TRACK 1210

GNSS/Wi-Fi/BLE - NB-IoT

The rugged low-power tracker can be wired to an external power source. It has NB-IoT connectivity and guaranteed data recovery. The tracker provides general localization, zone and high precision. The tracker comes with an onboard temperature sensor and shock detection. Compatible with multiple external environmental sensors. The tracker firmware can be upgraded over the air.

130×72×36 mm
212g (7.6 oz)

- GNSS
- Wi-Fi scanning
- Bluetooth geobeacon for zone precision

- NB-IoT
- Europe and North America
- Data recovery
- Up to 12 years of back up battery

- IP67
- IK 09
- Flame retardant

Connectivity

NB-IoT

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

Bluetooth Low Energy (BLE)

Bluetooth Low Energy 5.0

Geolocalization

GNSS

Multi GNSS constellation chipset (GPS+GALILEO)

Wi-Fi scanning

- Wi-Fi based geolocalization
- Wi-Fi 2.4 GHz

BLE

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

Sensing

Internal

- Activity monitoring
- Orientation monitoring
- Virtual tamper detection
- Temperature monitoring
  - range: -20°C till 60°C (-4°F to 140°F)
  - typical accuracy: +/- 0.25°C (+/- 0.45°F)
  - worst case accuracy: +/- 1°C (+/- 1.8°F)
- Configurable shock detection

Connectable environmental BLE sensors

- Temperature, humidity
- Fill level, contact, magnet
- Other BLE sensors can be added

Activation and mounting

- Activation manual
- Holes 7x9mm ($^{9}/_{32}$ * $^{23}/_{64}$ in) for screws or rivets. 115 mm ($4^{17}/_{32}$ in) distance between the centers of the mounting holes.
- Instructions for mounting the device can be found here.

Mechanics & Design

Antennas

All antennas are internal

Size

130x72x36 mm
($5⅛$ x $2^{53}/_{64}$ x $1^{27}/_{64}$ in)

Weight

218 gram (7.68 oz) without cable

Color

White and black

Water & dust resistance

IP67

Impact resistance

IK09

Drop shock and vibration

EN 60068

Operating temperature

-20°C to 60°C
(-4°F to 140°F)*

The specifics regarding operational temperature are contingent upon the application, installation circumstances, and environmental factors such as sunlight exposure. For further information, please reach out to Sensolus. Battery life can be affected when devices function for extended periods at the extremes of this range.

Casing

- PBT/PC 29 TM-Z2 FR UV LS
- Flame retardant
- UV-stabilized

Power supply

Voltage
Input voltage: 10 - 30 V DC with overvoltage protection

Cable terminations
Connectors to the power source can be soldered to the cable ends

Fuse recommendations
- > 500mA and < 1A fuse
- The TRACK1210 contains a non-resettable 1A slow blow fuse (Bel fuse 0685T1000) at its external power input.

Typical power consumption
~3mA (idle)

Max typical power consumption
- 300mA (@10V)
- 70mA (@30V)

Back up battery

Standard 3 cell
- Battery life depending on operating mode.
- User replaceable battery pack (Li-$SoCl_2$) 12000 mAh
- 2.94 gram (0.1037oz) lithium

Certifications

Regulatory
- CE
- FCC
- IC

Bluetooth 5.0
Declaration ID D068598

Environmental
Drop shock

Electrical safety
EN 62368-1

User Interaction

Device activation
Magnetic activation

Synchronize remote settings
- Instant: Magnet activation
- Periodic: No user interaction needed

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 NB-IoT and BLE
- Remote configuration
- Tracker usage profiles
- External environmental sensors

Application services

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

Firmware configuration

Communication service

- Data recovery strategy
- Communication conditions

Location service

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

General configuration

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

Orientation service

Orientation detection parameters

Environmental sensing

- Polling and aggregation strategy
- Alerts
- Edge processing parameters

Activity service

Activity detection parameters

Tamper service

Virtual tamper algo configuration

Shock detection

Shock algo detection parameters

Security

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

Accesories

CAB 8600: 6 m power cable for TRACK 1210