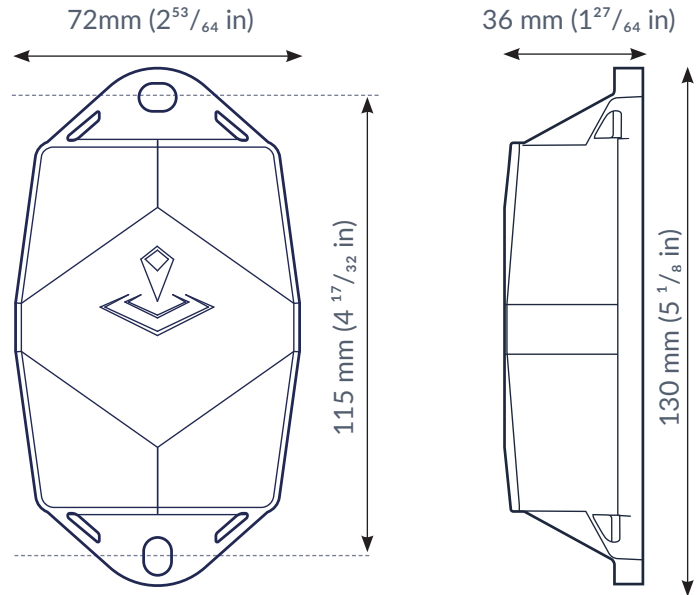


The rugged low-power tracker with long battery life, NB-IoT connectivity and guaranteed data recovery. The tracker provides GNSS localization outdoor and indoor localization with zone precision. The tracker firmware can be upgraded over the air.

- GNSS
- Bluetooth geobeacon for zone precision
- NB-IoT
- Europe and US
- Data recovery
- Up to 10 years of battery life
- IP68 & IP69K
- IK10
- Flame retardant



Connectivity

NB-IoT

- Energy efficient transceiver
- Internal omnidirectional antenna
- Bi-directional communication
- NB-IoT bands: Europe and US
- Data recovery
- OTA firmware upgrade (NB-IoT)

Bluetooth Low Energy (BLE)

- BLE 2.4 GHz
- Bluetooth Low Energy 5.0

Geolocalization

GNSS

- Multi GNSS constellation chipset (GPS+GALILEO)
- Patch antenna for optimal performance

Bluetooth (Low Energy)

- Sensolus proximity beacon detection
- Detectable by zone precision anchors

Sensing

Internal

- Activity monitoring
- Orientation monitoring
- Virtual tamper detection

Mounting

- Holes 7x9mm ($\frac{9}{32} * \frac{23}{64}$ in) for screws or rivets. 115 mm ($4\frac{17}{32}$ in) distance between the centers of the mounting holes.
- Cable ties
- Double sided tape
- Magnets

Mechanics & design

Antennas

All antennas are internal

Size

130x72x36 mm ($5\frac{1}{8} \times 2\frac{53}{64} \times 1\frac{27}{64}$ in)(L W H)

Weight

200 gram (7 oz)

Color

Translucent black

Casing

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

Battery

Standard 3 cell

- Up to 10 years battery life depending on operating mode
- User replaceable battery pack (Li-SoCl₂) 10500 mAh
- 2.8 gram (0.0987oz) lithium

Certifications

Regulatory

- CE
- FCC in progress

Electrical safety

EN-60905-1

Water & dust resistance

IP68 & IP69K with automotive-grade venting membrane

Impact resistance

IK08 & IK10 (frontal impact)

Drop shock and vibration

EN 60068

Operating temperature

-20 to 60°C, optional to 80°C
(-4°F to 140°F ,optional to 176°F)

Storage temperature

-40 to 85°C (-40°F to 185°F)

Bluetooth 5.0

Declaration ID: D048003

User interaction

Device activation

Magnetic activation

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

LED feedback

Green & red LED feedback on the device

Management

- OTA firmware updates over NB-IoT and BLE
- Remote configuration
- Tracker usage profiles

Application services

- Localization
- Activity
- Journeys
- Utilization
- Tilt detection

Firmware configuration

Communication service

- Data recovery strategy
- Communication conditions

General configuration

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

Orientation service

- Orientation detection parameters

Activity service

- Activity detection parameters

Security

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

Location service

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

Tamper service

- Virtual tamper algo configuration