![HydroTerra - Environmental Monitoring Specialists]
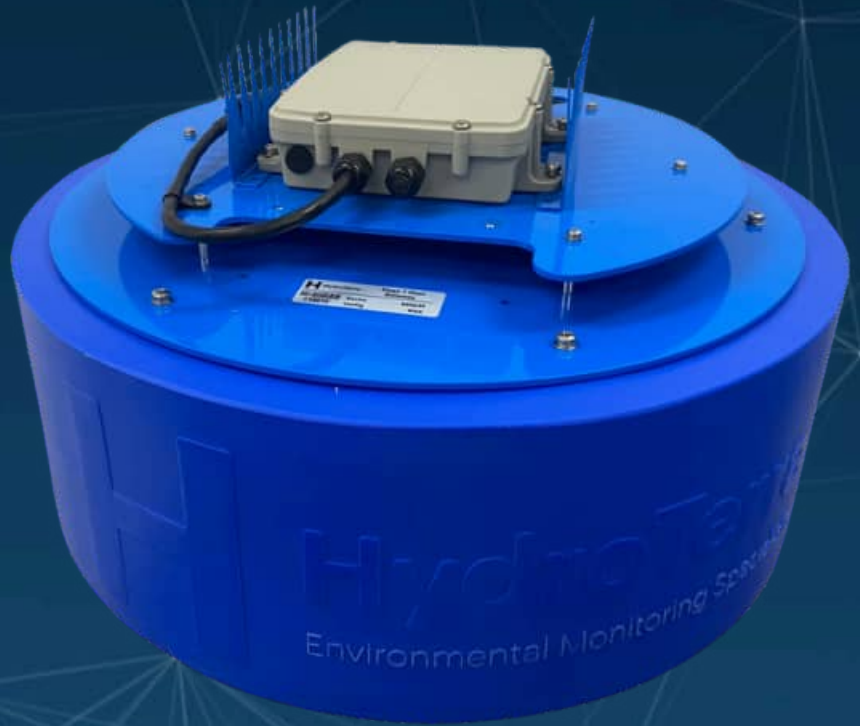
Yabby 2
Surface Water
Low Latency
Satellite
IoT Sensor Hub

Yabby 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 Satellite. Multiple option for mounting including bracket and floating.

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.

Optional rechargeable internal pack OR long-life non-rechargeable internal battery providing flexibility for various monitoring scenarios including long-life deployments on solar or external battery pack or mid-length deployments powered by non-rechargeable lithium D-Cell.

Easily change settings, log time, transmission rate, alarms with OTA firmware updates onsite over the Iridium Satellite Network.

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

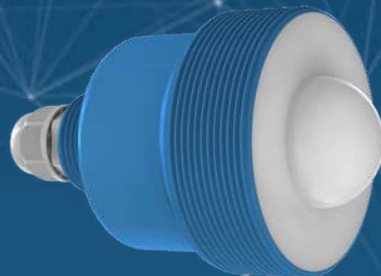Compact form factor 45mm x55mm x 120mm
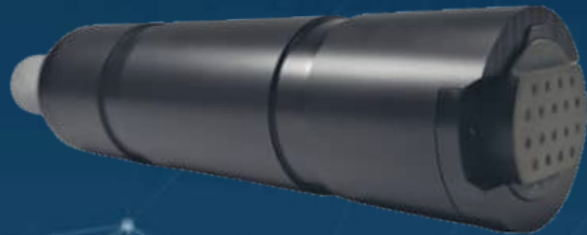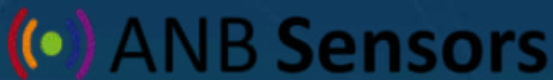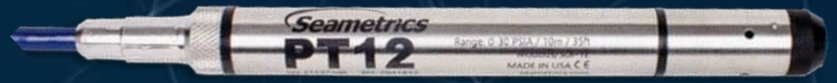
DataStream™
by HydroTerra

ews
Environment • Water • Geotechnical • Data

Powered by EWS, through our official partnership

Yabby 2 - Integrated Sensors Examples

HydroTerra Platform

FEATURES

Monitor environmental sensors and device locations and parameters

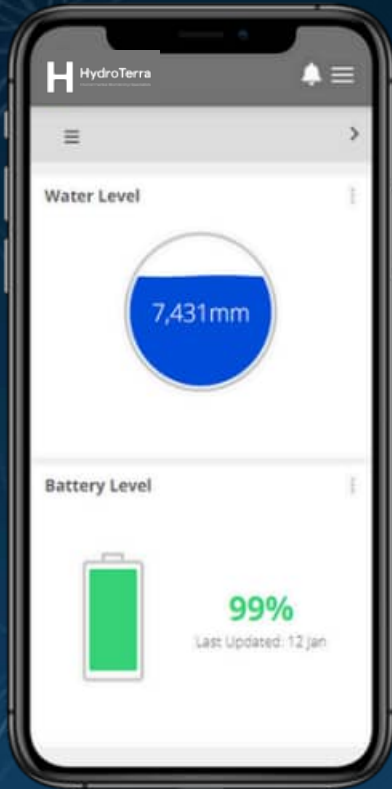Configure sample rates, device outputs and variable alerts

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
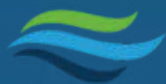
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Specifications.

Physical property

Dimensions (W x H x D)	Rechargable - Approx 66 x 126 x 43 mm	
	Non - rechargable - 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 Rechargable 18650 battery / Suggested model: ICR18650-26JM	
	1x Non-rechargable (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			
External voltage supply	Yes			
Temperature	Yes			
Radio signal	Yes			
GPS tracking	Optional			
Barometer	Optional			
	Pressure		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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