intelbras

User manual

IVP 3000 MW EX

intelbras

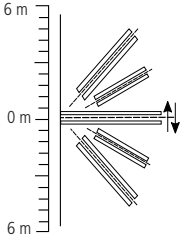
IVP 3000 MW EX
Passive infrared sensor

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

The passive infrared sensor IVP 3000 MW EX with triple technology, combines the technology and microwave detection with the detection of passive infrared rays with intelligence, adopting an advanced signal analysis, being able to avoid several types of false alarms in dangerous environments.

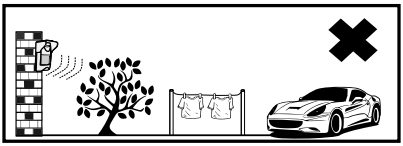
1. Care and safety

- » Follow all instructions in the manual for assembling and installing the product.
- » LGPD - General Personal Data Protection Law: Intelbras does not access, transfer, capture, or perform any other type of processing of personal data from this product.
- » This sensor is intended for indoor environments.
- » Do not touch the surface of the infrared (PIR) sensor. If necessary, use a soft cloth for cleaning.
- » 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. The suggested installation height varies from 1.8 m to 2.2 m, depending on the installation environment. Check the installation instructions.



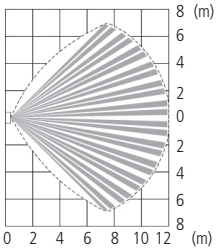
Top view

- » Do not place objects in front of the sensor. Keep the detection area free of moving objects, such as bushes, clotheslines, cars or any objects that block the scan. Do not exceed the maximum sensor installation height (2.2 m).



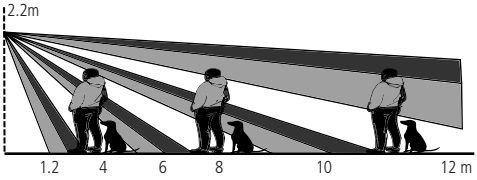
- » Do not use the sensor in areas with sudden changes in temperature, near air conditioners, heaters, cooling fans and ovens.
- » Do not install the sensor facing glass doors or windows.
- » Make sure the installation location is stable and free from flickering.
- » For your security, test the product 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 security and protection of your property.

Scan



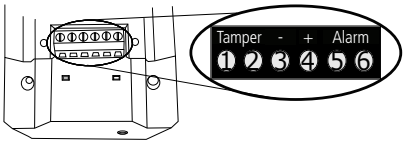
Top view

Detection range



Side view

Terminal Block



- » **Alarm:** sensor output.
- » **GND:** negative source.
- » **+12 V:** positive source.
- » **Tamper:** anti-tamper switch.

Summary

1. Technical specifications

Operating voltage	9 – 16 Vdc
Operating Current	≤30 mA (12 Vdc)
Detection Angle	110°
Detection Range [1]	12 m ± 20%
Detection method	MW and PIR
Sensor	Low noise PIR
MW antenna	High frequency Ga As: FET
MW Frequency	10.525 GHz
Immunity to animals	Up to 35 kg
Detection pulse (P. Count)	1P - 2P - 3P - 4P (optional)
Installation height [2]	1.8 m ~ 2.2 m
Operating temperature	-10 °C ~ +50 °C
Alarm output	Optional NF / NA, 28 Vdc, 100 mA
Tamper switch	NF without voltage output, 28 Vdc, 100 mA
Start Time	60s
Relay opening time	5s
Dimensions	184 × 84.5 × 80.63 mm

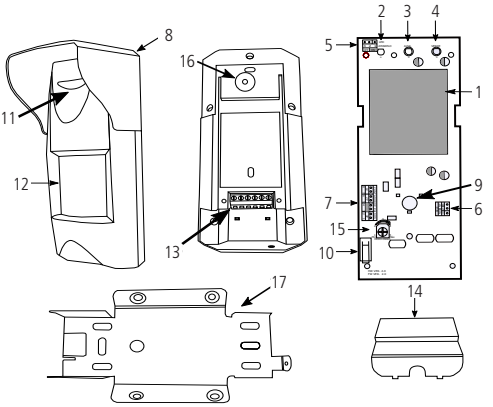
[1] The microwave detection range can be influenced by the environment.

