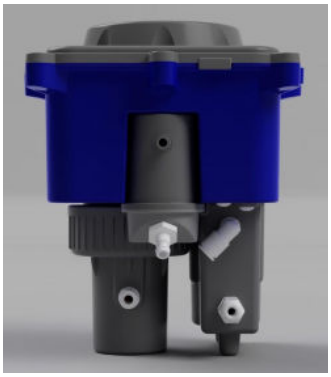
Hydraclam®

Designed for Smart Water Networks

SAFEgroup Automation

The Hydraclam® is part of the Clamnet® system of sensors, telemetered data loggers, mobile app and web portal. The Hydraclam® can be used at hydrants or other convenient points on the watermains network to continually monitor and report turbidity, conductivity, temperature and pressure data. Used alone or in conjunction with other sensors attached to the Clam RTU the Hydraclam® is an ideal component of any Smart Network for drinking water quality.



The Hydraclam® has been comprehensively redesigned to make it more appropriate for the world market. It requires no additional infrastructure to operate:

- Installed by connecting it via a 6mm hose to any part of the water distribution network.
- Telemetered via 4G network –including configuration and firmware upgrades.
- Large battery pack –and can be connected to exterior power e.g. solar panels.

The Hydraclam® sampling sequence includes a valve that can be set to allow any pre-purging necessary to ensure the correct water is analysed, rather than stagnant water within the hoses or riser pipes. The unique and patented flushing control can be configured via the website.

Hydraclam® can reliably detect very low turbidity and can therefore be used to not only detect compliance failures but to monitor and map sediment movement, as required for smart and proactive network management.

Low power consumption allows uninterrupted remote operation between the recommended service intervals. The bidirectional communications allow firmware upgrades, configuration changes and remote diagnostics as well as routine data uploads to the Clamnet® Portal.

DATA INTEGRATION - CLAMNET PORTAL

Data from Hydraclam® can be stored and viewed on the very secure Clamnet® Portal. With flexible device management and visualisation tools the portal can manage large Clam fleets.

- **API** - Data can be transferred via our freely available API for incorporation into corporate SCADA systems.
- **Direct integration to corporate SCADA** – Rather than use the Clamnet® server data can be transferred to a server on the customer's own premises and from there to the customer's destination of choice.

KEY FEATURES

- Access the water via hydrant point enabling rapid deployment and recovery
- Measurement of turbidity, conductivity, pressure and temperature all in one device
- High resolution turbidity sensor designed specifically for potable water
- Patented flushing control to ensure water from the main is sampled
- Bi-directional 4G cellular communications for remote configuration, data upload and alarming
- Bluetooth mobile app for local set up, control and data collection
- Submersible robust IP68 enclosure
- Powerful Clamnet Portal data management and visualisation
- A cornerstone for water quality Smart Networks
- Freely available API for data transfer
- Direct integration to SCADA - uploading to server on customer's own premises

1300 SGA 247 (1300 742 247)
automation@safegroup.com.au
www.automation.safegroup.com.au

TECHNICAL SPECIFICATIONS

Turbidity Sensor

Measurement method	Nephelometric
Range	0.1 - 10 NTU
Accuracy	± 5% of reading or ± 0.1 NTU
Resolution	0.05 NTU

Conductivity Sensor

Measurement range	4 pole
Range	20 – 3500 µs
Accuracy	± 2% of range
Resolution	1 µs

Pressure Sensor

Measurement method	Silicon micro machined element
Range	0 – 10 bar Absolute
Accuracy	± 1.25% of full scale
Resolution	0.1 bar

Calibration

Factory calibrated using standards at 1 and 10 NTU

No in-service calibration required

Memory

Up to 50,000 data points within the device

Data Intervals

Programmable between 1 minute and 1 hour

Environmental

Waterproofing	IP68
Operating Temperature	0 - 40 ˚C
Storage	-5 to +65 ˚C
Mains Pressure	1 - 10 bar
Sample Flow	6 l/sample

Communications

Cellular data	4G network
Modem	4G Internal antenna, external option

EMC

Hydraclam	BS EN 61326-1:2006
	EN 301 489-1 v1.8.1
	EN 301 489-7 v 1.3.1

Weight

Clam unit	0.5 kg approx.
Sensor unit	0.7 kg approx.

Dimensions

Clam unit	170mm height x 160mm diameter
Sensor unit	Max 220 x 130 x 160mm

Data Storage

Secure web portal on AWS, data can be extracted via API

If this is a solution that you are interested in, contact our Product Manager, Adam Simpson to find out more or book in an online product demonstration and experience first-hand the power of a Hydraclam® water turbidity monitoring system.

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