

Hydraclam

... monitoring turbidity in water networks



SALAMANDER
GROUP

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
- New design allowing easier servicing of the sensor
- Submersible robust IP68 enclosure
- Powerful Clamnet Portal data management and visualisation
- External connection for addition of a chlorine sensor
- A cornerstone for water quality Smart Networks



CLAMNET

The Chloroclam 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.

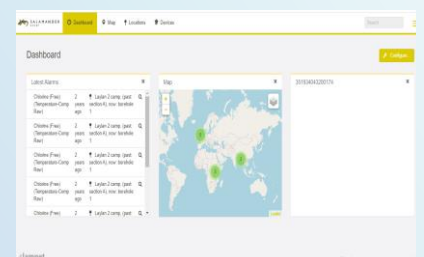
HYDRACLAM v3

The Hydraclam v2, as marketed by Evoqua on behalf of Salamander, has been comprehensively redesigned to make it more appropriate for the world market. The new design has repackaged the Hydraclam v3 sensor as a single unit and upgraded the flow control valve. The unique and patented flushing control is important to ensure that turbidity data is a true reflection of the water in the main at that time.

Connected to the new Clam RTU the 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 and instant alarming.

CLAMNET PORTAL

Data from the Chloroclam is stored and viewed on the very secure Clamnet Portal. With flexible device management and visualisation tools the portal can manage large Clam fleets. Data can also be exported as CSV files or via our API for incorporating in corporate SCADA systems.



Also available from Salamander: Clam RTU, Chloroclam, DPBclam, Gasclam

TECHNICAL SPECIFICATION

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 method	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

INTERNAL POWER

2 x LSH20 3.6V High Discharge Lithium Ion Battery

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

SERVICE INTERVAL

Clean sensor head	Recommended every 6 months but will be dependent on operating conditions
-------------------	--

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

