GREYHOUND IP68
Fully integrated low power NB-IoT telemetry

Overview

The Ontoto Greyhound IP68 provides ultra low powered performance and utilises the proven set up and functionality of the Ontoto Connect App. The fully encapsulated design provides resistance to severe weather and environments. Easily one of the most robust dataloggers on the market, Ontoto's Greyhound IP68 Datalogger will perform in the harshest conditions without the need for regular in-field visits.

Special Features

- No on/off switch
- 10+ years battery life
- Rated to IP68
- Fire resistance
- In-built atmospheric pressure sensor for in head correction rated at 100m submersion which enables flood monitoring as part of your suite of parameters.
- Device configuration with BLE via Ontoto Connect Android or iOS App.
- Firmware updates via NB-IoT and BLE.
- Remote configuration by downlink messages through the Ontoto Web Portal.
- Compatibility with a range of intelligent digital sensors including water level, pH and pressure.
- Sampling and transmission periods ranging from as short as one minute, to as long as one week.
- Local alarming based on configurable thresholds.
- Custom packet to optimise data usage, resulting in significant reduction of transmission costs.
- Customisable firmware for different sensors upon request.
- The standard aerial is vandal resistant.

Certification

The Ontoto Greyhound IP68 has been designed to comply with the Australian Standards:
- AS/NZS 3820:2009 for low voltage battery-powered devices

Site Expectations

- The site needs LTE signal to take advantage of the remote telemetry feature of the device.
- The Ontoto Greyhound IP68 is a scientific instrument that needs to be installed correctly in a secure enclosure.

Easy Installation

The Greyhound IP68 Data Logger is a simple turnkey solution. It is designed to be installed into standard 100x100mm or larger steel monument casings with a single bolted connection allowing for easy retrofitting into existing assets onsite.

Sensor Specifications

The devices are programmed to support a variety of sensors. The specifications for each sensor are available on our website. The device has an on-board barometric pressure sensor for atmospheric correction if required.

Installing 3rd Party Sensors

The Ontoto Greyhound IP68 can support 3rd party sensors utilising RS485 and SDI-12 interfaces. Once Ontoto has received the sensor and specifications, custom firmware can be generated and a custom adapter manufactured. The datalogger will be pre-programmed allowing easy installation in the field using the Ontoto Connect App.

Technical Specifications

Power Source	• Integrated 4 ×3.6 V C-cell lithium batteries
Battery	• Voltage: 3.6 V • Capacity: 4 x 9000mAh • Temperature range: -55°C to +80°C • Long shelf life: less than 1% self-discharge rate at 25°C per year
Battery life*	• 10+ years *sampling level sensor once per hour, transmitting once a day
Sensor interfaces	• RS485 • SDI-12 • Optional 4-20mA adapter
Sensor power supply	• Supports 5-12 V sensors • Max 100mA output current @ 12 V
On-board barometer	• Range: 300-1250 mbar • Resolution: 0.01 mbar • Accuracy: ±0.3 mbar
Transmission	• LTE Cat NB2
Network communication protocols	• MQTT • CoAP
Clock accuracy	• +/- 2 seconds per day, automatically resynced on a transmission
Memory	• 128MB NAND flash memory, up to 8 million samples of local storage
BLE	• BLE 4.2
Operating temperature	• -40°C to +80°C
Dimensions	• 90 x 90 x 90mm
Weight	• 960 grams
Environmental	• IP68

Ontoto Connect App (iOS and Android)

The Ontoto Connect mobile app allows onsite management of the data logger to be undertaken wirelessly via BLE. There is no need to connect a laptop directly to the device.

The key features of the Ontoto Connect App are:

• **Data logger configuration**
Configure the device name, sampling period, transmission period, and alarm threshold.

• **Firmware update**
Available firmware updates can be downloaded from the Ontoto server and uploaded to the device.

• **Sensor Test**
The device will scan through each connected sensor. The measurements of each sensor and any detected errors will be displayed.

• **Network Test**
Tests for NB-IoT connectivity and signal strength and displays any detected faults.

• **Update the device location**
The location of the device will be updated with the GPS coordinates of the phone and transmitted to the Ontoto Web Portal.

• **Read data log**
The device stores all recorded data in persistent memory for redundancy and auditing purposes. The data log is processed into a CSV file.

• **Real-time debug log streaming**
While using the app, the debug log received from the device is automatically streamed to the Ontoto server, allowing for seamless tech support during deployment.

Software-as-Service
Free Ontoto Web Portal For User

The Ontoto Web Portal is a free and fully integrated cloud platform.

The features of this portal include:
- Remote configuration for all devices, for example configuring sampling and transmission periods, alarm thresholds and firmware updates.
- View raw and derived data in customisable charts.
- Custom charts can be configured to compare data between multiple data loggers.
- Generate and send customised reports according to client requirements.
- Data from grouped devices can be downloaded into a single CSV file.
- Static water level from Australian Height Datum (AHD), Below Top of the Column (BTOC) and custom datum is derived by using the water level above sensor and dip info entered via mobile app.
- Create and manage users.
- Track and notify device health:
  - » Data fault detection.
  - » Missed reporting cycle detection.
  - » Device malfunction detection.
  - » Site wakeup detection.
  - » Device status and battery, signal strength.
- Data forwarding to SCADA systems via FTP, SFTP and API.

Software-as-Service
Device Management Portal

Ontoto develops partnerships with all its clients to enhance their experience of managing their data. For clients with a larger number of users and devices, access is provided to Ontoto's free Device Management Portal. This provides all the functionality of the Ontoto Web Portal with additional features to enable advanced management of devices, including:
- Quality assurance.
- Firmware update management.
- Debug log Information.
- SIM and data usage management.
- Device production record.
- User management.
- Support ticket system.
- Billing system.

Equipment Configuration

The Ontoto Greyhound IP68 data loggers can be installed as a new installation or as a retrofit. All equipment required for the installation is provided.

Installation equipment

Data Logger

Antenna

Tube Bolt

Sensor with Cable and Connector

Monument

Warranty

Ontoto Pty Ltd will warrant the entire product for 5 years from the date of delivery for parts and labour.