intelbras IVA 5015 Digital Single Beam Active Sensor User Manual

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User Manual

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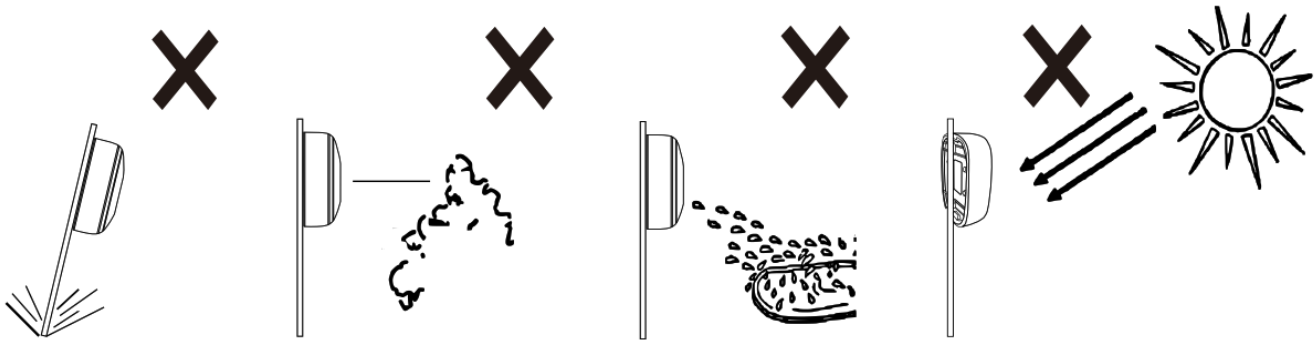
IVA 5015 Digital Single Beam Active Sensor

Congratulations, you just have purchased a product with Intelbras quality and safety.
IVA 5015 Digital sensor was developed with a digital circuit for signal processing that can identify the pair of transmitter-receiver more effectively in order to avoid external interferences. It can be installed at indoor, half-open or outdoor environments without performance loss, preventing false shots in several applications.
This sensor is able to quickly identify beam obstruction and activate the circuit responsible for operation, in an alarm circuit or pinch protection. Read the product introductory information carefully for the correct use of sensors.

Caution and safety

- LGPD – General Law for the Protection of Personal Data: Intelbras does not access, transfer, capture, or perform any other type of treatment of personal data from this product.

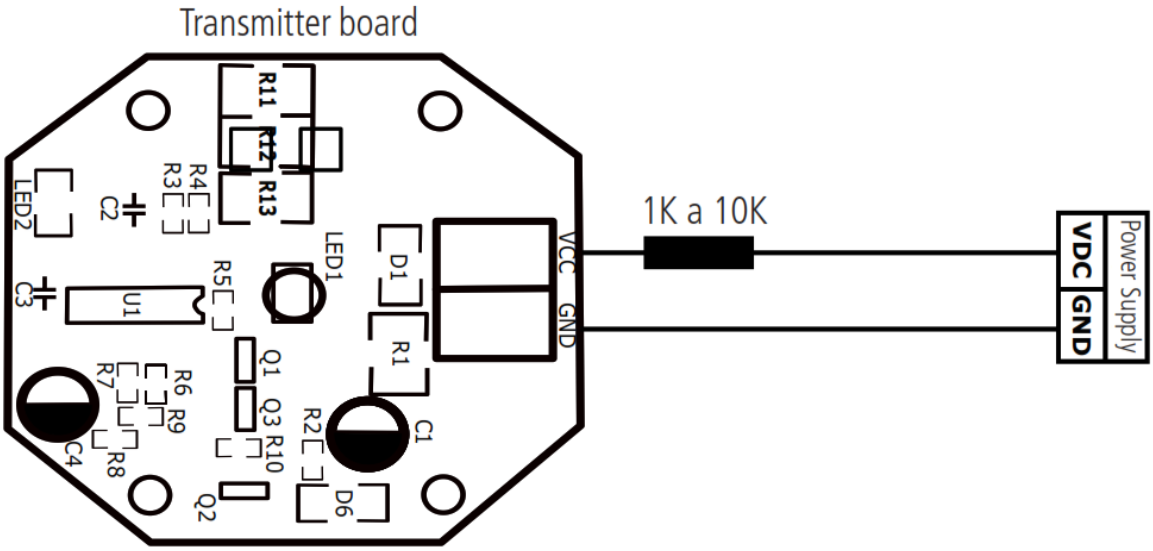
- Install the sensor in a stable and shake-free place.
- Install the Transmitter and Receiver to be aligned.
- Do not install the receiver with the lenses directed toward the sun.
- Do not install the sensor in a place where the beams can be obstructed. Check if there is no plants, branches or other objects that may obstruct the sensor beams.



