BACnet Protocol Implementation Conformance Statement

Vendor Name:	Xylem Inc.
--------------	------------

Product Name: Technologic PPS Controller

Product Model Number:

Applications Software Version: 1.0 or above

Firmware Revision: FW1.0 BACnet Protocol Revision: 12

Product Description

The Technologic PPS is a variable speed pumping system for HVAC, industrial process and domestic water booster systems. It operates either as a stand-alone controller or as part of a building-wide integrated system. The BACnet communication interface will provide communication between the Technologic PPS controller and the BACnet system residing on RS-485 or IP media.

BACnet STandardized Device Profile (Annex L)

\square BACnet Operat	or Workstation (B-OWS)
\square BACnet Buildin	g Controller (B-BC)
☐ BACnet Advance	ced Application Controller (B-AAC)
⊠ BACnet Applica	ation 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 DM-TS-B DM-DCC-B DS-WP-B DM-DDB-B DM-DOB-B

Segmentation Capability

☐ Able to transmit segmented messages	Window Size	N/A
☐ Able to receive segmented messages	Window Size	N/A

Page 1 Xylem

Standard Object Types Supported

Analog input

Dynamically creatable:

Dynamically deletable:

Optional properties supported:

No

None

Writable properties: Present Value (Conditionally writable)

Out of Service

Proprietary properties: None
Property range restrictions: None

Analog output

Dynamically creatable:

Dynamically deletable:

Optional properties supported:

No

None

Writable properties: Present Value

Proprietary properties: None
Property range restrictions: None

Binary input

Dynamically creatable:

Dynamically deletable:

Optional properties supported:

No

None

Writable properties: Present Value (Conditionally writable)

Out of Service

Proprietary properties: None
Property range restrictions: None

Binary output

Dynamically creatable:

Dynamically deletable:

Optional properties supported:

No

None

Writable properties: Present Value

Proprietary properties: None Property range restrictions: None

Page 2 Xylem

Dynamically creatable: No Dynamically deletable: No Optional properties supported: Local_Time	Device					
Optional properties supported: Local_Time Max_Master Max_Info_Frames Writable properties: None Proprietary properties: None Property range restrictions: None Data Link Layer Options BACnet IP, (Annex J) BACNET IClause T) ANSI/ATA 878.1, RS-485 ARCNET (Clause 8) ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400 MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 Point-To-Point, EIA 232 (Clause 10), baud rate(s): Point-To-Point, modem, (Clause 10), baud rate(s): ChorTalk, (Clause 11), medium: Cher: Device Address Binding Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) 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) Does the BBMD support registrations by Foreign Devices?	I	Dynamically creatable:	No			
Loca_Time Max_Master Max_Info_Frames Writable properties: None Proprietary properties: None Property range restrictions: None Data Link Layer Options BACnet IP, (Annex J)	I	Dynamically deletable:	No			
Max_Master Max_Info_Frames Writable properties: None Proprietary properties: None Property range restrictions: None 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, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		Optional properties supported:	Local_Date			
Writable properties: None Proprietary properties: None Property range restrictions: None Data Link Layer Options BACnet IP, (Annex J)			Local_Time			
Writable properties: None Proprietary properties: None Property range restrictions: None Data Link Layer Options BACnet IP, (Annex J)			Max_Master			
Proprietary properties: None Property range restrictions: None 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, 19200, 38400, 57600, 115200 MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 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) Does the BBMD support registrations by Foreign Devices? Yes No			Max_Info_Frames			
Property range restrictions: None Data Link Layer Options 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, 19200, 38400, 57600, 115200 MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 Point-To-Point, EIA 232 (Clause 10), baud rate(s): Point-To-Point, modem, (Clause 10), baud rate(s): 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) Does the BBMD support registrations by Foreign Devices? Yes No	,	Writable properties:	None			
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, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No	I	Proprietary properties:	None			
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, 19200, 38400, 57600, 115200 MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 Point-To-Point, EIA 232 (Clause 10), baud rate(s): Point-To-Point, modem, (Clause 10), baud rate(s): 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.) 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) Does the BBMD support registrations by Foreign Devices?	1	Property range restrictions:	None			
□ 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, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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.) □ 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 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No	Data Link La	yer Options				
□ 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, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		⊠ BACnet IP, (Annex J)				
□ 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, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		\square BACnet IP, (Annex J), Foreign Device				
□ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) ☑ MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 115200 □ MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 □ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		\square ISO 8802-3, Ethernet (Clause 7)				
MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 115200 MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400 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) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No		☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)				
		\square ANSI/ATA 878.1, RS-485 ARCNET (Clause 8),	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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		⊠ MS/TP master (Clause 9), baud rate(s): 9600	, 19200, 38400, 57600, 1	.15200		
□ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		\square MS/TP slave (Clause 9), baud rate(s): 9600, 1	9200, 38400			
□ 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) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		\square Point-To-Point, EIA 232 (Clause 10), baud rat	e(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 □ BACnet/IP Broadcast Management Device (BBMD) Does the BBMD support registrations by Foreign Devices? □ Yes □ No		\square Point-To-Point, modem, (Clause 10), baud ra	te(s):			
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) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No		☐ LonTalk, (Clause 11), medium:				
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) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No		☐ Other:				
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) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No	Device Addr	ress Binding				
 □ 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) □ Does the BBMD support registrations by Foreign Devices? □ Yes □ No 			•	•	ion	
etc. Annex H, BACnet Tunneling Router over IP BACnet/IP Broadcast Management Device (BBMD) Does the BBMD support registrations by Foreign Devices?	Networking	Options				
☐ BACnet/IP Broadcast Management Device (BBMD) Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No			ons, e.g., ARCNET-Ethern	et, Ethernet-MS	/TP,	
Does the BBMD support registrations by Foreign Devices? ☐ Yes ☐ No		☐ Annex H, BACnet Tunneling Router over IP				
		☐ BACnet/IP Broadcast Management Device (B	BMD)			
Character Sets Supported		Does the BBMD support registrations by Foreign	n Devices?	☐ Yes	□ No	
	Character So	ets Supported				

Page 3 Xylem

Indicating support for mu simultaneously.	Itiple character sets does not imply tha	at they can all be supported
☐ ANSI X3.4	☐ IBM'/Microsoft' DBCS	☐ ISO 8859-1
☐ ISO 10646 (UCS-2)	☐ ISO 10646 (UCS-4)	☐ JIS C 6226
☑ ISO 10646 (UTF-8)		
If this product is a communication gate the gateway supports:	way, describe the types of non-BACno	et equipment/network(s) that

Page 4 Xylem