



The Long Life Tracker
www.nabitrack.com

Device Datasheet

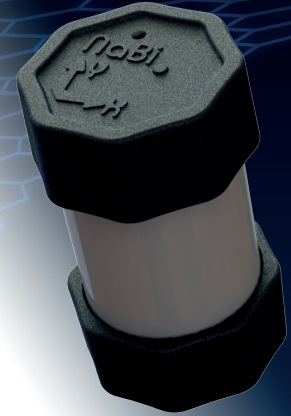
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Key Features

- 3-5 years battery life
- Waterproof enclosure
- Several mounting options

Applications

- Factory level logistics
- Palette tracking
- Security



Overview

NaBi is a GPS and NBloT network based low energy tracking device. NaBi can periodically record location, temperature and motion information and this data is transferred to the General Track servers through NBloT network. The device configuration regarding sensor recording and data synchronisation intervals, and sensor based alarms can be configured and batch deployed to multiple devices in the General Track online system. The recorded data is available in the on-line system, mobile application or through REST API (see: <https://www.nabitrack.com/api.html>).

Features and functions

Flexible configuration options for different applications

Battery life prediction

Motion sensor:

- Selectable sensitivity
- Configurable event on motion
- Configurable event on standstill
- Configurable event on orientation changing

Location:

- Regular geolocation logs
- Geolocation logs on motion sensor event
- Location measurement falls back to NBloT cell based location measurement in case of GPS unavailability (when the device is inside a building)

Temperature:

- Regular temperature logs
- Overtemperature or undertemperature alerts

Scheduled data communication and active periods:

- Configurable calendar for scheduled data communication
- Configurable calendar for active time periods

Sensor characteristics

Accelerometer:

- | | |
|------------------------------|---|
| Static orientation detection | Adjustable event trigger: 10°..170°, resolution: 1° |
| Motion detection threshold | Adjustable: 0.063..5 G, resolution: 0.063 G |
| Maximum logged acceleration | ±12.7 m/s ² |
| Resolution | 0.1 m/s ² |

Temperature sensor:

- | | |
|-------------------|-------------|
| Resolution | 1 °C |
| Accuracy | ±0.5 °C |
| Temperature range | -55..128 °C |

General Track

Pushbutton functions

Short press: Out of schedule instant data synchronization with the server
Long press (>10s): Debug mode (3 min): The LED is on when motion is detected*

*Works only when motion detection is configured with given thresholds.

LED functions

Normal operation: Blinks once in every minutes
After battery replacement: Blinks in every second until first server communication is finished
After pushbutton press: Blinks in every second until first server communication is finished

Battery life prediction

Power consumption depends on the device settings and usage. Most power is used by localization and NBloT communication. Battery lifetime estimation examples can be seen on Table 1.

Table 1. Estimated battery lifetime in the function of data synchronisation and location rates

GPS sampling period	Data synchronisation		
	Every hour	Every 12 hours	Daily once
30 minutes	0.24 year	1.09 year	1.32 year
2 hours	0.26 year	1.98 year	2.9 year
12 hours	0.27 year	2.57 year	4.37 year
24 hours	0.27 year	2.65 year	4.6 year

Estimate the battery life of a configuration that suits your application at <https://www.nabitrack.com/configuration.html>

Radio characteristics

GPS characteristics:

AGPS yes
GPS sensitivity -165 dBm

NB-IoT Radio characteristics:

Output power 22.5 dBm
Narrow-Band IoT freq. bands B5 / B8 / B20

Environmental characteristics

Maximum vibration ± 5 G
Operating ambient temperature -40..+85 °C
Storage temperature -40..+85 °C

Replaceable battery (included)

Battery type IEC FR20, Thionyl Chloride Lithium Battery Only
Battery voltage 3.6 V
Nominal capacity 19 Ah