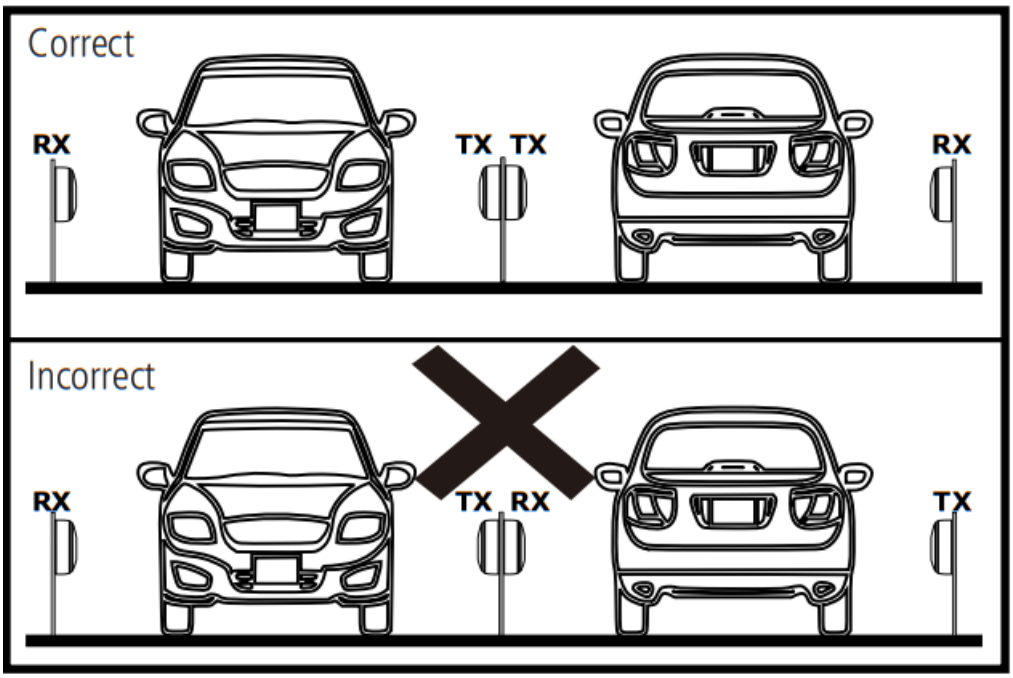
- Make sure the cable passage side is faced down, in order to prevent water from entering into it.
- Make sure the sealing rubber is installed in order to avoid water and insects entering into it.
- Use a damp cloth to clean the exterior of the sensor, and never use chemical products.
- Correctly size-up the source and power supply cable.
- Do not leave the cable exposed to the sun, rain or humidity.
- Do not install the sensor farther than the recommended distance.
- Install the sensor at a distance more or equal to 50 cm from floor surface.
- Check of the sensor power supply is between 12 and 24 Vdc, if the gate controlling board does not supply voltage enough to power the sensor or it is unstable, it is recommended to use a power supply exclusively for the product.
- Avoid installing the receiver near to sources of electromagnetic noises. After installing, perform tests to check if the product is working correctly. If there is interference, change the Transmitter position with the Receiver.
- If the sensor is installed on a smooth ans polished floor, it cannot shot due to the infrared beam reflection on the floor or walls. To prevent such situation, connect in series of 1k to 10 k resistor with the transmitter (TX) positive wire (Vdc).
- If the sensor is installed on a smooth or polished floor, it may not fire due to reflection of the infrared beam from the floor or walls. To avoid this situation, connect a 1k to 10k resistor in series with the positive (Vdc) of the transmitter (TX).

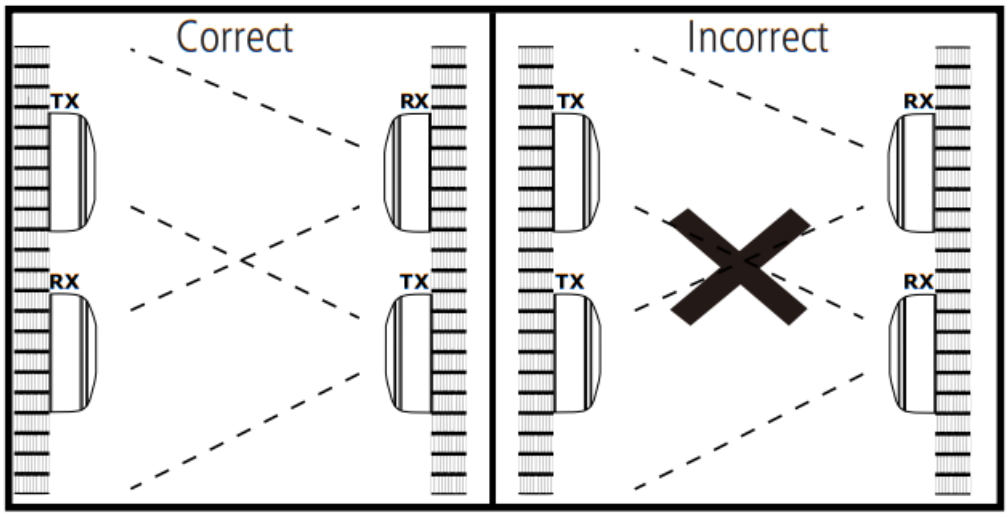
  Note: the product comes with a 2k7 resistor.

  Note: upon connection the resistor, make sure that there is reflection, cutting the beam in several positions between TX and RX. The more the distance, the more the resistor value.



