TECHNICAL BULLETIN:

MC100-M

AMCi WIRELESS

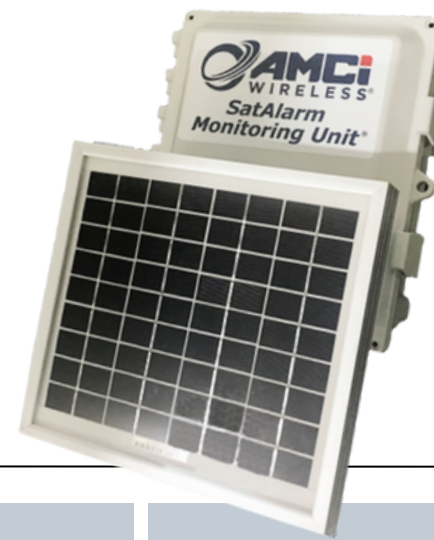## MC100-M

Downtime on equipment is something none of us want. Having visibility over your equipment's operating status gives you the power to make sound, informed, and timely decisions to optimize your operations.

AMCi-Wireless can help by giving you the information you need to make these decisions and minimize or even prevent downtime in your operations. The Monitor Communicaion (MC100-M) gives you important information and alerts you to critical conditions, in many cases giving you the opportunity to respond prior to a failure.

KEY FEATURES

Two-Way Satellite Communication

Built-in GPS Receiver and Antenna

Simple Integration with I/O Board and Terminal Blocks

Expandable I/O channels - Configure as Digital I/O or as Analog Input

AMCi-Wireless SatAlarm®-Server

First-Fault Monitoring

Polycarbonate NEMA-4x/6P Lockable Enclosure

Integrated Antennas (no coax); No External Antennas

Self-Contained, Solar-Powered

36 Month Warranty

PRODUCT BENEFITS

Provides insight into Remote Operations

Gap-Free Coverage

GPS for Precise Location Information

Scheduled, Event-Based, and On-Demand Reporting

Programmable Over The Air - Reducing the Need to Send Personnel into the Field

Flexibility to Communicate with Many Sensors and Controllers

Low Power Consumption for Applications that Require Long Battery Life

24/7 Technical Support

SatAlarm® Server Web-Based SCADA

· Web browser based historian
· Color graphical interface
· User configurable displays
· Customizable dashboard
· Multi data point graphs
· Data tracking
· Integrated Maps
· Equipment configuration
· Device control
· Data conditioning
· Reporting

EXTERNAL INTERFACES

· Serial: 2 ports; RS-232 and RS-485 · I/O: 4 channel; individually configurable as analog input or digital input/output
o Analog inputs: 0 – 3.0V, 1.0mV (12-bit) resolution; 4-20mA, 143 Ω loop resistor
o Digital inputs: -10 – 150VDC safe, pull-up or pull-down
o Digital outputs: 32VDC safe, 250mA sinking (open drain), or 3VDC, 25µA (push-pull)
· Additional I/O available using Modbus I/O expansion modules

PROGRAMMING

· Reporting (configured over the air):
 o Configurable time-of-day based schedule
 o Configurable interval-based schedule
 o 3 minutes up to once every 3 days
 o By exception; user definable test conditions
· Modbus RTU:
 o 16 configurable commands
 o Data reportable by schedule, interval, threshold test, any change, or pattern match

GPS

· Acquisition Time: 27 seconds (warm & cold)
· Accuracy: 2.5 meters (CEP-Horizontal)
· Sensitivity:
o Acquisition: -147 dBm
o Tracking: -159 dBm

SATELLITE MESSAGING

· Two-way, global, IsatData Pro
· From terminal (max per message) - 6400 bytes
· To terminal (max per message) - 10,000 bytes

SATELLITE COMMUNICATION

· Frequency
o From terminal: 1626.6 – 1660.5 MHz
o To terminal: 1525 – 1559 MHz
· Elevation Angle: 20° to 90° for communications link
· Maximum EIRP: 7.0 dBW
· Maximum Antenna Gain: 4.5 dBics

POWER

· Solar Power: 12VDC, 5W, 7Ah

CERTIFICATIONS/COMPLIANCE

· Satellite - Inmarsat
· Other - C-Tick, CE, FCC, IC, Anatel, RoHS(?)

ENVIRONMENTAL

· Operating Temperature: -20°C to +50°C
· Storage Temperature: -40°C to +85°C
· Humidity: 90%RH @ 85°C; meets SAE J1455
· Dust and Water Ingress: IP66/Nema-6P (with door screws installed)

ENCLOSURE

· Polycarbonate
· Nema-4x/6P (with door screws installed)
· 1x ½-inch pass-thru cord grip
· Lockable

PHYSICAL

· 16.0 x 10.5 x 9.3 in. (40.6 x 26.7 x 23.6 cm)
· 13.9 lbs. (6.3 kg)

WARRANTY

· 3 year standard limited warranty

*Disclaimer AMCi warranties MC100-M hardware for a full three years (36 months) * * Warranty is subject to AMCi published Terms and conditions. Contact your AMCi representative to obtain a copy or visit www.amci-wireless.com*

AMCi 1440