

# XARTU/1™ PRESSURE RECORDER

The XARTU/1™-RtPM Real Time Pressure Monitor (RTPM) configuration is also a fully functional RTU with flexibility for expansion, including:



- Up to six individual pressure measurements
- Up to two temperature measurements
- Optional 4 line or Multi-line graphical displays
- Communications including Phone/Cellular/Radio/Satellite for receiving data and alarms
- Choice of power options specifically sized to the application requirements
- Flow measurement can be easily added if requirements change

Small footprint, high performance and outdoor rated featuring:

- Enclosure sized depending on application requirements
- Fibox enclosure with quick release hasps
- Wall or Pole mounting
- Ability to store and poll over 30,000 user definable history records
- User configurable awake windows to minimize power requirements
- Pressure scan times of 1/sec or less depending on user requirements

Programmable for multiple control applications, including:

- Control capabilities for Solenoid Control Interface (SCI) for regulator control
- Pressure control at city gate stations
- Shutdown valve control in emergencies
- Compressor suction, recirculation and discharge pressure control programmability
- Odorizer control either fixed or coupled to flow rate (Flow measurement required for rate control)
- Pipeline status monitoring
- District regulator stations
- Storage well testing
- Seasonal injection and withdrawal



**Expansion Capability:** Additional connectors provide redundant termination points to allow for configuration flexibility. Two 10-position connectors allow for expansion over the I<sup>2</sup>C communication bus. Optional isolated analog output modules, optional serial ports (RS-232/485), and optional Remote I/O (RIO) Boards available for more expansion capabilities.

## Technical Specifications:

- Input Power: 7-30 VDC. Two battery inputs with MTA connectors. One power supply/rechargeable battery input with screw terminals. One Solar power input with screw terminals. (10 Watt Maximum Panel Size)
- Power Monitoring: Supply voltage monitoring through A/D with low supply voltage alarming
- Backup Battery: 3.6 VDC lithium backup battery for database, history, audit trail, time/date, RAM memory.
- Memory: Store up to 32,000 Time Stamped Records with programmable FLASH program memory and battery-backed RAM data memory
- Communications: Available On-Board Dial-up Modem port with extension off-hook detection. Two RS-232 ports with RX, TX, RTS, CTS, and communication switch signals. Up to 4 Expansion Comm Ports (RS-232/485). Configurable speed up to 115,200 baud. Directly interfaces to Cell Modems (TCP/IP), Radios, Satellite, etc. Communication protocols selectable on a per port basis: Eagle HexASCII or Modbus
- Flow Meter support: AGA7 - Turbine Meter/ Rotary/PD, UM with AGA9, Coriolis with AGA11
- Supercompressibility: NX19, AGA8 (Gross Method I, Gross Method II and Detailed Methods)

## Accuracy Specifications:

- |  |                                   |
|--|-----------------------------------|
| ■ Accuracy from -20 °F to 140 °F (including linearity, hysteresis and repeatability) |                                   |
| Pressure Measurement   | ±0.25% of full scale              |
| Temperature Measurement  | ±1.0°F                            |
| Computation (At reference conditions)  | ±0.3% of corrected volume reading |
| Combined (Pressure, Temperature & Computation)                                       | ±0.42%                            |
| ■ Long Term Stability  |                                   |
| Pressure Measurement   | ±0.5% of full scale per year      |
| Temperature Measurement  | ±0.5°F per year                   |
| Combined (Pressure, Temperature & Computation)                                       | ±0.36% per year                   |

## Inputs / Outputs (I/O) Available:

- Internal Inputs: One ambient temperature input; one supply voltage input
- Pulse Inputs: Four pulse inputs, software programmable for Form A or C; high or low speed. Each counter is a six-digit (0-999999) hardware counter with programmable interrupt support. Can be used for simple pulse accumulation, and for more complex applications such as card readers.
- Digital I/Os: Five multi-purpose, memory-mapped digital I/O lines. High-level functionality including pulse inputs, PWM (pulse width modulation) outputs, and complex custom inputs/outputs. Two I/O lines are connected to field terminals through standard OPTO modules. The other 3 I/O lines can be used as either Form C or A relay outputs (solid state 100 mA max AC/DC) or status inputs (50 V max. DC only).
- Analog Inputs: Six general-purpose analog inputs, 12 bit resolution (16 bit available), analog sampling, software calibration. Nominal input ranges 0-5VDC or a 250 ohm resistor in socket allows for 4-20 mA input for each channel. Each input has 3 screw terminals (Supply, Signal, and Ground).
- RTD Inputs: Two 12-bit resolution RTD inputs; 3-wire lead resistance compensated with ground shield connection; four screw terminals per input.