- If you need to install more pairs in similar conditions as shown below, install the transmitter (TX) and receiver (RX) making sure a pair does not affect one another.



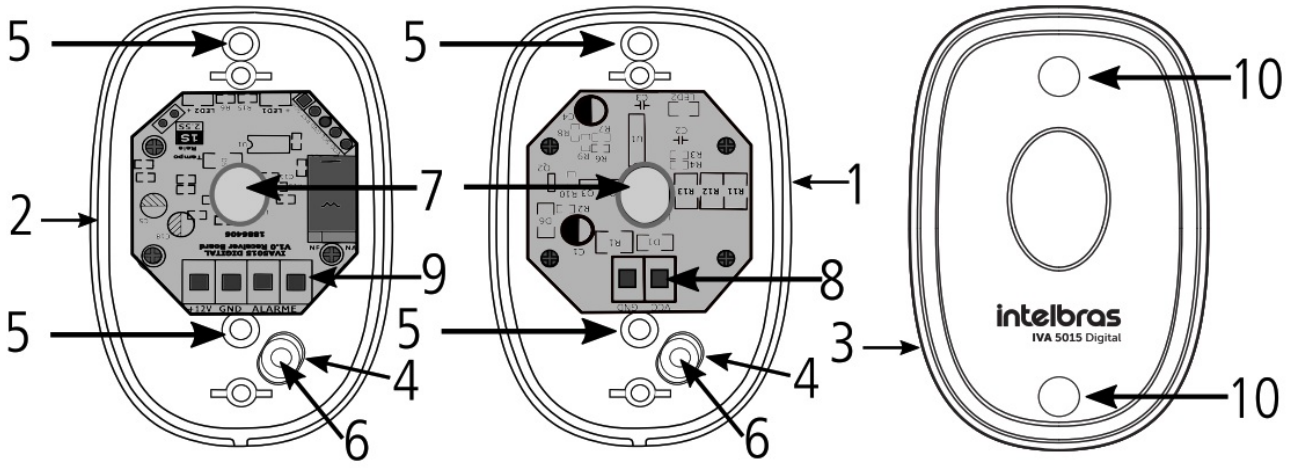


Note: it is not recommended to cross install two pairs of sensors, as shown in the image above, in application where an obstacle may cause reflection to the infrared beam, as a car, for example.

Technical specifications

Power supply voltage	12 ~ 24 Vdc
Consumption current	≤50 mA @ 12 Vdc
Reach Internal External	 30 m 15 m
Alarm outlet	**Configurable NO/NC output** 1 A @ 24 Vdc 1 A @ 127 Vac
Relay opening time	1s or 2,5s ± 10%
Response time	50 ms
Alignment indication	LED alignment (green)
Shot indication	Shot LED (red)
Solar filter for outdoor environments	Yes
Operating temperature	-10 ºC to + 55 ºC
IP Protection level	IP55
Colors	Black
Size (W × H × D)	48,5 × 25 × 76,5 mm

Product



1. Transmitter 2. Receiver 3. Front cover 4. Sealing rubber 5. Orifice for fixing screws	6. Cable passage 7. Lenses 8. Terminal block TX 9. Terminal block RX 10. Orifice for fixing screws

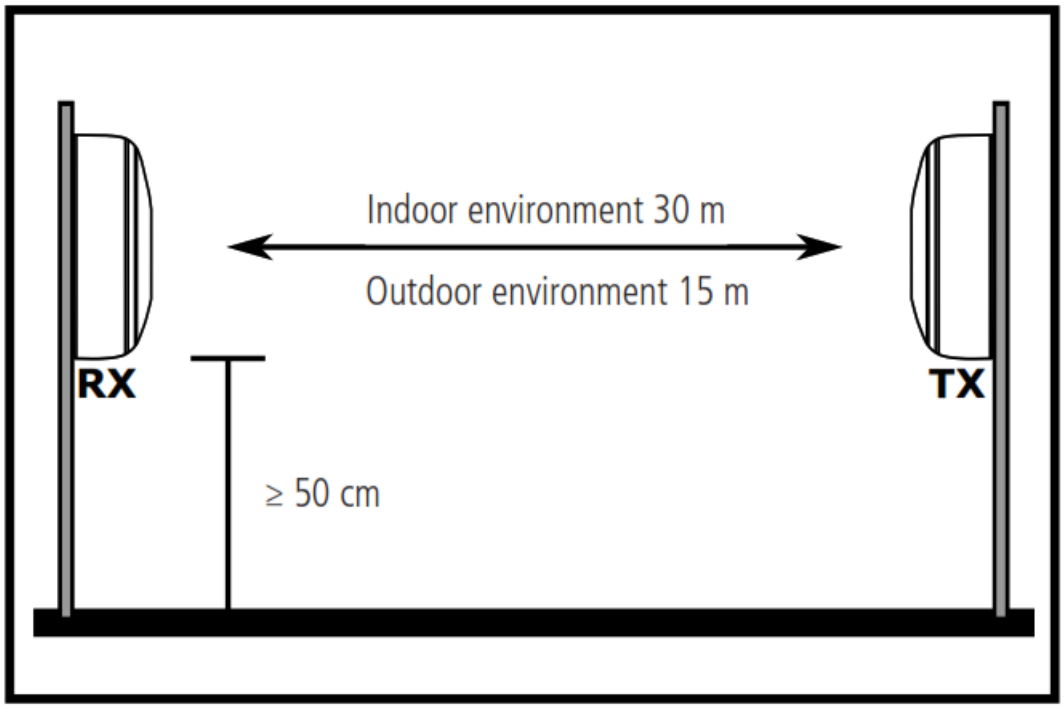
Installation

1. Before starting to install, it is necessary to define the distance for the IVA 5015 Digital sensor. We recommend to install this sensor in a place higher or equal to 50 cm from the floor and the maximum distance between TX