[2] Must be installed on a wall or pole perpendicular to the detection plane.

2. Characteristics

- Microcontrolled signal processing.
- Microwave (Doppler effect) + infrared.
- Flat antenna operating in band X.
- Automatic temperature compensation to reduce false alarms.
- Adjustable microwave power.
- Immunity to white light up to 10,000 lux;
- Stainless metal bracket for attachment.
- High immunity to RFI / EMI;
- Selectable relay output NO and NC (Normally Open and Normally Closed).
- Resistant to rain and dust - IP65 protection index.
- Infrared sensitivity (PIR) adjustable.
- Immunity to crawling animals weighing less than 35 kg.
- Rear and front anti-tamper protection (tamper switch).
- Connector on the outside of the sensor for easy wiring connection.

3. Product

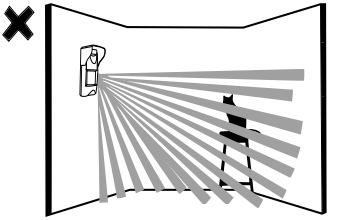


1. Microwave module.
2. *Yellow* LED.
3. *Blue* LED.
4. *Green* LED.
5. *LED* Jumper.
6. *Relay* Jumper.
7. *P. Count* jumper (pulse counter).
8. Coverage.
9. PIR Sensor.
10. Front Tamper switch (anti-tamper).
11. LED indicators.
12. Front lens.
13. Terminal block (connector).
14. Connector cover.
15. Microwave adjustment.
16. Rear tamper switch.
17. Attaching bracket.

4. Installation

The IVP 3000 MW EX sensor has a *PET* function, which provides immunity to false shots, caused by crawling animals up to 35 kg.

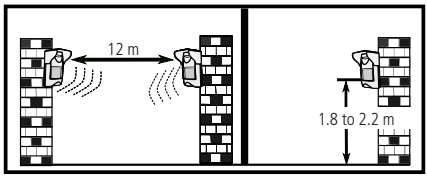
It is important to note that the Pet function is designed for crawling animals, so if the animal is not on the ground, but on top of a bench, for example, it can be detected thus canceling the Pet function, as seen in the image below :



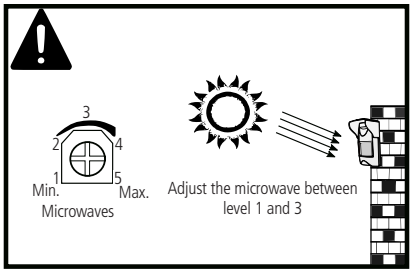
Before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 1.8 to 2.2 m. If the sensor is installed at a height of less than 1.8 m, the *PET* function is compromised.

» Do not install sensors that have microwave technology close to each other.

» The sensitivity of the microwave must be adjusted so that targets, outside the desired detection area, are not detected and so that there is no interference between the sensors.

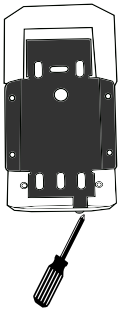


» Adjustment of the sensitivity of the PIR (P. Count) and the microwave must be made according to each environment. In environments where sunlight falls directly on the sensor lens, the microwave must be adjusted between levels 1 and 3.

