Badger® Model 3700

Data Acquisition Server

Technical Brief

DESCRIPTION

Badger Meter introduces the Model 3700 Data Acquisition Server, providing 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, CO₂.

Model 3700 brings "plug and play" capability to the data acquisition market, dramatically reducing the time and training required to put a typical building on line. In most applications, the installation can be completed by the building engineer or contractor in less than 2 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 (i.e., chillers, boilers, 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, etc.
- Model 3700 provides onboard plug in for Model 345WT 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 (i.e., 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.
- 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, insuring protection of valuable information in the event of power loss.
- Optional Model 345WT for wireless RS 485 communications.
- Model 3700 provides two communication options: Local Area Network (LAN) or phone line.

SPECIFICATIONS

Processor Main processor: ARM 9; I/O co-processor: ARM 7

Operating System Linux 2.6

Flash ROM 16 MB NOR Flash (expandable with USB memory device)

Memory 32 MB RAM

LED 8x pulse input, 4 modem activity, Modbus TX/RX, power status

Console 2 x 16 LCD character, two buttons LAN 10/100, Auto crossover detection

Modem (phone) V.34 bis, 33,600 bps

Protocols Modbus/RTU, Modbus/TCP, TCP/IP, PPP, HTTP/HTML, FTP,SNMP, SMTP, XML

Power Supply 24 VDC, included Serial Port RS-485 Modbus

Approvals CE; FCC Part 15, Class A USB Port USB memory expansion port

Power Requirement 110-120VAC

Interval recording User selectable 1-60 minutes. Default 15 minute interval.

Outputs 2x, Dry contact 30 VDC, 150 mA max

Inputs 8x, user selectable:

0-10 V
 4-20 mA
 Pulse
 Min/Max/Ave/Instantaneous
 Min/Max/Ave/Instantaneous
 Consumption, Rate

• Resistance - Min/Max/Ave/Instantaneous

Runtime - Runtime, Status

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Please see our website at www.badgermeter.com for specific contacts.

BadgerMeter, Inc.
P.O. Box 581390, Tulsa, Oklahoma 74158
(918) 836-8411 / Fax: (918) 832-9962

www.badgermeter.com

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