

Wireless Process Transmitter ***PT2***

Wirelessly Connects with Up to 16 Sensors

**Optical Dissolved Oxygen—Suspended Solids—pH—ORP
Third Party Analog Sensor—Any Sensor Combination**

The Insite Instrumentation Group PT2 multi-channel Process Transmitter is the heart of a unique system that combines advanced electronics with the latest in sensor technology. The analyzer will wirelessly communicate with up to 16 sensors and accepts any combination of InsiteIG DO, SS, pH, or ORP sensors. The system can also accept third party sensors with an analog output (4-20).

The DO sensor does not need membranes, fill solutions, nor replaceable sensor caps. The SS sensor is based on near infrared technology, eliminating inaccuracies caused by changes in the process color. The pH electrodes are flat glass, double reference junction with temperature compensation. The ORP electrodes are flat glass, double reference junction. Both pH and ORP electrodes feature a quick disconnect design that makes changing electrodes a snap and reduces down time due to electrode maintenance. All sensors can be automatically self-cleaned which significantly reduces maintenance and increases sensor reliability.

The PT2 has an outdoor line of sight range of up to 1500 feet. If the PT2 is mounted indoors the closest sensor should be within 600 feet. The PT2 and its sensors form a ZigBee compliant RF network with self-healing mesh technology. This ensures trouble-free communications. This significantly reduces installation costs as there is no need for interconnecting cable or conduit.

The backlit display can be programmed to show one, two, four, eight, or sixteen sensor readings continuously. If only one channel is displayed a trend graph of the last twenty four hours for that sensor will also be displayed. All sensor status and readings can be sent to the SCADA system or to a PLC via the two wire RS485 ModBus output.

Future upgrades to the software or firmware can be easily accomplished using a standard thumb drive in the provided USB port on the main circuit board. All programming and setup is performed at the PT2 keypad with a simple menu system that easy to understand and navigate.



Insite IG

Insite Instrumentation Group
80 Whisperwood Blvd., Suite 107
Slidell, LA 70458
Phone - 985-639-0006
Fax - 985-639-0014
e-mail - info@insiteig.com
Website- www.insiteig.com

Insite IG

InsiteIG Wireless Sensors

Dissolved Oxygen M20

The Model 20 Dissolved Oxygen sensor incorporates optical fluorescent technology, solid state electronics, and a unique side mount element. The InsiteIG Model 20 Dissolved Oxygen sensor is the only continuous optical DO sensor that does not require expensive replacement caps saving the user well over \$1K over the expected life of the sensor. Nitric Oxide does not interfere with the Model 20 sensor.

- ◆ Measuring Range: 0 to 25 ppm (mg/l)
- ◆ Accuracy: 1% of the reading or .05 ppm, whichever is greater
- ◆ Repeatability: 0.01 ppm
- ◆ Response Time: 95% in under 60 seconds
- ◆ Resolution: 0.01 ppm below 4.00, 0.1 ppm above 4.0
- ◆ Drift: less than 1% per year
- ◆ Temp. Range: 0°C to 60°C



Suspended Solids M25 & M25L

The Model 25 & 25L Suspended Solids sensors incorporate near infrared technology which provides increased dependability of the reading when color changes in the solids occur. Accurate, real-time solids loading information. There are two ranges available.

- ◆ Measuring Range:
 - ◆ M25 = 250 to 30,000 mg/l
 - ◆ M25L = 0 to 1,500 mg/l
- ◆ Accuracy:
 - ◆ M25 = +/- 5% of the reading or +/- 100 mg/l whichever is greater
 - ◆ M25L = +/- 5% of the reading or +/- 2 mg/l whichever is greater
- ◆ Repeatability: +/- 1% of the reading or +/- 2 mg/l whichever is greater
- ◆ Response time: 95% in under 60 seconds



pH M28/51

The Model 28 Electrode Holder with Model 51 replaceable pH Electrode cartridge comprise the pH sensor, which incorporates embedded electronics, custom geometry, and a field proven cartridge. The embedded electronics in the Model 28 Holder includes a built-in electrically isolated preamp, which results in reliable digital communications and temperature compensation circuitry. Our flat glass / double reference junction construction, yields a field proven cartridge producing long-lasting reliable measurements.

- ◆ Measuring Range: 2 to 12 pH
- ◆ Temp. Range: 0°C to 60°C



ORP M28/52

The Model 28 Electrode Holder with Model 52 replaceable ORP Electrode cartridge comprise the ORP sensor, which incorporates embedded electronics, custom geometry, and a field proven cartridge. Our flat glass / double reference junction construction, yields a field proven cartridge producing long-lasting reliable measurements. The embedded electronics in the Model 28 Holder includes a built-in electrically isolated preamp, which results in reliable digital communications and temperature compensation circuitry.

- ◆ Measuring Range: +/- 2000mV
- ◆ Temp. Range: 0°C to 60°C



20 Series

Wireless Communications



DO SS pH ORP

Insite Instrumentation Group

e-mail - info@insiteig.com

Website- www.insiteig.com

OR CONTACT YOUR LOCAL TECHNICAL REPRESENTATIVE

AT:

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