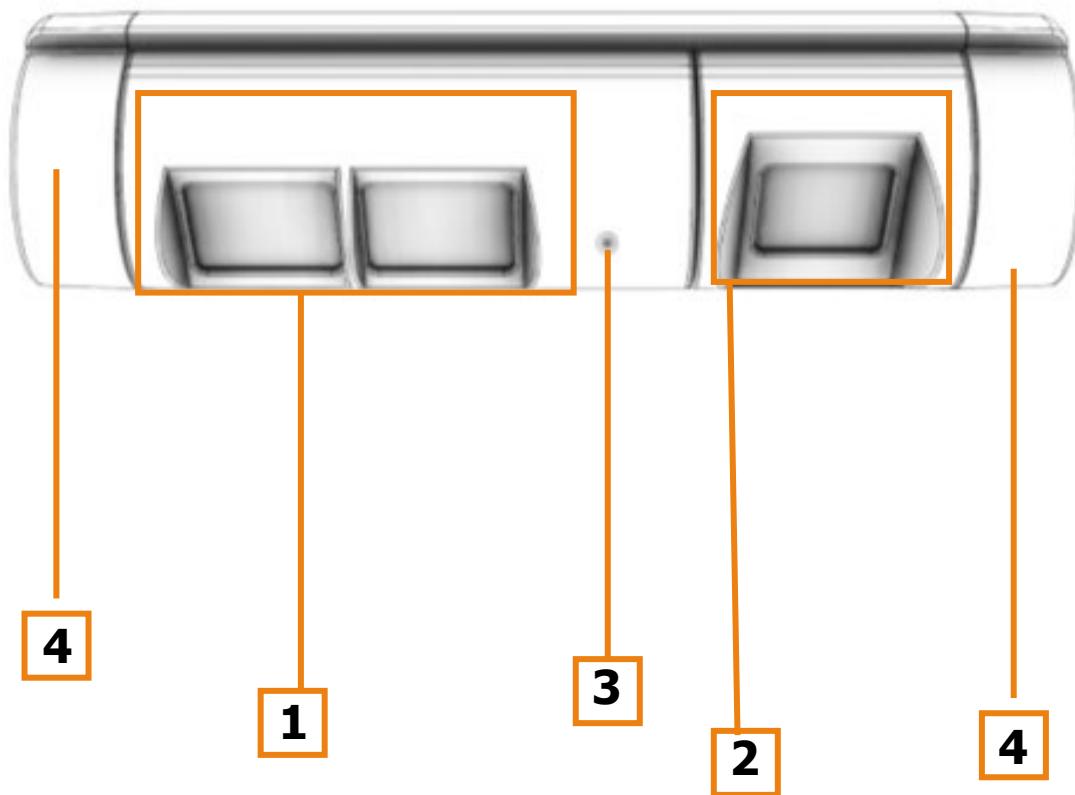


CAPTURE C2T

AIR / RADAR DUAL TECHNOLOGY SENSOR FOR SLIDING DOORS * (1.8m - 4m)



1. AIR Module
2. Radar Module
3. Status Indicator RGB LED
4. End Caps

Y INDEX

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1 Y TECHNICAL SPECIFICATIONS

Technology:

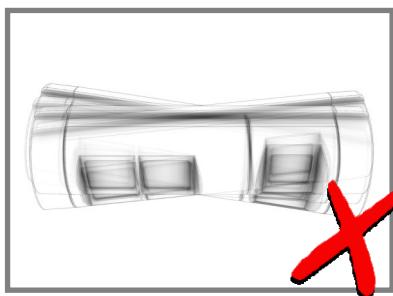
Radar 60 GHz
Infrared (AIR) 950 nm
Number of IR spots: 3
IR field size (at 3m): 240 cm x 110 cm
The presence detection and safety functions are performed exclusively by the AIR module.
The device continuously performs an automatic check of its functions. In the event of a malfunction, the device stops responding to the TEST signal sent by the control unit, which can then take the appropriate actions.

