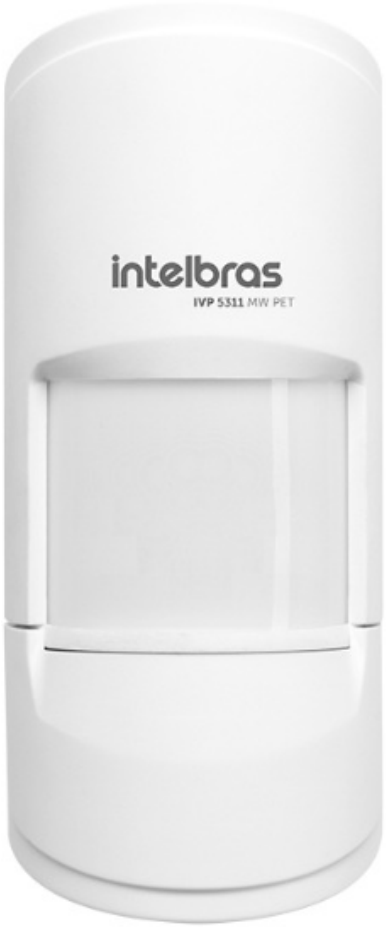
intelbras IVP 5311 MW Pet Passive Infrared Sensor User Manual

Contents

1 intelbras IVP 5311 MW Pet Passive Infrared Sensor
2 Product Information
3 Technical Specifications
4 Product Usage Instructions
5 Care and safety
6 Features
7 Product
8 Operation
9 Warranty term
10 Documents / Resources
10.1 References
11 Related Posts

intelbras IVP 5311 MW Pet Passive Infrared Sensor



Product Information

The IVP 5311 MW Pet is a passive infrared sensor with passive infrared and microwave detection technology. It utilizes advanced signal analysis technology to prevent false triggering in dangerous environments. This sensor is designed for indoor and semi-open environments.

Technical Specifications

- **Operating voltage:** [Operating voltage]
- **Operating current:** [Operating current]
- **Detection angle:** [Detection angle]
- **Detection range (PIR and MW):** [Detection range]
- **Detection method:** Animal immunity
- **Microwave frequency:** [Microwave frequency]
- **Sensitivity (J. Pulse):** [Sensitivity (J. Pulse)]
- **Sensitivity (J. SENS):** [Sensitivity (J. SENS)]
- **Anti-violation:** Yes
- **Indicator LEDs:** Yes

Operating voltage	9 ~16 Vdc
Operating current	38 mA
Detection angle	90°
Detection range (PIR and MW)	12 meters
Detection method	Microwave and PIR (AND)
Animal immunity	Up to 20 kg
Microwave frequency	10.525 GHz
Sensitivity (J. Pulse)	1- High sensitivity
	2- Sensitivity (factory default)
	3- Medium sensitivity
	4- Low sensitivity
Sensitivity (J. SENS)	1- High sensitivity
	2- Medium sensitivity
	3- Sensitivity (factory default)
	4- Low sensitivity
	5- Minimum sensitivity
Anti-violation	front tamper
Indicator LEDs	Yellow (PIR)
	Red (MW)
	Blue (Alarm)
Maximum startup time	80 seconds
Relay opening time	3 seconds
Recommended installation height	2.1 meters
Operating Temperature	-10 °C ~ +50 °C
Relay output	NA /NF
Dimensions (W × H × D)	55 × 140 × 60 mm

Product Usage Instructions

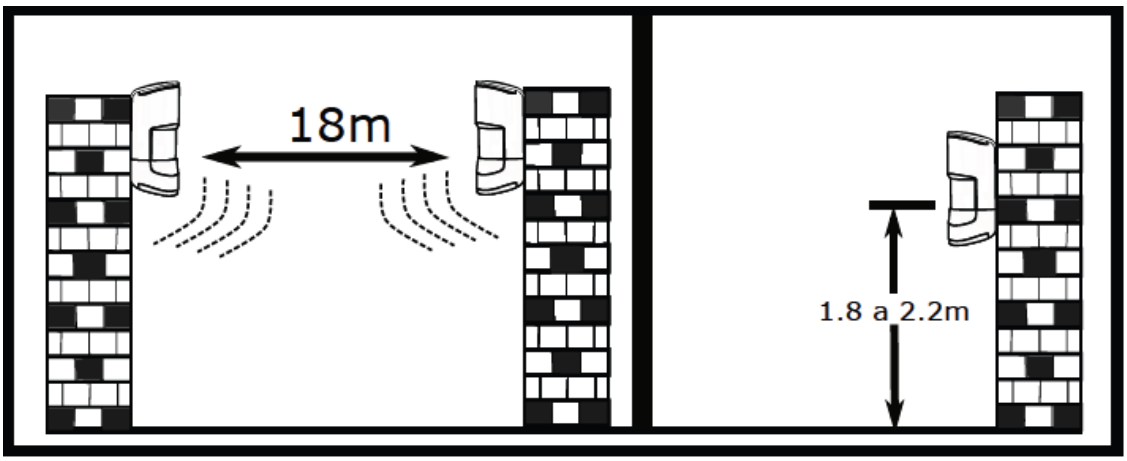
Installation

1. Remove the lower front cover.
2. Route the wiring through the cable knockouts located on the back cover of the sensor. Use a tool to drill the hole in the indicated location and pass the cables through the recesses in the rear cover.
3. Connect the connecting cables to the sensor terminals and install them in the desired location to be protected. If installing directly on the wall or on the edge of the wall, break the sealing waxes indicated for the holes on the

rear fixing cover.

