

BACnet Protocol Implementation Conformance Statement

Vendor Name: Hitachi-Johnson Controls Air Conditioning Inc.

Product Name: BACnet Adaptor for Air Conditioners.

Product Model Number: HC-A64BNP, HC-A8BNC,CBN01

Applications Software Version: Version 1.00

Firmware Revision: --

BACnet Protocol Revision: Version 4

Product Description

The BACnet Adaptor for Air Conditioners are microprocessor-based controller designed to operate Hitachi Air Conditioners and to be integrated into BACnet building automation systems.

BACnet Standardized Device Profile

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Specific Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

BACnet Interoperability Building Blocks (BIBBs) Supported

	BIBB Name	Designation	Profile Required for B-ASC	Profile Not Required for B-ASC
Data Sharing	ReadProperty – B	DS-RP-B	Supported	
	ReadPropertyMultiple – B	DS-RPM-B		Supported
	WriteProperty – B	DS-WP-B	Supported	
	WritePropertyMultiple – B	DS-WPM-B		Supported
	COV – B	DS-COV-B		Supported
	COV – Unsolicited – B	DS-COVU-B		Supported
Alarm & Event	Notification Internal – B	AE-N-I-B		Supported
	ACK – B	AE-ACK-B		Supported
	Information – B	AE-INFO-B		Supported
Device & Network Management	Dynamic Device Binding – A	DM-DDB-A		Supported
	Dynamic Device Binding – B	DM-DDB-B	Supported	
	Dynamic Object Binding – B	DM-DOB-B	Supported	
	DeviceCommunicationControl – B	DM-DCC-B	Supported	
	ListManupulation – B	DM-LM-B		Supported
	TimeSynchronization – B	DM-TS-B		Supported
	UTCTimeSynchronization – B	DM-UTC-B		Supported

Standard Object Types Supported

The following objects are currently supported by this product. See the section in this document for the supported object type for details.

Supported Object	Dynamically Creatable	Dynamically Deletable
Analog Input	No	No
Analog Output	No	No
Binary Input	No	No
Binary Output	No	No
Multi-State Input	No	No
Multi-State Output	No	No
Device	No	No
Notification Class	No	No

■ Analog Input

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	R		
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Units	R		
Resolution	O		
COV_Increment	O	√	
Time_Delay	O ¹	√	
Notification_Class	O ¹	√	
High_Limit	O ¹	√	
Low_Limit	O ¹	√	
Deadband	O ¹	√	
Limit_Enable	O ¹	√	
Event_Enable	O ¹	√	
Acked_Transitions	O ¹		
Notify_Type	O ¹	√	
Event_Time_Stamps	O ¹		

Proprietary Property: n/a

O¹ :These properties are supported only when the object supports intrinsic reporting.

■ Analog Output

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	W	√	
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Units	R		
Min_Pres_Value	O	√	
Max_Pres_Value	O	√	
Resolution	O		
Priority_Array	R		
Relinquish_Default	R		
COV_Increment	O	√	

Proprietary Property: n/a

■ Binary Input

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	R		
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Polarity	R		
Inactive_Text	O		
Active_Text	O		
Change_Of_State_Time	O		
Change_Of_State_Count	O	√	
Time_Of_State_Count_Reset	O		
Elapsed_Active_Time	O	√	
Time_Of_Active_Time_Reset	O		
Time_Delay	O ¹	√	
Notification_Class	O ¹	√	
Alarm_Value	O ¹		
Event_Enable	O ¹	√	
Acked_Transitions	O ¹		
Notify_Type	O ¹	√	
Event_Time_Stamps	O ¹		

Proprietary Property: n/a

O¹ : These properties are supported only when the object supports intrinsic reporting.

■ Binary Output

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	W	√	
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Polarity	R		
Inactive_Text	O		
Active_Text	O		
Change_Of_State_Time	O		
Change_Of_State_Count	O	√	
Time_Of_State_Count_Reset	O		
Elapsed_Active_Time	O	√	
Time_Of_Active_Time_Reset	O		
Priority_Array	R		
Relinquish_Default	R		
Time_Delay	O	√	
Notification_Class	O	√	
Feedback_Value	O		
Event_Enable	O	√	
Acked_Transitions	O		
Notify_Type	O	√	
Event_Time_Stamps	O		

Proprietary Property: n/a

■ Multi-State Input

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	R		
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Number_of_States	R		
State_Text	O		

Proprietary Property: n/a

■ Multi-State Output

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Present_Value	W	√	
Status_Flags	R		
Event_State	R		
Reliability	O		
Out_Of_Service	R	√	
Number_of_States	R		
State_Text	O		
Priority_Array	R		
Relinquish_Default	R		
Time_Delay	O	√	
Notification_Class	O	√	
Feedback_Value	O		
Event_Enable	O	√	
Acked_Transitions	O		
Notify_Type	O	√	
Event_Time_Stamps	O		

Proprietary Property: n/a

■ Device

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	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_Service_Supported	R		
Protocol_Object_Types_Supported	R		
Object_List	R		
Max_APDU_Length_Accepted	R		
Segmentation_Supported	R		
Local_Time	O		
Local_Date	O		
UTC_Offset	O	√	
Daylight_Saving_Status	O		
APDU_Timeout	R	√	
Number_Of_APDU_Retries	R	√	
Device_Address_Binding	R		
Database_Revision	R		
Active_COV_Subscriptions	O		

Proprietary Property: n/a

■ **Notification_Class**

Supported Property Name	Conformance Code	Writable	Range Restriction
Object_Identifier	R		
Object_Name	R	√	
Object_Type	R		
Notification_Class	R	√	
Priority	R	√	
Ack_Required	R	√	
Recipient_List	R	√	

Proprietary Property: n/a

Segmentation Capability

- Segmented requests not supported
- Segmented responses not supported

Data Link Layer Options

- BACnet IP, (Annex J)
- ISO 8802-3, Ethernet (Clause 7)

Networking Options

- Router, Clause 6 – Ethernet IP-Ethernet, Ethernet-MS/TP, Ethernet IP-MS/TP
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? Yes No

Device Address Binding

- Static Device Binding Yes
 No

Character Sets Supported

- ANSI X3.4
- IBM/Microsoft DBCS
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (UCS-4)
- JIS C 6226

Note: Support for multiple character sets does not imply they can be supported simultaneously.

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

Not applicable