Wireless communication:	BLE 4.2
Radar emissions:	Output < 10 dBm EIRP, < 2 mW
Detection mode:	Movement for activation + Presence for safety
Maximum detection range:	Radar 7 m, AIR 4 m (EN16005 up to 3 m) AIR resolution according to EN 16005 (Parallelepiped 700 x 300 x 200) mm
Minimum detection speed:	20 cm/s**
Supply voltage:	12-24V AC/DC, 50 - 60 Hz. Tolerance +/-10%
Consumption:	< 1,7 W
2 outputs:	Infrared (AIR): Opto relays Radar: Opto relays Max. load voltage: 42V peak or DC; Max. load current: 500 mA
Test input:	6 mA at 5 V DC
Installation height:	1.8 – 4 m (EN16005 up to 3 m)
Protection class:	IP54
Temperature range:	-10 °C to + 50 °C
Relative humidity:	0 - 90 % (non-condensing)
Inclination angle:	Radar: 0° to 60° - AIR: 0° to 30°
Material:	ADA + Polycarbonate + Plexiglass
Weight:	400 gr.
Cable length:	3 m
Dimensions:	200 x 55 x 60 (mm)
Spare parts:	The device contains no repairable parts. Modifying or tampering with the device is prohibited. In the event of a malfunction, the device must be replaced.
Standards compliance:	RED 2014/53/EU; EN 16005; EN 61326-3-1; EN ISO 13849-1; EN 12978; EN 305550; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 61496-1

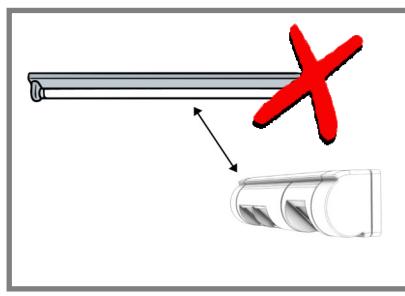
Specifications are subject to changes without prior notice.

** Measured in optimal conditions.

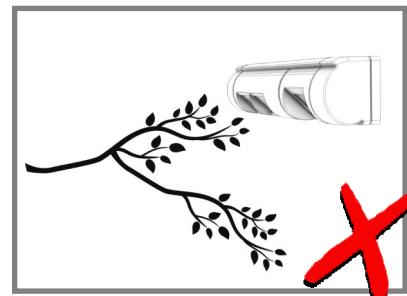
2 MOUNTING ADVICE



Avoid unstable surfaces and vibrations.

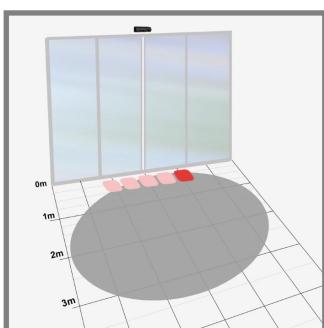


Do not install the sensor close to fluorescent or HID light sources

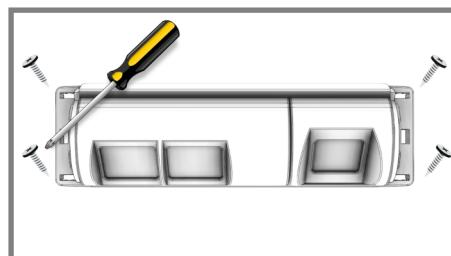


Prevent objects (plants, fans, signs, etc.) from obstructing the sensor.

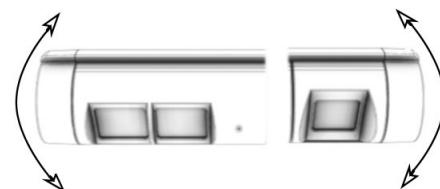
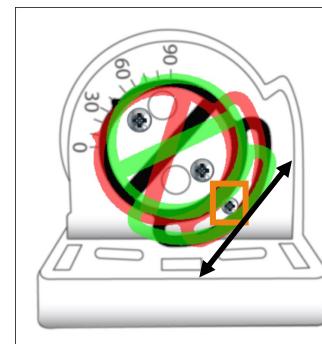
3 MOUNTING AND WIRING



Mount in the middle of automation.



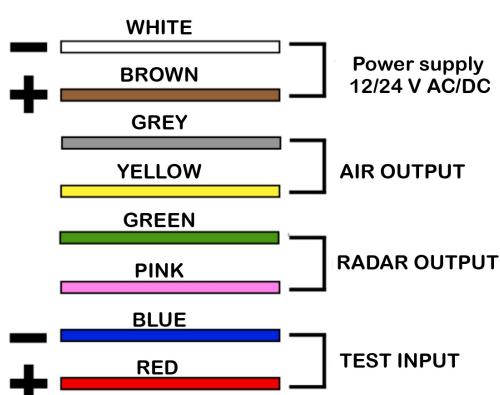
Fix the 4 screws to the wall/ceiling and attach the end caps.



The radar (left module) and the AIR (right module) are two independent units whose tilt angle can be adjusted by loosening the screw highlighted in the image above.

See the recommended tilt angles at paragraph 6.

