



HydroTerra

Environmental Monitoring Specialists

Stygo 2

Groundwater Cellular battery powered IoT Sensor Hub

Stygo 2 is a powerful yet compact multi-communications enabled IoT device designed specifically for remote environmental monitoring. Connect to any standard environmental sensor and transmit data from anywhere via 4G Network. The optional patented well-cap device is designed to simplify groundwater bore monitoring, making it easy to automate the measurement of groundwater levels and quality parameters.



Overview

The versatile device allows connection to all standard sensor types offering the ability to use across a wide variety of monitoring applications. The ease of use means that field installations can be completed in a fraction of the time of other systems offering significant cost savings and minimising risk by reducing time in the field.



Smart multi communications transmitter in one compact unit, making remote monitoring easy. Connect to any environmental monitoring sensor for transmission to DataStream.



The internal module receiver operates with extremely low current while the satellite transceiver can remain completely off for the majority of the time. The satellite transceiver only needs to be briefly powered for message transmissions.



Cellular connectivity via Telstra's Cellular LTE-M/NB-IoT Network covering over 4 million sq km.



Simply activate Bluetooth by pressing the button and connect via our free mobile Android and Apple mobile app for all your device configuration requirements



Compact form factor 45mm x55mm x 120mm



DataStream™

by **HydroTerra**



Environment • Water • Geotechnical • Data

*Powered by EWS, through our
official partnership*



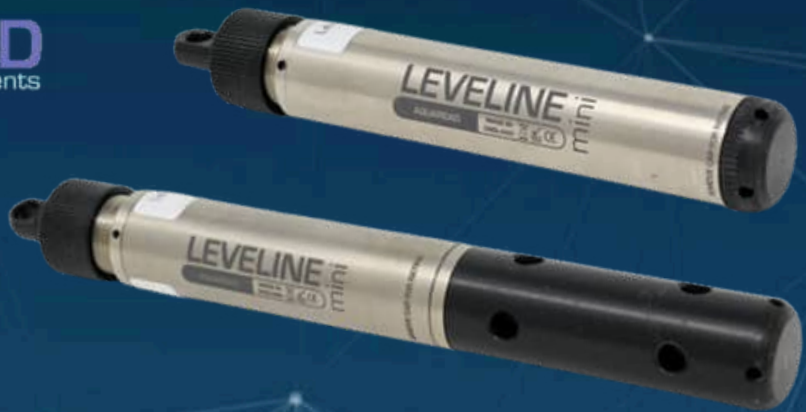
Stygo 2

Integrated Sensor Examples

Seametrics



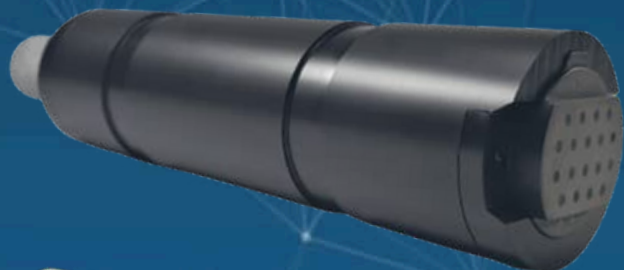
AQUAREAD
water monitoring instruments



PHATHOM



ANB Sensors



WAK



HydroTerra Platform

FEATURES



Monitor environmental sensors and device locations and parameters



Configure sample rates, device outputs and variable alerts



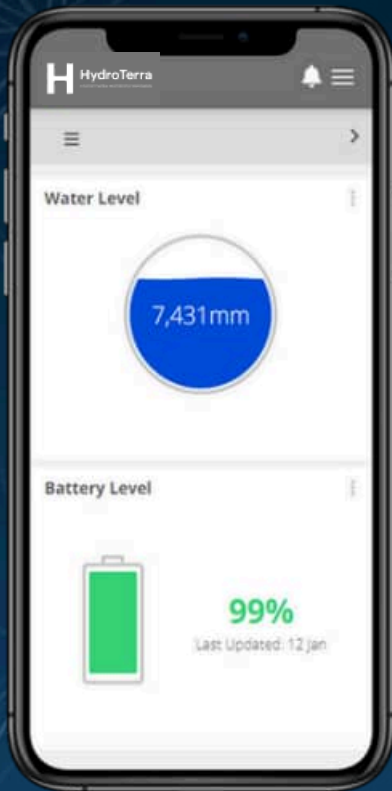
Control device outputs such as pumps, valves and gates



Receive SMS or email alerts based on variable thresholds



Download device data as csv files and images



OVERVIEW

Sensors are remotely monitored with our custom cloud based platform. Interrogate volume and level trends, change sampling intervals and set SMS and email alerts. Our platform is flexible and modular meaning we can set it up the way you like from our library of maps, charts, gauges and controls.

OTHER SERVICES

- Integrate other sensors to our platform
- White label the platform with your company branding
- Send your sensor data to third party platforms



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Specifications.

Physical property

Dimensions (W x H x D)	Rechargeable - Approx 66 x 126 x 43 mm	
	Non - rechargeable - Approx 66 x 126 x 60 mm	
	Cable length from housing - Approx 400 mm	
Body weight	without battery	Approx 264 g (For 18650)
		Approx 274 g (For D cell)
Waterproof level	IP67 rating	

Operating environment

Temperature (1, 2)	-20 ... 65 °C	Storage (Without battery) -40 ... 65 °C
Humidity	5 ... 60% RH	

Power source

Internal power (3)	2x Rechargeable 18650 battery / Suggested model: ICR18650-26JM	
	1x Non-rechargeable (D cell) battery / Suggested model: ER34615M (LiSOCL2)	
External power	DC 12 ... 24 V / 1 A	
	Battery or Solar power with M8 connector	

Output Option

Function / interface	RS485 Modbus RTU x1	Baud rate 300 - 230400 / Parity (N, E, O)
		12 V / 0.26 A supply with adjustable ON period
	4-20 mA Current loop x2*	+/- 0.5% Full Scale
	Pulse counter x2*	Dry contact
		Frequency 1 ... 500 Hz
	SDI-12 x1	ASCII
Relay contact x1*	12V / 0.26 A	

Connectivity

USB	1x Micro USB
Wireless	Bluetooth 5

System

Clock	RTC	Accuracy 70 ppm (20 ppm at 25 °C)
	Network time Sync support	
Display	LEDs indicating status	
Configuration	Remotely change setting with two-way communications established via an application gateway	

Logging

Number of channels	60	
Reading interval	sec/min/hr	Max. 24:00:00
Memory	4MB / 256,000 Events (Non-volatile-Log)	
Software	EWS Logger V00.01.137 or higher	Compatible with Window 10
File format	.csv	

Specifications.

Built-in sensor / function

Internal battery voltage Yes Yes

External voltage supply Yes Yes

Temperature Optional

Radio signal Optional

GPS tracking Pressure

Barometer

Range 10 ... 1200 mbar

Accuracy 25 C, 750 mbar -1.5 ... +1.5 mbar

Temperature Range - 40 ... 85 °C

Accuracy -0.8 ... +0.8 °C

Network communication

Iridium Protocols Short Burst Data

Coverage Worldwide

4G Cellular LTE-M/NB-IOT Protocols MQTT

Network support Telstra (Australia)

Most major networks globally

Coverage 4 million Sqr km

Antenna type

Built-in antenna Yes

External antenna Optional



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