

BACnet Protocol Implementation Conformance Statement

Date	January 17, 2025
Vendor Name	Delta Controls
Product Name	V4 Product Platform
Product Model Number	eBMGR-2 eBCON-2 O3-DIN-CPU O3-DIN-SRC Red5-PLUS-ROOM Red5-EDGE-ROOM Red5-PLUS-1180 Red5-PLUS-1146 Red5-EDGE-1180 Red5-EDGE-1146 Red5-EDGE-634 Red5-EDGE-606 Red5-FIELD-1180 Red5-FIELD-1146 Red5-FIELD-634 Red5-FIELD-606 Red5-EDGE-634-ZNE Red5-FIELD-V440-LNK Red5-FIELD-V100-LNK Red5-EDGE-V440 Red5-EDGE-V100 Red5-EDGE-V440-PoE Red5-FIELD-V440-R5B Red5-FIELD-V100-R5B Red5-EDGE-V440-T1L Red5-EDGE-V100-T1L O3-EDGE-02 O3-EDGE-02-E8 O3-EDGE-02-E9 O3-SENSE
Product Version	4.16
BACnet Protocol Revision	18

Product Description

The V4 Product Platform and associated firmware provide fully programmable capabilities for a range of Delta Controls products. Although hardware features such as ports and I/O may vary, each product uses the same BACnet firmware and communicates on a BACnet network supporting Ethernet, IP, and/or MS/TP. Each product supports all the BACnet capabilities indicated unless otherwise noted.

BACnet Standardized Device Profile (Annex L)

Product Model Name	Product Model Number	BACnet Device Profile
V4 Product Platform	eBMGR-2 eBCON-2 O3-DIN-CPU O3-DIN-SRC Red5-PLUS-ROOM Red5-EDGE-ROOM Red5-PLUS-1180 Red5-PLUS-1146 Red5-EDGE-1180 Red5-EDGE-1146 Red5-EDGE-634 Red5-EDGE-606 Red5-FIELD-1180 Red5-FIELD-1146 Red5-FIELD-634 Red5-FIELD-606 Red5-EDGE-634-ZNE Red5-FIELD-V440-LNK Red5-FIELD-V100-LNK Red5-EDGE-V440 Red5-EDGE-V100 Red5-EDGE-V440-PoE Red5-FIELD-V440-R5B Red5-FIELD-V100-R5B Red5-EDGE-V440-T1L Red5-EDGE-V100-T1L O3-EDGE-02 O3-EDGE-02-E8 O3-EDGE-02-E9 O3-SENSE	BACnet Building Controller (B-BC) BACnet Gateway (B-GW)

BACnet Interoperability Building Blocks (Annex K)

V4 supports the following BIBBs:

Data Sharing	DS-RP-A	Data Sharing-ReadProperty-A
	DS-RP-B	Data Sharing-ReadProperty-B
	DS-RPM-A	Data Sharing-ReadPropertyMultiple-A
	DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
	DS-WP-A	Data Sharing-WriteProperty-A
	DS-WP-B	Data Sharing-WriteProperty-B
	DS-WPM-A	Data Sharing-WritePropertyMultiple-A
	DS-WPM-B	Data Sharing-WritePropertyMultiple-B
	DS-COV-A	Data Sharing-COV-A
	DS-COV-B	Data Sharing-COV-B
	DS-COVP-A	Data Sharing – COVP-A
	DS-COVP-B	Data Sharing – COVP-B

Alarm and Event Management	AE-N-A	Alarm and Event-Notification-A
	AE-N-I-B	Alarm and Event-Notification Internal-B
	AE-N-E-B	Alarm and Event-Notification External-B
	AE-ACK-B	Alarm and Event-ACK-B
	AE-ASUM-B	Alarm and Event-Alarm Summary-B
	AE-ESUM-B	Alarm and Event-Enrollment Summary-B
	AE-INFO-B	Alarm and Event-Information-B

Scheduling	SCHED-I-B	Scheduling-Internal-B
	SCHED-E-B	Scheduling-External-B

Trending	T-VMT-I-B	Trending-Viewing and Modifying Trends-Internal-B
	T-VMT-E-B	Trending-Viewing and Modifying Trends-External-B
	T-ATR-B	Trending-Automated Trend Retrieval-B

