HydroTerra

Environmental Monitoring Specialists

Stygo 1 Groundwater Cellular Battery Powered IoT Sensor Hub with Integrated Sensor Options

Stygo 1 is a groundwater **cellular battery** powered IoT sensor hub with multiple integrated sensor options for groundwater level, electrical conductivity and temperature monitoring. Various mounting options includes bracket/pole and direct install into groundwater monuments and standpipes.



Overview

Ultra-low power consumption only requires D cell batteries. Connectivity is provided via Telstra's Cellular LTE-M/NB-IoT Network. With a selection of integrated sensors, you can monitor groundwater water level, electrical conductivity and temperature for a number of applications. The hubs are waterproof with an ultra-rugged IP68 housing and bespoke lightweight aluminum brackets. Depending on your requirements other bespoke options can include a feature-rich array of 9 inputs/outputs and multiple sensor connectivity.



Up to 9 inputs/outputs and multiple sensor connectivity



Weatherproof and ultra-rugged IP68 housing with compact and ergonomic design



Ultra low power with battery life of up to 10 years



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



Alternative enclosure that can fit in a groundwater monument (80mm wide x 70mm deep x 250mm long)

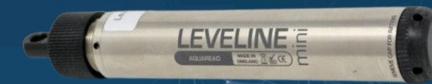
DataStream,

by HydroTerra

Stygo 1 Integrated Level & EC Sensors







Seametrics

CT2X







SMARTS

Configurable Alerts	Configure email and sms alerts based on levels & WQ remotely from our cloud-based device management system.
Adjustable Sampling Rate	Adjustable sampling rate from once per day to every 30 minutes (Default = 6 Hours)
Integration	Third-Party Integration Webhook, TCP or HTTPS

TECHNICAL SPECIFICATIONS

Power	
Cellular 1	Internal 13.0 Ah Lithium Thionyl providing up to 10 years maintenance free operation. 20µA max (Low power operation), 2 mA (Al sampling w/o sensors), ~50mA (Alarm messaging).
Cellular 2	Choice of 3500mAh LiPo rechargeable battery with solar panel or 2 x D Cell LTC batteries for a completely self- powered solution. Input Voltage 6-28V DC (max).

Input	&	Output	Options
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Cellular 1	Digital input/counter, 1 analog input, internal 3-axis digital accelerometer (optional), Built in battery monitoring, SDI-12 and MODBUS sensor data acquisition.
Cellular 2	Flexible I/O Card Architecture caters for plug-in cards that define the 9 inputs/outputs, offering limitless options for interfacing to sensors such as SDI-12, I ² C, 1-Wire, iButton, 4-20mA, RS-485, RS-232*, Analog Inputs, Digital Inputs, Pulse Counting, Digital Outputs, Switched Power, and more.



HydroTerra Platform

FEATURES



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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.



by HydroTerra