BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

XMW90 series transmitters are wall-mount transmitters for building automation applications. XMW90 series includes transmitter models for measuring humidity, carbon dioxide, and temperature.

Date	March 7, 2014
Vendor Name	Vaisala Oyj
Product Name	XMW90
Product Model Numbers	HMW95 | GMW95 | GMW95R
Applications Software Version	1.1.28 and later
Firmware Version	1.1.0.0 and later
BACnet Protocol Revision	Version 1, Revision 4
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 of all BACnet Interoperability Building Blocks Supported (Annex K)	DS-RP-B, DS-RPM-B, DS-WP-B, DS-COVU-B, DM-DDB-B, DM-DOB-B, DM-DCC-B, DM-RD-B
Segmentation Capability	☐ Segmentation Requests Supported ☐ Segmentation Responses Supported
Standard Object Types Supported	☑ Analog Input ☐ Analog Output ☑ Analog Value ☐ Averaging ☐ Binary Input ☐ Binary Output ☐ Binary Value ☐ Calendar ☐ Command ☑ Device ☐ Event Enrollment ☐ File ☐ Group ☐ Life Safety Point ☐ Life Safety Zone ☐ Loop

	☐ Multistate Input ☐ Multistate Output ☐ Multistate Value ☐ Notification Class ☐ Program ☐ Schedule ☐ Trend Log
Data Link Layer Options	☐ BACnet Internet Protocol (IP) (Annex J) ☐ BACnet IP (Annex J), Foreign Device ☐ ISO 88023, Ethernet (Clause 7) ☐ ANSI/ATA 878.1, 2.5 MB ARCNET® network (Clause 8) ☐ ANSI/ATA 878.1, RS485 ARCNET network (Clause 8), baud rates: _____ ☑ Master-Slave/Token-Passing (MS/TP) master (Clause 9), baud rates: 9600, 19200, 38400, 57600, 76800, 115200 ☑ MS/TP slave (Clause 9), baud rates: 9600, 19200, 38400, 57600, 76800, 115200 ☐ Point-To-Point, EIA 232 (Clause 10), baud rates: _____ ☐ Point-To-Point, modem (Clause 10), baud rates: _____ ☐ LonTalk® protocol (Clause 11), medium: _____ ☐ Other:
Device Address Binding **Is static device binding supported?** (required for two-way communication between MS/TP slaves and other devices)	☐ Yes ☑ No
Networking Options	☐ Router, Clause 6: ☐ Annex H, BACnet Tunneling Router over IP ☐ BACnet/IP Broadcast Management Device (BBMD)
Does the BBMD support registrations by Foreign Devices?	☐ Yes
	☐ No
Character Sets Supported	☑ UTF-8 / ANSI X3.4 ☐ IBM®/Microsoft® DoubleByte Character Set (DBCS) ☐ ISO 8859-1 ☐ ISO 10646 Universal Character Set-2 (UCS2) ☐ ISO 10646 (UCS-4) ☐ Japanese Industrial Standard (JIS) C 6226
Types of non-BACnet equipment/network(s) supported	None

Supported Standard Object Types and their Features

- No dynamically creatable or deletable objects.
- The present value property of an analog value object may be range restricted depending on the current application.

Table 1 Device Object

Property	Conformance code	Writable
Object_Identifier	R	Yes
Object_Name	R	Yes
Object_Type	R	No
System_Status	R	No
Vendor_Name	R	No
Vendor_Identifier	R	No
Model_Name	R	No
Firmware_Revision	R	No
Application_Software_Revision	R	No
Location	O	Yes
Description	O	Yes
Protocol_Version	R	No
Protocol_Revision	R	No
Protocol_Services	R	No
Protocol_Object_Types_Supported	R	No
Object_List	R	No
Max_APDU_Length_Accepted	R	No
Max_Master	R	Yes
Max_Info_Frames	R	No
Segmentation_Supported	R	No
APDU_Timeout	R	No
APDU_Retries	R	No
Device_Address_Binding	R	No
Database_Revision	R	No

Table 2 Analog Input Object

Property	Conformance code	Writable
Object_Identifier	R	No
Object_Name	R	No
Object_Type	R	No
Present_Value	R	Yes (When Oos*)
Description	O	No
Units	R	No
Status_Flags	R	Yes (when OoS)
Reliability	R	Yes (when OoS)
Event State	R	No
Out_of_Service	R	Yes
COV_Increment	O	Yes
Min_Pres_Value	O	No
Max_Pres_Value	O	No

* Out-of-service bit is set.

Table 3 Analog Value Object

Property	Conformance code	Writable
Object Identifier	R	No
Object Name	R	No
Object Type	R	No
Present Value	R	Yes
Description	O	No
Units	R	No
Status Flags	R	No
Event State	R	No
Out of Service	R	No

BIBBs Supported

Table 4 below lists all the BIBBs which, per ANSI/ASHRAE Standard 135-2008, could be supported by a BACnet Smart Sensor (B-SS). The checked BIBBs are supported by the device.

Table 4 BACnet Smart Sensor BIBBs Support

Application Service (B-SS)	Designation	Supported
Data Sharing - Read Property - A	DS-RP-A	☐
Data Sharing - Read Property - B	DS-RP-B	☑
Data Sharing - Read Property Multiple - A	DS-RPM-A	☐
Data Sharing - Read Property Multiple - B	DS-RPM-B	☑
Data Sharing - Write Property - A	DS-WP-A	☐
Data Sharing - Write Property - B	DS-WP-B	☑
Data Sharing - Write Property Multiple - B	DS-WPM-B	☐
Data Sharing - COV - Unsolicited - A	DS-COVU-A	☐
Data Sharing - COV - Unsolicited - B	DS-COVU-B	☑
Alarm and Event - Notification Internal - B	AE-N-I-B	☐
Alarm and Event - ACK - B	AE-ACK-B	☐
Alarm and Event - Information - B	AE-INFO-B	☐
Alarm and Event - Enrollment Summary - B	AE-ESUM-B	☐
Scheduling - External - B	SCHED-E-B	☐
Trending - Viewing and Modifying Trends Internal - B	T-VMT-I-B	☐
Trending - Automated Trend Retrieval - B	T-ATR-B	☐
Device Management - Dynamic Device Binding - A	DM-DDB-A	☐
Device Management - Dynamic Device Binding - B	DM-DDB-B	☑
Device Management - Dynamic Object Binding - A	DM-DOB-A	☐
Device Management - Dynamic Object Binding - B	DM-DOB-B	☑
Device Management - Device Communication Control - B	DM-DCC-B	☑
Device Management - Time Synchronization - B	DM-TS-B	☐
Device Management - UTC Time Synchronization - B	DM-UTC-B	☐
Device Management - Reinitialize Device - B	DM-RD-B	☑
Device Management - Backup and Restore - B	DM-BR-B	☐
Network Management - Connection Establishment - A	NM-CE-A	☐