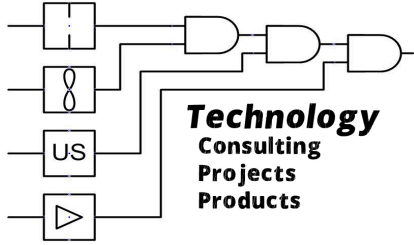


METROLOGICS, LLC



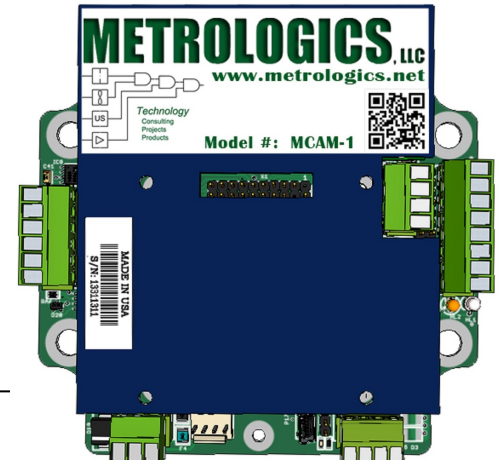
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(281) 382-8987



Cellular Mini RTU MCAM-1

*Final Product may differ from artwork.



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The Metrologics MCAM product is designed for alarm monitoring of process signals and provides local data logging and storage of all parameters. Alarm thresholds are programmed for report by exception notifications to cell phones via text messaging, and/or email addresses. The MCAM product comes in several different I/O configurations, can be integrated into your system enclosure, or is available in a pre-packaged enclosure for easy field deployment. Satellite interface option pending.

Main Features

- Battery Powered Mini RTU/Data Logger/Alarm Monitor
- 32Mb on-board FLASH memory for data logging
- Solar charging system available
- On-board I/O
 - ▶ 2-AI, 4-20 mA or 0-5 VDC strap selectable
 - ▶ 4-DI, Dry contact (can be used for frequency measurement or pulse counting)
 - ▶ 2-DO, VBatt (requires external relays for load switching of >1A)
 - ▶ 1-RS485, Half duplex, Modbus RTU Master Comm Port
 - Connect up to 31 Slave devices (I/O Modules, Flow Computers, Annunciators, Level Controls, PLC, etc.)
 - ▶ 1-RS232 Comm Port (Programming or Modbus RTU Slave)
 - ▶ Mini USB Port – for programming
 - ▶ Dedicated LCD Connector for optional local graphics display

Options

- Removable SD Memory Card option (2-32 GB)
 - ▶ Data Logging, local logs for Tag data, Events, and Alarms, exportable to CSV or Excel formatted files.
- Graphics LCD, for local readout of system status, and all measured parameters (including Modbus slave device registers)
- Touchscreen HMI, 3.5"
- Plug-in Analog Input Cards, **AI-1** = 11, 0 - 10 VDC inputs, or **AI-2** for 8 analog inputs (4-20mA, 12 bit)
- Plug-in Global Cellular Modem
 - ▶ Call-outs on RBE Alarms from physical inputs or Modbus register thresholds for HH, H, Normal, L, LL values.
 - ▶ Delivers SMS alarm messages to multiple mobile devices (multiple cell numbers)
 - ▶ Delivers email alarm messages to multiple email accounts
 - ▶ Optional External GPS Antenna for asset tracking
- Additional I/O Expansion Modules available, wired or wireless
- DIN-rail mounted SPDT Relays (trigger-able on any alarm condition) for shutdowns.

Uses: Alarm Monitoring and data logging for: *Wellheads, Tank Levels, Flow computers, Compressors, Pumps, PLC's, Generators. etc.*



Specifications:

Operating Voltage:	10 to 30 VDC
Power Draw:	40 mA @ 12VDC, Base Board Only 98 mA @ 12VDC, with LCD 150 mA @ 12VDC, Board w/ LCD + Modem 152 mA @ 12VDC, Board w/ DAQ-2543 AIO Module + Modem + Display
Digital Inputs:	4 Dry Contacts
Digital Outputs:	2 x 1A
Analog Inputs:	2 x 4-20mA (base board), expandable by option board or modules
Internal I/O:	Vbatt and 5VDC supply monitoring registers
On-board memory:	32-MByte SPI Flash on-board for base data-logging
External Memory:	Micro-SD Card, Removable, up to 32 GB, Binary, and CSV files
Communications Ports:	2-RS232, 1-RS485 (Modbus Master), 1-USB (programming)
Battery:	3V Lithium button cell for real-time clock
Programming:	Metrologics system setup programming and testing included, WRTU PC based programming software available (free)
Cellular Frequencies:	3G, LTE 850MHz, 900MHz, 1.7GHz, 1.8GHz, 1.9GHz, 2.1GHz
Modulation Protocol:	HSPA+
Cellular Board Operating Temp:	-35 to +85C (-35F to 185C)
External Cellular Antenna:	Phantom, 3dBm, Omni-directional, Bulkhead mount
Cellular Modem card Power Draw:	19mA sleep, 28mA idle, 397mA maximum (during TX)

Products:

- MCAM-1, Mini RTU system board only
- Coming Soon! MCAM-DIN, DIN-rail mountable version, for OEM's or clients to mount in their enclosure
- Pre-packaged RTU system in NEMA 4-X enclosure
- Pre-packaged RTU system in explosion proof CID1 enclosure.
- Solar Panel, charger/regulator, battery in separate power enclosure

Options:

- Cellular modem system (modem, antenna whip, antenna, provisioned Metrologics SIM with monthly plans)
- Analog Input card 1: 11-0-4VDC inputs
- Analog Input Card 2: 8 analog inputs, 4-20mA, 12 bit
- Digital Input Card: 8 digital inputs
- Remote I/O modules, RS485 Modbus RTU, or Wireless, physical IO or pressure, temperature, level, etc.
- Enclosure temperature sensor for connection to analog input channel
- Solar voltage converter for connection to analog input channel
- Micro SD Memory Cards, 2 to 32 GB

We program, sell, install, and service these products and can arrange a service contract to meet your needs.

For more information about this product, please contact us at (281)-382-8987.

Physical location:

27027 Westheimer Pkwy., Suite 700,
Katy, Texas 77494, USA

Quotations are provided upon request.