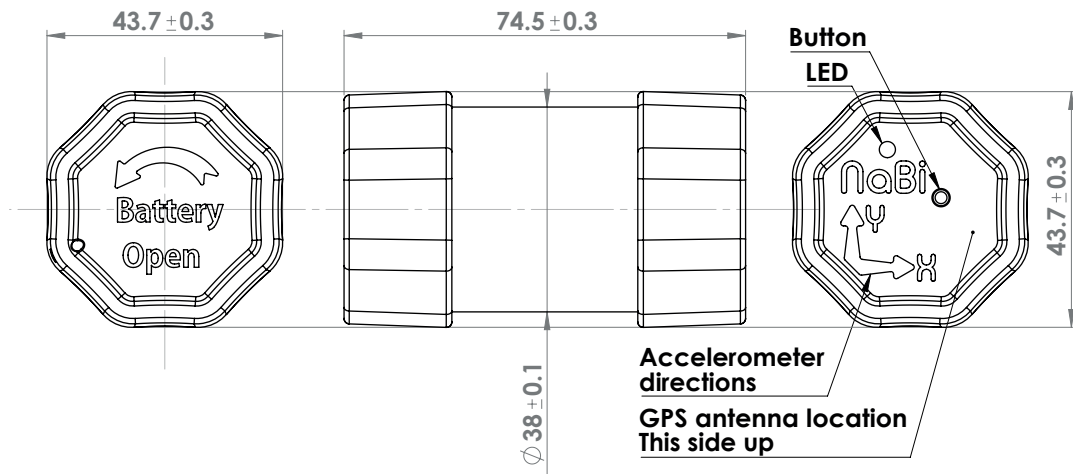
Approvals

CE in progress
RoHS, PbFree



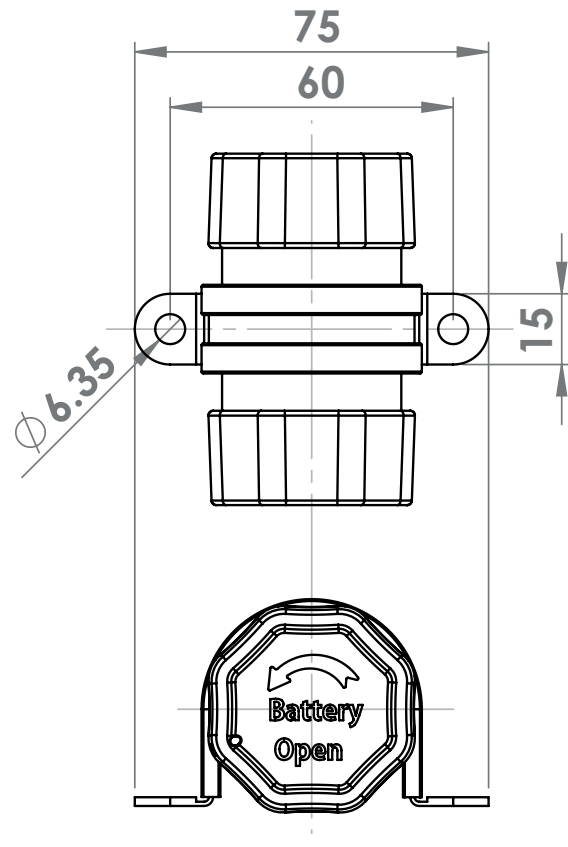
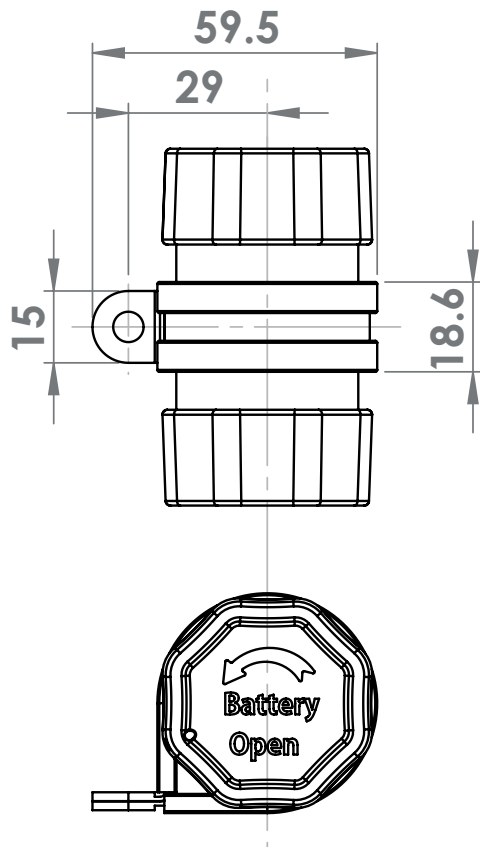
Mechanical dimensions

Size (L x W x H) 75 x 44 x 44 mm
 Weight, incl. battery 170 g



Mounting option "A"

Mounting option "B"



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