XARTU/1™ Auto-Adjust Volume Corrector



The **XARTU/1™-LDVI-AAT** Volume Corrector is applicable to the Sensus Auto-Adjust[™] Turbine meter. Features of this configuration include:

- Embedded Sensus Auto-Adjust™ Algorithms Certified by Sensus™
- Live GC inputs
- AGA 5, AGA 7, AGA 8 Detailed and Gross Methods 1 & 2, & NX-19 Calculation When Required
- Optional live 4-20mA or Frequency Output for Instantaneous Flow Rate
- Configurable via RS232 for Modbus Communication
- Optional RS485 with Expansion Board
- Optional Wireless Communications (Cellular/Radio/Satellite)
- Live Graphing of Main/Sense Frequencies in Field Manager Plus™



Universal Mounting and Software Setup benefits:



- Field Installation Directly on the Meter
- Light weight, Easily Installed by One Person
- Software Configurable for Different Meter Output Revolutions, i.e. 10 ft./rev, 100 ft./rev, etc.
- Magnetic Switch Activated Display
- The XA Series AAT Corrector is used with the Sensus Auto Adjust Turbine meter to provide a more cost effective solution for your high volume, high valued measurement needs.
- The XA Series AAT Monitor and Corrector offers numerous options for every customer need.
- The AAT Monitor provides Frequency Outputs for Adjusted Uncorrected Flow.
- The AAT Corrector can provide true LIVE Flow Rates with optional Analog Outputs, not incremental updates.
- The XA Series AAT Corrector also has the ability to duplicate the Main and Sense slot sensor outputs with optional IPS Boards (p/n 9010418). These replica pulses can be sent to a 3rd party RTU.
- The XA Series AAT Corrector can also provide LIVE Graphing of Delta A, Adjusted Uncorrected Flow Rate, Main Rotor Frequency, and Sense Rotor Frequency when used with Field Manager Plus™ software.
- Ease of use.
- Easily add AAT Factors without knowing specific codes.
- Easily add Km, Ks, Kmo, and A_Bar factors on easy to read Edit Form.
- Unit has ability to Simulate Main and Sense Frequencies through software without additional equipment.
- Can get Adjusted Corrected Volume but Unit also calculates Mechanical Corrected Volume as a backup in case Main Frequency (Slot Sensor) is lost.

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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: High Accuracy: +/- 0.12% of full scale. Standard Accuracy: +/- 0.25%
 Temperature Compensated Available Ranges: 0-100 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-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 serial ports (RS-232/485). Optional Remote I/O (RIO) Boards available for more expansion capabilities.