Sensor Settings

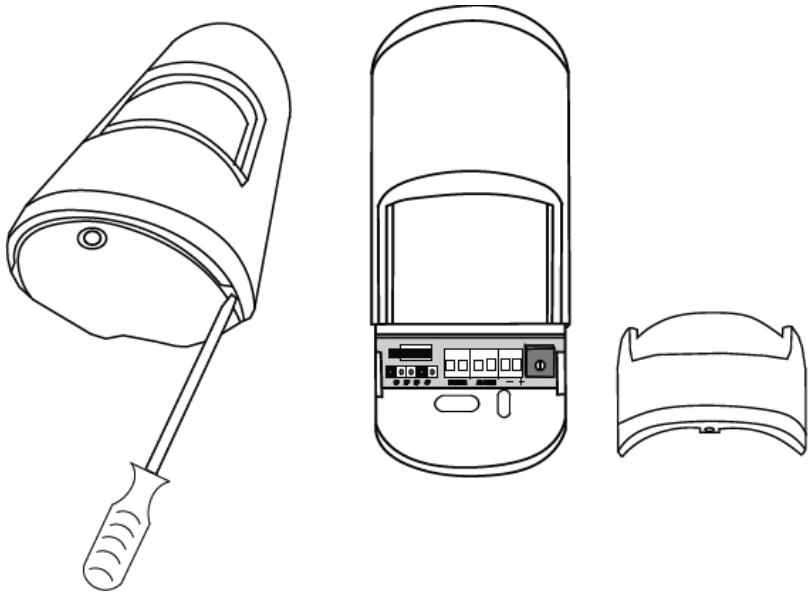
4. Make the settings on the sensor following the directions.
5. Microwave sensitivity adjustment: Use the trimpot to adjust the sensitivity of the microwave. Turning the trimpot counterclockwise increases the sensitivity and the detection
   distance, while turning it clockwise decreases the sensitivity.
   - Before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 1.8 to 2.2 m;
   - Do not install sensors that have microwave technology close to each other, as there may be interference between them;



   - Microwave sensitivity adjustment should be done according to each environment;
   - For installation using the articulator, make sure that both the sensor and the support are well fixed at the installation site to avoid changes in the product's detection angle. Incorrect use of the articulator can alter the sensor's detection area, creating blind spots and impairing operating efficiency;
   - If the sensor is installed at an angle, its detection range and Pet function may be impaired in such a way as to cancel the function.

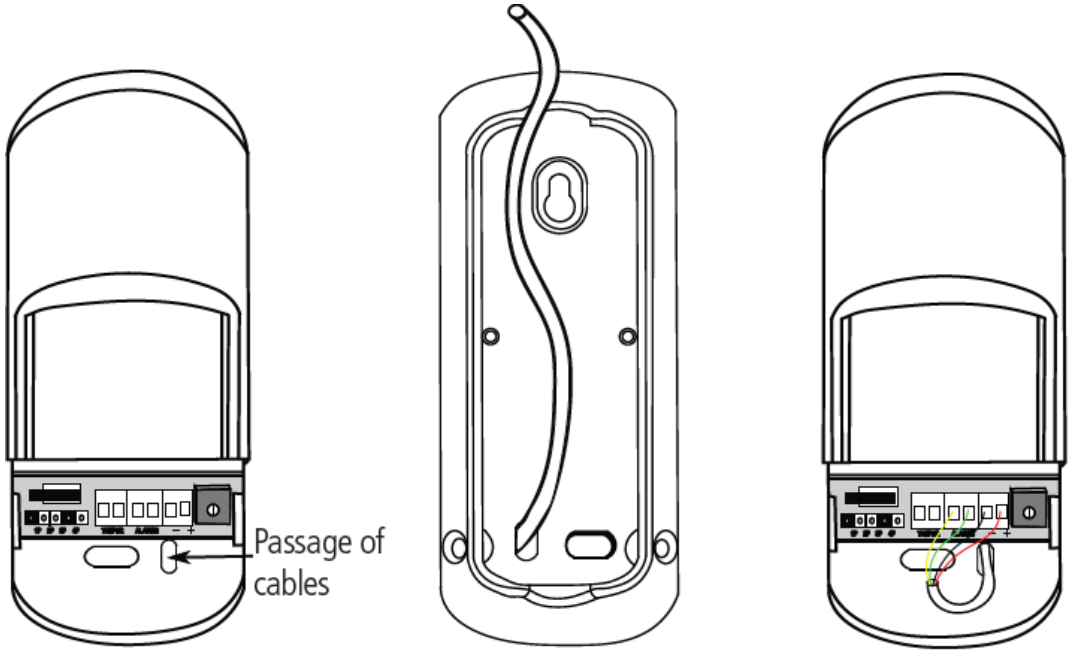
To install the sensor, follow the procedure below:

