

Babel Buster 3
MODEL MX-73-R
NETWORK GATEWAY



CONTROL SOLUTIONS MINNESOTA

BACnet IP to MS/TP Router plus Modbus TCP Gateway



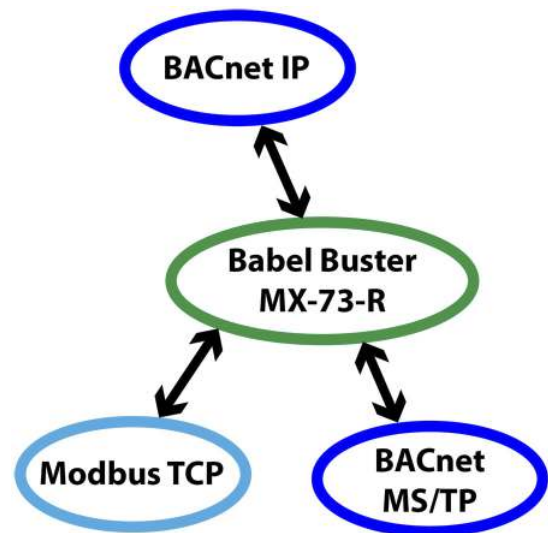
Control Solutions' Babel Buster MX-73-R is a BACnet router, slave proxy, and client/server gateway that allows remapping objects from multiple slaves into one master. You can use the MX-73-R as just a router, just a slave proxy, just a client/server, or all three at the same time. The MX-73-R also includes BBMD support. The MX-73-R is a performance upgrade of Control Solutions' original SPX-B BACnet router.

The MX-73-R as a BACnet Router will route IP to MS/TP and vice versa via its local ports, and supports full router capability for multi-hop internetworks including via NAT WAN routers. Routing is simple to set up. Routing can be used without any other gateway features enabled.

The MX-73-R as a BACnet Slave Proxy will provide I-Am responses on behalf of devices that do not have I-Am support, or are slave-only devices. The slave proxy capability will allow systems to utilize dynamic address binding with devices that do not support dynamic binding.

The MX-73-R as a BACnet Client/Server Gateway will poll BACnet IP and/or BACnet MS/TP slaves or servers, and retain copies of selected object properties. Upstream clients may then query the MX-73-R to receive data originating from multiple devices.

The MX-73-R also includes a Modbus TCP Client/Server. This allows interconnecting BACnet devices with Modbus TCP devices and systems.



Babel Buster MX-73-R Object Summary

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

- *Up to 5,000 Objects*

- *Objects from pool can be assigned to any of above types*
- *Maximum of 1024 states for multi-state, includes state text (actual value supported varies by resource usage per object)*

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Built-In Secure Web Server for Configuration and Diagnostics



FEATURES

- BACnet IP to MS/TP Router
- Slave proxy to support MS/TP slave-only devices
- Client/Server gateway for remapping BACnet objects
- Read/Write any standard BACnet objects as a Gateway
 - Up to 5,000 objects
 - Analog, Binary, Multi-State object types
 - Input, Output, Value objects
- BBMD, COV support
- MX-73-R is also Modbus TCP client/server
- Bidirectional data exchange between BACnet and Modbus
- Direct import of CSV files for faster point mapping
- Supports Modbus “coils”, input registers, holding registers
- Single or double Modbus registers, signed, unsigned, IEEE 754
- Commandable BACnet objects implement priority array
- Hardened EIA-485 transceiver for BACnet MS/TP
- 10/100BaseT Ethernet for BACnet IP and Modbus TCP
- Includes “10X” file capacity
- Powered by 10-30VDC or 24VAC 50/60 Hz
- Power Consumption: 0.1A @ 24VDC
- Panel mount, 70mm H x 131mm W x 38mm D
- Pluggable screw terminal block for power & RTU network
- Operating temperature -20°C to +75°C
- Humidity 5% to 90% non-condensing
- FCC Class A, CE Mark

BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 29 September 2021

Vendor Name: Control Solutions, Inc.

Product Name: Babel Buster

Product Model Number: MX-73-R

Applications Software Version: 3.16.7

Firmware Revision: 3.16.7

Product Description: BACnet IP to MS/TP Router with Modbus TCP Gateway

BACnet Standardized Device Profile (Annex L):

- ▶ BACnet Application Specific Controller (B-ASC)
- ▶ BACnet Gateway (B-GW)
- ▶ BACnet Router (B-RTR)

List all BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-A, DS-RP-B, DS-RPM-B, DS-WP-A, DS-WP-B, DS-WPM-B, DS-COV-B,
DS-COVU-B, DM-DDB-A, DM-DDB-B, DM-DOB-B, DM-DCC-B, DM-RD-B,
DM-R-B, GW-EO-B, DM-SP-B, NM-RC-B, NM-BBMD-C-B, NM-FDR-A

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)
- ▶ BACnet MS/TP master & slave (9600, 19200, 38400, 76800 baud)

Device Address Binding:

Is static device binding supported? Yes

Networking Options: ▶ Router, Clause 6, BACnet IP-MS/TP

- ▶ Annex H.1, Mapping Non-BACnet Networks onto BACnet Routers
- ▶ BACnet IP Broadcast Management Device (BBMD)
(Support registrations by Foreign Device: Yes)

Character Sets Supported: ANSI X3.4

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

Modbus TCP

Visit our web site for

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- User Guides & Software Downloads
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www.csimn.com



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