Critical Environment Technologies Canada Inc.
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Listing on BACnet International website

BACnet Protocol Implementation Conformance Statement

Date: April 2019
Vendor Name: Critical Environment Technologies Canada Inc.
Product Name: CGAS Gas Detector Family
Product Model Numbers: CGAS-D, CGAS-DP, CGAS-SC
Application Software Version: 1.1 **Firmware Revision:** 3.7.12.0 **BACnet Protocol Version/Revision:** 14

Product Description:
The CGAS Detector product line is a group of customizable two channel gas detectors featuring a range a possible gases and options. The various gases are added to the device using plug and play "smart sensor" boards, which attach to the main board within the enclosure. The main board handles communication back to a controller or building management system via field configurable MODBUS RTU or 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):

BIBB	Service	Initiates	Responds to
DS-RP-B	ReadProperty-B		X
DS-WP-B	WriteProperty-B		X
DM-DDB-B	Dynamic Object Device Binding-B		X
DM-DOB-B	Dynamic Object Binding-B		X

Segmentation Capability:

Segmented requests supported Window Size 480
Segmented responses supported Window Size 480

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Standard Object Types Supported:

An object type is supported if it may be present in the device. For each standard Object Type supported provide the following data:

1) Whether objects of this type are dynamically creatable using the CreateObject service
2) Whether objects of this type are dynamically deletable using the DeleteObject service
3) List of the optional properties supported
4) List of all properties that are writable where not otherwise required by this standard
5) List of proprietary properties and for each its property identifier, datatype, and meaning
6) List of any property range restrictions

Note: none of the object types listed in this section is dynamically creatable or dynamically deletable.
Note: the BACnet conformance codes are as follows:

O - Optional (may be required under some conditions)
R - Required, but not required to be writable (may be required to be writable under some conditions)
W - Not only required, but also required to be writable

The following codes are used in this document to describe how the properties are implemented:

R/W - Read/write
R/O - Read-only
R/O=value - Implemented as a read-only with the indicated value

Device Object

Property	BACnet Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="device"
System_Status	R	R/O="operational"
Vendor_Name	R	R/O
Vendor_Identifier	R	R/O
Model_Name	R	R/O
Firmware_Revision	R	R/O
Application_Software_Version	R	R/O
Location	O	R/W
Protocol_Version	R	R/O=1
Protocol_Revision	R	R/O=14
Protocol_Services_Supported	R	R/O
Protocol_Object_Types_Supported	R	R/O
Object_List	R	R/O
Max_APDU_Length_Accepted	R	R/O=480
Segmentation_Supported	R	R/O="none"
APDU_Timeout	R	R/O=7000
Number_Of_APDU_Retries	R	R/W=1
Max_Master	O	R/O=127

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Device_Address_Binding	R	R/O=empty list
Data_Base_Revision	R	R/O
Max_Info_Frames	O	R/O =1

Analog Input

Property	BACnet Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="analog-input"
Present_Value	R	R/O
Status_Flags	R	R/O
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Units	R	R/O
Property_List	R	R/O
Description	O	R/W

Analog Output

Property	BACnet Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="analog-output"
Present_Value	W	R/W
Status_Flags	R	R/O="all normal"
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Units	R	R/O
Priority_Array	R	R/O
Relinquish_Default	R	R/W
Property_List	R	R/O
Description	O	R/W

Binary Output

Property	BACnet Conf Code	Implementation
Object_Identifier	R	R/O
Object_Name	R	R/O
Object_Type	R	R/O="binary-output"
Present_Value	W	R/W
Status_Flags	R	R/O="all normal"
Event_State	R	R/O="normal"
Out_Of_Service	R	R/O=FALSE
Polarity	R	R/W
Priority_Array	R	R/O
Relinquish_Default	R	R/O
Description	O	R/W

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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 Node (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: _____

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

Character Sets Supported:

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

☑ ANSI X3.4 ☐ IBM™/Microsoft™ DBCS ☐ ISO 8859-1 ☐ ISO 10646 (UTF-8)
☐ ISO 10646 (UCS-2) ☐ ISO 10646 (UCS-4) ☐ JIS C 6226

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

_____

_____

Network Security Options:
☑Non-secure Device - is capable of operating without BACnet Network Security