Device and Network Management	DM-DDB-A	Device Management-Dynamic Device Binding-A
	DM-DDB-B	Device Management-Dynamic Device Binding-B
	DM-DOB-A	Device Management-Dynamic Object Binding-A
	DM-DOB-B	Device Management-Dynamic Object Binding-B
	DM-DCC-B	Device Management-DeviceCommunicationControl-B
	DM-PT-A	Device Management-Private Transfer-A
	DM-PT-B	Device Management-Private Transfer-B
	DM-TS-A	Device Management-TimeSynchronization-A ¹
	DM-TS-B	Device Management-TimeSynchronization-B ²
	DM-UTC-A	Device Management-UTC TimeSynchronization-A ¹
	DM-UTC-B	Device Management-UTC TimeSynchronization-B ²
	DM-RD-B	Device Management-ReinitializeDevice-B
	DM-BR-B	Device Management-Backup and Restore-B
	DM-LM-B	Device Management-List Manipulation-B
	DM-OCD-B	Device Management-Object Creation and Deletion-B

¹ Based on the UTC settings in the Device object. When UTC is enabled, both DM-TS-A and DM-UTC-A is supported, otherwise only DM-TS-A is supported.

² Based on the UTC setting in the Device object. When UTC is enabled, DM-UTC-B is supported. When UTC is disabled DM-TS-B is supported. Dates before January 1, 2000 or after December 31, 2099 will be ignored.

Segmentation Capability

- ☒ Able to transmit segmented messages Window Size is 1
- ☒ Able to receive segmented messages Window Size is 1

Standard Object Types Supported

- ☑ Dynamically creatable using the CreateObject service, except Device object and Network Port object.
- ☑ Dynamically deletable using the DeleteObject service, except Device object and Network Port object.

Standard Properties Summary

Object Type	Property Identifier	Writable	Optional
Access Credential ¹	Activation_Time	☑	☐
	Assigned_Access_Rights	☑	☐
	Authentication_Factors	☑	☐
	Authorization_Exemptions	☑	☑
	Belongs_To	☐	☑
	Credential_Disable	☐	☐
	Credential_Status	☐	☐
	Description	☑	☑
	Expiry_Time	☑	☐
	Extended_Time_Enable	☑	☑
	Global Identifier	☑	☐
	Object_Name	☑	☐
	Profile_Name	☐	☑
	Reason_For_Disable	☐	☐
	Reliability	☐	☐
	Reliability_Evaluation_Inhibit	☑	☐
	Threat_Authority	☑	☑
	Trace_Flag	☑	☑
Access Door ²	Access_Event	☐	☐
	Access_Event_Object	☐	☐
	Access_Event_Tag	☐	☐
	Access_Event_Time	☐	☐
	Description	☑	☑
	Door_Extended_Pulse_Time	☑	☐
	Door_Members	☐	☑
	Door_Open_Too_Long_Time	☑	☐
	Door_Pulse_Time	☑	☐
	Door_Status	☑	☑
	Maintenance_Required	☑	☑

¹ This object type is only supported in the Red5-PLUS-ROOM and Red5-EDGE-ROOM models.

² Ibid.

Object Type	Property Identifier	Writable	Optional
	Object_Name	☒	☐
	Out_Of_Service	☒	☐
	Present Value	☒	☐
	Priority_Array	☒	☐
	Profile_Name	☐	☒
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☐
	Secured_Status	☐	☒
Access Point ³	Access_Doors	☐	☐
	Access_Event	☐	☐
	Access_Event_Authentication_Factor	☐	☒
	Access_Event_Credential	☐	☐
	Access_Event_Tag	☐	☐
	Access_Event_Time	☐	☐
	Accompaniment_Time	☒	☒
	Active_Authentication_Policy	☒	☐
	Authentication_Status	☐	☐
	Authorization_Mode	☒	☐
	Description	☒	☒
	Failed_Attempt_Events	☒	☒
	Failed_Attempts	☐	☒
	Failed_Attempts_Time	☒	☒
	Lockout	☒	☒
	Lockout_Relinquish_Time	☒	☒
	Max_Failed_Attempts	☒	☒
	Number_Of_Authentication_Policies	☐	☐
	Object_Name	☒	☒
	Occupancy_Count_Adjust	☒	☒
	Occupancy_Lower_Limit_Enforced	☒	☒
	Occupancy_Upper_Limit_Enforced	☒	☒
	Out_Of_Service	☐	☐
	Priority_For_Writing	☒	☐
	Profile_Name	☐	☒
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☐

³ This object type is only supported in the Red5-PLUS-ROOM and Red5-EDGE-ROOM models.

