./ 3.0 m from floor: 30 ft./ 9.2 m
  Detector placed 12 ft./ 3.6 m from floor: 40 ft./ 12.2 m
- Additional operating modes
  LED ON/OFF Jumper J1
  Pulse count (fast/slow) Jumper J2, J2 ON is fast count.

Environmental/Immunity

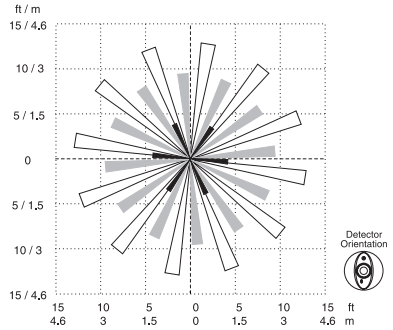
- RF Immunity: 20V/m (100Hz - 1.2GHz)
- Transients @ wiring terminal: 2.4KV @ 1.2joules
- Operating temperature: 32 -122°F / 0 - 50°C
- Humidity 5 - 95% RH non-condensing

Product Information

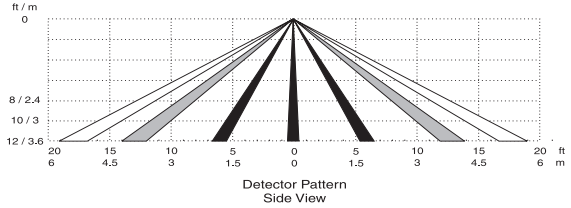
- BV-500: Form 'A' alarm contact
- BV-501: Form 'A' alarm contact and tamper switch
- BV-502: Form 'C' alarm contact and tamper switch

Coverage

***Top View** (at 8 ft./ 2.4 m height)*



Side View



Locating the Detector

The Bravo5 is designed to be mounted on the ceiling of a dry indoor location for 360° coverage. Ensure that the expected path of an intruder is perpendicular to the beam path. Use the coverage pattern indicated on the coverage diagram to determine the best sensor location.

Survey the mounting location and the area being protected for the following potential problems. Avoid the following sources of false alarms:

Reflective Surfaces

Do not aim the detector at reflective surfaces such as mirrors or windows as this may distort the coverage pattern or reflect sunlight directly onto the detector.

Air Flow

Avoid locations that are subject to direct high air flow such as near an air duct outlet.

Moisture

Do not locate the detector near sources of steam or oil.

The Sun

Do not aim the detector such that it will receive direct sunlight.

Obstructions

Do not limit the coverage by placing large objects within the detection area (such as plants, high shelves, filing cabinets etc.).

Mounting

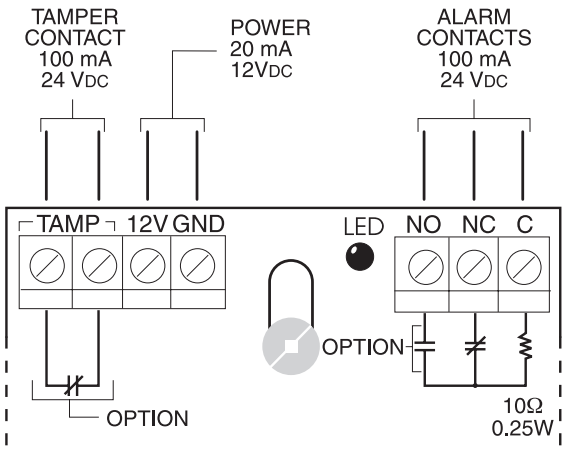
To open the case, insert a small screwdriver in the tab restraining clip. Gently pry tab downward and twist the top cover counter-clockwise and lift it up from the bottom cover. Use a small screwdriver to remove the appropriate knockouts for wiring. Mount the bottom cover using the screws supplied.

To close the case, use the locating line on the bottom cover to align the tab on the top cover. Once the top cover is engaged, twist the top cover clockwise to lock it in place.

NOTE: Since no adjustment is necessary for the circuit board, it is not recommended that the installer remove the circuit board from the case.

Wiring

Refer to the following diagram for wiring instructions:



Contacts shown with power applied and no alarm

Power Up

Upon application of power, the LED will be on for approximately 90 seconds to indicate that the unit is warming up. During this period, the relay is held in its alarm state. After the 90 second warm-up period, the LED will turn off and the unit will respond to motion in the protected area.

Testing

IMPORTANT NOTE: Upon installation, test the unit thoroughly tested to ensure it works properly. The end user should be instructed on how to perform walk tests, and should perform a walk test of the detector weekly.

Walk Test

Create movement in the entire area where coverage is needed.

The LED on the unit will turn on whenever motion is detected (jumper J1 must be on).

If coverage is incomplete, relocate the unit. You can make minor adjustments by rotating the detector several degrees. Refer to the coverage pattern diagrams as a guide to reposition the detector for better coverage.

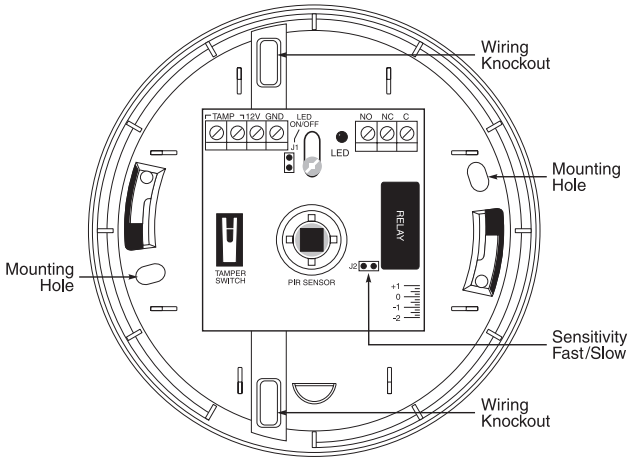
Once the detector coverage is as required, you may turn off the alarm LED by removing the jumper from J1.

Changing the Sensitivity

Bravo5 features Fast and Slow detection modes, which are set on jumper J2. Jumper J2 is set at the factory for the Fast detection mode. In a normal operating environment, this setting provides the best detection.

In certain environments where rapid air movement, heaters and other variables present problems, use Slow detection mode to stabilize the detection.

To change the setting from Fast to Slow, take the jumper off the header.



Limited Warranty

Digital Security Controls Ltd. warrants that for a period of five years from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfilment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

In no event shall Digital Security Controls Ltd. be liable for any direct, indirect or consequential damages, loss of anticipated profits, loss of time or any other losses incurred by the buyer in connection with the purchase, installation or operation or failure of this product.

Motion detectors can only detect motion within the designated areas as shown in their respective installation instructions. They cannot discriminate between intruders and intended occupants. Motion detectors do not provide volumetric area protection. They have multiple beams of detection and motion can only be detected in unobstructed areas covered by these beams. They cannot detect motion which occurs behind walls, ceilings, floor, closed doors, glass partitions, glass doors or windows. Any type of tampering whether intentional or unintentional such as masking, painting, or spraying of any material on the lenses, mirrors, windows or any other part of the detection system will impair its proper operation.

Passive infrared motion detectors operate by sensing changes in temperature. However their effectiveness can be reduced when the ambient temperature rises near or above body temperature or if there are intentional or unintentional sources of heat in or near the detection area. Some of these heat sources could be heaters, radiators, stoves, barbeques, fireplaces, sunlight, steam vents, lighting and so on.

Warning: Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Important Information: Changes or modifications not expressly approved by Digital Security Controls Ltd. could void the user's authority to operate this equipment.

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