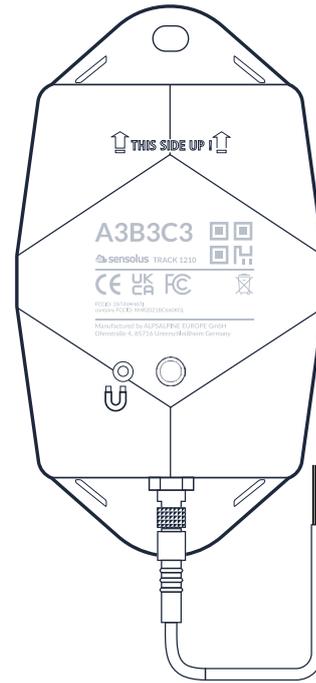


The rugged low-power tracker can be wired to an external power source. It has NB-IoT connectivity and guaranteed data recovery. The tracker provides general localization, zone and high precision. The tracker comes with an on-board temperature sensor and shock detection. Compatible with multiple external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

- 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
- IP rating in progress
- IK09
- 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)

Connectivity plan

- TRACK 1210 comes with the [Standard connectivity plan](#).

Geolocation

GNSS

Multi GNSS constellation chipset (GPS+GALILEO)

BLE

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

Bluetooth Low Energy (BLE)

- Bluetooth Low Energy 5.0

Wi-Fi scanning

- Wi-Fi based geolocation
- Wi-Fi 2.4 GHz

Sensing

Internal

- Activity monitoring
- Orientation monitoring
- Virtual tamper detection
- Temperature monitoring (range: -20°C till 60°C, typical accuracy: +/- 0,25°C, worst case accuracy: +/- 1°C)
- 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 ($\frac{9}{32} * \frac{23}{64}$ in) for screws or rivets. 115 mm ($\frac{4^{17}}{32}$ in) distance between the centers of the mounting holes.
- Instructions for mounting the device are available in the [Sensolus documentation center](#).

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

218,3 gram (7.68 oz) without cable

Color

White and black

Casing

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

Water & dust resistance

IP 67

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.

Power supply

Voltage

Input voltage: 10 - 30 V DC with overvoltage protection

Typical power consumption

~3mA (idle)

Max typical power consumption

- 300mA (@10V)
- 70mA (@30V)

Fuse recommendations

- > 500mA and < 1A fuse
- The TRACK1210 has an internal fuse at the external power input
 - The fuse is rated at 1A (slow blow type)
 - This fuse is NOT resettable
 - Fuse used in the device: Bel fuse 0685T1000

Cable terminations

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

Back up battery

Standard 3 cell

- Battery life depending on operating mode.
- User replaceable battery pack (Li-SoCl₂) 12000 mAh
- 2.94 gram (0.1037oz) lithium

Certifications

Regulatory

- CE
- FCC
- IC

Environmental

Drop shock

User interaction

Device activation

Magnetic activation

Synchronize remote settings

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

Management services

Diagnostics

- Back up battery lifetime prediction
- Detailed energy consumption
- Geolocation diagnostics
- Installation
- Communication quality

Application services

- Localization
- Journeys
- Activity
- Utilization

Bluetooth 5.0

D068598

Electrical safety

EN 62368-1

LED feedback

Green & red LED feedback on the device

Management

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

- Connectable with environmental sensors
- Temperature detection
- Tilt detection
- Shock 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

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

Location service

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

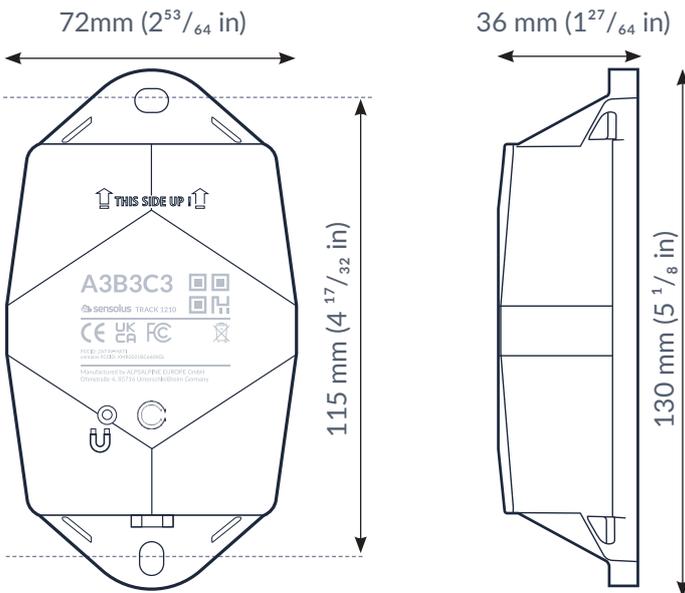
Environmental sensing

- Polling and aggregation strategy
- Alerts
- Edge processing parameters

Tamper service

- Virtual tamper algo configuration

Tracker measurements



Accessories

CAB 8600: 6 m power cable for TRACK 1210