Object Type	Property Identifier	Writable	Optional
Access Rights ⁴	Threat_Level	☒	☒
	Zone_From	☐	☒
	Zone_To	☐	☒
	Accompaniment	☒	☒
	Description	☒	☒
	Enable	☒	☐
	Global_Identifier	☒	☐
	Negative_Access_Rules	☒	☐
	Object_Name	☒	☐
	Positive_Access_Rules	☒	☐
	Profile_Name	☐	☒
	Reliability	☐	☐
	Reliability_Evaluation_Inhibit	☒	☐
Access User ⁵	Credentials	☒	☐
	Description	☒	☒
	Global_Identifier	☒	☐
	Member_Of	☒	☒
	Members	☒	☒
	Object_Name	☒	☐
	Profile_Name	☐	☒
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☐
	User_External_Identifier	☒	☒
	User_Information_Reference	☒	☒
	User_Name	☒	☒
	User_Type	☒	☐
Access Zone ⁶	Adjust_Value	☒	☒
	Credentials_In_Zone	☐	☒
	Description	☒	☒
	Entry_Points	☒	☐
	Event_State	☐	☐
	Exit_Points	☒	☐
	Global_Identifier	☒	☐
	Last_Credential_Added	☒	☒

⁴ This object type is only supported in the Red5-PLUS-ROOM and Red5-EDGE-ROOM models.

⁵ Ibid.

⁶ Ibid.

Object Type	Property Identifier	Writable	Optional
	Last_Credential_Added_Time	☐	☒
	Last_Credential_Removed	☒	☒
	Last_Credential_Removed_Time	☐	☒
	Object_Name	☒	☐
	Occupancy_Count	☒	☒
	Occupancy_Count_Enable	☒	☒
	Occupancy_Lower_Limit	☒	☒
	Occupancy_State	☐	☐
	Occupancy_Upper_Limit	☒	☒
	Out_Of_Service	☐	☐
	Passback_Mode	☒	☒
	Passback_Timeout	☒	☒
	Profile_Name	☐	☒
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☐
Analog Input	Acked_Transitions	☐	☒
	COV_Increment	☒	☒
	Deadband	☒	☒
	Description	☒	☒
	Device_Type	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	High_Limit	☒	☒
	Limit_Enable	☒	☒
	Low_Limit	☒	☒
	Max_Pres_Value	☐	☒
	Min_Pres_Value	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐

Object Type	Property Identifier	Writable	Optional
	Out_Of_Service	☒	☐
	Present_Value	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Resolution	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Units	☐	☐
	Update_Interval	☐	☒
Analog Output	Acked_Transitions	☐	☒
	COV_Increment	☒	☒
	Current_Command_Priority	☐	☐
	Deadband	☒	☒
	Description	☒	☒
	Device_Type	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	High_Limit	☒	☒
	Limit_Enable	☒	☒
	Low_Limit	☒	☒
	Max_Pres_Value	☐	☒
	Min_Pres_Value	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐

Object Type	Property Identifier	Writable	Optional
	Present_Value	☒	☐
	Priority_Array	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☐
	Resolution	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Units	☐	☐
Analog Value	Acked_Transitions	☐	☒
	COV_Increment	☒	☒
	Current_Command_Priority	☐	☐
	Deadband	☒	☒
	Description	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	High_Limit	☒	☒
	Limit_Enable	☒	☒
	Low_Limit	☒	☒
	Max_Pres_Value	☐	☒
	Min_Pres_Value	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Present_Value	☒	☐

Object Type	Property Identifier	Writable	Optional
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	Resolution	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Units	☒	☐
Binary Input	Acked_Transitions	☐	☒
	Active_Text	☐	☒
	Alarm_Value	☒	☒
	Change_Of_State_Count	☒	☒
	Change_Of_State_Time	☐	☒
	Description	☒	☒
	Device_Type	☒	☒
	Elapsed_Active_Time	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Inactive_Text	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Polarity	☒	☐
	Present_Value	☒	☐
	Profile_Name	☐	☒

