# intelbras

USER GUIDE

IVP 5002 PET

Passive infrared sensor

Congratulations, you have just purchased a product with Intelbras quality and safety.

The IVP 5002 PET passive infrared sensor has intelligent passive infrared detection technology, adopting advanced signal analysis technology, which can prevent false triggering in dangerous environments. This sensor is intended for indoor environments.

1. Care and safety

» Follow all instructions in the manual for assembling and installing the product.
» This sensor is intended for indoor environments.
» Do not touch the surface of the infrared (PIR) sensor. If necessary, use a soft cloth moistened with water to clean the product.
» The sensor must be installed where a possible intruder is easily detected, that is, where a person performs movements transverse to the sensor's detection beams when entering the environment.
» It is important to note that the Pet function is designed for crawling animals, so if the animal is not on the ground, but on top of a bench, for example, it can be detected thus canceling the Pet function, as seen in the image below :
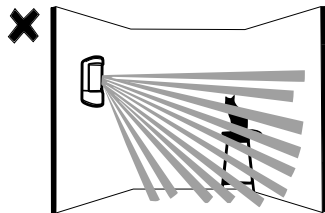

PET function

» Do not install the sensor facing glass doors or windows.
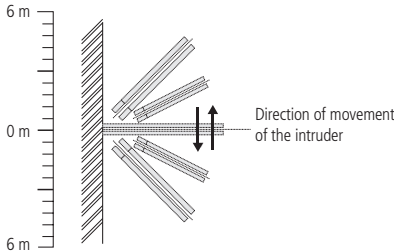
Top view

» Do not place objects in front of the sensor. To ensure the detection area, avoid curtains, screens, partitions, or any object that blocks the scan. Do not exceed the maximum sensor installation height (2.2 m).
» Do not use the sensor in areas with sudden changes in temperature, near air conditioners, heaters, cooling fans and ovens. Do not expose the sensor to direct sunlight.
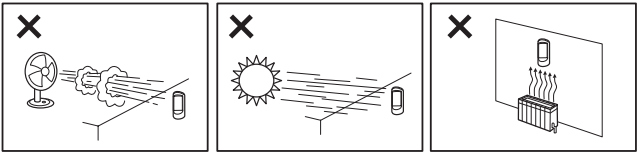
» Confirm that the installation location is stable and free from flickering.
» This sensor does not have a "*Look down* " or zero zone (see the figure in the item *1.2. Faixa de detecção (vista lateral)*), so make sure that the installation of the sensor makes it impossible for intruders to enter this area.
» For the use of the articulator, we recommend that the installation is done by a professional installer, as its incorrect use may impair the *PET* function and the sensor coverage angle.
» For your safety, test the product and systems at least once a week. This is necessary due to changes in environmental conditions, electrical or electronic interruptions and violations. Take all necessary precautions for the safety and protection of your property.
» We recommend that the sensor configuration be done according to the item *6. Configurando o sensor IVP 5002 PET* in this manual.
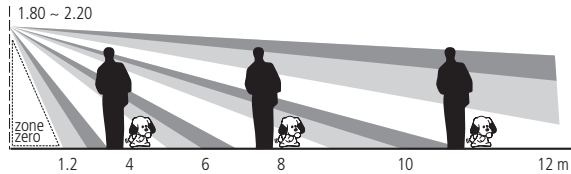
Note: Before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 1.80 to 2.2 m, according to the item table of 5. Instalação this manual.
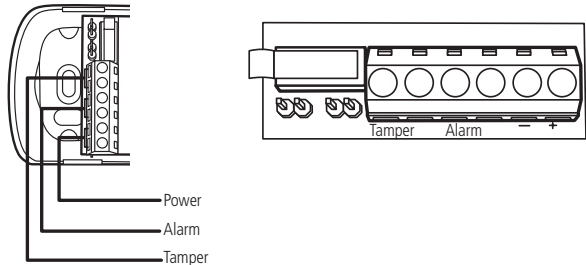
1.1. Scan (top view)
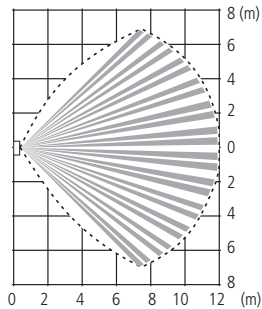
Top view

1.2. Detection range (side view)


Side view

1.3. Terminal Block

Terminal Block

2. Technical specifications

Operating voltage	9 – 16 Vdc
Operating Current	≤20 mA
Detection Angle	110°
Detection Range [1]	12m
Detection method	Double PIR
Sensors	Low noise PIR
Immunity to animals	Up to 35 kg
Start Time⚹	60 seconds
Installation height [2]	2.1 m ~ 2.2 m
Operating temperature	-10 °C ~ +50 °C
Relay output	Optional Open / Closed
Pulse Jumper (J.PULSE)	Optional Open / Closed

3. Features

» Microcontrolled sensor;
» Sensitivity Adjustment.
» Automatic temperature compensation.
» Immunity to white light up to 20,000 lux;
» High immunity to RFI / EMI;
» Highly effective algorithm against false triggering.
» Double PIR sensor.
» Immunity to pets up to 35 kg;
» Anti-tamper key for lower front cover.
» Easy installation.