!!WARNING!! : To prevent the sensor from detecting the door, tilt the infrared module by at least 10° if installed flush with the door frame.



SAFETY DETECTION AREA DIMENSIONS*

Height (cm)	Detection area (cm) *
200 cm	160 x 73 cm
220 cm	176 x 81 cm
240 cm	192 x 88 cm
260 cm	208 x 95 cm
280 cm	224 x 103 cm
300 cm	240 x 110 cm

*The dimensions of the detection area refer to the zone measured directly beneath the central axes of the sensor, along the length and width directions. The area was measured with the sensor tilted at 0° (perpendicular to the ground).

4 Y APP CAPTURE SENSORS

The sensor needs to be configured through the free **Capture Sensors** app, available for Android and iOS.

The only way to access the change of advanced parameters is to request the password from the dealer.

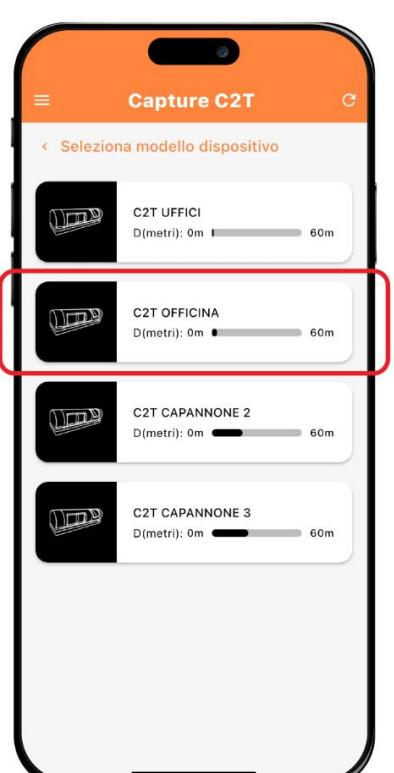
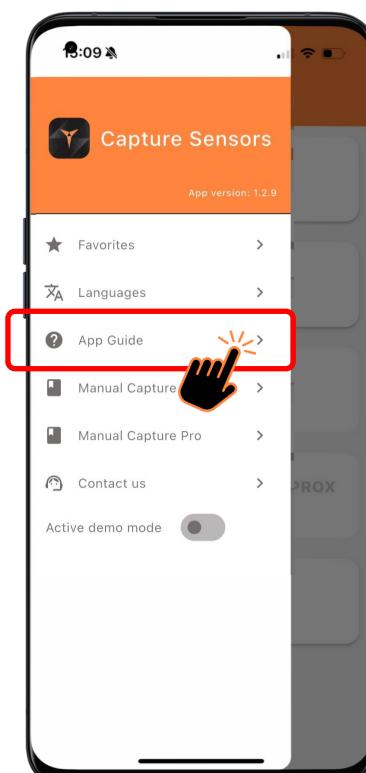
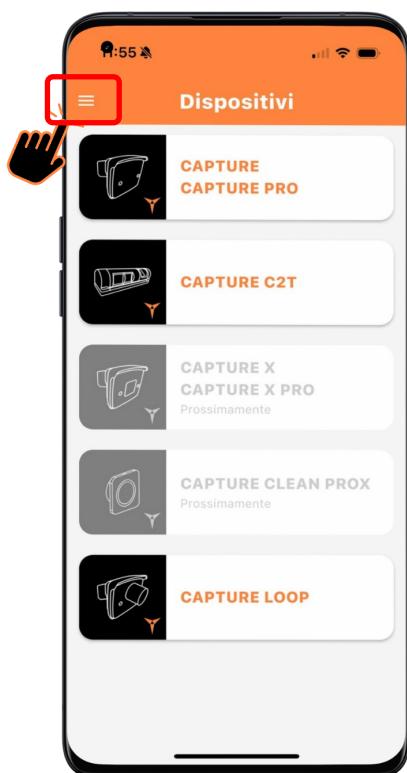


Search “**Capture Sensors**” on your App Store, use the QR_Code or click on the **Playstore / App Store** icons

5 Y APP INITIAL SETUP

Quick setup guide access:

1. Select the **≡ (three lines)** icon at the top left
2. From the side menu, choose “**App Guide**”
3. The quick guide with the main instructions will open

