WaterLOG

YSI incorporated

MODEL H-3531 "FLASHLITE" ™

The WaterLOG® H-3531 Flash-Lite™ is a NIST traceable pressure sensor. The sensor directly measures dry gas with accuracy better than 0.02% FSO. Combining high accuracy and low cost, the H-3531 FlashLite™ is the clear choice.

KEY FEATURES

- Directly measure dry air gas pressure
- Pressure accuracy is 0.02% full scale
- Accuracy over temperature range exceeds ±0.01 ft. of water
- Built-in temperature compensation
- Operating temperature range -40° to +60° C
- Easy to use Simple RS-232 Menu Interface
- SDI-12 output provides measurement data in programmable units such as feet, inches, meters, millimeters, centimeters, and user defined
- RS-485 programmable for MODBUS slave or H-3551 control
- Standard mode: outputs: SDI-12, 4-20mA, RS-485, and RS-232
- Other mode outputs: SDI-12, 0-5V, Quadrature, and RS-232
- Easy to use with H-3551 Gas Purge System
- Compatible with RS-232 Data Logger
- Enclosure is nonconductive and corrosion proof
- Low current operation (Less than 1mA standby)
- Set the Stage to current water elevation or level using Extended SDI-12 command or RS-232 menu
- Programmable continuous update outputs Measure Rate mode

PERFORMANCE		
Accuracy (Maximum percent of error in measurement)	Pressure	Less than or equal to 0.02% of full scale output (FSO) over temperature range referenced to a straight line stretched from zero PSI to maximum pressure
	Temperature	Internal temperature ±1° C over temperature range
Resolution (Smallest change detectable in output signal)	Pressure	1 part in 1,000,000 (0.0001%)
	Temperature	1 part in 1,000,000 (0.0001%)
Linearity	Less than 0.02% deviation from a straight line referenced to end points	
Pressure Hysteresis	Less than 0.01% of FSO	
Long-term Stability	Accuracy drift is less than ±0.05% of FSO per year	

Standard Pressure Ranges: Custom calibration ranges available from 5 - 100 PSI		
Pressure	Depth	Accuracy
0 to 15 PSI	0 to 34.6 ft. (10.54 m)	±0.007 ft. (2.1 mm)
0 to 30 PSI	0 to 69.20 ft (21 m)	±0.014 ft. (4.26 mm)

Pressure Overload	Less than 2 times the rated pressure	

INTERFACE		
SDI-12	Baud Rate	1200
	Protocol	SDI-12 V1.3, 7-bit even parity, 1 stop bit
	Output Voltage Levels	Minimum high level: 3.5 volts
		Maximum low level: 0.8 volts
	Response Time	SDI-12: 6-second measurement sequence (programmable)
RS-485 Interface	Protocol	Modbus RTU/H-355 Control
	Port	RS-485
	Baud Rate	Programmable (default=9600)
RS232 Interface	Protocol	RS232, 8bit, No Parity, 1 stop bit
	Baud Rate	9600
0-5V Analog Output (Optional)	Resolution	1.22 mV (12-bit DAC)
4-20mA Output	Type	4-20mA, optically isolated.75 ft (2.67 m)
	Loop Voltage	8.0V min, 35V max
	Resolution	+- 4uA (12-Bit DAC)

Quadrature Output (Optional)	Output Voltage	Low: 0.4(Max)@-5mA
		High: 2.5(Min)@5mA
Power Requirements	Voltage Input	10 to 16.5 Volts DC
	Supply Current	Sleep Mode 700uA max Active (measuring) 80mA max
	Surge Protection	Built in, 1.5 KVA

ENVIRONMENTAL		
	Operating Temperature	-40° C to 60° C
	Compensated Range	-40° C to 60° C
	Storage Temperature	-40° C to 80° C
Media Compatibility	Non-corrosive dry gases only	

MECHANICAL		
	Material	Fiberglass
	Size	4.76" x 4.76" x 2.5" high
	Weight	2 lbs (.91 kg)
	Rating	NEMA 4 enclosure
	Connectors	Sealed Bendix type circular
	Pressure Inlet	1/8" female NPT
	Atmospheric Vent	Sintered bronze, #10-32

MISCELLANEOUS		
Connections	7-pin circular	Power, SDI-12, 4-20mA , and RS-485
	3-pin circular	RS232 Communications port
	Cables	Main Connector cable with 6-ft pigtail is provided. RS-232 Connector cable optional
Warranty	The WaterLOG® H-3531 FlashLite™ is warranted against defects in materials and workmanship for one year from date of shipment.	
Notes	Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR January 15, 2011. D19 0311.	