



# Wireless 900 MHz Sensors - BACnet Protocol Implementation Conformance Statement

Application Note

Wireless\_Sensor\_BACnet\_PICS

rev. 07/11/18

BACnet Protocol Implementation Conformance Statement - Appendix A (Normative)

Date: May 23, 2018

Vendor Name: Building Automation Products, Inc.

Product Name: Food Probe, BAPI-Box, Quantum Slim, Quantum Room, Analog Input Module

Product Model Number: WFP900, WT900-BB, WT900-LL-BB, WTH900-BB, WTH900-LL-BB, WT900-QSL, WTH900-QSL, WT900-Q, WTH900-Q, WAI900-4A

Firmware Versions: C2.0.0.2 R1.0.4.0

BACnet Version: 0.8.5

BACnet Protocol Revision: 12

## Product Description

Each BAPI 900MHz wireless sensor is exposed on the BACnet network as a virtual BACnet device via the BAPI GTW900 900MHz Gateway when the gateway is configured for hierarchical device layout. The gateway behaves as a router between the BACnet network and the virtual network of wireless sensor devices which represents the 900MHz wireless network.

## 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):

Data Sharing-ReadProperty-B (DS-RP-B)

Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)

Data Sharing-WriteProperty-B (DS-WP-B)

Data Sharing-WritePropertyMultiple-B (DS-WPM-B)

Data Sharing-COV-B (DS-COV-B)

Device Management-Dynamic Device Binding-B (DM-DDB-B)

Device Management-Dynamic Object Binding-B (DM-DOB-B)

## 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	Optional Properties Supported	Writable Properties
Device	Description Local_Time Local_Date UTC_Offset Daylight_Savings_Status Active_COV_Subscriptions Serial_Number	
Analog Input	Reliability COV_Increment	Present_Value <sup>2</sup> Out_Of_Service Reliability <sup>2</sup> COV_Increment
Binary Input <sup>1</sup>	Reliability Inactive_Text Active_Text	Present_Value <sup>2</sup> Out_Of_Service Polarity Reliability <sup>2</sup>

<sup>1</sup> Object Type supported only on Quantum Slim and Quantum Room models.

<sup>2</sup> Writable only when Out\_Of\_Service is TRUE.

## 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



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## Networking Options:

- Router, Clause 6 - Routes between BACnet/IP and virtual network of wireless sensor devices according to Annex H.1,2
- 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