

ENVIRONMENTAL MONITORING
PRESSURE CONTROL
LEAK DETECTION
DATA LOGGING
FLOW MEASUREMENT



KEY BENEFITS

- Enables continuous chlorine monitoring at specific points in the distribution network without the requirement for electrical power.
- Integrated pH and temperature monitoring gives greater accuracy for amperometric technology.
- Minimal calibration required with long term reliability.
- Easy to use graphic calibration interface via PC.
- Low power consumption electronics optimizing battery life.
- GSM/SMS communication.
- Transmits and generates data and alarms.
- Open protocol that can be integrated into any Scada system.
- IP68 rating.

Athenea is an autonomous chlorine analyzer for the Water Distribution network. It provides regular continuous monitoring and sends automatically via GSM telemetry, thereby reducing the need for time consuming and costly on site "spot" testing. The amperometric chlorine analyzer allows continuous chlorine monitoring at specific points in the distribution network without the need for external electrical power, and the system uses low power consumption electronics in order to optimise battery life.

The unit makes use of sophisticated pH and temperature monitoring devices integrated within the Athenea to attain greater accuracy levels than other systems employing amperometric technology alone. It has also been configured so that it requires minimal calibration with long term reliability. Calibration of the unit can be made via a PC with an easy to use graphical interface.

Athenea is connected to a HWM MultiLog Datalogger to provide GSM/SMS communication capabilities. This enables the user to receive early warning of dosage problems between scheduled spot tests, thereby improving response times. Additional telemetry options are available upon request.

Athenea is IP68 submersible and comes equipped with military connectors, making it suitable for a cabinet installation.



AUTOMATIC

SMS/GSM

EASY TO
INSTALL

RUGGED
DESIGN

For more information call +852 3746 9033
or visit www.alliedpower.com.hk

Physical	Dimensions of analyzer 250 x 175 x 90 mm Dimensions of datalogger 190 x 115 x 75mm	
	Cable inputs – IP68 military connectors	
	Construction – Aluminium case IP 68	
	Operating Temperature - -10 ° C to 55 ° C	
	Weight of analyzer/datalogger 3kg approx/ 2kg approx	
Power	Power (analyzer) 12VDC by external battery minimum 6 months Power (datalogger) Replaceable lithium batteries – 4 to 5 years	
Comms	Analyser – PC Serial port RS485	
	Datalogger – Analyzer – PC RS 232 , 19200 baud rate	
pH Measurement	Range – 0 to 14	
	Electrode – with ceramic diaphragm and gel filling	
	Impedance input – 0,5 x 10	Resolution – 0,01 Repeatability – 0.1%
	Zero drift – 0.03%/ degrees C	Span drift – 0.03%/degree C
Chlorine Measurement	Measurement Principles – Amperometric selective membrane	
	Electrode – Passive sensor with gold cathode and silver silver/silver chloride anode	
	PH level – 4 to 8	
Measurement	Measurement range 0 – 5 . 0 – 10 , 0 – 20 ppm	Resolution – 0.01 ppm
	Repeatability - +/- 0.1% of the span	
	Operation time of electrode – 12 months	Minimum flow velocity – 15cm/s
	Increasing response – 90% <2min , 99%<5min Decreasing response – 90%<0.5min, 99%>3 min	
	Body material = PVC	Membrane material – PTFE Membrane plug material – PDT(GF 30) PVDF
Temperature Range	Sensor – PT 100	
	Measurement range – 0 – 50 ° C (32 – 158 ° F)	
	Resolution – 0.01 ° c	Repeatability – 0,03%
Water Flow	Sensor – Flow rotational switch	
	Output signal – tension free contact	
	Operating pressure – 0,3 to 1 bar	Minimum flow – 30 l/h Memory – Cyclical or block
Logging Features	Capacity – 49,152 readings	Logging modes – Count or Event
	Sampling – 1 second to 1 hour	
	Alarms – By SMS	
Software	Radwin (datalogger) - Programming , data analysis and download of data	
	Low Energy (analyzer) Online view and calibration	

HWM reserves the right to change any product specifications without prior notice.