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BACnet Protocol Implementation Conformance Statement

Date: May. 10th, 2018
Vendor Name: M-System Co., Ltd.
Product Name: BACnet/IP I/O Controller
Product Model Number: BA8BI-DAC8
Application Software Version: 1.0.1
Firmware Revision: 005
BACnet Protocol Revision: 12

Product Description:
M-System model BA8BI is used to handle small number of binary inputs and outputs through BACnet/IP network. Four points each of input and output channels are available. Binary input is also usable as accumulator. The BA8BI provides simulated I/O via the front switches, convenient during commissioning process for checking loop connection and simulating control (start/stop) signals.

BACnet Standardized Device Profile (Annex L):

☐ **BACnet Operator Workstation (B-OWS)**
☐ **BACnet Advanced Operator Workstation (B-AWS)**
☐ **BACnet Operator Display (B-OD)**
☐ **BACnet Building Controller (B-BC)**
☐ **BACnet Advanced Application Controller (B-AAC)**
■ **BACnet Application Specific Controller (B-ASC)**
☐ **BACnet Smart Sensor (B-SS)**
☐ **BACnet Smart Actuator (B-SA)**

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

BIBB Name		Required
Data Sharing	ReadProperty-B (DS-RP-B)	Profile Required for B-ASC
	ReadPropertyMultiple-B (DS-RPM-B)	
	WriteProperty-B (DS-WP-B)	Profile Required for B-ASC
	WritePropertyMultiple-B (DS-WPM-B)	
	COV-B (DS-COV-B)	
Device Management	Dynamic Device Binding-B (DM-DDB-B)	Profile Required for B-ASC
	Dynamic Object Binding-B (DM-DOB-B)	Profile Required for B-ASC
	Device Communication Control-B (DM-DCC-B)	Profile Required for B-ASC
	TimeSynchronization-B (DM-TS-B)	
	UTC TimeSynchronization-B (DM-UTC-B)	
Network Management	Foreign Device Registration-A (NM-FDR-A)	

Segmentation Capability:

☐ Able to transmit segmented messages Window Size _____
☐ Able to receive segmented messages Window Size _____

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Standard Object Types Supported:

Object Type	Dynamically Creatable	Dynamically Deletable
Binary Input	No	No
Binary Output	No	No
Accumulator	No	No
Device	No	No

Binary Input

Supported Property Name	Conformance Code	Writable
Object_Identifier	R	
Object_Name	R	Yes
Object_Type	R	
Present_Value	R	
Description	O	Yes
Device_Type	O	Yes
Status_Flags	R	
Event_State	R	
Reliability	O	
Out_Of_Service	R	Yes
Polarity	R	Yes
Inactive_Text	O	Yes
Active_Text	O	Yes
Change_Of_State_Time	O	
Change_Of_State_Count	O	Yes
Time_Of_State_Count_Reset	O	
Elapsed_Active_Time	O	Yes
Time_Of_Active_Time_Reset	O	

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Binary Output

Supported Property Name	Conformance Code	Writable
Object_Identifier	R	
Object_Name	R	Yes
Object_Type	R	
Present_Value	W	Yes
Description	O	Yes
Device_Type	O	Yes
Status_Flags	R	
Event_State	R	
Reliability	O	
Out_Of_Service	R	Yes
Polarity	R	Yes
Inactive_Text	O	Yes
Active_Text	O	Yes
Change_Of_State_Time	O	
Change_Of_State_Count	O	Yes
Time_Of_State_Count_Reset	O	
Elapsed_Active_Time	O	Yes
Time_Of_Active_Time_Reset	O	
Minimum_Off_Time	O	Yes
Minimum_On_Time	O	Yes
Priority_Array	R	
Relinquish_Default	R	Yes

Accumulator

Supported Property Name	Conformance Code	Writable
Object_Identifier	R	
Object_Name	R	Yes
Object_Type	R	
Present_Value	R	
Description	O	Yes
Device_Type	O	Yes
Status_Flags	R	
Event_State	R	
Reliability	O	
Out_Of_Service	R	Yes
Scale	R	Yes
Units	R	Yes
PreScale	O	Yes
Max_Pres_Value	R	Yes
Value_Change_Time	O	
Value_Before_Change	O	
Value_Set	O	Yes

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Device

Supported Property Name	Conformance Code	Writable
Object_Identifier	R	
Object_Name	R	Yes
Object_Type	R	
System_Status	R	
Vendor_Name	R	
Vendor_Identifier	R	
Model_Name	R	
Firmware_Revision	R	
Application_Software_Version	R	
Location	O	Yes
Description	O	Yes
Protocol_Version	R	
Protocol_Revision	R	
Protocol_Object_Types_Supported	R	
Protocol_Services_Supported	R	
Object_List	R	
Max_APDU_Length_Accepted	R	
Segmentation_Supported	R	
Local_Time	O	
Local_Date	O	
UTC_Offset	O	Yes
Daylight_Savings_Status	O	
APDU_Timeout	R	Yes
Number_Of_APDU_Retries	R	Yes
Max_Master	O	Yes
Max_Info_Frames	O	Yes
Device_Address_Binding	R	
Database_Revision	R	
Active_COV_Subscription	O	

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Data Link Layer Options:

■ BACnet IP, (Annex J)
☐ BACnet IP, (Annex J), Foreign Device
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☐ ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s) _____
☐ MS/TP master (Clause 9), baud rate(s): _____
☐ MS/TP slave (Clause 9), baud rate(s): _____
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s):_____
☐ Point-To-Point, modem, (Clause 10), baud rate(s): _____
☐ LonTalk, (Clause 11), medium: _____
☐ BACnet/ZigBee (ANNEX O)
☐ Other: _____

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) ☐ Yes ■ No

Networking Options:

☐ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
☐ Annex H, BACnet Tunneling Router over IP
☐ BACnet/IP Broadcast Management Device (BBMD)
Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No
Does the BBMD support network address translation? ☐ Yes ☐ No

Network Security Options:

■ Non-secure Device - is capable of operating without BACnet Network Security
☐ Secure Device - is capable of using BACnet Network Security (NS-SD BIBB)
☐ Multiple Application-Specific Keys:
☐ Supports encryption (NS-ED BIBB)
☐ Key Server (NS-KS BIBB)

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

■ ISO 10646 (UTF-8)	☐ IBM™/Microsoft™ DBCS	☐ ISO 8859-1
☐ ISO 10646 (UCS-2)	☐ ISO 10646 (UCS-4)	☐ JIS X 0208

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

_____
_____