



Borewatch

Logger, sensor power, and mobile telemetry in a single stainless steel tube — connect your preferred SDI-12, Modbus, or 4–20 mA sensors. Lower it straight into the bore.

Overview

Borewatch is a borehole logging and telemetry platform built into a slender 49 mm stainless steel IP68 tube — small enough to deploy inside standard bore casing where conventional logger housings cannot go. It powers and connects a wide range of SDI-12, Modbus, and 4–20 mA sensors to log water level, water quality, and other downhole readings. Data is sent automatically over 4G or Cat-M1 / NB-IoT mobile, so readings arrive from remote bores with no site visits. With a long-life internal lithium battery and a boosted 12 V sensor supply, it deploys without external enclosures, regulators, or solar panels — just add the sensors your site needs.

Key Features

Compact 49 mm stainless steel IP68 tube.

Installs concealed inside standard bore casing where conventional housings can't fit — no surface cabinet, pole, or enclosure to buy, and secure from vandalism and theft.

4G and Cat-M1 / NB-IoT mobile telemetry.

Readings arrive from remote bores on their own — no site visits to collect data. The external antenna mounts where the signal is best.

Boosted 12 V regulated sensor power.

Steps the 7.2 V battery up to a stable 12 V, powering 12 V submersible sensors from the internal battery — no separate supply.

On-device virtual channels.

Derive static water level, drawdown, pump efficiency, and yield without a separate SCADA system.

High-capacity 13 Ah replaceable lithium battery.

Up to 5 years of field life at remote bores, with no solar or mains power required.

SDI-12 and Modbus interfaces.

Connect submersible water-level and water-quality sensors from any manufacturer — no proprietary connectors or adapters.

Typical Applications

Borehole and groundwater monitoring — log standing water level, drawdown, and water quality from inside the bore casing

Irrigation — track bore water take, pump run times, and flow volumes, with on-device pump efficiency and yield calculations

Agriculture — monitor stock and irrigation bores, totalise pulse-output water meters, and record rainfall from tipping-bucket gauges

Environmental monitoring — connect SDI-12 and Modbus water-quality sensors for long-term unattended monitoring programs

Water treatment — monitor source-bore levels and quality with threshold alarms and automatic reporting

Vandal-resistant logging — hide the logger inside a pipe or bore casing at exposed public sites, with nothing on show to damage or steal

Specifications

Physical	
Dimensions	49(Ø) × 410 mm
Enclosure	Stainless steel, IP68 (including connectors)
Weight	720 g
Mounting	Integrated top suspension lug for in-bore deployment
Operating temperature	−20°C to +60°C
Warranty	12 months
Power	
Battery	Replaceable 7.2V lithium (Li-SOCl ₂), 13 Ah
Battery life	up to 5 years (1-hour logging, daily reports, good signal, self-powered sensor, 1 alarm per month)
External power input	12–22V DC or solar — extends battery life
Inputs	
Channels	Up to 20 configurable
Analogue input	1 × 4–20mA or 0–2.5V
Digital input	1 × switch, counter, event, meter
Intelligent interfaces	SDI-12 and Modbus RS-485
Sensor connector	8-pin M12 socket
Analogue / open collector	Share one terminal — configure for one function
Outputs	
Total outputs	3
Switched Power Out	Boosted 12V, max 200mA
Open Collector	10mA nominal
Low Voltage Sensor Supply	3.3V or 5V selectable
Communications	
Mobile	4G LTE; LTE Cat-M1 / NB-IoT
SIM card	Nano SIM
Local access	Ethernet via LANlink; Wi-Fi via HLink
Antenna	External SMA — two (4G) / one (Cat-M1)
Reporting	
Reporting protocols	HTTP/HTTPS POST, FTP, Email; DNP3 (paid software option)
Data logger	
Capacity	300,000 records, non-volatile
Alarms	
Total alarms	16
Alert methods	SMS, email, exception reports; DNP3 (paid software option)
Contacts per alarm	3 phone numbers; 3 email addresses
Software options	
LiveSMS	Extended SMS commands, remote access, alert escalation
DNP3	SCADA integration via DNP3 protocol — paid software option

Models

HBW-001	Borewatch 4G — 20 channels (SDI-12, Modbus, 1 digital, 1 analogue)
HBW-002	Borewatch Cat-M1 / NB-IoT — 20 channels (SDI-12, Modbus, 1 digital, 1 analogue)



Full specifications, downloads & support

Scan the code or visit halytech.com.au/borewatch

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Let's talk.
Contact us today



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