

# XARTU/1™ Orifice Flow Computer

Distributed By



Meter, Valve & Control  
877-566-3837

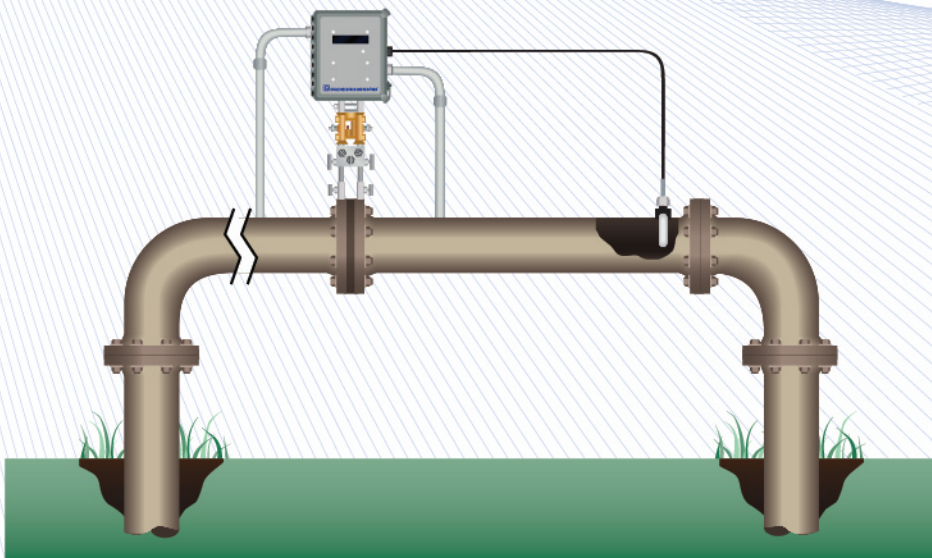
Orifice flow measurement requires the integration of DP, P & T with adjustments for Gas Gravity and Composition. The **XARTU/1™** offers:

- API Chapter 21 Compliance
- AGA 3 & 5 Capable
- AGA 8 (Detailed & Gross Methods 1 & 2) & NX-19
- Multivariable Integrated Transmitter
- RTD for Temperature Measurement
- Absolute or Gauge Pressure
- Single and Bi-Directional Measurement
- Multiple Run Capability
- RS232/485 Connectivity to GC's, Moisture Analyzers, etc.
- Analog/Digital I/O for Control Applications
- Choice of Displays
  - Single Line, (4) Line, and Trend Graphic
- Auto-Scroll & Magnetic Scroll
- Solar or AC Powered with Battery Back-up
- All Wireless Options Supported



## Transmitters/Sensors Accuracy Specifications:

- **Honeywell MVX 2000:** Multi-Variable Transmitter -Differential Pressure Measurement: Upper Range Limit H2O:  $\pm 400''$  at 39.2°F (4°C) is standard reference temperature. Minimum Span H2O: 1". Turndown Ratio: 400 to 1 Reference Accuracy (Includes combined effects of linearity, hysteresis, and repeatability):  $\pm 0.25\%$  of calibrated span or upper range value (URV), whichever is greater; Absolute Pressure Measurement. Upper Range Limit: 1,500 psia. Turndown Ratio: 15 to 1. Reference Accuracy (Includes combined effects of linearity, hysteresis, and repeatability):  $\pm 0.25\%$  of calibrated span or upper range value (URV), whichever is greater - Terminal based.
- **Honeywell MVX 3000:** Multi-Variable Transmitter (Optional) -Differential Pressure Measurement: Upper Range Limit H2O:  $\pm 400''$  at 39.2°F (4°C) is standard reference temperature. Minimum Span H2O: 1". Turndown Ratio: 400 to 1. Reference Accuracy (Includes combined effects of linearity, hysteresis, and repeatability):  $\pm 0.075\%$  of calibrated span or upper range value (URV), whichever is greater; Absolute Pressure Measurement: Upper Range Limit: 1,500 psia. Turndown Ratio: 15 to 1. Reference Accuracy (Includes combined effects of linearity, hysteresis, and repeatability):  $\pm 0.075\%$  of calibrated span or upper range value (URV), whichever is greater - Terminal based.
- **Temperature Probe:** Accuracy:  $\pm 1^\circ\text{F}$ , 100 ohm platinum RTD. Range:  $-40^\circ\text{F}$  -  $160^\circ\text{F}$





# XARTU/1™ Orifice Flow Computer

## 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 interrupt
- **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
- **Warranty:** Four Years on all Eagle Research manufactured components

## 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-22 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.
- **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 and optional serial ports (RS-232/485). Optional Remote I/O (RIO) Boards available for more expansion capabilities.