



User manual

**TX 4020 Smart**



## **TX 4020 Smart Universal transmitter**

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

The TX 4020 Smart universal transmitter was developed to facilitate the installation of wired sensors in your daily life, as it allows a wired sensor to communicate wirelessly with the control panel. With digital technology and SMD assembly, it is compatible with all wired sensors from Intelbras and with most wired sensors available on the market. Works on FSK or OOK modulation. Read the information in this manual carefully for the correct use of the transmitter.



01661-17-00160

This equipment operates on a secondary basis, that is, it is not entitled to protection against harmful interference, even from stations of the same type, and cannot cause interference to systems operating on a primary basis. This is a product approved by Anatel, the approval number can be found on the product label, for queries visit the website: [sistemas.anatel.gov.br/sch](http://sistemas.anatel.gov.br/sch).

## Care and security

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- » Follow all instructions in the manual for assembling and installing the product.
- » Avoid installing the transmitter directly under metal surfaces so that there are no changes in its operating characteristics.
- » Do not expose the universal transmitter directly to sunlight, rain and moisture.
- » Wireless communication technology, when exposed to environments with high-power radiation, can suffer interference and have its performance impaired. This can occur in locations close to TV towers, AM / FM radio stations, amateur radio stations, among others.
- » The TX 4020 Smart universal transmitter is for sensor use only.
- » Check in advance the characteristics of the product in which the transmitter will be registered, in order to avoid incompatibilities.
- » For your security, test the product and systems at least once a week. This is necessary due to changing environmental conditions and low battery. Take all necessary precautions for the security and protection of your property.
- » 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.

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# 1. Technical specifications

Power	3 Vdc, lithium battery included
Operating temperature	-10 to +60 °C
Modulation	FSK or OOK
Transmission frequency	433.92 Mhz
OOK / FSK transmission rate	2KBps (open code)
RF range	100 meters in barrier-free area

## 2. Characteristics

- » 2 types of modulation (*OOK* and *FSK*).
- » Low battery indication.
- » Long-life lithium battery.
- » Easy installation
- » Transmission frequency 433.92 MHz.

## 3. Modulation configuration

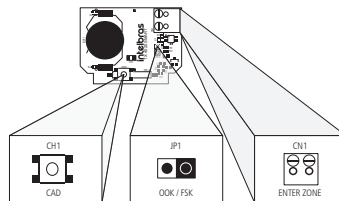


Figure 1

To configure the TX 4020 Smart universal transmitter in *FSK* modulation, just remove the *JP1* jumper, if you want it to operate in the *OOK modulation*, just insert the *JP1 jumper*. The factory default: *OOK*.

The TX 4020 Smart universal transmitter has a battery level meter, if critical, it will send the information to the control panel. If the control panel is Intelbras, the low battery warning will be indicated on the panel. Models with this function: ANM 2004/2008 MF and AMT 2008 RF / 2010/2018 E / 2018 EG / 2110/1016 NET / 4010 Smart. The TX 4020 Smart transmits the battery level in both *OOK* and *FSK* modulations.

In *FSK* the sensor transmits opening, closing and also sensor monitoring (open or closed) every 15 minutes.

## 4. Installation

Open the TX 4020 Smart by removing the cover as follows:

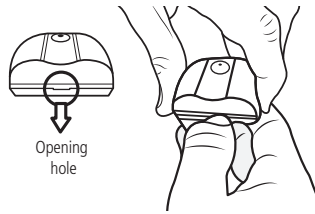


Figure 2

With one hand, hold the cover and with the other push the base using the opening hole, as shown in figure 2.

After opening, perform the modulation configuration (check the item *4. Configuração da modulação* in this manual) and then insert the battery and register the code of the universal transmitter TX 4020 Smart, checking the procedure in the alarm panels manual (registration of wireless sensors). To register, use the CH1 CAD key. Follow the instruction below.

Press the CH1 CAD key for 2 seconds and release in sequence observing if the LED will light, if the LED lights up, it indicates that there was a transmission, if it does not light check the battery and repeat the procedure.

**Note:** in order to register using the CH1 CAD key, the transmitter must not be connected to the wired sensor.

Use the source of the control panel or an external source to supply the wired sensor and then connect the wired sensor output cable to the CN1 terminal of the TX 4020 Smart universal transmitter, as shown in figure 3.

