XARTU/1™
Panel Mounted

Distributed By

MVC
Meter, Valve & Control
877-566-3837

Product Features

- Panel Mounted Low-Power CMOS Design
- Compact, Rugged, and Reliable: Operating Temperatures from -40°F to +160°F
- Flexible Communications Options
- Optional Uninterruptible Power Supply
- Diverse I/O
- Multitasking Operating System
- Full Remote Monitoring and Control Capability
- Local and/or Remote Data Collection
- Two-Way Calling - Call in on Alarm and or call in on Periodic intervals
- 32,000 Record History Capability
- Pluggable Wiring Terminals

Product Description

The **XARTU/1™** Remote terminal unit (RTU) is a low-cost version of the XA Series ™ Flow Computer products. It is an intelligent, compact, rugged, and reliable industrial computer designed for real-time remote data acquisition and control applications. It can execute multiple processes, including tasks such as complex math functions, control algorithms, alarming, etc., without host intervention.

Flexibility and reliability were the major criteria in the **XARTU/1™** design philosophy. The unit features a balanced system including flexible memory, I/O, power, and communication schemes with support for HEXASCII, MODBUS, and various other custom protocols upon request. A harsh environmental tolerance is another of the **XARTU/1™** strengths. The operating temperature can range from -40°C to 70°C. The **XARTU/1™** packaging includes an easily mountable, convenient enclosure with pluggable field wiring terminals.

The **XARTU/1™**, is normally powered from with a 7-30 VDC supply and employs an energy efficient low-power CMOS design. A 120/240VAC uninterruptible power supply can be provided as an option. Should it lose power, the RTU will sense the failure, automatically switch to battery power, and continue to operate at full capacity. Other power options include solar power and thermoelectric getnerators for sites without conventional power.

An optional operator interface with either a two-line, four line, or graphical liquid crystal display, and 25-key keypad with 10 user-definable function keys is avilable. This allows users to examine and/or change process data and diagnose problems at the remote site withoust a local host or terminal.

The **XARTU/1™** can calculate corrected volume using AGA-3, AGA-5, AGA-7, AGA-8, and NX-19 reports and is fully compatible with Eagle Research's entire family of products. Eagle Research is committed to prviding a complete solution for all gas flow and control applications.

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EAGLE RESEARCH CORPORATION

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.

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

Transmitters/Sensors Accuracy Specifications:

- **Pressure Transducer:** Accuracy: +/- 0.25% of full scale. Higher Accuracy tranducers available upon request. Available Ranges: 0-1 PSIG, 0-5 PSIG, 0-10 PSIG, 0-25 PSIG, 0-50 PSIG, 0-100 PSIG, 0-200 PSIG, 0-300 PSIG, 0-500 PSIG, 0-1000 PSIG, 0-1500 PSIG, other ranges available upon request.

- **Temperature Probe:** Accuracy: +/- 1°F, 100 ohm platinum RTD. Range: -40°F - 160°F

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.

- **Expansion Capability:** Additional connectors provide redundant termination points to allow for configuration flexibility. Two 10-position connectors allow for expansion over the I^{2}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.