

## OVERVIEW

The **MPplus II MRC** Rotary Corrector, rounds out the next generation platform for corrector and data recording products. The ultra-low power processor when combined with the high accuracy digital pressure transducer and RTD make the **MPplus II** platform an excellent solution for measurement company wide. The ability to fit the industry's most popular rotary meter offerings and also provide support for a variety of communication options to assist in a company's natural progression over time as technologies and needs change continually to meet corporate demands for information.

The **MPplus II MRC** Rotary Corrector brings all the power and capability of our **MPplus II** Corrector product line and allows for direct mounting to rotary gas meters. The rotary adapter (RA) allows for simple installation to select rotary meters. The ability to rotate the corrector on the RA allows for positioning the corrector for vertical or horizontal flow based on the field installation of the meter. The **MRC** also has a large easy to read LCD with flashing alarm indicator, a magnetic scroll switch included with an optional three button keypad for scrolling and alarm acknowledgement available.

The **MPplus II MRC** is fully programmable and utilizes dual sockets for onboard communication options, port 2 has two different footprints for the ultimate flexibility in add on IoT modules. Modules consist of cellular radio, RS232, RS485, and many more. A configuration lock out jumper is included to maintain configuration integrity. Four wire RTD provides improved accuracy in temperature measurement.



## APPLICATIONS

- Commercial Industrial Metering
- AMR / AMI Compatibility
- Fixed Factor (P & T) Accumulation
- Remote Mounting



## HIGHLIGHTS

- Simple start-up for fast ROI
- Live, Min/Max, and Historical Archiving
- Ultra-Low-Power processor for extended battery life (Up to 10 Years)
- High-Accuracy digital pressure transducer(s)
- Optional Low-Power cellular modem or other IoT connectivity
- Measurement based on AGA and API standards
- Support for ERC-HexASCII and MODBUS protocols without adding additional options
- Fully programmable
- Circular Charting with Field Manager™
- Versatile IoT sockets for a future-proof design

## TECHNICAL SPECIFICATIONS

### Performance

- Processor: Ultra -Low-Power ARM Cortex M4 32-bit MCU with hardware floating point support
- SRAM Memory: 2MB, supports multiple months/years of data storage depending on configuration
- Flash Memory: 1MB for firmware storage
- 16-Bit Analog to Digital converter

### Power Monitoring

- Supply voltage monitoring through A/D with low voltage supply interrupt

### Backup Battery

- Replaceable 3.6 volt lithium battery (with low voltage detection) for database retention, time/date, and historical archives when main power is removed

### Ambient Humidity

- 0 to 95% non-condensing

### Operating Temperature

- -40°C to +158°C (-40°F to +160°F)

### Available On-Board

- USB device port
- (1) Serial port (RS232) for local communications or communication devices
- (1) Additional communications port for cellular modems or other communications devices
- (4) Pressure Inputs (high-accuracy (2) digital or (2) analog strain gauge)
- (1) RTD (Temperature Probe)
- (2) Form A / Form C pulse inputs
- (4) Form A pulse outputs
- MPPT (Maximum Power Point Tracking) based solar charger supports up to 40W solar panels

### IBUI Accessory Option

#### (Independent Backup Uncorrected Index)

- Standalone processor controlled module
- Onboard lithium battery
- Provides backup of uncorrected counts and uncorrected volume
- Powered by main supply until loss of voltage
- Small corner mounted package to save space
- Utilizes independent pulse signal from sensor assembly

## ACCURACY SPECIFICATIONS

### (Standard) High-Accuracy Digital Pressure Transducer\*:

- Accuracy over -40°F to 185°F (including linearity, hysteresis and repeatability)

Pressure Measurement	0.1% of full scale
Temperature Measurement	±0.5°F
- Long Term Stability

Pressure Measurement	±0.05% of full scale/year typical
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### (Optional) Strain Gauge Analog Transducer:

- Accuracy over -20°F to 140°F (including linearity, hysteresis and repeatability)

Pressure Measurement	0.25% of full scale
Temperature Measurement	±0.5°F
- Long Term Stability

Pressure Measurement	±0.5% of full scale/year
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\* Specification based on 10 PSIG and higher transducers

## OPTIONS

### Mounting Options

- Internal to meter or externally tubed pressure transducers available
- Internal Temperature probes and external temperature probes available
- Dresser Meter Size compatibility  
8C, 11C, 15C, 2M, 3M, 5M, 7M, 11M
- Romet Meter size compatibility  
6C, 1M, 1.5M, 2M, 3M, 5M
- FMG Meter size compatibility  
8C, 1.5M, 2.5M, 3.5M, 5.5M, 7M, 9M, 11M
- Vertical Flow installation only for current revision

### Power Options

- Alkaline D Cell battery pack
- Lithium battery pack
- Rechargeable Lead Acid

