

Carbon Monoxide Rough Service - BACnet Protocol Implementation Conformance Statement

Application Note

CO_RoughServ_BACnet_PICS

rev. 03/08/19

BACnet Protocol Implementation Conformance Statement (PICS)

Date: 07MAR2019

Vendor Name: Building Automation Products, Inc.

Product Name: Rough Service Carbon Monoxide with BACnet

Product Model Number: BA/BBV-CO Applications Software Version: V4.000

Firmware Revision: V1.000 BACnet Protocol Revision: 12

Product Description

BAPI's Carbon Monoxide Rough Service Sensor offers enhanced electrochemical sensing with outstanding accuracy at low concentrations. It features a ventilated BAPI-Box and is ideal for parking ramps, equipment rooms and warehouses. The sensor has a CO range of 0 to 500 ppm with field selectable outputs of 0 to 5, 1 to 5, 0 to 10 and 2 to 10 VDC. It includes optional humidity measurement with one of the above voltage outputs, and temperature via a 10K-2, 10K-3 or 20K Thermistor. The CO, temperature and humidity outputs are also available via BACnet MS/TP.

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):

Data Sharing	ReadP	roperty-A	(DS-RP-A)
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Data Sharing - ReadProperty-B (DS-RP-B)

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

Data Sharing – WriteProperty-A (DS-WP-A)

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-A (DM-DDB-A)

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)

Segmentation Capability:

□ Able to transmit segmented messages	Window Size
□ Able to receive segmented messages	Window Size



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Standard Object Types Supported:

Droporty	Object Type			
Property	Device	Binary Input	Analog Input	
Object Identifier	W	R	R	
Object Name	W	R	R	
Object Type	R	R	R	
System Status	R			
Vendor Name	R			
Vendor Identifier	R			
Model Name	R			
Firmware Revision	R			
Protocol Version	R			
Object Types Supported	R			
Object List	R			
APDU Timeout	W			
APDO Timeout	(1065535)			
Number APDU Retries	W			
Number AFDO Retiles	(010)			
Max Master	W			
IVIAX IVIASICI	(1127)			
Max Info Frames	W			
IVIAX IIIIO I TAITIES	(1100)			
Device Address Binding	R			
Present Value		R	R	
Units			R	
COV Increment			W	
Polarity		W		

R – Readable using BACnet services

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, 76800, 115200
□ 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:

W - Readable and writable using BACnet services



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Device	Address	Binding:
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Is static device binding supporte	ed? (This is currently r	necessary for two-way	communication with	MS/TP slaves and
certain other devices.) ■ Yes	□ No			

certain other devices.)	``	essary for two-way communication	JII WILLI WIS/TE SIAVES
Networking Options:			
□ Router, Clause 6 - List	all routing configurations		
□ Annex H, BACnet Tunn	eling Router over IP		
□ BACnet/IP Broadcast N	Management Device (BBMD)		
Does the BBMD suppo	rt registrations by Foreign Device	ces? □ Yes □ No	
Network Security Op	tions:		
■ Non-secure Device - is	capable of operating without BA	ACnet Network Security	
□ Secure Device - is capa	able of using BACnet Network S	security (NS-SD BIBB)	
□ Multiple Application-S	Specific Keys:		
□ Supports encryption ((NS-ED BIBB)		
□ Key Server (NS-KS E	BIBB)		
Character Sets Supp	orted:		
Indicating support for mul	tiple character sets does not im	ply that they can all be supported	d simultaneously.
■ ISO 10646 (UTF-8)	□ IBM™/Microsoft™ DBCS	□ ISO 8859-1	
□ ISO 10646 (UCS-2)	□ ISO 10646 (UCS-4)	□ JIS X 0208	