1. Remove the lower front cover;

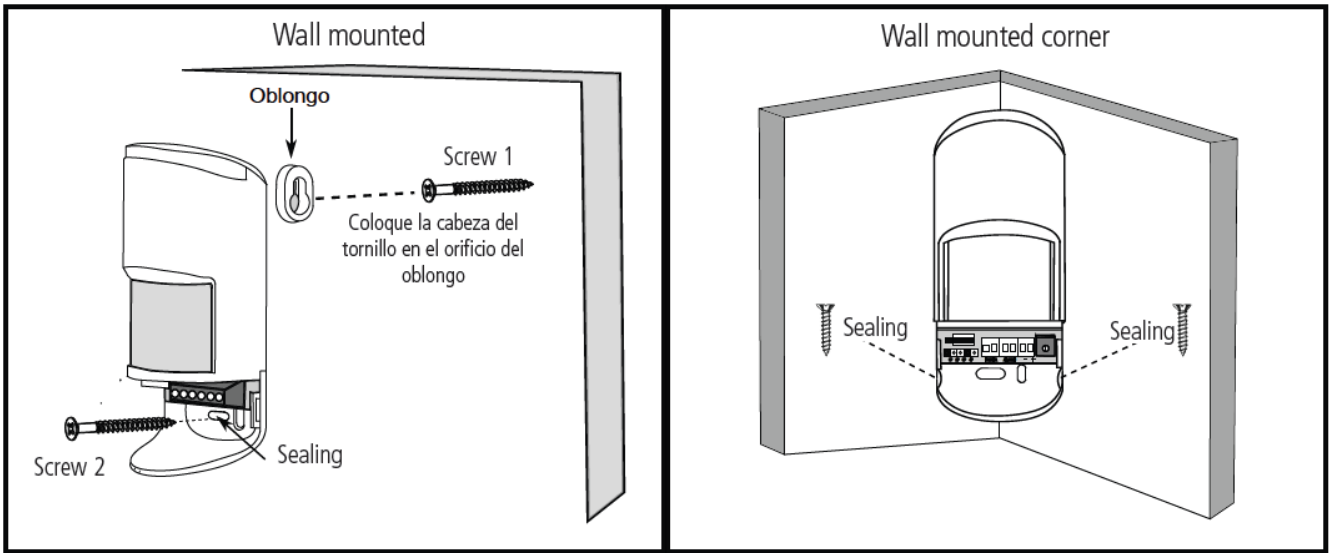


2. Route the wiring through the cable knockouts located on the back cover of the sensor.
   Note: use a tool to drill the hole in the indicated location and to facilitate the installation, use the recesses in

the rear cover to pass the cables.

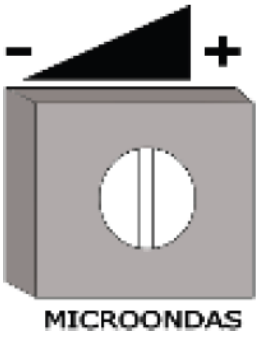


3. Connect the connecting cables to the sensor terminals and install them in the place to be protected. For installation directly on the wall or on the edge of the wall, break the sealing waxes indicated for the furos on the rear fixing cover. Note: for installation directly on the wall, use the oblong located on the back of the product. Use a parafuso with dimensions 6×20 mm, executing the procedure to follow. Fix the cover 1 on the wall and fit the oblong so that the sensor is firm. Using the hole below two connectors, place the cover 2 for total fixation of the sensor.



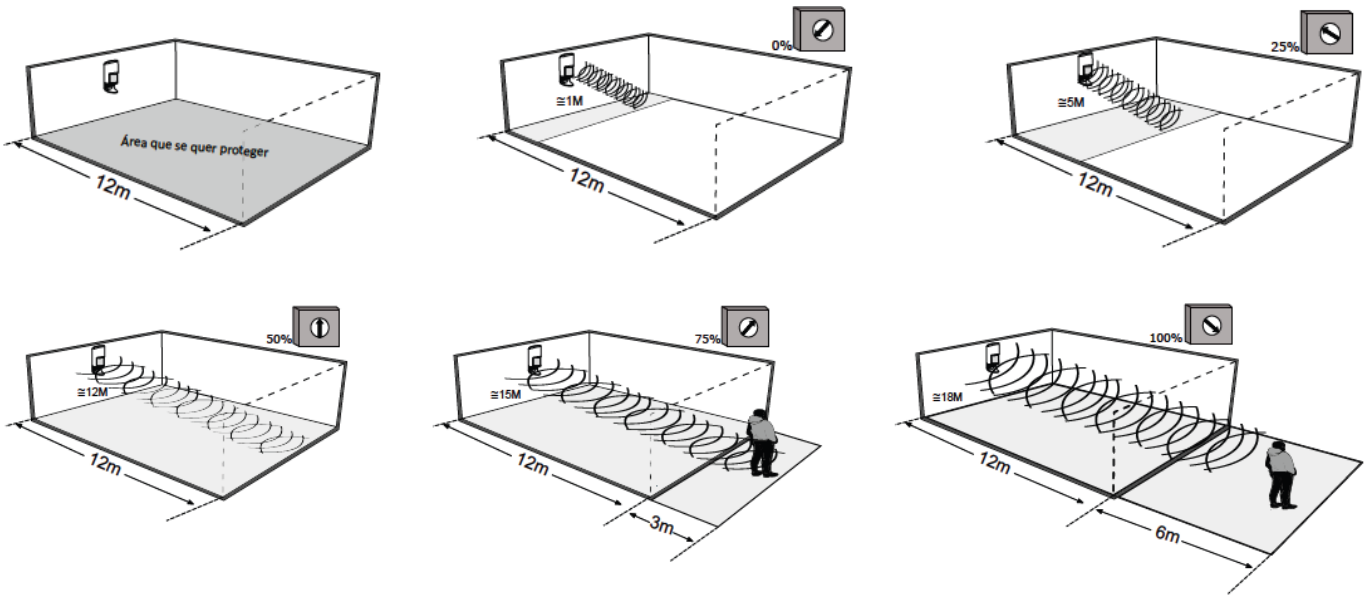
4. Make the settings on the sensor following the directions.

Microwave sensitivity adjustment

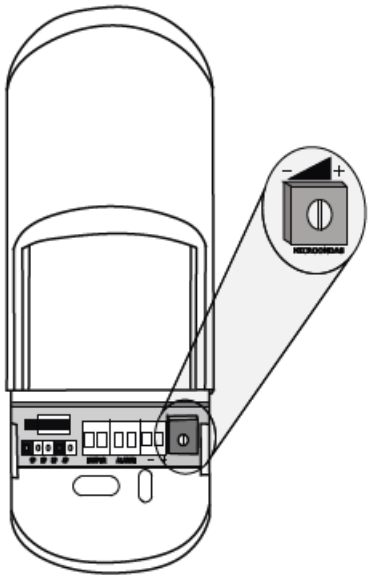


The trimpot allows you to adjust the sensitivity of the microwave. Turning the trimpot in a non-clockwise direction

increases the sensitivity and consequently the distance that the microwave is capable of detecting movements. Rotating counterclockwise or microwave is less sensitive.
Note: it is highly recommended to adjust the sensitivity of the microwaves so that the detection occurs only in the environment where the sensor is installed. This technology is capable of detecting movements through a wall, for example.