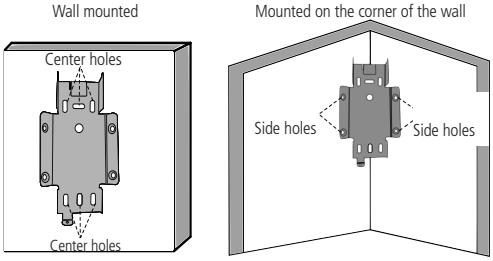


To attach the sensor to the wall, follow the procedure:

1. Remove the metal support by removing the screw attached to the bottom of the sensor;



2. To install the sensor directly on the wall, use the central holes, indicated on the attaching bracket. To install in the corner of the wall, use the holes in the positions indicated on the side of the attaching bracket.

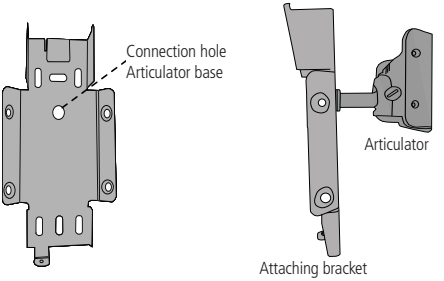


4.1. Installation without using the articulator

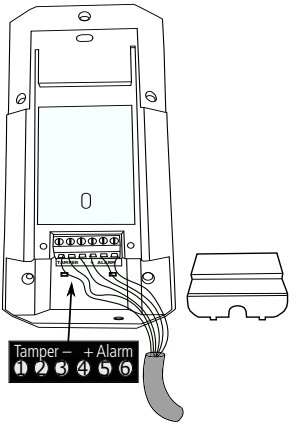
This product does not come with an articulator.

Note: if the fixing support is inclined in relation to the ground, the characteristics of the PET function will change.

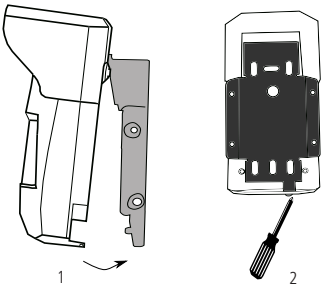
1. To install using an articulator, use the hole located in the attaching bracket;



2. Remove the cover that protects the wire connector and connect the cables, following the indications on the terminals;



3. To attach the sensor to the metal support, first engage the upper part and place the attachment screw.



5. Operation

The *LED* jumper is used to control the LED indication without interfering with the detector. Jumper in the *ON* position (pins 1 and 2), LED on, jumper in the *OFF* position (pins 2 and 3), LED off. Factory default: *LED on*.

The *P. Count* jumper controls the sensitivity of the infrared and microwave to trigger the alarm. With the jumper in position *1P*, the sensor provides maximum sensitivity (pins 7 and 8). With the jumper in position *4P*, the sensor provides appropriate detection for environments with a high incidence of EMI and RFI interferences (pins 1 and 2), with greater immunity to false triggering. The 2P and 3P positions are intermediate settings. Factory default: *3P jumper*.

The *Relay* jumper controls the state of the relay contact. With the jumper in the *NC* position (pins 1 and 2), the contact is Normally Closed. With the jumper in the *NA* position (pins 2 and 3), the contact is Normally Open. Factory default: *NF (Normally closed)*

The microwave adjustment potentiometer determines the microwave detection range. Adjust it according to the needs of the environment. Level *1* minimum sensitivity, level *5* maximum sensitivity. Factory default: *maximum sensitivity (level 5)*.

6. Test

When powered on, all LEDs will flash constantly, indicating that the sensor has activated the self-test. After 60 seconds, all LEDs will go out and the sensor will enter operating mode.

Perform the walk test, with movements transverse to the sensor's detection rays, observing the LED indications.

- **Green *LED*:** infrared activation.
- **Yellow *LED*:** microwave activation.
- ***Blue* LED:** alarm activation (infrared + microwave).