4. Product
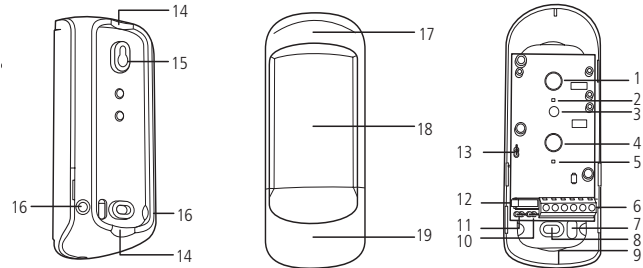
1. PIR 1 Sensor
2. Blue LED 1.
3. Plate fixing screw
4. PIR 2 Sensor
5. Blue LED 2.
6. Cable connection terminals.
7. Cable routing for installation
8. Screw hole for installation directly on the wall.
9. Screw hole for attaching the lower front cover
10. *PULSE jumper.*
11. *RELAY* Jumper
12. Tamper switch.
13. Jumper *LEDs.*
14. Recess for the routing of installation cables.
15. Oblong
16. Location of the screws for installation in the corner of the wall.
17. Upper Front Cover
18. Fresnel lens
19. Lower Front Cover
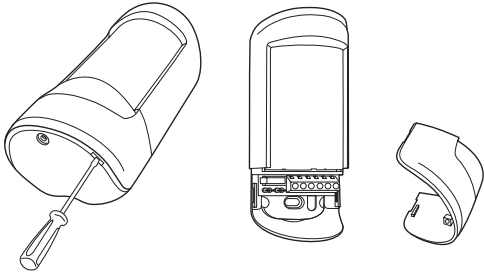
5. Installation

Before starting the installation, it is necessary to define the installation height of the sensor. We recommend that this sensor be installed according to the table below.
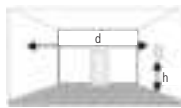

Distance (d)	Pet Animal	Installation height (h)
Less than or equal to 4 m	Without the presence of an animal pet	1.8 to 2 m
	With the presence of an animal pet	
Greater than 4 m to 12 m	With the presence of an animal pet	2.1 to 2.2 m
	Without the presence of an animal pet	1.8 to 2.2 m

The IVP 5002 Pet sensor does not have an articulator. . So for your installation, follow the procedure below:

» **Step 1:** remove the lower front cover of the sensor.

» **Step 2:** if the installation is done directly on the wall, use the oblong located in the upper rear region of the sensor and the hole indicated for placing the screw just below the connectors.

Oblong

Screw hole
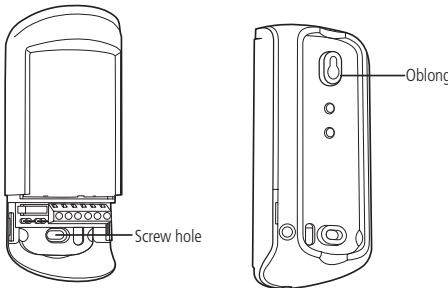
» **Step 2.1:** if the installation is done in the corner of the wall, use the holes indicated on the back cover.

Attaching location of the screws for installation in the wall corner
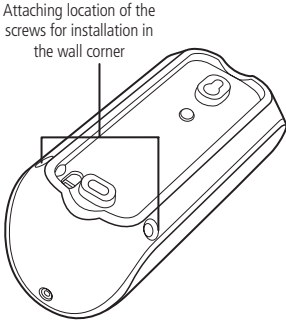
» **Step 3:** connect the installation cables to the terminals.
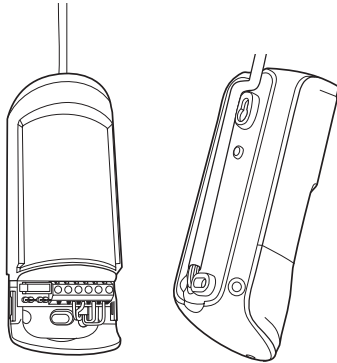
» **Step 4:** using a screw with dimensions of 6 × 20 mm, install the sensor on the wall following the procedure below.
  » Fix screw 1 on the wall and fit the sensor so that it does not have any slack.
  » Using the hole below the connectors, place screw 2 and screw until the sensor is fully attached.

Screw 1

Screw 2
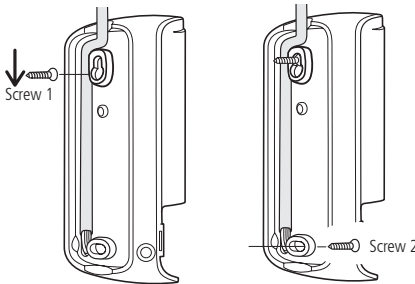
6. Configuring the IVP 5002 PET sensor

The *LED* jumper is used to control the LED indication without interfering with the detector. With the jumper in the *CLOSED* position, LEDs on. With the jumper in the *OPEN* position, the LEDs are off. Factory default: *LEDs on.*

The Pulse *jumper* controls the pulse count to trigger the alarm. With the jumper in the *OPEN* position, the sensor provides maximum sensitivity. With the jumper in the *CLOSED* position, the sensor provides minimal sensitivity, that is, appropriate detection for environments with a high incidence of EMI and RFI interference. Factory default: jumper in the CLOSED *position.*

The *RELAY* jumper controls the state of the relay contact. With the jumper in the *CLOSED* position, the contact is normally closed. With the jumper in the *OPEN* position, the contact is normally open. Factory default: *CLOSED.*

LED Jumper	
Position	Condition
Open	LED off
Closed	LED on.

PULSE Jumper (J.PULSE)	
Position	Condition
Open	Maximum sensitivity
Closed	Minimum sensitivity

Relay Jumper	
Position	Condition
Open	Open normally
Closed	Normally closed

7. Test

When turned on, the sensor LEDs will flash at 0.5 s intervals for 1 minute. This time is necessary to stabilize the amplification circuit of the PIR sensor.

Perform the walk test, with movements transverse to the sensor's detection rays, observing the indication of the LEDs:

» **LEDs on:** there was detection.

Note: when there is detection, the sensor LEDs will light and remain on for a period of 3 seconds.

Warranty

intelbras

talk to us