In figure 1 of the example above we have the area that we want to protect. Figures 5 and 6 indicate that the adjustment of the trimpot exceeds the limits of the environment to be protected. In this way, the microwave will detect movements on the external side of the desired area. To facilitate the adjustment of the microwave coverage, adjust the trimpot in an anti-clockwise direction (less sensitive) and walk in the environment that you want to protect. Observe the motion detection of the sensor. If necessary, increase the sensitivity (clockwise). Repeat this process until the sensor protects only the environment where it is installed.
The figure below shows a reference range of detection of the microwave channel.



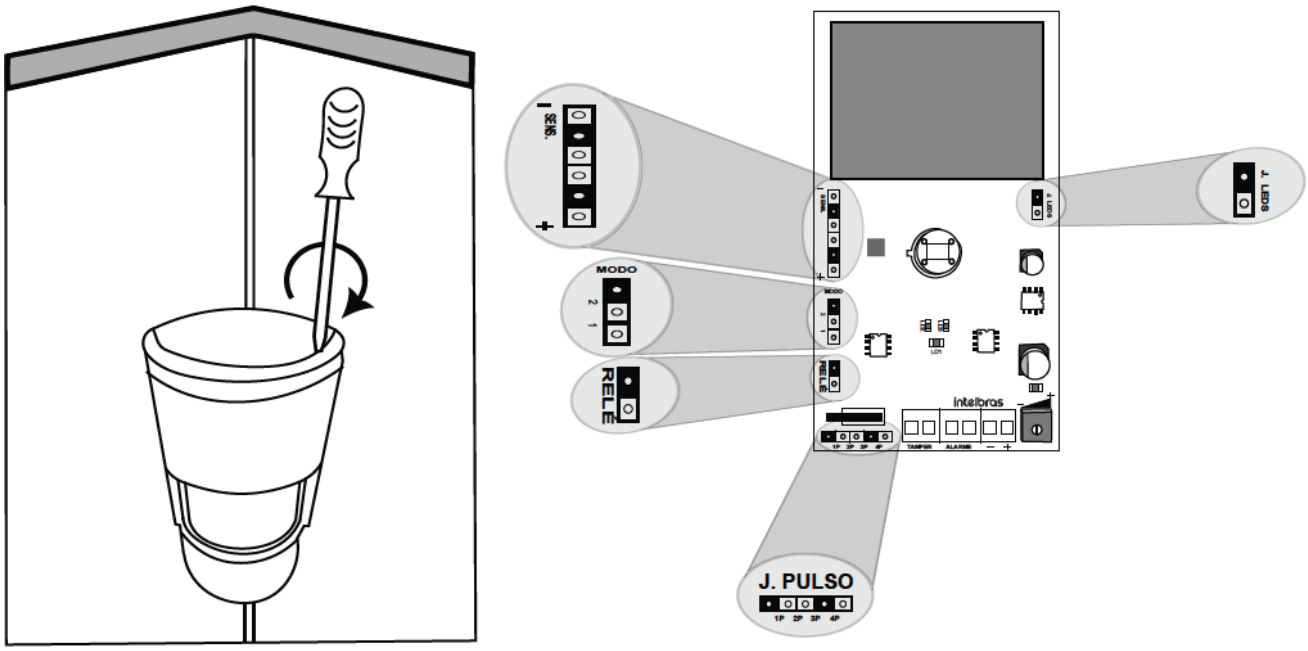
Microwave reach

Trimpot position	Maximum distance (meters)
0%	0% - up to 1 metro
25%	25% - up to 5 metros
50%	50% - up to 12 metros
75%	75% - up to 15 metros
100%	100% - up to 18 metros

Factory default: 50%
Microwave Adjustment LED The Microwave Adjustment LED is a way to signal microwave detection. Therefore, when performing the sensitivity adjustment, walk across the entire area you want to protect, observing if the LED will light up.

Operating mode settings

Note: to perform the Mode, Relay and LED sensitivity adjustments, it is necessary to open the front cover of the sensor, as shown in the following figures.
Insert a screwdriver into the side of the top slot on the cover, then push the cover forward.



Jumper J. LED

Position	Condition
Open	LEDs off
Closed	LEDs on (factory default)

The J.LEDs jumper is used to control the LED indication without interfering with the detector. With the jumper in the Closed position, the LEDs are able to function normally. With the jumper in the Open position, the LEDs are disabled, that is, they do not light up.
Factory default: LEDs on.

Jumper J. Pulso

Position	Condition
1	High sensitivity
2	Sensitivity (factory default)
3	Medium sensitivity
4	Low sensitivity

If the J.Pulse jumper is missing, the low sensitivity setting will prevail. The J.Pulso jumper controls the pulse count of the PIR sensor for triggering the alarm. This adjustment jumper has four selectable levels, according to the table above. Appropriately choose the configuration according to the environment in which the sensor will be installed. Factory default: 2 pulses.

Jumper SENS

Position	Condition
1	High sensitivity
2	Medium sensitivity
3	Sensitivity (factory default)
4	Low sensitivity
5	Minimum sensitivity

If the Sens jumper is missing, the low sensitivity setting will prevail. The SENS jumper also influences the sensitivity of the PIR sensor. This adjustment jumper has five selectable sensitivity levels, according to the table above. Appropriately choose the configuration according to the environment in which the sensor will be installed.
Factory default: level 3.

