

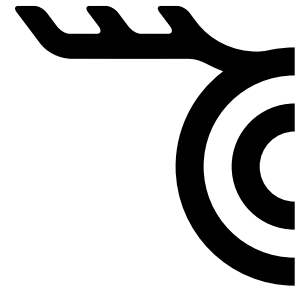
Swap-Body-Solution – intermodal tracking solution!

Solar-based tracking system with a service lifetime for more than 7 years

The Swap-Body-Solution HS 3100 can be used for tracking of assets and delivers relevant data for logistics such as position, time, shock, movement and external sensor data. This information will be directly transmitted into the logistic systems of telematics service providers and/or customers like shippers, forwarders or rental companies. Due to the specific development for swap bodies, the product fits perfectly in the shape of the roof. HS 3100 is equipped with a solar panel and a rechargeable battery. This leads to a long service lifetime for more than seven years. HS 3100 performs even under the harshest environmental conditions.

External sensors e.g. for temperature, humidity, door sensors, lighting and other accessories can be linked via Bluetooth Low Energy (BLE). This standardized interface enables future extensions of already installed HS 3100.

Your benefit: The visibility of the intermodal supply chain will increase significantly.



Key features

- Over 7 years service lifetime
- Smart power algorithm and energy harvesting
- Hardware-based geo-fencing areas (up to 1000)
- Motion, tamper and device temperature sensor
- Bluetooth Low Energy interface
- Data logging in case of network unavailability
- Firmware-Over-The-Air (FOTA) update
- Device independent data access via API

Optional Features

- 4G LTE (e.g. CAT 1) communication
- Bracket mount
- External sensors via BLE interface: Door open/close, temperature, humidity, lighting, CO₂, pairing etc.
- Precision GNSS; Real-Time-Kinematics (RTK)
- eSIM with remote subscription management
- Permanent battery

Swap-Body-Solution Product Features

Commercial benefits

- Sustainable through energy harvesting
- Data transmission: data collection in the device and data transmission in defined intervals
- Data security: Data encryption and optional carrier VPN tunnel
- Very exact positioning possible (< 0,5m with RTK option)
- Process optimization due to better supply-chain-visibility
- Incident detection by shock-thresholds and alarms
- Enabling increase of asset utilization
- Analysis of rides and tours
- Monitoring of toll payments
- Reduction of repair and down-time
- Monitoring of driving and rest periods of drivers

Technical details

- Size: 648mm x 117mm x 30mm
- Weight: 1.5-1.7kg (depending on variant)
- Storage temperature: -40° to 85°C (ideal 0° to 30°C)
- Operational temperature: -40° to 80°C (adapted functionality -40° to -25°C)
- Shock sensor (3 thresholds)
- 72-channel GNSS receiver
- Motion detection
- Temperature sensor
- Long-life rechargeable battery
- Energy-harvesting by crystalline solar module
- Optional back-up battery
- Fast and safe installation with brackets

Designed for swap bodies

- Fits in shape of container
- IP6K9K: designed for harsh environments
- Optimized antenna design

Connectivity

- 2G and 3G (optional 4G) for encrypted communication with backend
- Bluetooth 5.0 (BLE with long-range capability)
- Interface for external wireless accessories

Functioning