and RX must be 15 cm for outdoor environments and 30 m for indoor environments;

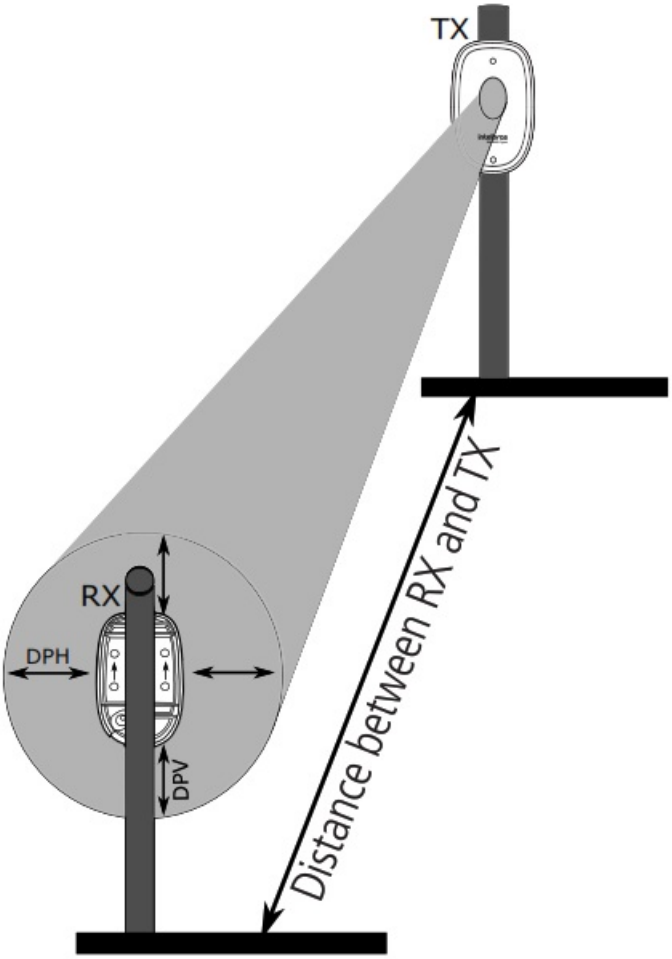
Note: in outdoor environments with high mist or rain rate, install the sensor at max 50% from the specified distance for outdoor environments.

For correct installation, follow the procedure.

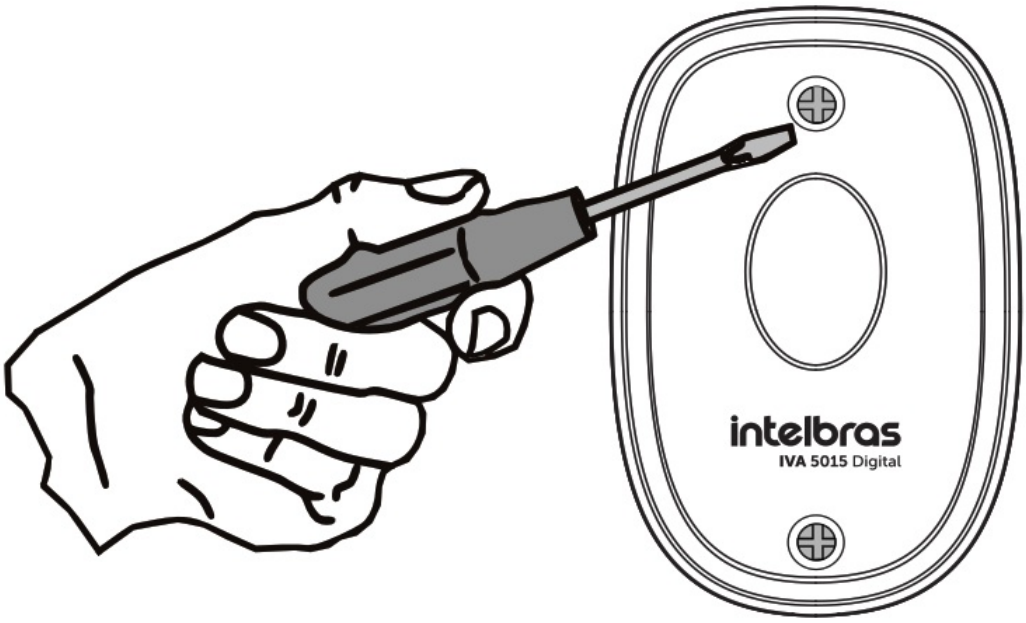


2. If there area more than one IVA 5015 Digital infrared transmission (TX) source at the installation location, follow the vertical protection distance (VPD) and the horizontal protection distance (HPD), according the following table, in order to prevent interference to the receiver (RX);