Jumper Relé

Position	Condition
Open	NA (normally open)
Closed	NC (normally closed)

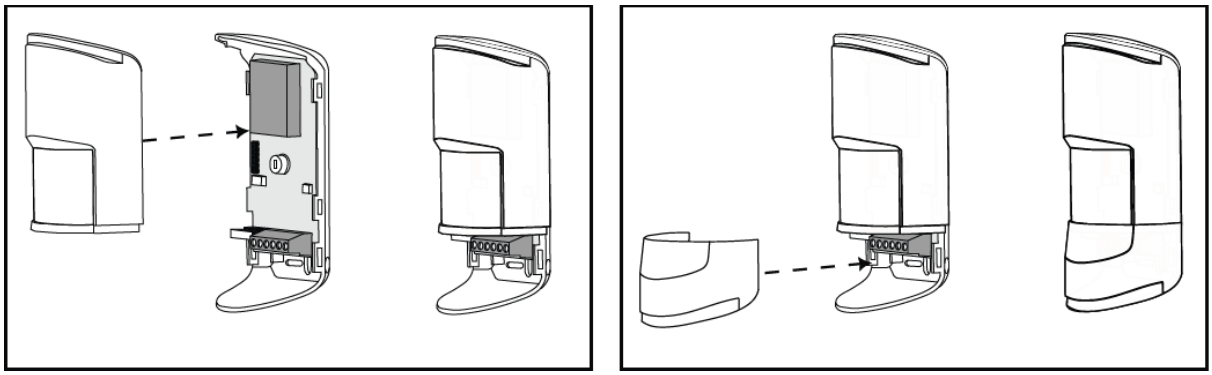
The Relay jumper controls the state of the relay contact. With the jumper in the Closed position, the contact is normally closed. With the jumper in the Open position, the contact is normally open.
Factory default: normally closed.

Jumper Mode

Position	Condition
1	AND (factory default)
2	Anti camouflage

With the Mode jumper in position 1, the sensor will operate in AND mode, that is, the sensor will activate when both technologies (PIR and microwave) detect the presence of an intruder at the same time. This function is indicated when the sensor is installed in semi-open environments or when there are domestic animals in the environment. With the Mode jumper in position 2, the sensor will be configured in anti-camouflage mode, that is, it will activate when there is detection in both technologies at the same time or when there are continuous detections only from the microwave, this guarantees the protection of the environment even if the PIR is camouflaged. This function is indicated for indoor environments without the presence of domestic animals.

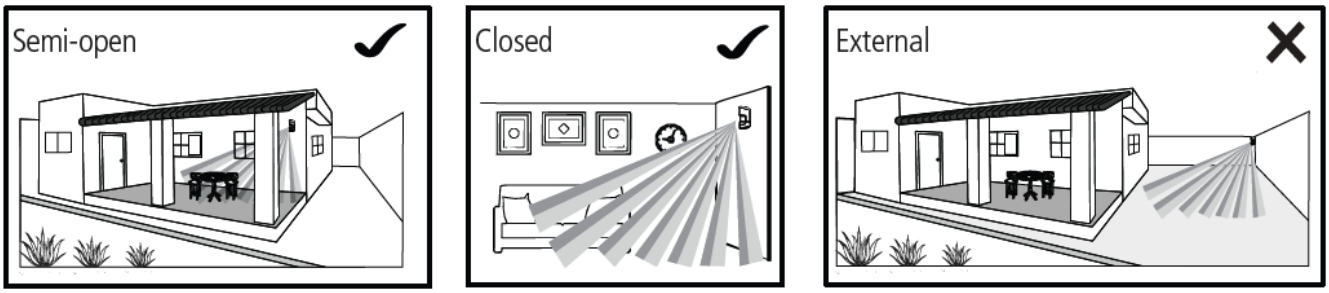
Completion of the process
Once the sensor configuration is finished, close it, bring the front cover closer to the base and then press the sides of the sensor so that the latches fit, then fit the lower front cover.



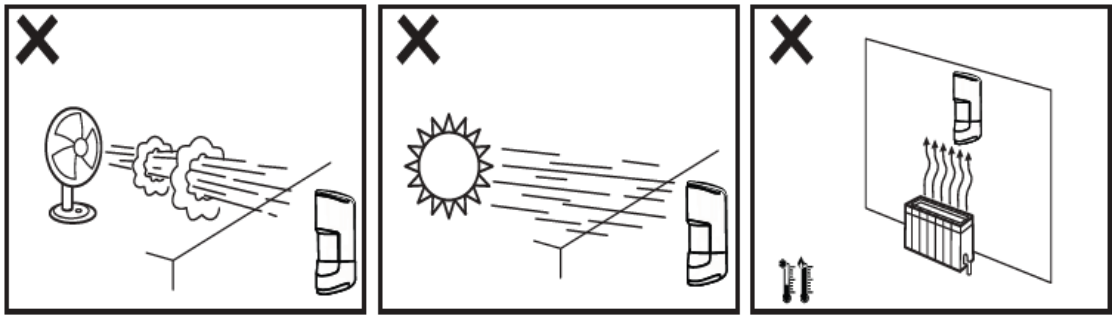
Congratulations, you have just purchased a product with Intelbras quality and safety. The IVP 5311 MW Pet passive infrared sensor has passive infrared and microwave detection technology, adopting advanced signal analysis technology, which can prevent false triggering in dangerous environments. This sensor is intended for indoor and semi-open environments.