Object Type	Property Identifier	Writable	Optional
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☐
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Time_Of_Active_Time_Reset	☐	☒
	Time_Of_State_Count_Reset	☐	☒
Binary Output	Acked_Transitions	☐	☒
	Active_Text	☐	☒
	Change_Of_State_Count	☒	☒
	Change_Of_State_Time	☐	☒
	Description	☒	☒
	Device_Type	☒	☒
	Elapsed_Active_Time	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Feedback_Value	☐	☒
	Inactive_Text	☐	☒
	Minimum_Off_Time	☒	☒
	Minimum_On_Time	☒	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Polarity	☒	☐
	Present_Value	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐

Object Type	Property Identifier	Writable	Optional
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☐
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Time_Of_Active_Time_Reset	☐	☒
	Time_Of_State_Count_Reset	☐	☒
Binary Value	Acked_Transitions	☐	☒
	Active_Text	☐	☒
	Alarm_Value	☒	☒
	Change_Of_State_Count	☒	☒
	Change_Of_State_Time	☐	☒
	Description	☒	☒
	Elapsed_Active_Time	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Inactive_Text	☐	☒
	Minimum_Off_Time	☒	☒
	Minimum_On_Time	☒	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Present_Value	☒	☐
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒

Object Type	Property Identifier	Writable	Optional
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Time_Of_Active_Time_Reset	☐	☒
	Time_Of_State_Count_Reset	☐	☒
BitString Value	Acked_Transitions	☐	☒
	Alarm_Values	☒	☒
	Bit_Mask	☒	☒
	Bit_Text	☒	☒
	Description	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☒
	Event_Time_Stamps	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☒
	Present_Value	☒	☐
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒

Object Type	Property Identifier	Writable	Optional
Calendar	Date_List	☒	☐
	Description	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Present_Value	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Tags	☒	☒
Character String Value	Description	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☒
	Present_Value	☒	☐
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☒
Credential Data Input ⁷	Description	☒	☒
	Object_Name	☒	☐
	Out_Of_Service	☒	☐
	Present_Value	☒	☐
	Profile_Name	☐	☒
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☐
	Supported_Format_Classes	☐	☒
	Supported_Formats	☐	☐
	Update_Time	☐	☐

⁷ This option is not supported on eBCON-2 and eBMGR-2 devices.

Object Type	Property Identifier	Writable	Optional
Device	Active_COV_Subscriptions	☐	☒
	Active_VT_Sessions	☐	☒
	Align_Intervals	☒	☒
	APDU_Segment_Timeout	☒	☒
	APDU_Timeout	☒	☐
	Application_Software_Version	☐	☐
	Auto_Slave_Discovery	☒	☒
	Backup_And_Restore_State	☐	☒
	Backup_Failure_Timeout	☒	☒
	Backup_Preparation_Time	☐	☒
	Configuration_Files	☐	☒
	Database_Revision	☐	☐
	Daylight_Savings_Status	☐	☒
	Description	☒	☒
	Device_Address_Binding	☐	☐
	Firmware_Revision	☐	☐
	Interval_Offset	☒	☒
	Last_Restart_Reason	☐	☒
	Last_Restore_Time	☐	☒
	Local_Date	☐	☒
	Local_Time	☐	☒
	Location	☒	☒
	Manual_Slave_Address_Binding	☒	☒
	Max_APDU_Length_Accepted	☐	☐
	Max_Info_Frames	☒	☒
	Max_Master	☐	☒
	Max_Segments_Accepted	☐	☒
	Model_Name	☐	☐
	Number_Of_APDU_Retries	☒	☐
	Object_Identifier	☐	☐
	Object_List	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Profile Name	☐	☒
	Property_List	☐	☐
	Protocol_Object_Types_Supported	☐	☐
	Protocol_Revision	☐	☐
	Protocol_Services_Supported	☐	☐

