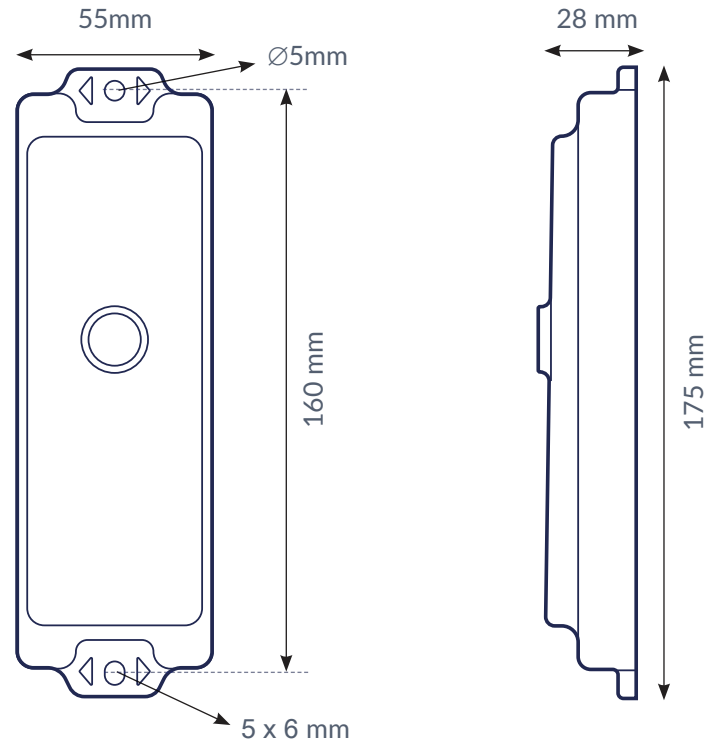


The medium-size long-life battery-powered full-fledged GPS, WIFI and BLE tracker with tamper alert. This tracker is in-flight certified.

- GPS
- Wi-Fi
- BLE
- Network triangulation
  
- Sigfox
- Multi-region
- In-flight detection
- Data recovery (patented)
  
- 3 to 8 years battery life
- IP69
- Tamper detection



## Connectivity

### Sigfox

- Energy efficient transceiver
- Internal omnidirectional antenna
- Bi-directional communication
- All regions: RC1/RC2/RC3/RC4/RC5/RC6
- Dynamic multi-region switching possible
- Data recovery (patented)

### Bluetooth Low Energy (BLE)

- BLE 2.4 GHz
- Bluetooth Low Energy 5.0
- OTA firmware upgrade

## Geolocalization

### GNSS

- u-blox 8th generation GNSS receiver for GPS
- Large patch antenna for optimum performance

### BLE

- Sensolus proximity beacon detection
- Detectable by zone and high precision anchors

### Wi-Fi

Wi-Fi based geolocalization (optional)

### Sigfox Atlas

Network based geolocalization

## Sensing

### Internal

- Activity monitoring
- Orientation monitoring
- In flight monitoring
- Virtual tamper detection

### External BLE sensors

- Temperature, humidity, air quality
- Person presence, contact, magnet
- Other BLE sensors can be added

## Mounting

Holes (top:  $\varnothing$ 5 mm, bottom 5\*6 mm ) for screws or rivets

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## Mechanics & design

### Antennas

All antennas are internal

### Size

175x55x28mm (L W H)

### Weight

135 gram

### Color

Black

### Casing

Panel – PBT 30%GF, Cover – PP 30%GF, Elastomer - TPE

### Water & dust resistance

IP69

### Impact resistance

IK07

### Operating temperature

-20 to 60°C

### Storage temperature

-40 to 60°C

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## Battery

- 3 to 8 years battery life depending on operating mode
  - User replaceable batteries 5400 mAh 3.6V (Li-SoCl<sub>2</sub>)
  - 1,78 gram Lithium
- 

## Certifications

### Sigfox

- Sigfox multi-region verified\*\*
- All regions class 0 certified\*\*

### Regulatory

CE, FCC\*\*

### In flight

RTCA DO 160\*\*

### Electrical safety

EN-60905-1\*\*

### Bluetooth 5.0

Declaration ID\*\*

\*\* Certificates in progress

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## User interaction

### Device activation

Activation with the tamper button

### LED feedback

Green & Red LED feedback on the device

## Management services

### Diagnostics

- Battery lifetime prediction
- Detailed energy consumption
- Geolocation diagnostics
- Installation
- Communication quality

### Management

- OTA firmware updates (over BLE and remote)
  - Remote configuration
  - Tracker usage profiles
  - External environmental sensors
- 

## Application services

- Localization
  - Activity
  - Connectable with environmental sensors
  - Tilt detection
  - Journeys
  - Utilization
- 

## Firmware configuration

### Communication service

- Region switching strategy
- Data recovery strategy
- Communication conditions
- Flight detection on/off

### General configuration

- Rule engine configuration
- Diagnostic levels
- Boot methods
- Accurate time synchronization

### Orientation service

Orientation detection parameters

### Activity service

Activity detection parameters

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### Location service

- Motion based, context based, periodic or scheduled
- Configurable update rate and journey detection
- Priority sequence (GPS, Wi-Fi, BLE, network)
- GPS fix parameters
- Indoor detection algo
- Wi-Fi scan strategy
- BLE scan strategy

### Environmental sensing

- Polling and aggregation strategy
- Alerts
- Edge processing parameters

### Tamper service

- Physical tamper button at the back of the device
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## Security

- Sigfox communication AES encryption
- Device unique encryption keys
- End to end payload encryption Chacha 20
- AES encrypted firmware
- Firmware upgrade allows only signed firmware images