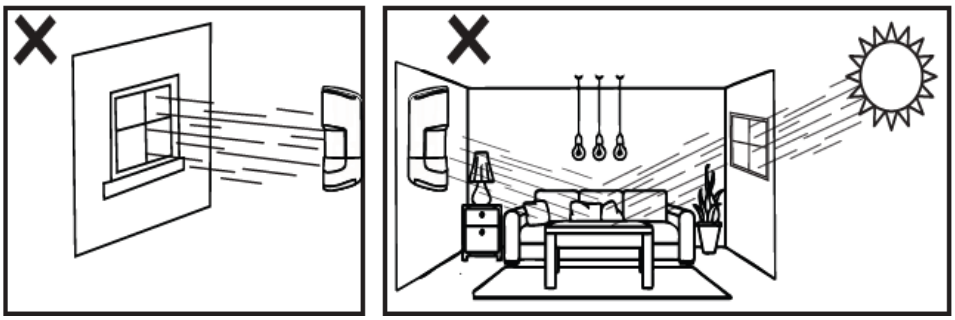
Care and safety

- LGPD – Data processing by Intelbras: Intelbras does not access, transfer, capture or perform any type of processing of personal data from this product.
- Follow all instructions in the manual for assembling and installing the product;
- Fix the sensor on stable surfaces, where there are no vibrations;
- This sensor is intended for closed and semi-open environments;

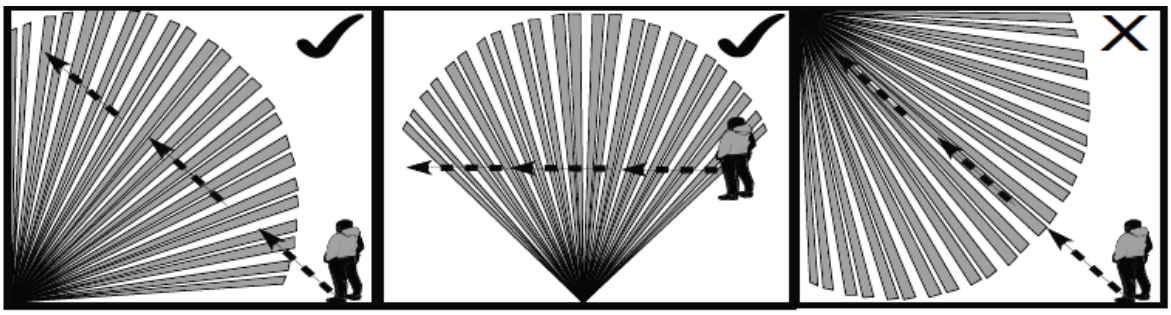


- Do not use the sensor in areas with sudden changes in temperature, such as near air conditioners and heaters, fans, refrigerators and ovens. Do not expose the sensor to direct or reflected sunlight;

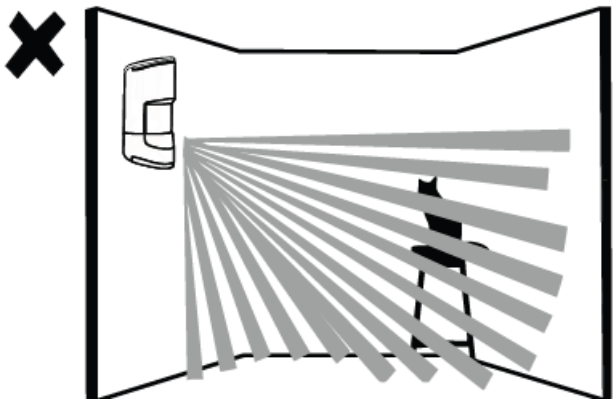




- Do not install the sensor facing windows and glass doors;
- Do not touch the surface of the infrared (PIR) sensor. If necessary, use a cleaning cloth;
- The recommended maximum installation height is 2.20 m, do not exceed it;
- Do not place objects in front of the sensor. To ensure the detection area, avoid curtains, screens, screens, or any object that may interfere with its coverage area;
- For the use of the articulator, we recommend that the installation be carried out by a professional installer, as its incorrect use could impair the Pet function and the sensor coverage angle;
- The sensor must be installed where a possible intruder can be easily detected, that is, where it makes transverse move-ments to the detection beams (see the figure below);



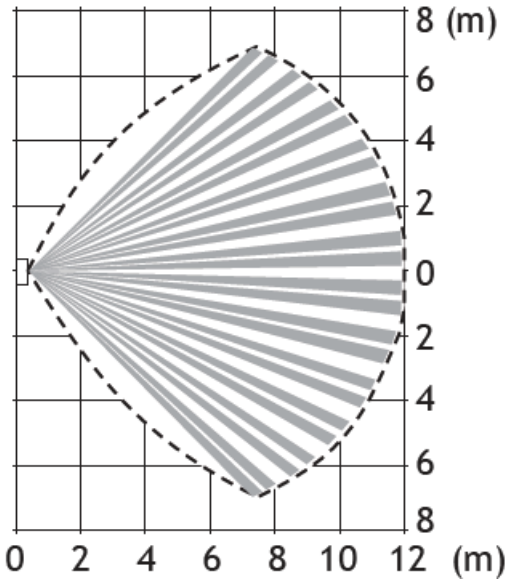
- The Pet function is intended for crawling animals weighing up to 20 kg. If the animal is on top of a bench, for example, the Pet function can be canceled.



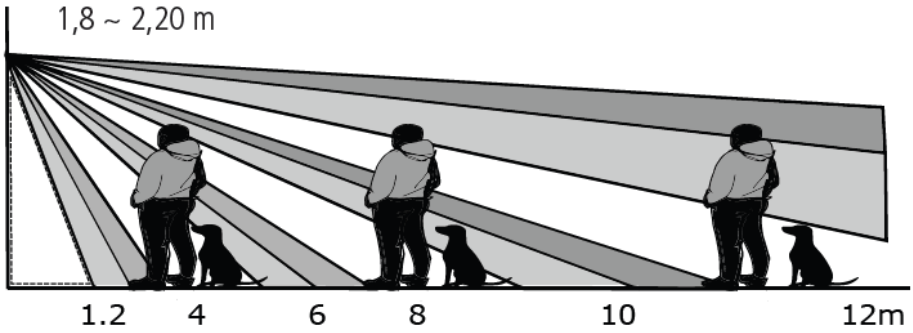
Note: before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 1.8 to 2.2 m. If the sensor is installed at a height of less than 1.8 m or is tilted downwards, the

Pet function will be compromised.

