EAGLE MPplus II SERIES™

FIELD TO FRONT OFFICE SOLUTIONS

MPM

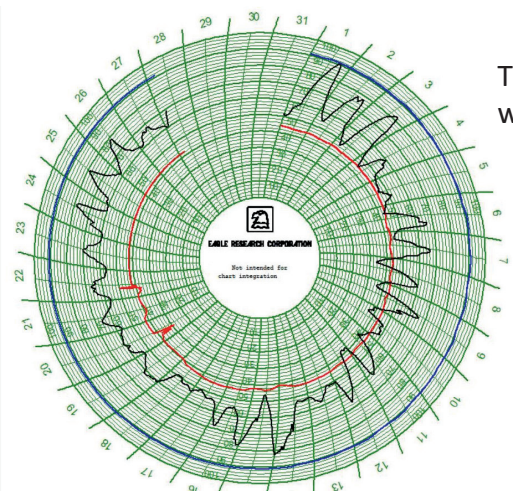
PRESSURE MONITOR

OVERVIEW

The **MPplus II MPM** Pressure Monitor, with an ultra-low power processor and high accuracy digital transducer, makes the **MPM** the most efficient and accurate pressure monitoring device ever produced by Eagle Research Corporation. With multiple enclosure sizes the **MPM**'s capabilities range from a single pressure chart recorder to a four pressure, one temperature chart recorder with remote communications for monitoring stations in real time.

The **MPplus II MPM** is an excellent choice for paper chart replacement at pressure points throughout an entire system. Archive data can be used to easily examine historical trends, generate circular charts, or linear graphs using any of Eagle Research's software packages. These features allow for an easy to read graphical view of pressure fluctuations and to perform load analysis of the system. Support for *high, low, high-high*, and *low-low* alarms on all inputs as well as min/max pressure timestamps within hourly records for easy identification and tracking of pressure events.

New for the **MPplus II MPM** are dual IoT sockets for the ultimate flexibility in add on communication modules. Modules consist of LTE, cellular M1, radio, Bluetooth, RS232, RS485, and many more. Memory has been expanded to store even more historical records and variables. Also included are two inputs for digital pressure transducers for increased accuracy, as well as two analog transducer inputs. Additional features include a configuration lock out jumper to maintain configuration integrity and an optional open door switch for immediate notification of entry/intrusion.



The **MPplus II MPM** is easily configured with any of our current software, which includes: Field Manager™, Talon Lite™, Talon SCE™, or Talon Enterprise™.

APPLICATIONS

- Mechanical Chart Replacement
- Regulator Station Monitoring
- System Alarming for Pressure and Temperature
- System End Point Monitoring for Load Study
- Capture Pressure Profiles for Studies of System, Drops, and Drooping

HIGHLIGHTS

- Live, Min/Max, and Historical Archiving
- Power Supply Options: Replaceable Alkaline, Lithium, Solar and AC Supplies
- Ultra-Low-Power processor for extended battery life (Up to 10 years - life based on configuration)
- High-Accuracy digital pressure transducer(s)
- Optional Low-Power cellular modem or other IoT connectivity
- Versatile IoT sockets for a future-proof design
- Simple start-up for fast ROI
- Circular Charting with Field Manager™
- Flexible mounting options: Pole or Wall Mount
- Lightweight 6"x 6"x 5" outdoor rated polycarbonate enclosure with quick-release latches (Other sizes available up to 18"x 16"x 10" to accommodate a variety of options)
- Support for ERC-HexASCII and MODBUS protocols without adding additional hardware
- Fully programmable

EAGLE RESEARCH CORPORATION®

For more information on our MPplus II Series products please contact one of our Eagle manufacture Representatives. Email: sales@eagleresearchcorp.com

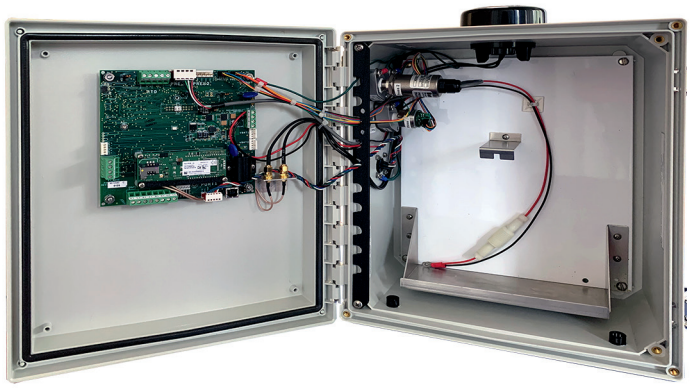
TECHNICAL SPECIFICATIONS

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

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)
- (4) Form A Pulse Outputs
  - Support for cut-wire alarm
- MPPT (Maximum Power Point Tracking) based solar charger supports up to 40W solar panels



Ambient Humidity

- 0 to 95% non-condensing

Operating Temperature

- -40°C to +70°C (-40°F to +158°F)

Power Monitoring

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

Backup Battery

- Replaceable 3.6 Volt lithium battery (with low voltage detection) to back up database, time/date and histories when main power is removed

ACCURACY SPECIFICATIONS

(Standard) High-Accuracy Digital Pressure Transducer:*

- Accuracy over -40°C to 85°C (-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

(Optional) Strain Gauge Analog Transducer:

- Accuracy over -4°C to 60°C (-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

* Specification based on 10 PSIG and higher transducers

OPTIONS

Communication Options

- External USB
- RS232/RS485
- Sierra Wireless RV Series
- LTE Cellular
- M1 Cellular
- Bluetooth Interface
- Zigbee Digi XBee Radio

Power Options

- Input power: 5 – 30 VDC
- Alkaline D Cell battery pack
- Lithium battery pack
- Solar with rechargeable battery (pictured above)