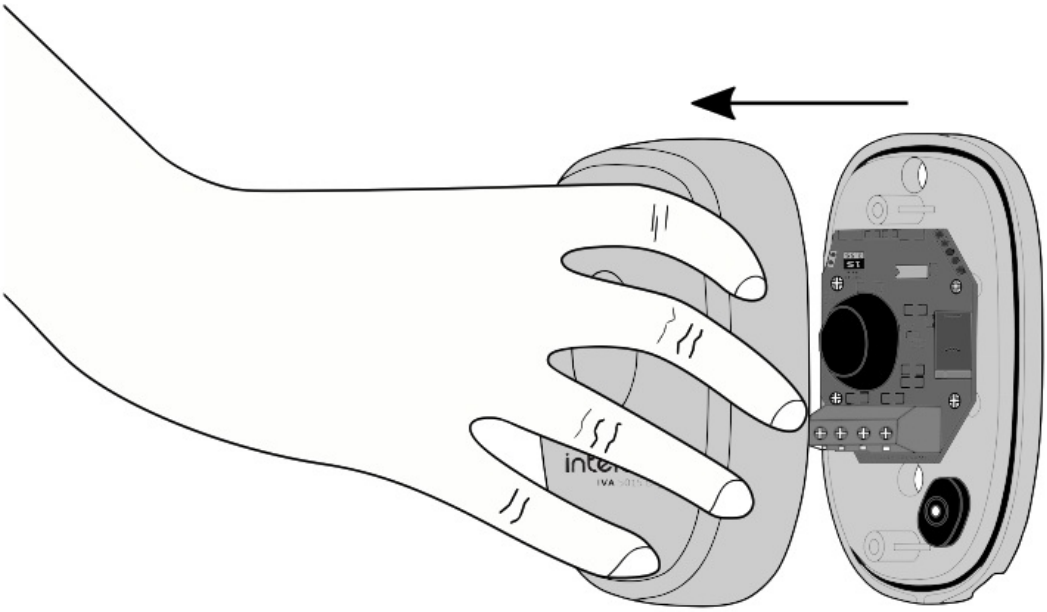
	Distance between RX and TX		
	5 m	10 m	15 m
Horizontal protection distance (HPD)	0,8 m	1,6 m	2,4 m
Vertical protection distance (VPD)	1,1 m	1,6 m	2,2 m



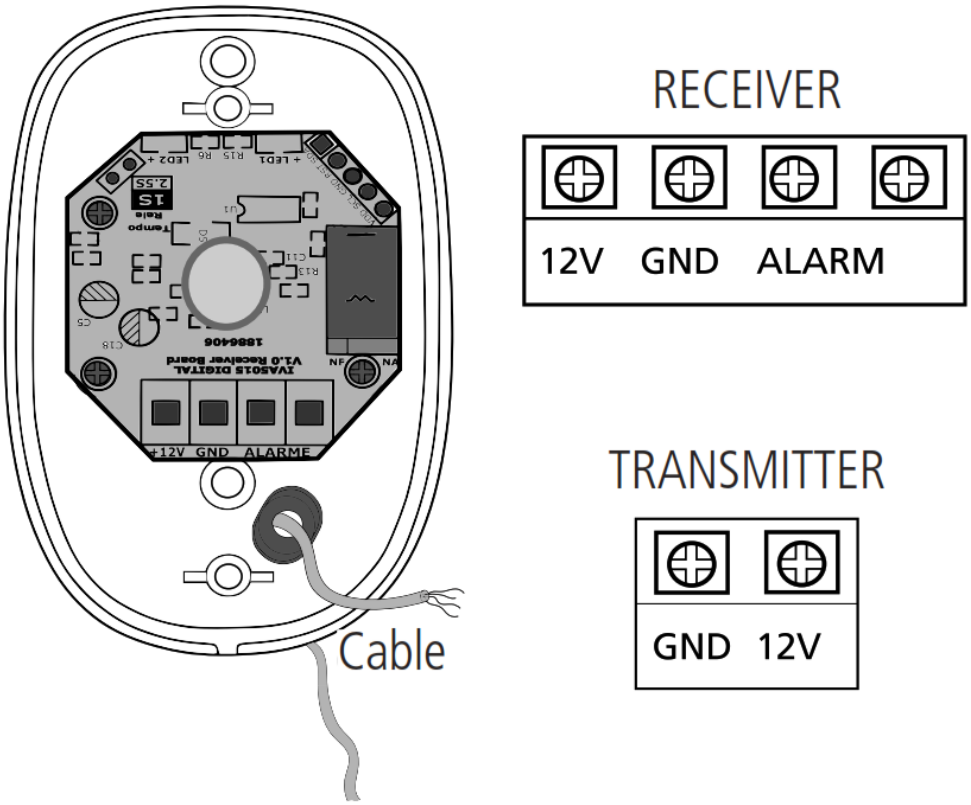
3. Open the sensor removing the bolts in the front part;