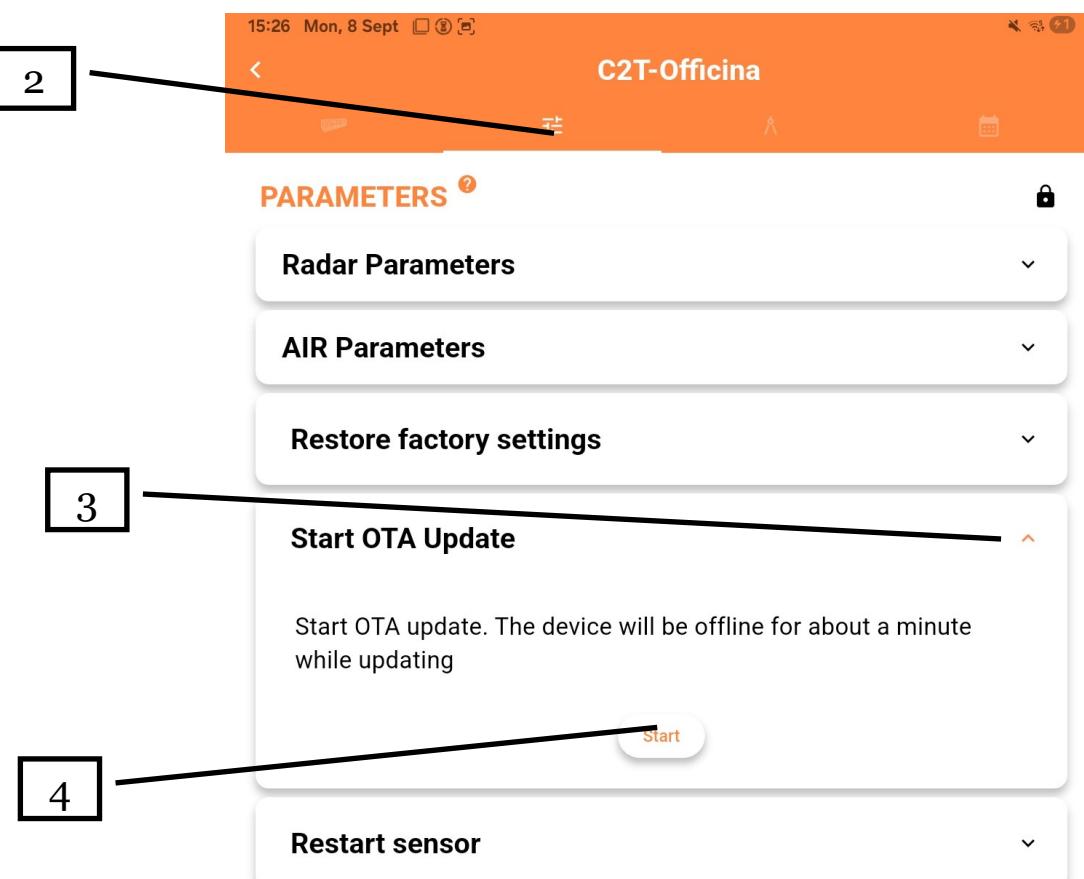


6 Y FW UPDATE

The firmware update of the sensor is performed via the smartphone application by following the steps below:

1. Activate a WI-FI hotspot with SSID : “Capture” and password: “password”
2. Open the parameters screen
3. Expand the Start OTA update menu
4. Press the start button

At this point, the device will connect to the hotspot. The status LED will flash yellow to indicate the FW download, and then flash purple to indicate the FW installation. Once the update is complete, the device will be fully operational and ready for use



7Y STATUS LIGHT INDICATORS

Color and status	Meaning
● Solid blue	Sensor powered on and operating correctly
●●●● Flashing blue (1Hz)	Sensor in Bluetooth (BLE) connection phase
● Solid red	Air detection
●●●● Flashing red (1Hz)	AIR errore or AIR valibration failed
● Solid green	Radar detection
●●●● Flashing Green (1Hz)	Radar error
●●●● Flashing Yellow (1 Hz)	FW downloading
● Solid yellow	IR spots disabled
●●●● Flashing purple (1Hz)	FW installing

8 ADVANCED PARAMETERS

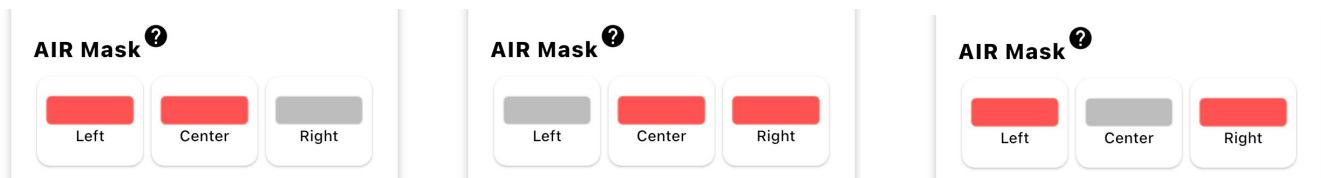
Some of these parameters are protected by a second-level password to be obtained from the manufacturer. We recommend providing this password only to people authorized to install the device!