Scan



Detection range

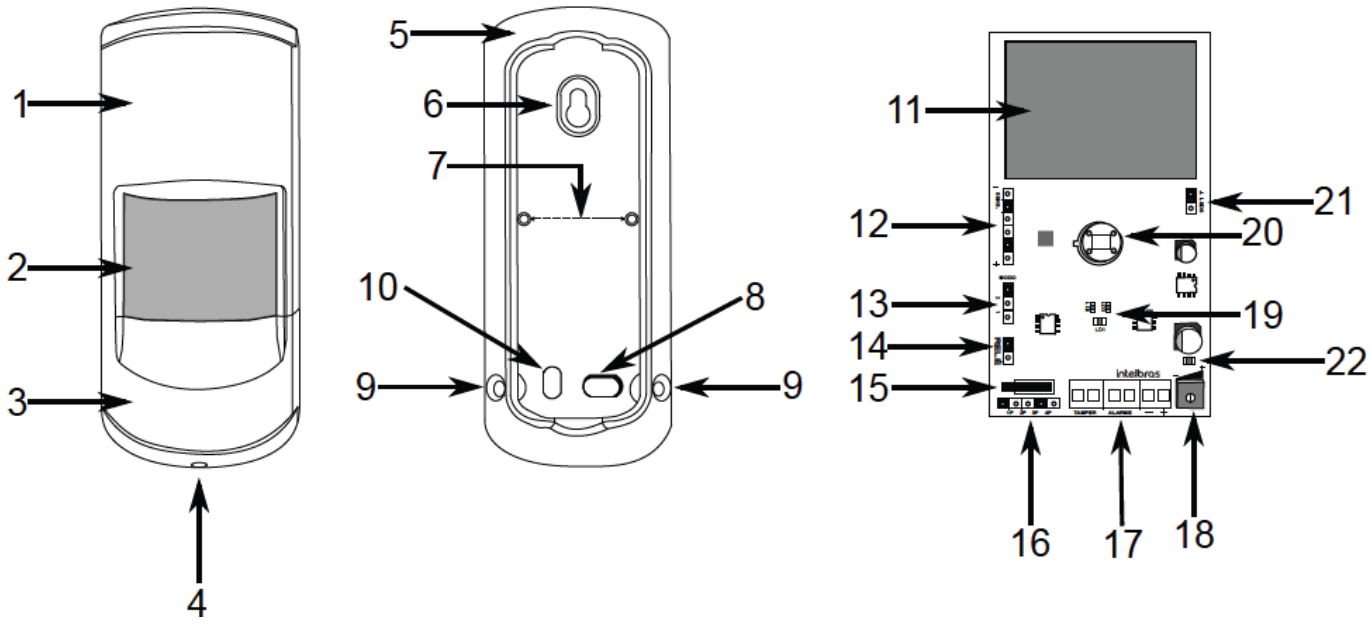


Side view

Features

- Anti-camouflage technology.
- Microwave sensitivity adjustment.
- PIR pulse and sensitivity adjustment.
- Automatic real-time temperature compensation.
- Immunity to white light up to 20,000 lux.
- High immunity to RFI/EMI.
- Highly effective algorithm against false triggering.
- Pet immunity up to 20 kg.
- Tamper key for lower front cover.
- Quick connect connector.
- Ease of installation.

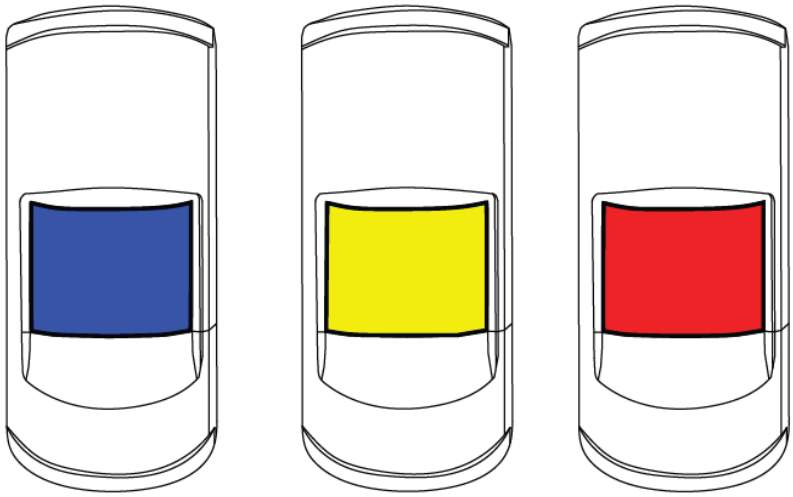
Product



1. Top front cover
2. Fresnel lens
3. Lower front cover
4. Hole for fixing the bottom cover
5. Basis
6. Oblong for wall mounting
7. Holes for mounting bracket
8. Lacquer for wall installation
9. Seals for corner installation
10. Lacquer for cable passage
11. Microwave module
12. Jumper SENS
13. MODE jumper (AND and anti-stealth
14. Jumper Relay (NO / NC)
15. Tamper switch
16. Jumper WRIST
17. Connection terminals
18. Microwave adjustment trimpot
19. LEDs
20. Piro senor
21. Jumper J. LEDs
22. LED setting microwave

