Babel Buster 2
BACNET-MODBUS NETWORK GATEWAY
MODEL BB2-7010-06

CS — **CONTROL SOLUTIONS MINNESOTA**

BACnet, Modbus Gateway for WiFi Sensors

Control Solutions' Babel Buster BB2-7010-06

is an extension of the BB2-7010 family that adds support for Point Six and AirTest Technologies WiFi sensors. The BB2-7010-06 receives UDP data packets from sensors via a generic off-the-shelf WiFi access point, parses the data packet, and places the sensor data in one or more BACnet objects. The sensor data objects may be accessed via BACnet IP, Modbus TCP, Modbus RTU, or SNMP using the BB2-7010-06.

The sensor types available include temperature with various sensor technologies, humidity, CO_2, pressure, pulse count, generic voltage (0-10V) and current (0-20mA). Data is scaled by the gateway so that standard engineering units are presented on the BACnet or Modbus networks. When using BACnet, COV subscriptions may also be used to send changes in data values.

All of the standard gateway features of a BB2-7010-02 are found in the BB2-7010-06. This means that in addition to receiving WiFi sensor data, it can serve as a gateway between Modbus and BACnet IP devices.

The BB2-7010-06 functions as a BACnet IP client and server, a Modbus RTU master or slave (user selectable) and Modbus TCP client and server. It also includes an SNMP v2 client and server, and with SNMP trap generation based on threshold rules.

The BB2-7010-06 will receive WiFi sensor data at whatever rate the sensors are configured to transmit, and make that data available for other network clients to read. The BB2-7010-06 can also be configured to send the sensor data to Modbus slaves or BACnet IP servers.

Babel Buster BB2-7010-06 Object Summary

• *Analog Input, Analog Output, Analog Value*
• *Binary Input, Binary Output, Binary Value*
• *Multi-State Input, Output, Value*

• *Pool of 500 objects for BB2-7010-06*
• *Up to 200 dual-channel WiFi sensors supported*
• *Sensor High/Low Alarms supported*
• *Alarm limits set via BACnet objects, Modbus registers, SNMP*
• *Alarm states accessible via objects or registers*
• *Alarm states can be sent via BACnet COV, SNMP Trap*
• *Utilizes generic off-the-shelf WiFi access point*

• *Objects from pool can be assigned to any of above types*
• *Maximum of 200 Binary objects, includes state text*
• *Maximum of 64 states for multi-state, includes state text*
(actual value supported varies by resource usage per object)

Visit our web site for
• *Full details*
• *User Guides & Software Downloads*
• *Pricing & On-Line Ordering*

www.csimn.com
651-426-4410 · 800-872-8613

Babel Buster 2
BACNET-MODBUS NETWORK GATEWAY
MODEL BB2-7010-06

CONTROL SOLUTIONS MINNESOTA

Built–In Web Server for Configuration and Diagnostics

BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 30 December 2013
Vendor Name: Control Solutions, Inc.
Product Name: Babel Buster BB2-7010-01/02/06
Product Model Number: BB2-7010
Applications Software Version: 2.35
Firmware Revision: 2.35
BACnet Protocol Revision: 7

Product Description: Network gateway allowing Modbus RTU and TCP devices, SNMP devices, and WiFi sensors to be accessed via BACnet IP..

BACnet Standardized Device Profile (Annex L):
► *BACnet Smart Sensor (B-SS)*
► *BACnet Smart Actuator (B-SA)*

List all BACnet Interoperability Building Blocks Supported (Annex K):
DS-RP-B, DS-RPM-B, DS-WP-B, DS-COV-B, DS-COVP-B,
DM-DDB-B, DM-DOB-B, DM-RD-B

Segmentation Capability: Request & response, window size 8

Standard Object Types Supported:
Object types: AI, AO, AV, BI, BO, BV, MSI, MSO, MSV, DEV (all static)
See additional documentation for optional & proprietary properties.

Data Link Layer Options:
► *BACnet IP (Annex J)*

Device Address Binding:
Is static device binding supported? No

Networking Options: BBMD, supports registration by foreign devices

Character Sets Supported: ANSI X3.4

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:

Modbus RTU and/or Modbus TCP slaves/servers (BACnet slave device functions as Modbus RTU or TCP master), SNMP (-02), WiFi sensor data via UDP (-06)

WiFi Sensor Data Available as BACnet Object Properties, Modbus Registers, and SNMP MIB Variables

FEATURES
• Pool of 500 objects accessible via BACnet, Modbus, SNMP
  • Analog, Binary, Multi-State object types
  • Input, Output, Value objects
• Up to 200 dual-channel WiFi sensors supported
• Sensor High/Low Alarms supported
• Alarm limits set via BACnet objects, Modbus registers, SNMP
• Alarm states accessible via objects or registers
• Alarm states can be sent via BACnet COV, SNMP Trap
• Utilizes generic off-the-shelf WiFi access point
• Maximum of 200 Binary objects, includes state text
• Maximum of 64 states for multi-state, includes state text
(actual value supported varies by resource usage per object)
• All object mapping configured via web interface
• Commandable BACnet objects implement priority array
• Includes BACnet IP client and server
• Includes Modbus RTU master or slave, user selectable
• Includes Modbus TCP client and server
• Includes SNMP client and server
• Bidirectional communication between protocols
• Hardened EIA-485 transceiver for Modbus RTU
• 10/100BaseT Ethernet for BACnet IP and Modbus TCP
• Powered by 12-24V DC/AC 50/60 Hz
• Power Consumption: 0.1A @ 24VDC
• DIN rail mounting, 100mm H x 70mm W x 60mm D
• Pluggable screw terminal block for power & RTU network
• Operating temperature -40°C to +85°C
• Humidity 5% to 90% non-condensing
• FCC Class A, CE Mark
• Listed to UL 916 and (Canadian) C22.2 No. 205-M1983

Visit our web site for
• *Full details*
• *User Guides & Software Downloads*
• *Pricing & On-Line Ordering*
www.csimn.com

CONTROL SOLUTIONS MINNESOTA