

Table 1.1—MC-III Panel Mount Specifications

System Power	<p>Internal power supply</p> <ul style="list-style-type: none"> • 3.6 VDC, D-size lithium battery (2-year typical life) <p>External power supply (6 to 30 VDC at 6 mA) with internal battery backup (reverse polarity protected)</p> <p>Loop-powered (4-20 mA) with internal battery backup (reverse polarity protected) Loop power: 8 to 30 VDC Load resistance: 1100 ohms @ 30 VDC 200 ohms @ 12 VDC</p>
Operating Temperature	<p>Lithium-Powered: -40°C to 70°C (-40°F to 158°F) LCD contrast is reduced below -20°C (-4°F)</p>
Environmental	<p>Humidity: 0 to 90% non-condensing Altitude: Up to 2000 m, maximum</p>
LCD Display	<p>8-digit Total (volume) display (7-segment characters) 6-digit Rate display (11-segment characters for easy-to-read prompts) 0.3" character height Adjustable contrast and update period User-selectable units of measurement (Total):</p> <ul style="list-style-type: none"> • Preprogrammed units: BBL, GAL, LIT, M³, CF, SCF, any unit x 1000 • User-defined units <p>User-selectable units of measurement (Rate):</p> <ul style="list-style-type: none"> • Preprogrammed units: BBL, GAL, LIT, M³, CF, SCF (per DAY, HR, MIN, SEC), any unit x 1000 (per DAY, HR, MIN, SEC) • User-defined units
Keypad	6-key membrane switch
Communications/ Archive Retrieval	RS-485 Modbus® communications with transfer speeds up to 115.2K (allows full download in less than 1 minute)
Logging	<p>384 daily logs 768 hourly logs 345 event logs</p>
Inputs	<p>Turbine Meter Input Configurable sensitivity adjustment via front panel Sensitivity adjustment range: 20 mV P-P to 40 mV P-P Frequency range: 0 to 3500 Hz</p> <p>Remote Reset Input Optically-isolated input 3.0 to 30 VDC Pulse duration > 3 seconds to reset</p> <p>Pulse Input Optically-isolated input 3.0 to 30 VDC</p>

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Outputs	<p>Analog Output 4-20 mA, loop-powered (two-wire) 16-bit resolution Accuracy: 0.1% of full scale @ 25°C, 50 PPM/°C temperature drift Loop power: 8.0 to 30 VDC Zero and full-scale engineering values configurable from front panel</p> <p>RS-485 Communications Baud rates: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600 and up to 115.2K</p> <p>Volumetric Pulse Output Solid-state relay Output rating: 60 mA max. @ 30 VDC, on-state drop = 1.4 VDC @ 50 mA, 0.25 VDC @ 10 mA Configurable pulse width (duration): 10 to 60,000 ms</p> <p>Amp & Square (Flow Meter Frequency) Output Open-drain transistor output of turbine meter input signal Output rating: 50 mA @ 30 VDC, on-state drop = 0.3 VDC @ 50 mA, 0.1 VDC @ 10 mA (Analog output and amp & square outputs cannot be used simultaneously.)</p>
Modbus®	RTU mode Modbus® supports 16-bit and 32-bit holding registers. For more information, see Appendix C .
Enron Modbus®	Flow log parameters (time stamp, period total, period run time, and supply voltage) and download method are Enron-compatible.
System Requirements	<p>Operating System - Windows 2000 or later (Windows XP recommended) Computer/Processor - 1 GHz or faster Pentium-compatible CPU Memory - 128 MB of RAM Hard Disk Space - 21 MB for program files, 30 MB for Adobe Reader, adequate space for data files Drive - CD-ROM for install Display - 800 x 600 (SVGA), 16-bit (thousands of colors) color display or greater Browser - Internet Explorer 6 or later Internet Connection - for web links, tech support Communications Port - physical or virtual RS-232 compatible serial port</p>

Key Product Features

This section presents an overview of key features of the MC-III Panel Mount. Many of these features are discussed in more detail in [Sections 3](#) and [4](#) (configuration procedures) and [Section 5](#) (flow log archival).

Key features discussed here include:

- LCD display
- keypad
- interface software
- power supply
- calibration options