

### OVERVIEW

The Badger Meter® Model 3700 Data Acquisition Server provides high performance and low cost for:

- Demand response programs.
- Benchmarking building operations performance.
- Verification of energy savings and utility costs.
- Cost allocation to departments or tenants.
- Internet-based supervisory control outputs.

The system combines the flexibility of choosing LAN, modem or cellular communication paths for logging building data such as:

- Industry standard pulse or analog inputs.
- Electrical, gas and water usage and costs.
- Indoor and outdoor temperatures.
- Pressure, humidity and CO<sub>2</sub>.

The Model 3700 brings plug-and-play capability to the data acquisition market, dramatically reducing the time and training required to put a typical building online. In most applications, the installation can be completed by the building engineer or contractor in less than two hours. The system automatically detects and configures Modbus devices in just seconds reducing installation time and costs.

### APPLICATIONS

- Demand response program control and reporting.
- Cost allocation to tenants and third parties.
- Measurement and verification of energy savings.
- Data center branch circuit monitoring.
- Monitoring performance of building systems (for example, chillers, boilers and fans).

### EASY INSTALLATION SAVES TIME AND MONEY

- Simple plug-and-play connectivity to standard Modbus meters minimizes installation time and costs.
- Flex I/O inputs provide easy connections for analog, pulse and resistance sensors.
- Model 3700 hardware and software is designed to provide data in flexible, industry standard formats for databases, spreadsheets and others.
- Model 3700 provides onboard plug in for Data Industrial Model R9120-5 to allow wireless RS-485 communications.
- Integrated relay outputs allow supervisory control from any location for load shedding or local generation.



- Integrated web server provides setup and configuration using any industry standard web browser (such as Netscape or Internet Explorer).

### INTERNET DISPLAY OF KEY BUILDING PARAMETERS

- Buildingmanageronline.com allows authorized users to see building performance data in an easy to use graphical format. Please contact Badger Meter for more information.
- The BMO site provides storage, display and downloads of historical data in a secure SQL database.
- Users can be notified of alarm conditions in any or all monitored points.
- Open protocols provide connectivity to any energy management or building automation software.

### FLEXIBLE COMMUNICATIONS AND WIRELESS CONNECTIVITY

- All data is stored at the site in nonvolatile memory, ensuring protection of valuable information in the event of power loss.
- Optional Model R9120-5 for wireless RS-485 communications.
- Model 3700 provides two communication options: LAN or phone line.



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## SPECIFICATIONS

Processor	
<b>Main processor</b>	ARM 9; I/O
<b>Co-processor</b>	ARM 7
<b>Operating System</b>	Linux 2.6
<b>Flash ROM</b>	16 MB NOR Flash (expandable with USB memory device)
<b>Memory</b>	32 MB RAM
<b>LED</b>	8x pulse input, 4 modem activity, Modbus TX/RX, power status
<b>Console</b>	2 x 16 LCD character, two buttons
<b>LAN</b>	10/100, auto crossover detection
<b>Modem (phone)</b>	V.34 bis, 33,600 bps
<b>Protocols</b>	Modbus/RTU, Modbus/TCP, TCP/IP, PPP, HTTP/HTML, FTP, SNMP, SMTP, XML
<b>Power Supply</b>	24V DC, included
<b>Serial Port</b>	RS-485
<b>Approvals</b>	CE, FCC Part 15, Class A
<b>USB Port</b>	USB memory expansion port
<b>Power Requirement</b>	110...120V AC
<b>Interval Recording</b>	User selectable 1...60 minutes. Default 15 minute interval.
<b>Outputs</b>	2x, dry contact 30V DC, 150 mA max
<b>Inputs</b>	8x user selectable
<b>0...10V</b>	Min/max/ave/instantaneous
<b>4...20 mA</b>	Min/max/ave/instantaneous
<b>Pulse</b>	Consumption, rate
<b>Resistance</b>	Min/max/ave/instantaneous
<b>Runtime</b>	Runtime, status

## Control. Manage. Optimize.

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