A7810 Acquilite™
& A8810 Acquisuite™

Flexible Data Server for Embedded Applications

FEATURES
- Tracks data in real time...providing the right information for trending, planning, and identifying waste
- Alarm notification for data points above or below target levels...quick notification for optimal performance maintenance
- Compatible with multiple communication protocols...push or pull data to energy dashboards and software applications for easy system integration
- Industrial temperature range (-30° to 70°C), perfect for embedded applications...speeds up development & integration of energy data
- DIN rail mounting...easy installation

DESCRIPTION
The A7810 AcquiLite™ and A8810 AcquiSuite™ data acquisition server for embedded applications allows users to collect energy data from meters and environmental sensors and send it via Modbus communication protocol (wired or wireless ising the H8830) to IP-based applications. No software is required. Operation is plug-and-play, and information can be accessed using any web browser. The A7810 supports four pulse inputs, while the A8810 supports Modbus serial input.

The compact housing and industrial temperature range make the A7810 & A8810 ideal for embedded applications. Reduce development time and speed up integration by collecting and distributing energy data directly from your equipment.

APPLICATIONS
- Measurement and verification (M&V)
- Reduce energy costs
- Access energy information from local and remote sites
- Benchmark building energy usage
- Demand response
- Renewable energy

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Power</td>
<td>24VDC, 500mA*</td>
</tr>
<tr>
<td>Isolation</td>
<td>RJ45 Ethernet isolated to 1500VDC from main board (power and pulse inputs not isolated)</td>
</tr>
<tr>
<td>Main Processor</td>
<td>ARM 9 embedded CPU</td>
</tr>
<tr>
<td>Operating System</td>
<td>Linux 2.6</td>
</tr>
<tr>
<td>Flash ROM</td>
<td>16 MB NOR Flash</td>
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<tr>
<td>Memory</td>
<td>32 MB RAM</td>
</tr>
<tr>
<td>LEDs</td>
<td>Ethernet, pulse (x4), power, alarm</td>
</tr>
<tr>
<td>Console</td>
<td>2 x 16 LCD character, two push buttons</td>
</tr>
<tr>
<td>Interval Recording</td>
<td>1 to 60 minutes, user selectable (default 15 minutes)</td>
</tr>
<tr>
<td>Pulse Inputs</td>
<td>4 inputs, dry contact, standard or KYZ, closure threshold 1000 to 2.5kΩ user selectable; min. rate 10 Hz; min. width 50 msec</td>
</tr>
<tr>
<td>Serial Port Input</td>
<td>RS-485 Modbus, supports up to 32 external devices (expandable)</td>
</tr>
<tr>
<td>Agency Approvals</td>
<td>FCC CFR 47 Part 15, Class A; EN 61000; EN 61326; UL61010 recognized; EN 61010 CE; FCC Part 15, Class A; EN 61000; EN 61326; UL61010 recognized</td>
</tr>
<tr>
<td>Protocols</td>
<td>Modbus/TCP, TCP/IP, PPP, HTTP/HTML, FTP, NTP, XML, SNMP-Trap</td>
</tr>
<tr>
<td>LAN</td>
<td>RJ45 10/100 Ethernet, full half duplex, auto polarity</td>
</tr>
<tr>
<td>Operating Temp Range</td>
<td>-30° to 70°C (-22° to 158°F)</td>
</tr>
<tr>
<td>Operating Humidity Range</td>
<td>0-95% RH noncondensing</td>
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*This unit is to be sourced by a Class 2 power supply with the following output: 24VDC, 500mA min. not to exceed 8A.
**APPLICATION EXAMPLES**

**A7810**
- The Internet
- BMO Webserver
- Local Area Network
- AcquiLite™ Server
- Pulse Output
- E5xBx Energy Meter
- H8453 Power Meter
- H8163 Enhanced Data Stream Energy Meter

**A8810**
- The Internet
- BMO Webserver
- Local Area Network
- AcquiSuite™ Server
- Pulse Output
- E5xCx Energy Meter
- H81xx with H8163-CB
- Pulse/Analog Output
- A8332 Modbus Converter
- H8036
- PULSE DEVICES (Gas/Water Meters)
- ANALOG DEVICES (Temperature, Humidity, Air Quality, etc.)

**THE ACQUISUITE SYSTEM ALLOWS...**

**...Internet Display of Data Using the BMO Website**
- View performance data in an easy graphical format.
- Store, display, and download historical data in a secure SQL database.
- Design custom views of data from one or more buildings or systems.

**...Security and Flexibility**
- Store data on board in nonvolatile memory.
- Protect information in the event of a power failure.
- Time-stamp all interval data with an on-board real-time clock.

**...Compatibility with Existing Systems**
- Use the I/O module to connect to existing sensors and meters.
- Use TCP/IP protocols to interface with spreadsheets, databases, text files, etc. (A8810 only)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>A7810</td>
<td>AcquiLite EMB data acquisition server, pulse input</td>
</tr>
<tr>
<td>A8810</td>
<td>AcquiSuite EMB data acquisition server, Modbus serial input</td>
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</tbody>
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