
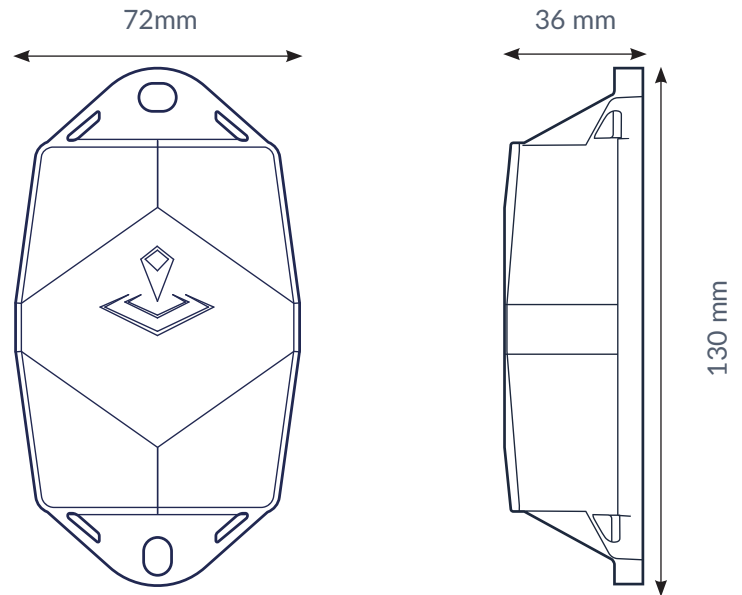


The rugged low-power tracker with longest battery life.  
Indoor and outdoor localization, zone and high precision.  
In flight certified with guaranteed data recovery (patented).  
Compatible with multiple external environmental sensors.

-  GPS
-  BLE
-  Network triangulation
-  Sigfox
-  Multi-region
-  In-flight detection
-  Data recovery (patented)
-  Up to 10 years of battery life
-  IP68 & IP69K
-  IK10
-  Flame retardant



## Connectivity

### Sigfox

- Energy efficient transceiver
- Internal omnidirectional antenna
- Bi-directional communication
- RC1 region
- Data recovery (patented)

### Bluetooth Low Energy (BLE)

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

## Geolocation

### 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

### Sigfox Atlas

Network based geolocation

## 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 (7x9mm) for screws or rivets
  - Cable ties
  - Double sided tape
  - Magnets (optional)
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## Mechanics & design

### Antennas

All antennas are internal

### Size

130x72x36 mm (L W H)

### Weight

200 gram

### Color

Translucent black

### Casing

- Polycarbonate (lexan 943A)
- Flame retardant
- UV-stabilized

### Water & dust resistance

IP68 & IP69K with automotive-grad venting membrane

### Impact resistance

IK08 & IK10 (frontal impact)

### Drop shock and vibration

EN 60068

### Operating temperature

-20 to 60°C (optional to 80°C)

### Storage temperature

-40 to 85°C

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## Battery

### Standard 3 cell

- Up to 10 years battery life depending on operating mode
- User replaceable battery pack (Li-SoCl<sub>2</sub>) 8400 mAh 3.6V
- 2,7 gram Lithium

### In flight 2 cell

- Up to 7 years battery life depending on operating mode
  - User replaceable battery pack (Li-SoCl<sub>2</sub>) 5600 mAh 3.6V
  - 1.8 gram Lithium
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## Certifications

### Sigfox

- Sigfox RC1 verified

### Regulatory

CE, FCC ID: 2AQYP-3ABGPSW

### In flight

RTCA DO 160

### Electrical safety

EN-60905-1

### Bluetooth 5.0

Declaration ID: D048003

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## User interaction

### Device activation

Magnetic activation

### LED feedback

Green & red LED feedback on the device

### Synchronize remote settings

- Instant: Magnet activation
- Periodic: No user interaction needed

## Management services

### Diagnostics

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

### Management

- OTA firmware updates over BLE
  - Remote configuration
  - Tracker usage profiles
  - External environmental sensors
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## Application services

- Localization
  - Activity
  - Connectable with environmental sensors
  - Tilt detection
  - Journeys
  - Utilization
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## Firmware configuration

### Communication service

- 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

### Location service

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

### Environmental sensing

- Polling and aggregation strategy
- Alerts
- Edge processing parameters

### Tamper service

- Virtual tamper algo configuration
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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