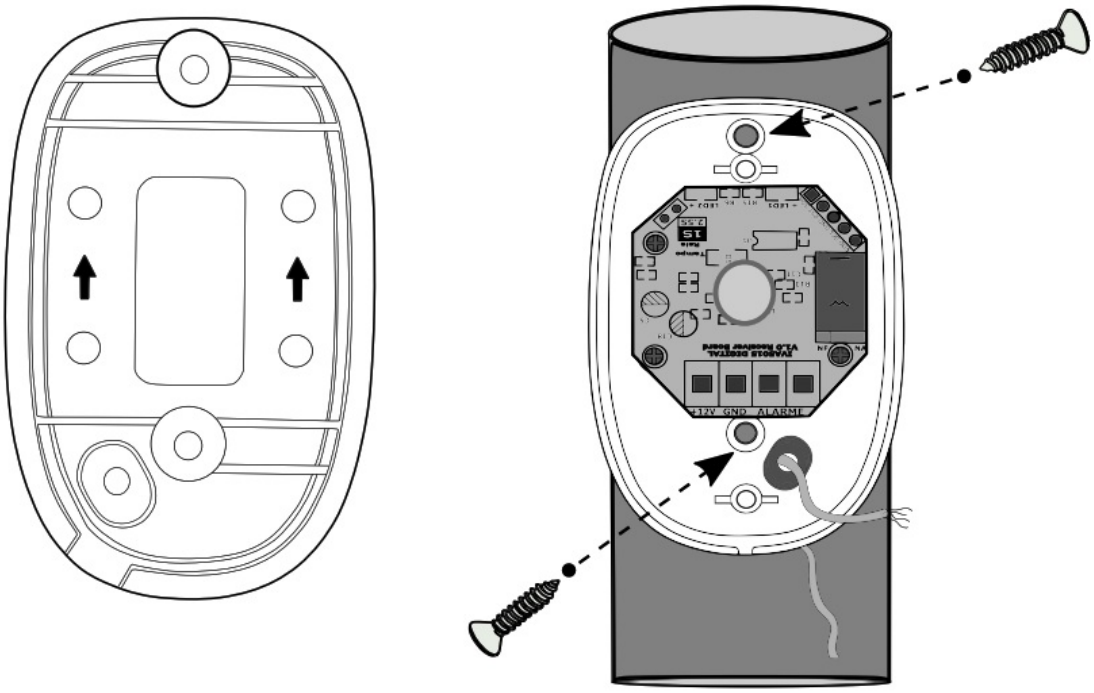
4. Remove the front cover pulling forward;



5. Pass the cable through the orifice and connect it to the terminal block;



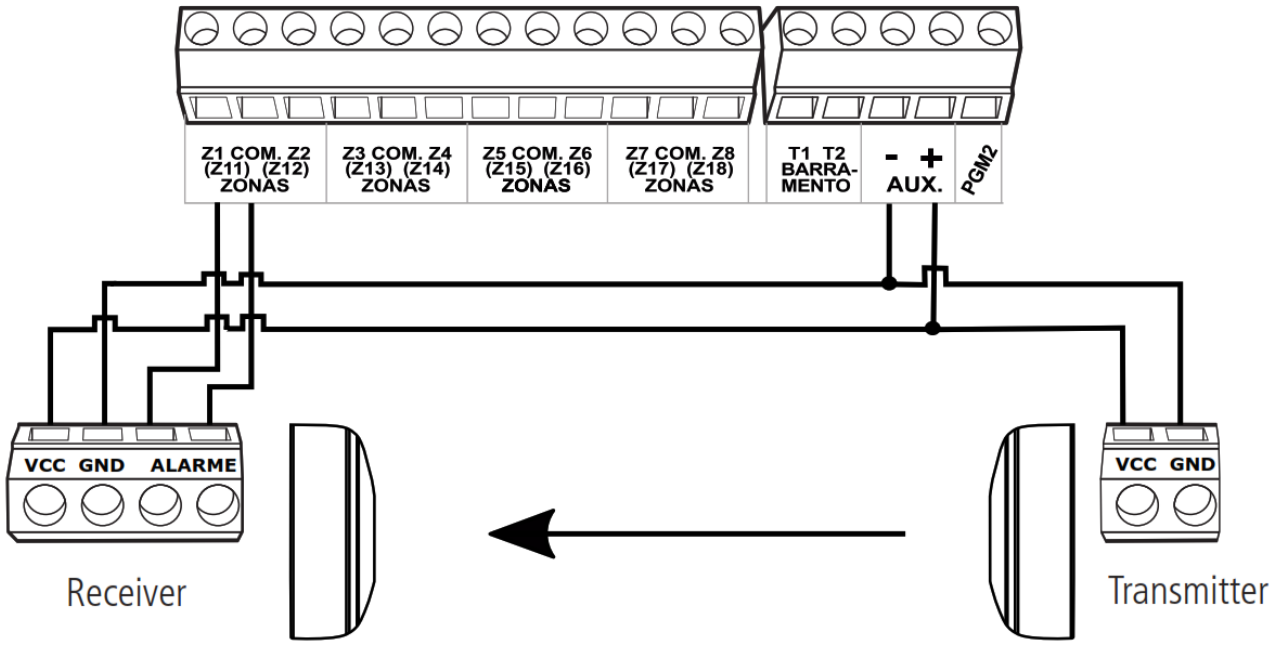
6. Attach the receiver and transmitter using two screw passage points located in the product base, at a height equal or higher than 50 cm from the floor with the cable passage faced down, the indication arrows at the base must be faced up;



