



## BACnet Protocol Implementation Conformance Statement

**Date:** 14<sup>th</sup> May 2008

**Vendor Name:** Honeywell (BACnet Vendor ID 17)

**Product Name:** ComfortPoint Unitary Controller

**Product Model Number:** CP-VAV

**Applications Software Version:** n/a **Firmware Revision:** 1.01 **BACnet Protocol Revision:** 4

### Product Description:

Native BACnet HVAC Controller as part of the Honeywell ComfortPoint Solution.

### BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- 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):

#### Data Sharing

Read Property-A	DS-RP-A
Read Property-B	DS-RP-B
Read Property Multiple-B	DS-RPM-B
Write Property-A	DS-WP-A
Write Property-B	DS-WP-B
Write Property Multiple-B	DS-WPM-B
Change of Value-B	DS-COV-B

#### Alarm & Event Management

Alarm & Event Notification Internal-B	AE-N-I-B
Alarm & Event Acknowledgement-B	AE-ACK-B
Alarm & Event Information -B	AE-INFO-B
Alarm Summary-B	AE-ASUM-B

#### Device Management

Dynamic Device Binding	DM-DDB-B
Dynamic Object Binding	DM-DOB-B
Device Communication Control	DM-DCC-B
Time Synchronization	DM-TS-B
Reinitialize Device	DM-RD-B
List Manipulation	DM-LM-B
Back-up and Restore-B	DM-BR-B

### Which of the following device binding methods does the product support? (Check one or more)

- Send Who-Is, receive I-Am (BIBB DM-DDB-A)
- Receive Who-Is, send I-Am (BIBB DM-DDB-B)
- Send Who-Has, receive I-Have (BIBB DM-DOB-A)
- Receive Who-Has, send I-Have (BIBB DM-DOB-B)
- Manual configuration of recipient device's network number and MAC address
- None of the above

**Standard Object Types Supported:**

	<b>Object supported</b>	<b>Object dynamically creatable</b>	<b>Object dynamically deletable</b>
ANALOG_INPUT	Y	N	N
ANALOG_OUTPUT	Y	N	N
ANALOG_VALUE	Y	N	N
AVERAGING	N	N	N
BINARY_INPUT	Y	N	N
BINARY_OUTPUT	Y	N	N
BINARY_VALUE	Y	N	N
CALENDAR	N	N	N
COMMAND	N	N	N
DEVICE	Y	N	N
EVENT_ENROLLMENT	N	N	N
FILE	Y	N	N
GROUP	N	N	N
LOOP	N	N	N
LIFE_SAFETY_DEVICE	N	N	N
LIFE_SAFETY_ZONE	N	N	N
MULTISTATE_INPUT	N	N	N
MULTISTATE_OUTPUT	N	N	N
MULTISTATE_VALUE	Y	N	N
NOTIFICATION_CLASS	Y	N	N
PROGRAM	N	N	N
SCHEDULE	N	N	N
TRENDLOG	N	N	N
ACCUMULATOR	Y	N	N
PULSE CONVERTER	N	N	N

**Table 1 Analog Input Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	RELIABILITY
COV_INCREMENT	OUT_OF_SERVICE
TIME_DELAY	COV-INCREMENT
NOTIFICATION_CLASS	TIME_DEALAY
HIGH_LIMIT	HIGH_LIMIT
LOW_LIMIT	LOW_LIMIT
DEADBAND	DEADBAND
LIMIT_ENABLE	LIMIT_ENABLE
EVENT_ENABLE	EVENT_ENABLE
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
PHY_POINT_TECHNICAL_ADDRESS	CHARACTERSTRING	IS AN ADDRESS IN THE FORM OF BOARD_NO.IO_NUMBER TO IDENTIFY THE GIVEN POINT PHISICAL DETAILS.
ANALOG_INPUT_SENSOR_OFFSET	REAL	IS AN OFFSET VALUE FOR READ VALUE TO DISPLAY VALUE.

**Table 2 Analog Output Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	OUT_OF_SERVICE
RELIABILITY	RELINQUISH_DEFAULT
RELINQUISH_DEFAULT	COV-INCREMENT
COV_INCREMENT	TIME_DEALAY
TIME_DELAY	HIGH_LIMIT
NOTIFICATION_CLASS	LOW_LIMIT
HIGH_LIMIT	DEADBAND
LOW_LIMIT	LIMIT_ENABLE
DEADBAND	EVENT_ENABLE
LIMIT_ENABLE	COV-INCREMENT
EVENT_ENABLE	PRESENT_VALUE
ACKED_TRANSITIONS	RELIABILITY
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
PHY_POINT_TECHNICAL_ADDRESS	CHARACTERSTRING	IS AN ADDRESS IN THE FORM OF BOARD_NO.IO_NUMBER TO IDENTIFY THE GIVEN POINT PHISICAL DETAILS.

