

WATERLOG®

YSI incorporated

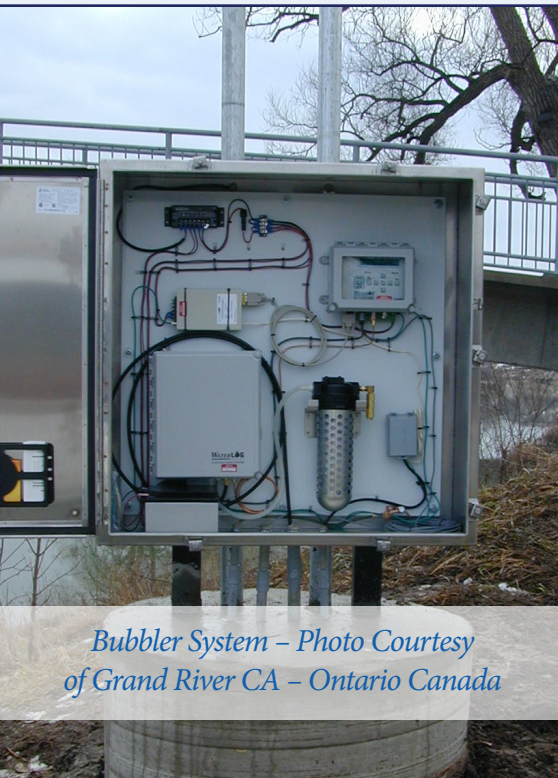
MODEL H-3551

The "SMART-GAS" System

The WaterLOG® Model H-3551 "SMART-GAS" unit replaces the heavy, dangerous, highpressure gas bottles, oil sight feeds, flow regulators, and leaky manifolds found in gas purge pressure measurement systems. It is reliable, light weight, and low power – suitable for deployment in the most remote locations.

KEY FEATURES

- A complete single unit replacement for nitrogen gas purge bubbler systems
- Depths to 115 ft. (50 PSI)
- No needle valve or diaphragm problems
- No mercury
- No sight feed oil in orifice line
- No heavy, dangerous Nitrogen tank required
- Operation temperature -40° to +60° C both SDI-12 and RS-485 interfaces
- Automatic purge
- Dependable mass flow rate control (temperature compensated)
- Flow rates are programmable
- Automatic Bubble Control "ABC" Constant Bubbler Rate over wide stage range
- Low power operation (can be powered by 12-volt battery and solar panel)



*Bubbler System – Photo Courtesy
of Grand River CA – Ontario Canada*



INTERFACE		
RS-485 Electrical Specifications	Protocol	Flexible
	Commands	Half-duplex, 8-bit, no parity, 1stop bit
	Baud Rate	9600
Power Requirements	Qualified for 12-volt battery operation	
	Sleep Current	6mA
	Two Supply Inputs	Electronics supply via the RS-485 cable (10 to 16 volts) Compressor supply (10 to 16 volts)
	24 hour average current draw	< 20mA Based on a 60 bubbles per minute flow rate with 1 daily purge cycle
ENVIRONMENT		
Temperature	Standard Operating Range	-40° to 60° C
	Storage	-50° to 80° C
	It is recommended to install unit in weather shielded enclosure	
Gas Delivery	Particulars	Microprocessor controlled unit
	Gas Flow Technology	Constant mass flow
	Gas Flow Control	Bubble rate is user programmable from 30 to 120 bubbles per minute based on 1/4 in. tubing orifice pointing down. Auto zero error controlled flow nozzle (patent application in process) (NO NEEDLE VALVE PROBLEMS)
Compressor	Type	Piston compressor (NO BROKEN DIAPHRAGM PROBLEMS)
	Operation	Low duty cycle (7 hours typical runtime per year at 60 bubbles per minute flow rate into 12 ft. of stage-purges not included)
Purge Functions	Purge Pressure Level	User Selectable 15 psi to 80 psi
	Options	<ul style="list-style-type: none"> • Manual • SDI Driven purge • Remote controlled



MECHANICAL		
Physical	Enclosure	Sealed corrosion resistant fiberglass
	Size	10" wide x 12" long x 6" high 25.4 cm wide x 30.48 cm long x 15.24 cm high
	Weight	12 lbs. (5.44 kg)
	Mounting	Hardware supplied for wall mounting
	Pressure Outlet	1/8 in. FNPT
	Sensor Pressure Outlet	1/8 in. FNPT
	Reserve Tank Inlet	1/8 in. FNPT (80 psi MAX) Pressure relief valve included
MISCELLANEOUS		
Ordering Information	H-3551	Base model number
	H-350XL™/3551	Combination H-350XL™ pressure measurement system and H-3551 "SMART-GAS" system
Warranty	The WaterLOG® H-3551 is warranted against defects in materials and workmanship for one year from date of shipment.	
Note	Specifications subject to change without prior notice due to on going commitment to product testing and improvement. LR January 15, 2011. D02 0311.	

SUGGESTED APPLICATION

Coupling the H-3551 with a H-350XL, as shown, creates a robust full-function fluid level measuring system which can be applied to a variety of level measurement applications:

- Low power operation (can be powered by 12-volt battery and solar panel)
- Stream, lake, and well level monitoring and logging
- Safe, hazardous waste monitoring
- Cellular phone links for remote monitoring, full bidirectional setup, and data acquisition
- GOES Satellite Transmitter available
- Driven directly from H-350XL™

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