7. Turn on the power supply according to the polarity indicated in the receiver and transmitter board (12 ~ 24 Vdc), this sensor has a reverse polarity protection;
8. Connect the alarm wires in the gate controlling board or in the alarm center zone input;

   Note: check in the gate manual or alarm center, which is the connection mode is used.

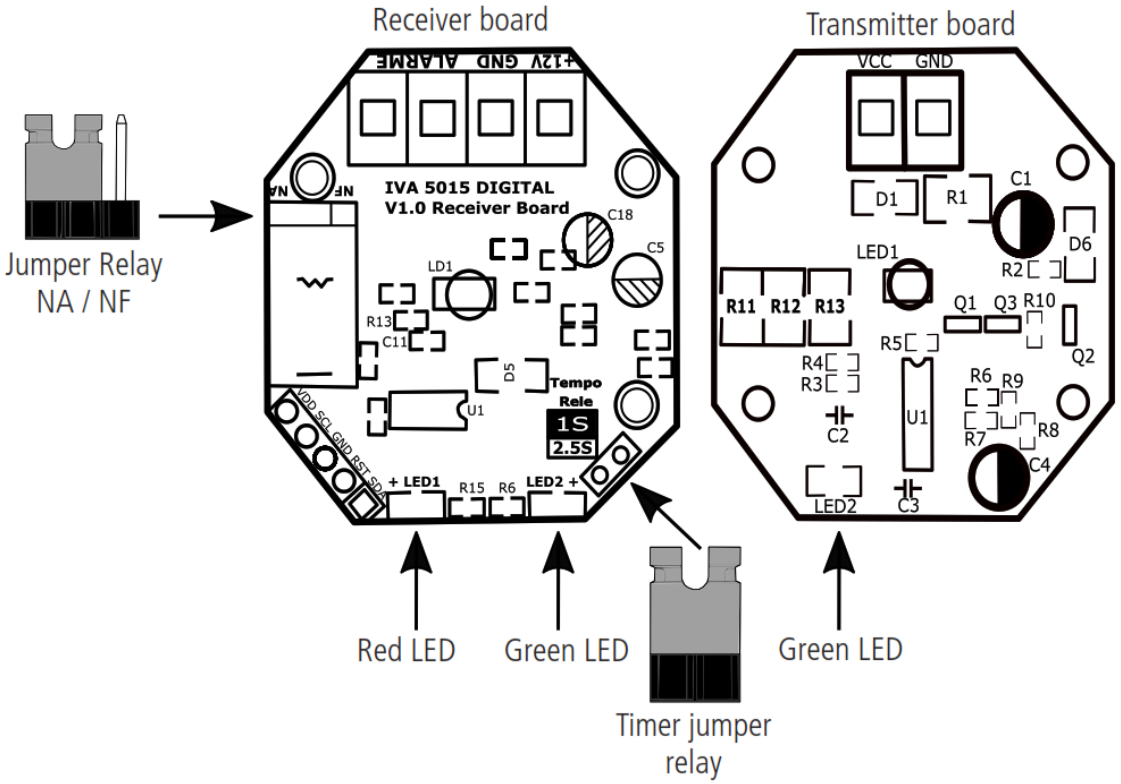
   An example of connection to Intelbras alarm center is shown below.



9. After installing, check the correct operation cutting the beams, obstruct the beams with hand or any kind of shield, and check if the receiver triggers, observing the alarm signal through red LED and relay activation. The relay (alarm) outlet can be adjusted according to NO or NC application and the relay opening time can be set as 1s or 2.5 s. In case o use with alarm center, it is recommended to use with a timing of 2.5 s.

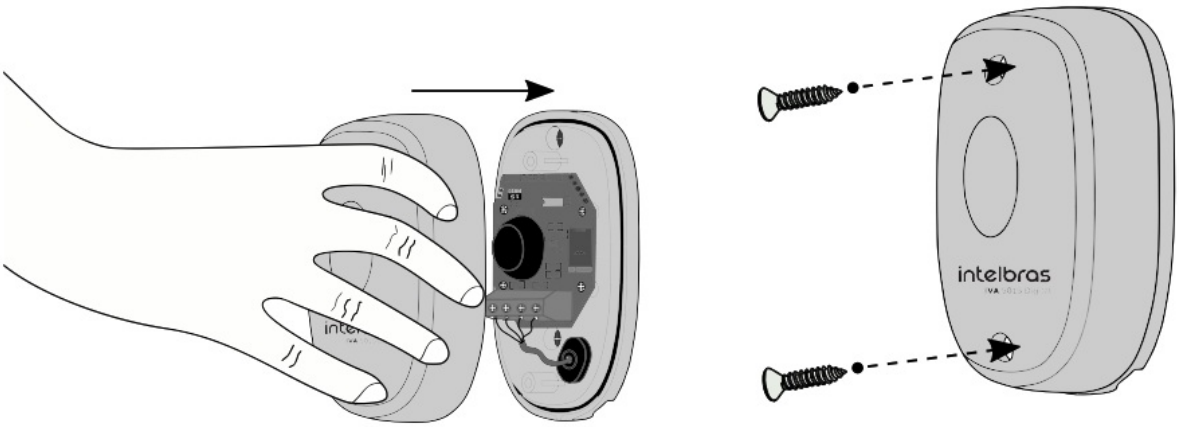
   » **Relay output:** NA (normally open) factory standard.