Table 3 Analog Value Object Properties

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
RELINGUISH_DEFAULT	RELINGUISH_DEFAULT
COV_INCREMENT	COV-INCREMENT
TIME_DELAY	TIME_DEALAY
NOTIFICATION_CLASS	HIGH_LIMIT
HIGH_LIMIT	LOW_LIMIT
LOW_LIMIT	DEADBAND
DEADBAND	LIMIT_ENABLE
LIMIT_ENABLE	EVENT_ENABLE
EVENT_ENABLE	RELIABILITY
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO

**Table 4 Binary Input Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
INACTIVE_TEXT	ELAPSED_ACTIVE_TIME
ACTIVET_TEXT	TIME_DEALAY
ELAPSED_ACTIVE_TIME	ALARM-VALUE
TIME_OF_ACTIVE_TIME_RESET	EVENT_ENABLE
TIME_DELAY	RELIABILITY
NOTIFICATION_CLASS	
ALARM_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

<b>PROPRIETARY PROPERTY IDENTIFIER</b>	<b>DATA TYPE</b>	<b>MEANING</b>
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
PHY_POINT_TECHNICAL_ADDRESS	CHARACTERSTRING	IS AN ADDRESS IN THE FORM OF BOARD_NO.IO_NUMBER TO IDENTIFY THE GIVEN POINT PHISICAL DETAILS.

**Table 5 Binary Output Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
INACTIVE_TEXT	ELAPSED_ACTIVE_TIME
ACTIVET_TEXT	RELINGUIISH_DEFAULT
ELAPSED_ACTIVE_TIME	TIME_DEALAY
TIME_OF_ACTIVE_TIME_RESET	EVENT_ENABLE
TIME_DELAY	RELIABILITY
NOTIFICATION_CLASS	
FEEDBACK_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

<b>PROPRIETARY PROPERTY IDENTIFIER</b>	<b>DATA TYPE</b>	<b>MEANING</b>
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
PHY_POINT_TECHNICAL_ADDRESS	CHARACTERSTRING	IS AN ADDRESS IN THE FORM OF BOARD_NO.IO_NUMBER TO IDENTIFY THE GIVEN POINT PHISICAL DETAILS.

**Table 6 Binary Value Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
INACTIVE_TEXT	ELAPSED_ACTIVE_TIME
ACTIVET_TEXT	RELINGUISH_DEFAULT
ELAPSED_ACTIVE_TIME	TIME_DELAY
TIME_OF_ACTIVE_TIME_RESET	ALARM_VALUE
RELINGUSH_DEFAULT	EVENT_ENABLE
TIME_DELAY	RELIABILITY
NOTIFICATION_CLASS	
ALARM_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

<b>PROPRIETARY PROPERTY IDENTIFIER</b>	<b>DATA TYPE</b>	<b>MEANING</b>
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO

**Table 7 Device Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
LOCATION	UTC_OFFSET
DESCRIPTION	DAYLIGHT- SAVING_STATUS
UTC_OFFSET	MAX_MASTER
DAYLIGHT_SAVING_STATUS	MAX_INFO_FRAMES
MAX_MASTER	BACKUP_FAILURE_TIME OUT
MAX_INFO_FRAMES	APDU_TIMEOUT
BACKUP_FAILURE_TIMEOUT	
LAST_RESTORE_TIME	
ACTIVE_COV_SUBSCRIPTIONS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
NETWORK_PARAMETERS	CHARACTERSTRING	IS A STRING IN THE FORM "IPADDRESS:IP_NETMASK:IP_GATEWAY" TELLS THE DEVICE NETWORK DETAILS
PROPRIETARY_OBJECT_LIST	BACNETARRAY[N] OF BACNETOBJECTIDENTIFIER	IS AN ARRAY OF PROPRIETARY OBJECT ID'S
BCKP_RST_PASSWORD	CHARACTERSTRING	IS A STRING USED FOR THE APPLICATION DOWNLOAD

**Table 8 File Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	FILE_SIZE

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
DIR_NAME	CHARACTERSTRING	IS A STRING NAME OF THE DIRECTORY WHICH FILE IS BELONGING TO

**Table 9 Multi-state Value Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
STATE_TEXT	RELINGUISH_DEFAULT
RELINGUSH_DEFAULT	TIME_DELAY
TIME_DELAY	ALARM_VALUES
NOTIFICATION_CLASS	FAULT_VALUES
ALARM_VALUES	EVENT_ENABLE
FAULT_VALUES	RELIABILITY
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO

**Table 10 Notification Class Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRIORITY
	RECIPIENT_LIST
	ACK_REQUIRED

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO

**Table 11 Accumulator Object Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	MAX_PRES_VALUE
PRESCALE	VALUE_SET
MAX_PRES_VALUE	HIGH_LIMIT
VALUE_CHANGE_TIME	LOW_LIMIT
VALUE_BEFORE_CHANGE	TIME_DELAY
VALUE_SET	LIMIT_ENABLE
PULSE_RATE	EVENT_ENABLE
HIGH_LIMIT	RELIABILITY
LOW_LIMIT	
LIMIT_MONITORING_INTERVAL	
NOTIFICATION_CLASS	
TIME_DELAY	
LIMIT_ENABLE	
EVENT_ENABLE	
ACKED_TRANSITION	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROPRIETARY PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS A UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO

**Data Link Layer Options:**

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) \_\_\_\_\_
- MS/TP master (Clause 9), baud rate(s): 9.6k, 19.2k, 38.4k, 76.8k bps
- 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: \_\_\_\_\_
- 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 - BACnet IP (Annex J) - MS/TP (3 MSTP Ports)
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)  
Does the BBMD support registrations by Foreign Devices?  Yes  No

**Segmentation Capability:**

- Segmented requests supported **No** Window Size:
- Segmented responses supported **No** Window Size:

**Character Sets Supported (check all that apply):**

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

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