Object Type	Property Identifier	Writable	Optional
	Protocol_Version	☐	☐
	Restart_Notification_Recipients	☒	☒
	Restore_Completion_Time	☐	☒
	Restore_Preparation_Time	☐	☒
	Segmentation_Supported	☐	☐
	Serial_Number	☐	☒
	Slave_Address_Binding	☒	☒
	Slave_Proxy_Enable	☒	☒
	Structured_Object_List	☒	☒
	System_Status	☐	☐
	Tags	☒	☒
	Time_Of_Device_Restart	☐	☒
	Time_Synchronization_Interval	☒	☒
	Time_Synchronization_Recipients	☒	☒
	UTC_Offset	☒	☒
	UTC_Time_Synchronization_Recipients	☒	☒
	Vendor_Identifier	☐	☐
	Vendor_Name	☐	☐
	VT_Classes_Supported	☐	☒
Event Enrollment	Acked_Transitions	☐	☐
	Description	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☐
	Event_Enable	☒	☐
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_Parameters	☒	☐
	Event_State	☐	☐
	Event_Time_Stamps	☐	☐
	Event_Type	☐	☐
	Fault_Parameters	☒	☒
	Fault_Type	☐	☒
	Notification_Class	☒	☐
	Notify_Type	☒	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐

Object Type	Property Identifier	Writable	Optional
	Object_Property_Reference	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☐	☐
	Reliability_Evaluation_Inhibit	☒	☒
	Status_Flags	☐	☐
	Time_Delay_Normal	☒	☒
	Tags	☒	☒
File	Archive	☒	☐
	Description	☒	☒
	File_Access_Method	☒	☐
	File_Size	☒	☐
	File_Type	☒	☐
	Modification_Date	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Read_Only	☐	☐
	Record_Count	☐	☒
	Tags	☒	☒
Large Analog Value	Acked_Transitions	☐	☒
	COV_Increment	☒	☒
	Deadband	☒	☒
	Description	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	High_Limit	☒	☒
	Limit_Enable	☒	☒

Object Type	Property Identifier	Writable	Optional
	Low_Limit	☒	☒
	Max_Pres_Value	☒	☒
	Min_Pres_Value	☒	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Present_Value	☒	☐
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	Resolution	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
	Units	☒	☐
Life Safety Point	Accepted_Modes	☐	☐
	Description	☒	☒
	Mode	☒	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Operation_Expected	☒	☐
	Out_Of_Service	☐	☐
	Present_Value	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Tracking_Value	☒	☐

Object Type	Property Identifier	Writable	Optional
Lighting Output	Blink_Warn_Enable	☒	☐
	COV_Increment	☒	☒
	Default_Fade_Time	☒	☐
	Default_Ramp_Rate	☒	☐
	Default_Step_Increment	☒	☐
	Description	☒	☒
	Egress_Active	☐	☐
	Egress_Time	☒	☐
	Feedback_Value	☐	☒
	In_Progress	☐	☐
	Instantaneous_Power	☐	☒
	Lighting_Command	☒	☐
	Lighting_Command_Default_Priority	☒	☐
	Max_Actual_Value	☒	☒
	Min_Actual_Value	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Power	☒	☒
	Present_Value	☒	☐
	Priority_Array	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☐
	Status_Flags	☐	☐
	Tags	☒	☒
	Tracking_Value	☐	☐
	Transition	☒	☒
Loop	Acked_Transitions	☐	☒
	Action	☒	☐
	Bias	☒	☒
	Controlled_Variable_Reference	☒	☐
	Controlled_Variable_Value	☐	☐
	COV_Increment	☒	☒

Object Type	Property Identifier	Writable	Optional
	Deadband	☒	☒
	Derivative_Constant	☒	☒
	Derivative_Constant_Units	☒	☒
	Description	☒	☒
	Error_Limit	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Integral_Constant	☒	☒
	Integral_Constant_Units	☒	☒
	Manipulated_Variable_Reference	☒	
	Maximum_Output	☒	☒
	Minimum_Output	☒	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Output_Units	☐	☐
	Present_Value	☒	☐
	Priority_For_Writing	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Proportional_Constant	☒	☒
	Proportional_Constant_Units	☒	☒
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Setpoint	☒	☐
	Setpoint_Reference	☒	☐
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒

Object Type	Property Identifier	Writable	Optional
	Update_Interval	☐	☒
Multi-state Input	Acked_Transitions	☐	☒
	Alarm_Values	☒	☒
	Description	☒	☒
	Device_Type	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Fault_Values	☒	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Number_Of_States	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Present_Value	☒	☐
	Priority_Array	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	State_Text	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
Multi-state Output	Acked_Transitions	☐	☒
	Description	☒	☒
	Device_Type	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒

Object Type	Property Identifier	Writable	Optional
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Feedback_Value	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Number_Of_States	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Present_Value	☒	☐
	Priority_Array	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☐
	State_Text	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
Multi-state Value	Acked_Transitions	☐	☒
	Alarm_Values	☒	☒
	Description	☒	☒
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Fault_Values	☒	☒

