

# 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 fiberglass 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



## 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

## 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 on request





## Technical Specifications

- **Input Power:** 5-15 VDC; Two battery inputs on MTA connectors; One solar power input on screw terminals
- **Power Monitoring:** Supply voltage monitoring through A/D with low supply voltage Interrupt
- **Backup Battery:** 3.6 VDC lithium backup battery: backup of 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) for interfacing with modems, radios, etc. via 8-pin MTA; Configurable speed up to 57,600 baud.
- **Warranty:** Four Years on all Eagle Research® manufactured components

## Transmitters/Sensors Accuracy Specifications:

- **Pressure Transducer:** Accuracy: +/- 0.25% of full scale. Higher Accuracy transducers available upon request. Available Ranges: 0-1 PSIG, 0-5 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.
- **Temperature Probe:** Harsh environment tolerance: operating temperature can range from -40°C to 70 °C (-40 °F to 158 °F)

## 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, and for 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