



WL(X) WATER LEVEL SENSOR

The model WL(X) is a passive pressure water level sensor designed to be suspended just above the seabed or bottom of the borehole and can be manufactured to any client specified depth range. Typically these sensors are available as vented or non-vented units and are calibrated in 1 m, 2 m, 5 m, 10 m, 20 m and 50 m ranges. The WL(X) uses a temperature compensated silicon strain gauge pressure transducer, fully housed in a stainless steel body with a mounting hook located at the top of the sensor. The sensing element has one side of the diaphragm in contact with the liquid to be measured and is connected to a fully temperature compensated microprocessor controlled electronics package.

Depending on the type of sensor selected, the rear of the diaphragm is either vented to the atmosphere via a capillary tube sheathed within the connecting cable or is used in conjunction with a Barometric Pressure sensor to provide corrected data for a non-vented version. Temperature compensation provides a high degree of accuracy over the range 0 deg C to 50 deg C.

The microprocessor provides a host of features such as control and alarm outputs, 16 bit resolution (1 part in 65,000) and dual output signals. Each unit is provided with a multi-point calibration curve for maximum accuracy across the range. With most systems, changeover of a sensor means either recalibration of the system or resetting of parameters in the data logger or other data collection device. The Smart sensor eliminates this requirement as the on-board microprocessor ensures that all sensor types exhibit the same electronic specifications, and thus have identical performance characteristics.

Current consumption is typically 5-7 ma, and the sensor is powered from the data logger or an external 5-28 v supply. Sensors conform to global algorithm in all output modes. For operation in digital, voltage or current mode, sensors are supplied with individual calibration certificates to enable software conversion to engineering units. In serial mode, the sensor reports in engineering units and the global algorithm is implemented internally.

Features

Robust Design
Low Power Consumption
Frequency, Voltage or Serial Data Output
Temperature Compensation
Various Depth Ranges
2 Control/alarm-outputs
Multiple Calibration Points
Independent/Stand-alone Operation
Configurable alarm/control set-points

Applications

Ground Water Monitoring
Irrigation Studies
Hydrology
Stream/River Flood Alerts
Reservoir & Tank Levels
Flow measurement using "V" notch weir
Pump control
Laboratory - high accuracy level measurement

Quality Assurance

Monitor Sensors products are manufactured under a third party accredited ISO9002 System.

Specifications:

Dimensions:	Type A (Length 257 mm, OD 37 mm) Type B (Length 220 mm, OD 32 mm)
Accuracy:	+/- 0.1% FSD
Power consumption:	7 ma
Resolution:	1 part in 65,000
Voltage:	5 - 28 v DC
Linearity:	Better than 0.1% of Full Scale
Temperature Stability:	Better than 50ppm/deg C
Ranges:	1 m (WL1) 2 m (WL2) 5 m (WL3) 10 m (WL4) 20 m (WL5) 50 m (WL6)
Dual Output:	Serial data ASCII format. Plus, either Voltage 0-1 volt OR Frequency +5 volt pulse, 2-10 Hz
Options:	Vented, Non-Vented 4-20 ma Output 0-2.5 v 0-4 volts RS232 Barometric Pressure sensor for non-vented systems.
Associated Products:	Barometric Pressure Sensor - BP1 SL5-1Data Logger SI8 Interface module for RS232