Object Type	Property Identifier	Writable	Optional
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Number_Of_States	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Present_Value	☒	☐
	Priority_Array	☐	☒
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Relinquish_Default	☒	☒
	State_Text	☐	☒
	Status_Flags	☐	☐
	Tags	☒	☒
	Time_Delay	☒	☒
	Time_Delay_Normal	☒	☒
Network Port ⁸	APDU_Length	☐	☐
	Auto_Slave_Discovery	☒	☒
	BACnet_IP_Global_Address	☒	☒
	BACnet_IP_Mode	☒	☒
	BACnet_IP_Multicast_Address	☒	☒
	BACnet_IP_NAT_Traversal	☒	☒
	BACnet_IP_UDP_Port	☒	☒
	BACnet_IPv6_Mode	☒	☒
	BACnet_IPv6_Multicast_Address	☒	☒
	BACnet_IPv6_UPD_Port	☒	☒
	BBMD_Accept_FD_Registrations	☒	☒
	BBMD_Broadcast_Distribution_Table	☒	☒
	BBMD_Foreign_Device_Table	☐	☒
	Changes_Pending	☐	☐
	Command	☒	☐
	Description	☒	☒
	FD_BBMD_Address	☒	☒

⁸ Red5-PLUS-ROOM and Red5-EDGE-ROOM models do not support BBMD property identifiers.

Object Type	Property Identifier	Writable	Optional
	FD_Subscription_Lifetime	☒	☒
	IP_Address	☒	☒
	IP_Default_Gateway	☒	☒
	IP_DHCP_Enable	☒	☒
	IP_DHCP_Lease_Time	☐	☒
	IP_DHCP_Lease_Time_Remaining	☐	☒
	IP_DHCP_Server	☐	☒
	IP_DNS_Server	☒	☒
	IP_Subnet_Mask	☒	☒
	IPv6_Address	☒	☒
	IPv6_Auto_Addressing_Enable	☒	☒
	IPv6_Default_Gateway	☒	☒
	IPv6_DHCP_Lease_Time	☐	☒
	IPv6_DHCP_Lease_Time_Remaining	☐	☒
	IPv6_DHCP_Server	☒	☒
	IPv6_Prefix_Length	☒	☒
	IPv6_Zone_Index	☐	☒
	Link_Speed	☒	☐
	Link_Speed_Autonegotiate	☒	☒
	Link_Speeds	☐	☒
	MAC_Address	☒	☒
	Manual_Slave_Address_Binding	☒	☒
	Max_Info_Frames	☒	☒
	Max_Master	☒	☒
	Network_Interface_Name	☐	☒
	Network_Number	☒	☐
	Network_Number_Quality	☐	☐
	Network_Type	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Protocol_Level	☐	☐
	Reference_Port	☐	☒
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Routing_Table	☐	☒

Object Type	Property Identifier	Writable	Optional
	Slave_Address_Binding	☒	☒
	Slave_Proxy_Enable	☒	☒
	Status_Flags	☒	☐
	Tags	☒	☒
	Virtual_MAC_Address_Table	☒	☒
Notification Class	Ack_Required	☒	☐
	Description	☒	☒
	Notification_Class	☐	☐
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Priority	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Recipient_List	☒	☐
	Tags	☒	☒
Program	Acked_Transitions	☐	☒
	Description	☒	☒
	Description_Of_Halt	☐	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Text	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☒
	Event_Time_Stamps	☐	☒
	Instance_Of	☐	☒
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☐	☐
	Profile_Name	☐	☒
	Program_Change	☒	☐
	Program_Location	☐	☒
	Program_State	☐	☐
	Property_List	☐	☐

Object Type	Property Identifier	Writable	Optional
	Reason_For_Halt	☐	☒
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Status_Flags	☐	☐
	Tags	☒	☒
Schedule	Acked_Transitions	☐	☒
	Description	☒	☒
	Effective_Period	☒	☐
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☒
	Event_Time_Stamped	☐	☒
	Exception_Schedule	☒	☒
	List_Of_Object_Property_References	☒	☐
	Notification_Class	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐
	Out_Of_Service	☒	☐
	Present_Value	☒	☐
	Priority_For_Writing	☒	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Reliability	☒	☐
	Reliability_Evaluation_Inhibit	☒	☒
	Schedule_Default	☒	☐
	Status_Flags	☐	☐
	Tags	☒	☒
	Weekly_Schedule	☒	☒
Structured View	Default_Subordinate_Relationship	☒	☒
	Description	☒	☒
	Node_Subtype	☒	☒
	Node_Type	☒	☐
	Object_Identifier	☐	☐