CR2032 battery for powering the TX 4020 Smart

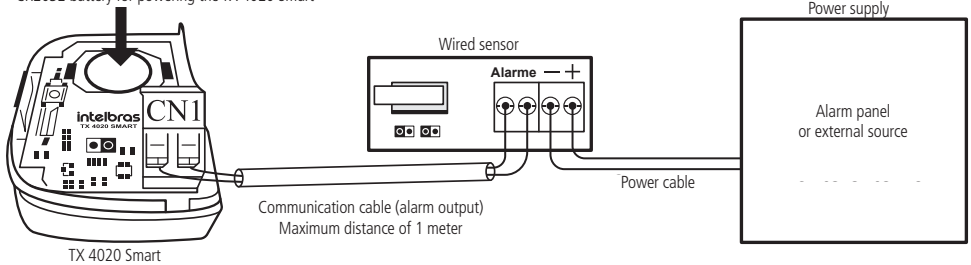


Figure 3

**Note:** the use of the TX 4020 Smart does not rule out the use of a source for powering the wired sensor.

Once this is done, install the TX 4020 Smart transmitter in a location where it is completely protected from sunlight, rain and moisture. Once chosen, use double-sided tape or screws for attachment. If using double-sided tape, clean the surface that will be in direct contact with the tape and then stick it on the back cover. If using screws, just open the two parts of the sensor and remove the plate, the location of the screw will be indicated, as shown in figure 4. The maximum recommended wiring distance for installation between the TX 4020 and the sensor connected to it is 1 meter.

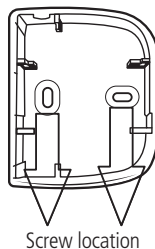
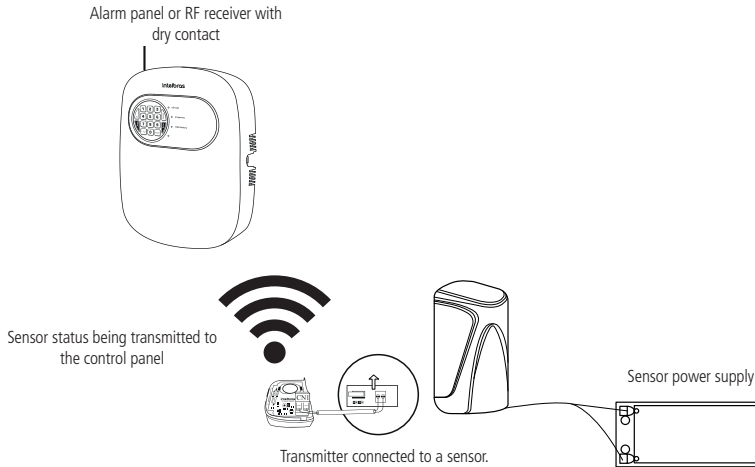


Figure 4

**Note:** the resistance (ohms) of the cable is very low for this distance, and a cable of your preference can be used.

## 5. Application



**Note:** the transmitter has an internal battery for its operation.

## 6. Consumption

It is important to note that this product has the function of transmitting information to the alarm panel whenever an event occurs on the device connected to it, therefore, its use should be recommended for environments with a medium circulation of people or medium daily transmissions. If you use it in environments with high circulation and consequently a large number of transmissions, your battery may be compromised. Here is some information for proper usage guidance.

Number of daily transmissions	OOK - months of operation (unsupervised)	FSK - months of operation (supervised)
20	43	12
50	25	10
100	16	8
200	9	5
300	6	4
400	5	3
500	4	3

**Note:** for the best performance of the TX 4020 Smart product, Intelbras recommends the use of good quality batteries.

## Warranty term

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

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Client's name:

Client's signature:

Invoice number:

Date of purchase:

Model:

Serial number:

Retailer:

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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.

The manufacturing process of this product is not covered by the requirements of ISO 14001.

All the images of this manual are illustrative.



# intelbras

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*talk to us*

**Customer Support:** (48) 2106 0006

**Forum:** [forum.intelbras.com.br](http://forum.intelbras.com.br)

**Support via chat:** [intelbras.com.br/suporte-tecnico](http://intelbras.com.br/suporte-tecnico)

**Support via e-mail:** [suporte@intelbras.com.br](mailto:suporte@intelbras.com.br)

**Customer Service:** 0800 7042767

**Where to buy? Who installs it?** 0800 7245115

Produced by: Intelbras S/A – Indústria de Telecomunicação Eletrônica Brasileira  
Rodovia BR 459, km 124, 1325 – Distrito Industrial – Santa Rita do Sapucaí/MG – 37540-000  
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