



HMS-1650 BACnet MS/TP Protocol Implementation Conformance Statement

Date: March 24, 2014

Vendor Name: Triatek Holding LLC

Product Name: HMS-1650 Series Fume Hood Controller

Product Model Number: HMS-1650

Firmware Revision: 2.14 or higher

BACnet Protocol Revision: 5

Product Description:

The TRIATEK HMS-1650 Series Fume Hood Controller is an ultra-sensitive instrument used to control and/or monitor the face velocity at the sash opening of laboratory fume hoods. This unit is a precision measuring system capable of measuring and displaying face velocities from zero to 200 ft/min with an accuracy of ± 2 ft/min over the primary operating range of 60 ft/min to 140 ft/min. This particular model fume hood controller is capable of acting as a stand-alone device or as part of a building automation system using the BACnet MS/TP protocol.

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):

DS-RP-B	Read Property
DS-RPM-B	Read Property Multiple
DS-WP-B	Write Property
DM-DDB-B	Dynamic Device Binding
DM-DOB-B	Dynamic Object Binding
DM-DCC-B	Device Communication Control
DS-TS-B	Time Synchronization
DS-UTC-B	UTC Time Synchronization
DM-RD-B	Reinitialize Device

Segmentation Capability:

- Segmented requests supported Yes No
- Segmented responses supported Yes No

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Standard Object Types Supported:

Analog Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION

4. List of all properties that are writable where not otherwise required by this standard:

DESCRIPTION
OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

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Analog Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION

4. List of all properties that are writable where not otherwise required by this standard:

OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
PRESENT_VALUE	MINIMUM: 0.0; MAXIMUM: 100.0

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Analog Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION PRIORITY_ARRAY RELINQUISH_DEFAULT

4. List of all properties that are writable where not otherwise required by this standard:

OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

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Binary Input Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION

4. List of all properties that are writable where not otherwise required by this standard:

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

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Binary Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION INACTIVE_TEXT ACTIVE_TEXT

4. List of all properties that are writable where not otherwise required by this standard:

OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

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Binary Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION PRIORITY_ARRAY RELINQUISH_DEFAULT

4. List of all properties that are writable where not otherwise required by this standard:

PRESENT_VALUE OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions

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Device Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION
 LOCAL_TIME
 LOCAL_DATE
 UTC_OFFSET
 DAYLIGHT_SAVINGS_STATUS
 MAX_MASTER
 MAX_INFO_FRAMES

4. List of all properties that are writable where not otherwise required by this standard:

OBJECT_IDENTIFIER
 OBJECT_NAME
 NUMBER_OF_APDU_RETRIES
 APDU_TIMEOUT
 UTC_OFFSET
 MAX_MASTER
 MAX_INFO_FRAMES

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
APDU_TIMEOUT	MINIMUM: 0; MAXIMUM: 3000
NUMBER_OF_APDU_RETRIES	MINIMUM: 0; MAXIMUM: 10
MAX_MASTER	MINIMUM: 0; MAXIMUM: 127
MAX_INFO_FRAMES	MINIMUM: 1; MAXIMUM: 255

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Multistate Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? Yes No
2. Dynamically deletable using BACnet's DeleteObject service? Yes No

3. List of optional properties supported:

DESCRIPTION

4. List of all properties that are writable where not otherwise required by this standard:

OUT_OF_SERVICE

5. List of proprietary properties:

Property Identifier	Property Datatype	Meaning

6. List of any property value range restrictions:

Property Identifier	Restrictions
PRESENT_VALUE	MINIMUM: 1; MAXIMUM: 3

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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): 9600 bps, 19.2Kbps, 38.4Kbps, 76.8 kbps
- 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 - 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)

Character Sets Supported:

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

- | | | |
|---|---|-------------------------------------|
| <input checked="" type="checkbox"/> ANSI X3.4 | <input type="checkbox"/> IBM™/Microsoft™ DBCS | <input type="checkbox"/> ISO 8859-1 |
| <input type="checkbox"/> ISO 10646 (UCS-2) | <input type="checkbox"/> ISO 10646 (UCS-4) | <input type="checkbox"/> JIS C 6226 |

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

Not Applicable