INFRARED (AIR):

- 1) Sensitivity:** threshold used to distinguish between background noise and detection. 0 = highest sensitivity; 9 = lowest sensitivity. By default, the value is 3.
- 2) Calibration Time:** Time interval required for the infrared sensor to learn the environment. Adjustable from 1 s. to 15 min. By EN16005 standard, 60s are required.
- 3) Autocalibration Environment Timer:** Performs environment learning in case a static object is placed in front of the door and within the AIR range. Values from 0 (disabled) to 5 (30 min.)

0	1	2	3	4	5
Deactivated	1 min.	2 min.	5 min.	15 min.	30 min.

- 5) IR Masking:** Selective inhibition of RX beams in the AIR module: 20° left, 20° right or both.



- 6) Presence Timer:** allows the AIR output to be turned off after a certain period of time without interruption in which there is no detection. Values: 0 = 2s.; 1 = 30 s.; 2 = 60 s.; 3 = No limit.

0	1	2	3
2 sec.	30 sec.	60 sec.	∞

RADAR:

- 1) Installation Height:** 1.80 m. to 3 m. Once the mounting height is selected, autotuning will set the ideal parameters automatically.
- 2) Field Size:** In the calibration map you can adjust the radar field by moving the slider at the bottom of the screen. The adjustable field dimensions vary depending on the mounting height: the higher the sensor is installed, the farther the radar can detect, up to a maximum of 4.5 m at 3m height.
- 3) Sensitivity:** 0 = maximum sensitivity; 5 = minimum sensitivity. By default the value is 1.
- 4) Hold-Open Time:** Time threshold in which the door remains open after the sensor detects motion.
Min. 0.5 s; Max. 15 min.

COMMANDS:

Restore Factory Settings: resets the sensor to factory settings.

OTA Update: (Over The Air) performs Software update if new versions are released by the manufacturer.

Restart sensor: Executes a sensor reboot.

9 COMMON PROBLEMS

The door remains closed. The LED is OFF.	The sensor power is off.	Check the wiring and the power supply.
The door does not react as expected.	Improper output configuration on the sensor.	Check the output configuration setting on each sensor connected to the door operator.
The door opens and closes constantly.	The sensor is disturbed by the door motion or vibrations caused by the door motion.	1. Make sure the sensor is fixed properly. 2. Increase the tilt/inclination angle. 3. Reduce the field size.
The door opens for no apparent reason.	The sensor detects raindrops or vibrations.	1. Decrease sensitivity. 2. Enable vibrations suppression.
The door stays open.	Improper output configuration (NO/NC).	Change the output configuration.
When closing, the door reopens for no reason	The sensor detects door movement	Adjust the tilt of the AIR module, increasing the angle in relation to the door.
Incorrect AIR activation	Something interferes with the AIR field	1. Reduce sensitivity 2. Avoid puddles 3. Avoid overlap with another AIR field. Assign a different output
The door opens by itself when it rains or snows.	The default configuration has been changed.	1. Set the approach output detection mode; 2. Detection of the first metre must be inhibited; 3. Decrease sensitivity.
Wrong clock time	The clock is not synchronised.	Connect the smartphone app to the sensor
The clock resets when power is turned off.	The battery level is low.	Replace the battery.
The calendar scheduler doesn't work.	Date and time haven't been synchronized with the smartphone app.	Connect the smartphone app to the radar to synchronize the time.
Daylight saving time (DST) shift doesn't work.	Daylight saving time is set to work properly in the european countries.	Set the calendar scheduler taking into account the time difference shift of your country compared to Central Europe.

SAFETY INSTRUCTIONS

The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety. Only trained and qualified personnel may install and setup the sensor. Only authorised personnel may carry out modifications or repairs to the product. Otherwise the warranty is void.



!WARNING! The device must be connected to a control unit configured to periodically test the correct functioning of the device via the TEST input.

STARTEC

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STARTEC hereby declares that the C2T is in conformity with the basic requirements and the other relevant provisions of the directives 2014/53/UE and 2011/65/UE.



Devices with this symbol must be treated separately during disposal. This must be done in accordance with the laws of the respective countries for environmentally sound disposal, processing and recycling of electrical and electronic equipment.