***LED* Jumper**

Position	Condition
ON	LED on.
OFF	LED off

***P. Count* Jumper**

Position	Condition
1P	Maximum sensitivity
2P - 3P	Intermediate sensitivity
4P	minimum sensitivity (EMI and RFI) Greater immunity to false triggering

***Relay* Jumper**

Position	Condition
NF	Normally closed
NA	Normally Open

Microwaves

Position	Condition
Min.	Minimum detection range
Max.	Maximum detection range

7. Homologation

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

Warranty term

It is established that this warranty is granted upon the following conditions:

Client's name:
Client's signature:
Invoice number:
Date of purchase:
Model: Serial number:
Retailer:

1. All the parts, pieces and components of the product are guaranteed against possible manufacturing defects, which may arise, for the term of 1 (one) year - this being 90 (ninety) days of legal warranty and 9 (nine) months' contractual warranty –, counting from the date of purchase of the product by the Consumer, as appears in the product purchase bill of sale, which is an integral part of this Term throughout the domestic territory. This contractual warranty includes the free exchange of parts, pieces and components which have a manufacturing defect, including the expenses with labor used in this repair. If there is no manufacturing defect, but defect(s) arising from misuse, the Consumer shall bear these expenses.
2. The installation of the product shall be executed in accordance with the Product Manual and/or Installation Guide. If your product requires the installation and configuration by a qualified technician, seek a suitable specialized professional, the costs of these services not being included in the product amount.
3. Having perceived the defect, the Consumer shall immediately contact the nearest Authorized Service which appears in the report offered by the manufacturer – they are the only ones authorized to examine and remedy the defect during the warranty term foreseen herein. If this is not respected, this warranty shall lose its validity, as it shall be characterized as product infringement.
4. If the Consumer requests home service, it shall contact the nearest Authorized Service to inquire about the technical visit rate. If it is necessary to remove the product, the ensuing expenses, such as those of transportation and insurance of the taking and return of the product, shall be the Consumer's responsibility.
5. The warranty shall lose its validity totally in the occurrence of any of the following cases: a) if the defect is not one of manufacture, but is caused by the Consumer or by third parties foreign to the manufacturer; b) if the damage to the product arises from accidents, disasters, agents of nature (lightning, floods, landslides, etc.), humidity, voltage in the electrical network (excess voltage caused by accidents or excessive fluctuations in the network), installation/use in disagreement with the user's manual or arising from natural wear of the parts, pieces and components; c) if the product has undergone effects of a chemical, electromagnetic, electrical or animal (insects, etc.) nature; d) if the serial number of the product has been falsified or erased; e) if the appliance has been infringed.
6. This warranty does not cover loss of data; therefore, it is advisable that if it is the case of the product, the Consumer makes a backup regularly of the data which appears in the product.
7. Intelbras is not responsible for the installation of this product, or for possible attempts at fraud and/or sabotage in its products. Maintain the updates of the software and applications used up-to-date, if it is the case, as well as the network protection required for defense against hackers. The equipment is guaranteed against defects in its usual conditions of use, it being important to bear in mind that, as it is electronic equipment, it Is not free of fraud and scams which may interfere with its correct functioning.
8. After its useful life, the product must be delivered to an authorized Intelbras service center or directly disposed of in an environmentally appropriate manner to avoid environmental and health impacts. If you prefer, the battery, as well as other unused Intelbras brand electronics, can be disposed of at any Green Eletron collection point (waste management facility to which we are associated). If you have any questions about the reverse logistics process, please contact us at (48) 2106-0006 or 0800 704 2767 (Monday to Friday 8am to 8pm and Saturdays 8am to 6pm) or via -mail support@intelbras.com.br.

These being the conditions of this complementary Warranty Term, Intelbras S/A reserves the right to alter the general, technical and esthetic features of its products without prior notice.

All the images of this manual are illustrative.

intelbras

talk to us

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

Imported to Brazil by: Intelbras S/A – Indústria de Telecomunicação Eletrônica Brasileira
Rodovia SC 281, km 4,5 – Sertão do Maruim – São José/SC – 88122-001
CNPJ 82.901.000/0014-41 – www.intelbras.com.br

01.22
Made in China