MPplus™ VOLUME CORRECTOR

The MPplus™ Volume Corrector is a cost reduced version of the XARTU/1™-LDVI series of volume corrector products. It is an intelligent, compact, rugged, and reliable industrial microprocessor-controlled computer designed for measurement applications. It can execute multiple processes including complex math functions or control algorithms without host intervention.

Features include:

- Lightweight quick release 6" x 6" x 4" outdoor rated polycarbonate enclosure
- Large easy-to-read LCD display with magnetic scroll
- Single or Dual Pressure inputs
- Standard RTD for temperature measurement
- AGA-5, AGA-7, NX-19, AGA-8 (Detailed & Gross Methods)
- Up to 4 Form A Pulse Outputs
- Optional Pulse Output Board for AMR—AMI Applications to extend battery life
- (2) Pulse Inputs for dual meter configurations
- Support for Eagle HexASCII or MODBUS Protocols
- **Warranty:** Four Years on all Eagle Research Corporation® manufactured components

Power Options:

- 1 Watt Solar Panel with 6V 4.5Ah rechargeable battery
- 6 C-Cell replaceable battery pack
- Tri "D" Lithium battery pack
- Other power options available as user needs dictate

Index Features:

- Optional LDVI (vertical) that imposes very little drag on the meter index drive, for 10 C.ft drive and above
- Optional mechanical index (horizontal) for 5 c.ft drive and above
- Universal turbine and positive displacement meter mounting plate
- Available in Single and Bi-Directional meter rotation

EAGLE RESEARCH® CORPORATION

Technical Specifications:

- **Available Ranges:** 0-1 PSIG, 0-6 PSIG, 0-10 PSIG, 0-25 PSIG, 0-60 PSIG, 0-100 PSIG, 0-200 PSIG, 0-300 PSIG, 0-500 PSIG, 0-1000 PSIG, other ranges available upon request.

- **Operating Temperature:** -40 °F to 160 °F

- **Ambient Humidity:** 0 to 95% non-condensing

- **Power Monitoring:** Supply voltage monitoring through A/D with low supply voltage interrupt

- **Backup Battery:** 3.6 VDC lithium battery to backup database and time/date during normal use

- **Memory:** 512K x 8 remotely-programmable FLASH program memory; 512K x 8 battery-backed RAM data memory

- **Communications:** Two serial ports with RX, TX, RTS, CTS and communication switch signals. Port 0 (RS-232 levels) typically connects to the MS connector to provide local communications via 6-pin MTA. Port 1 (CMOS levels – Future Use) is used to interface with modems, radios, etc. via 8-pin MTA. Configurable speed up to 57,600 baud.

- **Modem:** 2400 baud. May be directly connected to the MPplus CMOS connector J2 or operated remotely using RS-232 and power connectors TB1 and TB2. Operating Current: 23mA at 6VDC Sleep Current: 7uA at 6VDC, Voltage Range: 6-30VDC

Inputs / Outputs (I/O) Available:

- **Internal Inputs:** One ambient temperature input; one supply voltage input

- **Pulse Inputs:** Two 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, plus more complex applications such as card readers.

- **Pulse Outputs:** Four multi-purpose; memory-mapped, two-wire Output lines (50 V max DC only)

- **Analog Inputs:** Two precision strain gauge (mV) analog inputs thru MTA connectors for local pressure transducer, 12-bit resolution, analog sampling; software calibration; Each input has five MTA pins.

- **RTD Inputs:** One 12-bit resolution RTD input thru an MTA connector, 3-wire lead compensated with ground shield connection; four-pin MTA connector

- **Input Power:** 5-15 VDC; Two battery inputs located on MTA connectors, plus one solar power input on screw terminals

Accuracy Specifications:

- 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

Field to Front Office Solutions™