

# TRK-Tracer-GPS

TRK-Tracer is an innovative product dedicated to identification, outdoor (GPS/Beacons) and indoor (Beacons only) localization services. As a 'flight recorder' retracing the activity of your equipment, TRK-Tracer efficiently handles various automatic identification applications, asset management, on-demand inventory, tracking flow of people and assets, secure location, Check-in/Check-out control...

Thanks to state-of-the-art approach, combining real-time location (RTLS) and long-range reading services, INEO-SENSE offers a new way to solve active RFID issues. Moreover, it embeds a GPS receiver smartly operated to give the more efficient outdoor location data based on events.

Based on LoRa technology, data collection is thus simplified by the TRK-Tracer's ability to connect to operators's LoRaWAN networks. Nevertheless, it can be easily operated in Clover-Net private network as well as taking benefit of free operator costs and added value services, all of this with an extremely light weight infrastructure, easy to deploy.

In addition, this TRK-Tracer® embeds sensors allowing relevant application scenarios to fit any use case (Motion, Tilt, Tamper, Temperature...). INEO-SENSE can study with you any new sensor solutions to go even further in the innovative features.



## Smart event-based GPS tracking

Embedding an integrated antenna GPS receiver, TRK-Tracer-GPS offers many outdoor localization scenarios to collect the most relevant localization data while preserving energy.

In fact, it periodically get GPS point (with calendar period configuration capabilities) but can use all the embedded sensors to trigger acquisitions as well. The events can be start motion, continuous motion, stop motion, tilt, shocks, temperature changes and even more. Acquisition parameters are also configurable to balance localization precision and device battery life time.

## Featured for RTLS

Real Time Localization System involves smart and flexible RF communication capabilities to detect indoor/outdoor zones in short range and reporting them remotely in long range. Moreover, sensors like motion sensors, magnetic reed or even temperature allow to trigger plenty of scenarios related to movement, location or even environment variables.

An unprecedented real-time check-in/check-out process allows to quickly collect a set of tracers in a restricted area in a minimum of time.

## Advanced capabilities

Battery powered, it takes benefit of all advanced features with very high added value and flexible settings to insure real-time motion tracking, real-time zoning and long range report with a minimum of energy required to work several years.

More than a device which pushes simple periodic message, full 2-way mechanisms with smart communication settings management allows remote configuration, fast inventory broadcasts or even smart RF medium management, all of them taking care of power consumption for battery powered applications.

Based on the unique Clover-Core® framework, it is capable of dynamically manage Clover-Net® bidirectional communications and LoRaWAN class-A. By the way, device interaction, data collection and remote report are achieved in any condition, at any time.

Moreover, unprecedented functions are available such as Network management, RTC auto-propagation, Over The Air (OTA) firmware updates, parameters and advanced data logging management (data and events) and more.

## Hardware features

- ABS-PC Grey casing — IK08
- Protection IP66 (IP67 as option)
- Average weight : 85g
- Bicolor high brightness led
- Motion sensor dedicated to movement, Tilt & shock detections
- Operating temperature: -20° to +60° C
- Highly optimized for long battery life in the field (> 5 years)
- Anti-theft sensor (option)
- GPS receiver with integrated antenna (GPS, GLONASS, Galileo and QZSS)



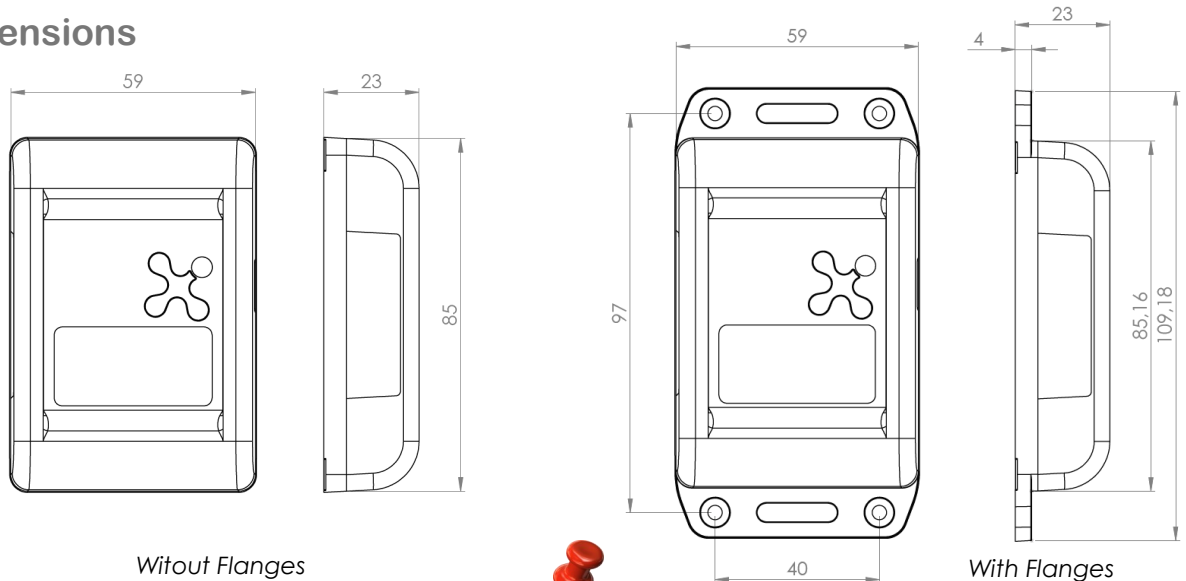
## Operating modes

- Outdoor GPS localization on events (motion, shocks, temperature, request)
- Dynamic GPS acquisition period from 5min to 24H according to events (motion, shocks, temperature)
- Indoor zoning detection (TRK-Zon Beacons) allowing real time localization within 5 to 150m range
- Geofencing applications with both Outdoor (GPS or Zone) and Indoor (Zone only)
- Bicolor led for activity & event alerts, and "Pick-to-Light" identification
- Periodic transmission: Regular presence frame ( every 1min to 45 days)
- Motion alarm: Alarm frame on characterized shock & movement
- On demand Localization: for one, a group or all tracers in the area
- Real time clock scheduler: Allowing automatic operational mode switch
- Data logging events: Rolling Storage of the tracer events (Up to 10 000)
- 256 bytes memory available for custom applicative data storage
- OTA: Over The Air Firmware upgrade

## Order references

Order #	Description
TRK-INO-GPMAIR-X8X-610	TRK-Tracer-GPS - 868 with flanges - IP66
TRK-INE-GPMAIR-X8X-610	TRK-Tracer-GPS - 868 without flanges - IP66

## Dimensions



Without Flanges

With Flanges

### Clover-Core generic features

- Bidirectional transmission range up to 5,000m line of sight, up 500m indoor.
- Real-time 2-way communications: Scheduled transmission, automatic alarms and on-demand reading.
- Robust against physical and electronic interferences.
- Fast event reactivity, huge coexistence ability.
- Low cost for mass deployment
- Auto RTC propagation
- Native tri-band compatibility (433, 868 and 915Mhz)
- CE & EN 300-220 & FCC 15-247 compliant
- LoRaWAN Class-A OTAA and ABP compatible
- Uses Multi-channel frequencies to avoid collision.
- Dedicated alarm frequency channel.
- Data Encryption by AES 128 with dynamic key mixt
- Includes Full networks services ( Broadcast, Repeater, Mesh, ...)