   » **Relay opening time:** 1st factory pattern.



	Condition	Recommendation
Transmitter	Transmitting	Green LED on
Receiver	Ok Alignment	Green LED
	Improve alignment	Flashing green LED
	Alarm (clogged sensor)	Red LED on

10. To close the sensor, attach the front cover and then, insert and tighten the screws as shown in the image below:



Term of Warranty

It is expressed that this contractual warranty is granted according to the following conditions:
Customer name:
Customer's signature:
Tax Invoice No.
Date of Purchase:
Model:

Serial No.:
Retailer

1. All parts, pieces and components of this product are warranted against any manufacturing defects, which may arise within a period of 1 (one) year – being 90 (ninety) days of legal warranty and 9 (nine) months subject to contractual warranty – from the date when the Customer purchased the product, according to the product purchase tax invoice, which is an integral part of this Term throughout the Brazilian territory. This contractual warranty expressly includes the product exchanges in case of manufacturing defect. If no manufacturing defect is confirmed, but there is a failure due to improper use, the Customer shall bear any of these incurred expenses.
2. The product must be installed according to the Product Manual and/or Installation Guide. If your product requires to be installed and configured by a skilled technician, your should seek for a reliable and skilled professional, but the costs of such services are not included in the product price.
3. Once the defect is confirmed, the Customer shall contact immediately the nearest Authorized Service listed in the report provided by the manufacturer, they are the only professionals authorized to check and remedy the defect within the warranty term provided herein. It it is not observed, the warranty is void, characterized as product infringement.
4. Eventually, if the Customer requests service at home, he/she may contact the nearest Authorized Service to ask for fee quotation of a technical visit. If it is necessary to withdraw the product to be repaired, the incurred expenses such as transportation and insurance costs, including taking and return after repaired, are under responsibility of the customer.
5. The warranty will be entirely voided if any of the following cases occur: a) if the defect is not due to manufacturing, but caused by the Customer or by third parties foreign to the manufacturer; b) if the product damages are caused by accident, disasters, agents of nature (lightning, flooding, landslide, etc.), humidity, network voltage, over-voltage caused by accident or excessive network voltage fluctuations), installation/use in disagreement with the user's manual or due to natural wear of parts, pieces and components; c) if the product had suffered any effects of chemical, electromagnetic, electric or animal (insects, etc.) nature; d) if the product serial number was altered or erased; and e) if the appliance is flawed.
6. This warranty does not cover data loss, therefore, in case of a product, it is advisable to the Customer to regularly make secure backup of the product data.
7. Intelbras is not liable for the installation of this product, as well as eventual attempts of fraud and/or sabotage in their products. Keep software and applications up to date, and if necessary, the required network protections against intrusions (hackers). The equipment is warranted against defects under normal conditions of use, and it is important to bear in mind that, because it is an electronic equipment, it is not protected from attempts of frauds or misleading actions that may interfere in its correct operation,
8. After its useful life, the product must be delivered to an Intelbras authorized support service or perform environmentally proper final disposal in order to avoid environmental or health impacts. If you prefer, useless cells and batteries as well as other Intelbras branded electronic appliances may be disposed at any Green Eletron collection points (electro-electronic residues management company to which we are associated). If you have any questions about the reverse logistics process, contact us by phone (48) 2106-0006 or 0800 704 2767 (from Monday to Friday at 8 AM to 8 PM, and on Saturday at 8 AM to 6 PM) or via e-mail **suporte@intelbras.com.br**.

Also under these supplementary Term of Warranty, Intelbras S/A reserves the right to alter general, technical or

aesthetics features without prior notice.
All images in this manual are for illustrative purposes only.

Customer Support: (48) 2106 0006
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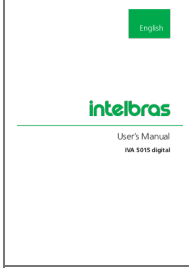
Documents / Resources

	intelbras IVA 5015 Digital Single Beam Active Sensor [pdf] User Manual IVA 5015 Digital, Single Beam Active Sensor, Active Sensor, Single Beam Sensor, Beam Sensor, Sensor

References

- CHAT Intelbras
- Fórum Intelbras - Índice
- Intelbras | Segurança eletrônica, Redes, Comunicação e Energia
- Intelbras | Segurança eletrônica, Redes, Comunicação e Energia