

## BACnet Protocol Implementation Conformance Statement

**Date:** 01<sup>st</sup> Aug. 2008

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

**Product Name:** ComfortPoint Digital Input/Output Controller

**Product Model Number:** CP-DIO

**Applications Software Version:** 1.02.01

**Firmware Revision:** 1.2.0.d

**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

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

#### Scheduling

Scheduling Internal-B	SCHED-I-B
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#### Device Management

Dynamic Device Binding	DM-DDB-A
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
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	N	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	Y	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	Y	N	N
TRENDLOG	N	N	N
ACCUMULATOR	Y	N	N
PULSE CONVERTER	N	N	N

**Table 1 Analog Input Object Properties**

OPTIONAL PROPARTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
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	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROP 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 Value Object Properties**

OPTIONAL PROPARTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
COV_INCREMENT	RELINGUISH_DEFAULT
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	
PRIORITY_ARRAY	
RELINGUSH_DEFAULT	

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

**Table 3 Binary Input Object Properties**

OPTIONAL PROPARTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
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	
NOTIFICATION_CLASS	
ALARM_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROP PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS AN 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 4 Binary Output Object Properties**

OPTIONAL PROPARTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	PRESENT_VALUE
RELIABILITY	OUT_OF_SERVICE
INACTIVE_TEXT	ELAPSED_ACTIVE_TIME
ACTIVET_TEXT	RELINGUISH_DEFAULT
ELAPSED_ACTIVE_TIME	TIME_DEALAY
TIME_OF_ACTIVE_TIME_RESET	EVENT_ENABLE
TIME_DELAY	
NOTIFICATION_CLASS	
FEEDBACK_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	

PROP PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS AN 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 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_DEALAY
TIME_OF_ACTIVE_TIME_RESET	ALARM_VALUE
TIME_DELAY	EVENT_ENABLE
NOTIFICATION_CLASS	
ALARM_VALUE	
EVENT_ENABLE	
ACKED_TRANSITIONS	
NOTIFY_TYPE	
EVENT_TIME_STAMPS	
PRIORITY_ARRAY	
RELINGUSH_DEFAULT	

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

**Table 6 Calendar Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	DATE_LIST

<b>PROP PROPERTY IDENTIFIER</b>	<b>DATA TYPE</b>	<b>MEANING</b>
PLANT_REFERENCE	CHARACTERSTRING	IS AN 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_STA TUS
LOCAL_TIME	BACKUP_FAILURE_TIME OUT
LOCAL_DATE	APDU_TIMEOUT
UTC_OFFSET	MAX_MASTER
DAYLIGHT_SAVING_STATUS	
MAX_MASTERS	
MAX_INFO_FRAMES	
CONFIGURATION_FILES	
LAST_RESTORE_TIME	
BACKUP_FAILURE_TIMEOUT	
ACTIVE_COV_SUBSCRIPTIONS	

PROP PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS AN UNICODE NAME OF THE PLANT GIVEN OBJECT IS BELONGING TO
PROPRIETARY_OBJE CT_LIST	BACNETARRAY[N] OF BACNETOBJECTIDE NTIFIER	IS AN ARRAY OF PROPERIETORY OBJECT ID'S

**Table 8 File Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	FILE_SIZE

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

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

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

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

**Table 10 Notification Class Object Properties**

<b>OPTIONAL PROPERTIES</b>	<b>WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)</b>
DESCRIPTION	PRIORITY
	RECIPIENT_LIST
	ACK_REQUIRED

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

**Table 11 Accumulator Object Properties**

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

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

**Table 12 Schedule Object Properties**

OPTIONAL PROPARTIES	WRITABLE PROPERTIES (NOT MUST BY THE STANDARD)
DESCRIPTION	EFFECTIVE_PERIOD
WEEKLY_SCHEDULE	WEEKLY_SCHEDULE
EXCEPTION_SCHEDULE	EXCEPTION_SCHEDULE
	LIST_OF_OBJECT_PROPERTY_REFERENCE
	PRIORITY_FOR_WRITING
	SCHEDULE_DEFAULT
	OUT_OF_SERVICE
	PRESENT_VALUE

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

**Proprietary Object Types Supported:**

	Object supported	Object dynamically creatable	Object dynamically deletable
Proprietary 130	Y	N	N
Proprietary 131	Y	N	N

**Table 13 Proprietary 130 Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES
DESCRIPTION	PRESENT_VALUE
OBJECT_IDENTIFIER	
OBJECT_NAME	
OBJECT_TYPE	
RELINGUISH_DEFAULT	

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

**Table 14 Proprietary 131 Properties**

OPTIONAL PROPERTIES	WRITABLE PROPERTIES
DESCRIPTION	PRESENT_VALUE
OBJECT_IDENTIFIER	
OBJECT_NAME	
OBJECT_TYPE	
RELINGUISH_DEFAULT	

PROP PROPERTY IDENTIFIER	DATA TYPE	MEANING
PLANT_REFERENCE	CHARACTERSTRING	IS AN 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): \_\_\_\_\_
- Lon Talk, (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:**

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