

BACnet Protocol Implementation Conformance Statement

Date: 2016-08-18

Vendor Name: ABB

Product Name: Programmable Logic Controller AC500

Product Model Number: AC500 PM5##-* + PS565-BACnet-ASC library

Application Software Version: N/A

Firmware Revision: 1.0.1 (Library)

BACnet Protocol Revision: 12

Product Description:

AC500 is a scalable family of programmable logic controllers (PLC), designed for infrastructure and industrial applications.

With the PS565-BACnet-ASC library it supports the B-ASC device profile with IP and MS/TP connectivity. Over BACnet all connected devices (e.g. via Modbus and other industrial busses) including remote IO are available over BACnet.

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):

- DS-RP-B
- DS-WP-B
- DM-DDB-B
- DM-DOB-B
- DM-DCC-B

Segmentation Capability:

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

Standard Object Types Supported:

- Analog Input Object
- Analog Output Object
- Analog Value Object
- Binary Input Object
- Binary Output Object
- Binary Value Object
- Device Object

Object instantiation is static, i.e. objects cannot be created or deleted dynamically. Refer to tables at end of this document for object details.

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): 9600, 19200, 38400
- 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:

Profibus, Profinet, CANopen, Telecontrol, EtherCAT, Modbus, DeviceNet (mapping has to be implemented in the application program)

Object/Property Support Matrix

The following table summarizes the Object Types/Properties supported:

Property	DEVICE	ANALOG_IN	ANALOG_OUT	ANALOG_VAL	BINARY_IN	BINARY_OUT	BINARY_VAL
Object_Identifier	R	R	R	R	R	R	R
Object_Name	R	R	R	R	R	R	R
Units		R	R	R			
Polarity					R	R	
Present_Value		R*	W	W	R*	W	W
Status_Flags		R	R	R	R	R	R
Object_Type	R	R	R	R	R	R	R
Event_State		R	R	R	R	R	R
Out_Of_Service		W	W	W	W	W	W
Priority_Array			R	R		R	R
Relinquish_Default			R	R		R	R
System_Status	R						
Vendor_Name	R						
Vendor_Identifier	R						
Model_Name	R						
Firmware_Revision	R						
Application_Software_Version	R						
Protocol_Version	R						
Protocol_Revision	R						
Protocol_Services_Supported	R						
Protocol_Object_Types_Supported	R						
Object_List	R						
Max_APDU_Length_Accepted	R						
Segmentation_Supported	R						
APDU_Timeout	R						
Number_Of_APDU_Retries	R						
Device_Address_Binding	R						
Database_Revision	R						
Max_Master	R						
Max_Info_Frames	R						

R* Present_Value will become W-writable if Out_Of_Service is set to TRUE