Object Type	Property Identifier	Writable	Optional
	Object_Name	☒	☐
	Object_Type	☐	☐
	Profile_Name	☐	☒
	Property_List	☐	☐
	Represents	☒	☒
	Subordinate_Annotations	☒	☒
	Subordinate_List	☒	
	Subordinate_Node_Types	☒	☒
	Subordinate_Relationships	☒	☒
	Subordinate_Tags	☒	☒
	Tags	☒	☒
Trend Log	Acked_Transitions	☐	☒
	Align_Intervals	☒	☒
	Buffer_Size	☒	☐
	Client_COV_Increment	☒	☒
	COV_Resubscription_Interval	☒	☒
	Description	☒	☒
	Enable	☒	☐
	Event_Algorithm_Inhibit	☒	☒
	Event_Algorithm_Inhibit_Ref	☒	☒
	Event_Detection_Enable	☒	☒
	Event_Enable	☒	☒
	Event_Message_Texts	☐	☒
	Event_Message_Texts_Config	☒	☒
	Event_State	☐	☐
	Event_Time_Stamps	☐	☒
	Interval_Offset	☒	☒
	Last_Notify_Record	☐	☒
	Log_Buffer	☐	☐
	Log_DeviceObjectProperty	☒	☒
	Log_Interval	☒	☒
	Logging_Type	☒	☐
	Notification_Class	☒	☒
	Notification_Threshold	☒	☒
	Notify_Type	☒	☒
	Object_Identifier	☐	☐
	Object_Name	☒	☐
	Object_Type	☐	☐

Object Type	Property Identifier	Writable	Optional
	Profile_Name	☐	☒
	Property_List	☐	☐
	Record_Count	☒	☐
	Records_Since_Notification	☐	☒
	Reliability	☒	☒
	Reliability_Evaluation_Inhibit	☒	☒
	Start_Time	☒	☒
	Status_Flags	☐	☐
	Stop_Time	☒	☒
	Stop_When_Full	☒	☐
	Tags	☒	☒
	Total_Record_Count	☐	☐
	Trigger	☒	☒

Proprietary Properties Summary

Proprietary properties are supported.

Data Link Layer Options⁹

- ☒ BACnet IP, (Annex J)
- ☒ BACnet IP, (Annex J), Foreign Device
- ☒ ISO 8802-3, Ethernet (Clause 7)
- ☒ MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 76800, 115200
- ☒ BACnet Secure Connect Node (Annex YY), direct connections not supported
- ☒ DNS host name resolution supported (RFC 1123)

Device Address Binding

Is static device binding supported? ☒ Yes ☐ No

(This is currently necessary for two-way communication with MS/TP slaves and certain other devices.)

Networking Options

- ☒ eBMGR-2: Router between 1 Ethernet network, 2 BACnet/IP networks, 2 MS/TP networks
- ☒ eBCON-2: Router between 1 Ethernet network, 1 BACnet/IP network, 1 MS/TP network
- ☒ O3-DIN, Red5 ROOM, Red5-PLUS/EDGE: Router between 2 Ethernet networks, 1 BACnet/IP network, and 3 MS/TP networks
- ☒ Red5-FIELD: MS/TP device only; does not support Ethernet networks
- ☒ BACnet/IP Broadcast Management Device (BBMD)¹⁰
 - Does the BBMD support registrations by Foreign Devices? ☒ Yes ☐ No
 - Does the BBMD support network address translation? ☒ Yes ☐ No

Character Sets Supported

- ☒ ISO 10646 (UTF-8)

Gateway Options

- ☒ Supports H.1.1.2 Modeling non-BACnet Data as Objects in a Single BACnet Device
- ☒ Supports Modbus RTU over RS-485

Network Security Options

- ☒ Non-secure Device – is capable of operating without BACnet Network Security

⁹ See Networking Options for specific networks supported for each device

¹⁰ Red5-PLUS-ROOM, Red5-EDGE-ROOM, and Red5-FIELD models do not support BBMD