

## BACnet Protocol Implementation Conformance Statement

**Date:** 3/1/2020

**Vendor Name:** Yaskawa

**Product Name:** VFD Bypass

**Product Model Number:** HV600 Bypass

**Application Software Version:** VST8004xx    **Firmware Revision:** 2.01    **BACnet Protocol Revision:** 14

### Product Description:

The Yaskawa VFD Bypass is a high performance product specifically designed for commercial building automation applications. The Yaskawa BACnet feature connects the VFD Bypass to a standard BACnet MS/TP network. These products may be fully controlled and monitored over BACnet. All Bypass and drive parameters are available for reading and writing.

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

- BACnet Cross-Domain Advanced Operator Workstation (B-XAWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Workstation (B-OWS)
- BACnet Operator Display (B-OD)
- BACnet Advanced Life Safety Workstation (B-ALSWS)
- BACnet Life Safety Workstation (B-LSWS)
- BACnet Life Safety Annunciator Panel (B-LSAP)
- BACnet Advanced Access Control Workstation (B-AACWS)
- BACnet Access Control Workstation (B-ACWS)
- BACnet Access Control Security Display (B-ACSD)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Actuator (B-SA)
- BACnet Smart Sensor (B-SS)
- BACnet Advanced Life Safety Controller (B-ALSC)
- BACnet Life Safety Controller (B-LSC)
- BACnet Advanced Access Control Controller (B-AACC)
- BACnet Access Control Controller (B-ACC)
- BACnet Router (B-RTR)
- BACnet Gateway (B-GW)
- BACnet Broadcast Management Device (B-BBMD)
- BACnet Access Control Door Controller (B-ACDC)
- BACnet Access Control Credential Reader (B-ACCR)
- BACnet General (B-GENERAL)

### List all BACnet Interoperability Building Blocks Supported (Annex K):

- Data Sharing-ReadProperty-B (DS-RP-B)
- Data Sharing-WriteProperty-B (DS-WP-B)
- Data Sharing-ReadPropertyMultiple-B (DS-RPM-B)
- Data Sharing-WritePropertyMultiple-B (DS-WPM-B)
- Data Sharing-Change Of Value-B (DS-COV-B)
- Data Sharing-Change Of Value Property-B (DS-COVP-B)
- Device Management-Dynamic Device Binding-B (DM-DDB-B)
- Device Management-Dynamic Object Binding-B (DM-DOB-B)
- Device Management-DeviceCommunicationControl-B (DM-DCC-B)
- Device Management-ReinitializeDevice-B (DM-RD-B)
- Device Management-TimeSynchronization-B (DM-TS-B)

### Segmentation Capability:

- Able to transmit segmented messages Window Size \_\_\_\_\_
- Able to receive segmented messages Window Size \_\_\_\_\_

### Standard Object Types Supported:

- Device Object
  - Optional Writeable:
    - Max\_Info\_Frames
    - Max\_Master
- Analog Input Object
  - Optional properties supported:
    - COV\_Increment
  - Optional Writeable:
    - COV\_Increment – supported on various instances
- Analog Output Object
- Analog Value Object
  - Optional properties supported:
    - COV\_Increment
  - Optional Writeable:
    - COV\_Increment – supported on various instances
- Binary Input Object
- Binary Output Object
- Binary Value Object

### Data Link Layer Options:

- ARCNET (ATA 878.1), 2.5 Mb. (Clause 8)
- ARCNET (ATA 878.1), EIA-485 (Clause 8), baud rate(s) \_\_\_\_\_
- BACnet IP, (Annex J)
- BACnet IP, (Annex J), BACnet Broadcast Management Device (BBMD)
- BACnet IP, (Annex J), Network Address Translation (NAT Traversal)
- BACnet IPv6, (Annex U)
- BACnet IPv6, (Annex U), BACnet Broadcast Management Device (BBMD)
- BACnet/ZigBee (Annex O) \_\_\_\_\_
- Ethernet, ISO 8802-3 (Clause 7)
- LonTalk, ISO/IEC 14908.1 (Clause 11), medium: \_\_\_\_\_
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 76800
- 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): \_\_\_\_\_
- 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

### Character Sets Supported:

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

- |                                                       |                                               |                                     |
|-------------------------------------------------------|-----------------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> ISO 10646 (UTF-8) | <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 X 0208 |

**Gateway Options:**

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

- Not supported

If this product is a communication gateway which presents a network of virtual BACnet devices, a separate PICS shall be provided that describes the functionality of the virtual BACnet devices. That PICS shall describe a superset of the functionality of all types of virtual BACnet devices that can be presented by the gateway.

**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)