

Ronan Measurements Division supplies the process control industry with leading-edge Radiometric Measurement Systems that provide non-contact measurement solutions for the harshest environments.

CONTINUOUS LEVEL MEASUREMENT WITH X96SI RADIOMETRIC TRANSMITTER

Ronan's Radiometric Continuous Level Measurement System utilizing the X96SI Transmitter accurately measures liquids or solids contained in a vessel, even in the most complex processes.

Radiometric Measurement provides a safe and efficient, noncontact method to measure liquids or solids in industries including Mining and Aggregates; Power; Refining, Oil and Gas; Chemical; Metals; Pulp and Paper; Dredging; Cement; and Corrosive abrasive or highly viscous, held at extreme temperatures or under high pressure, in a process flow that is violent or constantly changing, or contained in a vessel with an internal obstruction. A Radiometric Measurement System consists of a gamma source and holder, a detector and a transmitter. The entire system mounts externally to the vessel or pipe and can be easily installed and maintained while the process is running without downtime, vessel modifications, risk of accidental release, or the need for specialty construction materials.

X96SI Radiometric Transmitter

The X96SI integrally-mounted transmitter includes a patented optical coupling that allows the transmitter and detector electronics assembly to be easily mounted to any detector configuration. The transmitter can also be remotely mounted in the field or control room. Fully Ethernet capable, configurations, software updates, and data logging can be completed easily through the user's PC using a standard web browser. The X96SI is available in explosion proof housing. The system is backward-compatible to enable an easy upgrade of existing systems to newer transmitter technology. State-of-the-art transmitter-based electronics provide precision gauging. The system is menu-driven for simple programming. Built-in intelligence provides a range of features including:

- Automatically compensates for vapor density changes, foam or gasses, process build-up – Automatic source decay compensation
- Auto calibration
- Radiation discrimination
- State of the art dynamic tracking of process fluctuations
- Data logging and event recording
- Adjustable time constant



X96SI/R Specifications

| Performance | |
|-----------------------|---|
| System Accuracy | +/- 1 % span |
| Outputs | HART® 4-20mA, 2 Form "C" Relay Outputs with 1 Isolated Open Collector Outputs Capable of Switching 4.5 to 30 volts – Or – 1 Form "C" Relay Outputs with 3 Isolated Open Collector Outputs Capable of Switching 4.5 to 30 volts |
| Pressure Input | Support for Process Pressure from 0-10 volts, or 4-20 mA |
| Temperature Input | Up to 3 Digital Inputs which can be Configured (Individually, Quadrature, Encoders or Pulse Counters Inputs) Nickel or Platinum RTD |
| Diagnostics | On-Board Modular Self-Test Watchdog Timer and Status LEDs |
| Calibration | Available Through Web Browser, PC Based Software or Hand Held Communicator/DCS Utilizing HART® USB, Ethernet |
| Environmental | |
| Operating Temperature | -10 to +60 C |
| Electrical | |
| Power Supply | 90-240VAC, 24 VDC @ .035 A |
| Mechanical | |
| Construction Housing | Explosion Proof |
| Approvals | |
| Complies with: | ATEX CSA Class 1, Div 1 Groups A, B, C, D NEMA 4, NEMA 4X |