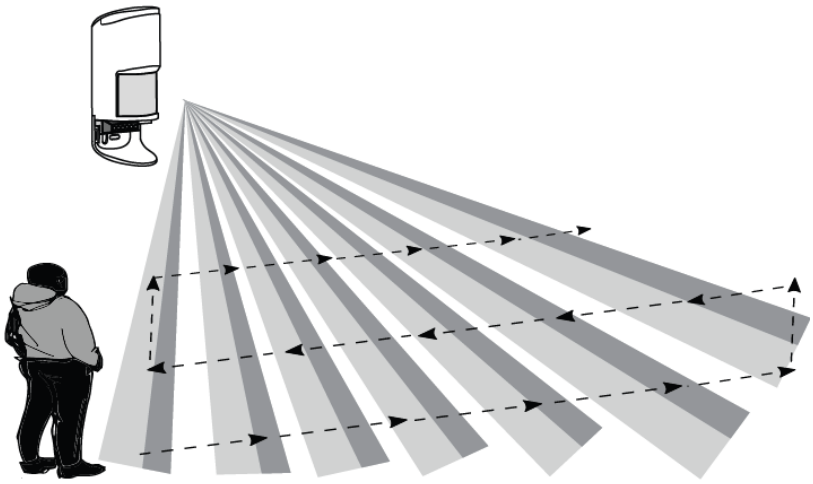
Operation

When turning on the sensor, the LEDs flash for approximately 80 seconds. This time is necessary for the stabilization of the circuits that make up the sensor. After this period, if enabled, the LEDs light up at every motion detection.



- **Blue LED:** alarm
- **Yellow LED:** Pir
- **Red LED:** microwave

Test
Once installed and running, walk across the area to be protected simulating a possible intrusion into the environment. Observe if the sensor is able to detect your movements during the course, through the LEDs. Adjust microwave sensitivity according to room size or reposition sensor. Be sure to take all precautions and follow installation recommendations to get the best operating performance from your product.



Homologation
This equipment is not entitled to protection against harmful interference and may not cause interference in duly authorized systems. This is a product approved by Anatel, the approval number can be found on the product label, for inquiries visit the website: **https://www.gov.br/anatel/pt-br**.

Warranty term

It is expressly stated that this contractual warranty is given subject to the following conditions:

- Name of customer:
- Signature of the customer:
- No. of the invoice:
- Date of purchase:
- Model:

- Reseller:
- Serial No:

1. All parts and components of the product are under warranty against possible manufacturing defects, which may present, for a period of one (1) year, – comprising 90 (ninety) days of legal warranty and 9 (nine) months of contractual warranty, –, counted from the date of purchase of the product by the Consumer, as stated in the invoice of purchase of the product, which is part of this Term throughout the national territory. This contractual warranty includes the express exchange of products that are defective in manufacture. In case no manufacturing defect is found, but flaw(s) from inappropriate use, the Consumer will bear these expenses.
2. Product installation must be done in accordance with the Product Manual and/or Installation Guide. If your product needs to be installed and configured by a qualified technician, look for a suitable and specialized professional, and the costs of these services are not included in the value of the product.
3. If the defect is found, the Consumer should immediately communicate with the nearest Authorized Service listed by the manufacturer, – only they are authorized to examine and remedy the defect during the warranty period provided herein. If this is not respected, this guarantee will lose its validity, as the violation of the product will be characterized.
4. In the event that the Customer request home care, he/she should refer to the nearest Authorized Service for the technical visit fee. If the need for withdrawal of the product is found, the expenses arising, such as transportation and safety to and from the product, are under the responsibility of the Consumer.
5. The warranty will totally lose its validity in the event of any of the following: a) if the defect is not of manufacture, but caused by the Consumer or by third parties alien to the manufacturer; b) if the damage to the product comes from accidents, claims, agents of nature (lightning, floods, landslides, etc..), humidity, mains voltage (overvoltage caused by accidents or excessive mains fluctuations), installation/use in disagreement with the user manual or due to natural wear of parts and components; c) if the product has been influenced by chemical, electromagnetic, electrical or animal (insects, etc.); d) if the product's serial number has been tampered with or erased; e) if the device has been tampered with.
6. This warranty does not cover loss of data, so it is recommended that the Consumer make a regular backup of the data on the product.
7. Intelbras is not responsible for the installation of this product and also for any attempts of fraud and/or sabotage on its products. Keep software and application updates, if any, up to date, as well as network protections necessary to pro¬tect against hackers. The equipment is guaranteed against flaws within its normal conditions of use, and it is important to be aware that, since it is an electronic equipment, it is not free from frauds and scams that may interfere with its correct functioning.
8. This product has an internal battery. After their useful life, the batteries must be delivered to an authorized technical assistance office at Intelbras or directly to the environmentally appropriate final disposal, avoiding environmental impacts and health. If you prefer, the battery, as well as other unused Intelbras electronics, can be disposed of at any Green Ele-tron collection point (electronic waste manager to which we are associated). In case of doubt about the reverse logistics process, please contact us by phone (48) 2106-0006 or 0800 704 2767 (Monday to Friday from 8 am to 8 pm and on Saturdays from 8 am to 6 pm) or through e -mail **suporte@intelbras.com.br**.

Since these are the conditions of this complementary Warranty Term, Intelbras S/A reserves the right to change the general, technical and aesthetic characteristics of its products without prior notice.
All images in this manual are illustrative.

Customer Support: (48) 2106 0006
Forum: forum.intelbras.com.br
Support via chat: chat.intelbras.com.br
Support via e-mail: suporte@intelbras.com.br
Customer Service: 0800 7042767
Where to buy? Who installs it? 0800 7245115
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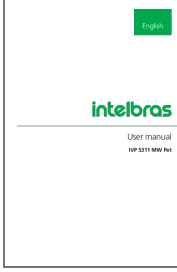
Documents / Resources

	intelbras IVP 5311 MW Pet Passive Infrared Sensor [pdf] User Manual IVP 5311 MW Pet Passive Infrared Sensor, IVP 5311 MW Pet, Passive Infrared Sensor, Infrared Sensor

References

- CHAT Intelbras
- Fórum Intelbras - Índice
- intelbras.com.br
- Anatel — Agência Nacional de Telecomunicações