

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 Real Time information 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 I²C 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 of 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, Modbus, Teledyne/Geotech, or Valmet
- **Flow Meter support:** AGA7 - Turbine Meter/ Rotary/PD, UM with AGA9, Coriolis with AGA11
- **Supercompressibility:** NX19, AGA8 (Gross Method 1, Gross Method 2 and Deltailed Methods)

Accuracy Specifications:

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| ■ Accuracy over -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 compensated with ground shield connection; four screw terminals per input.