

BACnet Protocol Implementation Conformance Statement

Date: February 8, 2019
 Vendor Name: Delta Controls Inc.
 Product Name: enteliZONE Unitary
 Product Model Numbers: eZFC-424R4-24, eZ-440R4-230, eZV-440
 eZFCP-424R4-24, eZP-440R4-230, eZVP-440
 Product Version: 3.40-eZ2.2
 BACnet Protocol Revision: 12

Product Description

enteliZONE Unitary is a family of Delta controllers for HVAC zone applications. While there are multiple models in the enteliZONE family they can be grouped into categories that share the same BACnet features differing only in the amount and type of I/O between model options in each group. This PICs statement is for both enteliZONE Unitary programmable and configurable MS/TP model options.

Unless otherwise noted all models support all the BACnet capabilities indicated.

BACnet Standardized Device Profile (Annex L)

BACnet Application Specific Controller (B-ASC)

BACnet Interoperability Building Blocks (Annex K)

Data Sharing	DS-RP-A	Data Sharing-ReadProperty-A
	DS-RP-B	Data Sharing-ReadProperty-B
	DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
	DS-WP-A ¹	Data Sharing-WriteProperty-A
	DS-WP-B	Data Sharing-WriteProperty-B
	DS-COV-B	Data Sharing-COV-B
	DS-COVU-B	Data Sharing-COV-Unsolicited-B

¹ applies to programmable eZFCP-424R4-24, eZP-440R4-230 and eZVP-440 models only.

Alarm and Event Management	AE-N-I-B	Alarm and Event-Notification Internal-B
	AE-INFO-B	Alarm and Event-Information-B

Scheduling	SCHED-WS-I-B	Scheduling-Weekly Schedule-Internal-B
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Trending	T-VMT-I-B	Trending-Viewing and Modifying Trends-Internal-B
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Device and Network Management	DM-DDB-A	Device Management-Dynamic Device Binding-A
	DM-DDB-B	Device Management-Dynamic Device Binding-B
	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-B	Device Management-TimeSynchronization-B
	DM-RD-B	Device Management-ReinitializeDevice-B
	DM-BR-B	Device Management-Backup and Restore-B
	DM-OCD-B	Device Management-Object Creation and Deletion-B

Segmentation Capability

- Able to transmit segmented message Window Size = 1
- Able to receive segmented message Window Size = 1

Standard Object Types Supported

The following table lists the standard object types supported with a list of optional and writeable properties for each object type. Objects that can be dynamically created or deleted using the CreateObject and DeleteObject services are indicated with Create and Delete Checkboxes below the object type name.

Standard Properties Summary

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction	
Analog Input Object	Acked_Transitions	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
	COV_Increment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<input checked="" type="checkbox"/> Create ¹	Deadband	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> Delete ¹	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
		Device_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
		Event_Time_Stamps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction
-----	High_Limit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Low_Limit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Max_Pres_Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Min_Pres_Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Notification_Class	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Notify_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>	
	Resolution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Time_Delay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Analog Output Object	Acked_Transitions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	COV_Increment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Create ¹	Deadband	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Delete ¹	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Device_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Event_Time_Stamps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	High_Limit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Low_Limit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Max_Pres_Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Min_Pres_Value	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Notification_Class	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Notify_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>	
	Relinquish_Default	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Resolution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Time_Delay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Analog Value Object	COV_Increment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
<input checked="" type="checkbox"/> Create ¹	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
<input checked="" type="checkbox"/> Delete ¹	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>	
	Units	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction
Binary Input Object <input checked="" type="checkbox"/> Create ¹ <input checked="" type="checkbox"/> Delete ¹	Acked_Transitions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Active_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Alarm_Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Change_Of_State_Count	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Accepts writes of value of zero only
	Change_Of_State_Time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Device_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Event_Time_Stamps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Inactive_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Notification_Class	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Notify_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	Polarity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>	
	Time_Delay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Time_Of_State_Count_Reset	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Binary Output Object <input checked="" type="checkbox"/> Create ¹ <input checked="" type="checkbox"/> Delete ¹	Acked_Transitions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Active_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Change_Of_State_Count	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Accepts writes of value of zero only
	Change_Of_State_Time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Device_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Event_Time_Stamps	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Feedback_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	Inactive_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Minimum_Off_Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Minimum_On_Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Notification_Class	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Notify_Type	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Polarity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>		
Relinquish_Default	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction
	Time_Delay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Time_Of_State_Count_Reset	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Binary Value Object	Active_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Create ¹	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
<input checked="" type="checkbox"/> Delete ¹	Inactive_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
Device Object	APDU_Segment_Timeout	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Backup_Failure_Timeout	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Configuration_Files	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Last_Restore_Time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Local_Date	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Local_Time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Max_Info_Frames	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Max_Master	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Max_Segments_Accepted	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Number_Of_APDU_Retries	<input type="checkbox"/>	<input type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
Event Enrollment Object¹	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Event_Parameters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Notification_Class	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Object_Property_Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
File Object	Archive	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
Loop Object	Action	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Bias	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Range is 0.0 to 100.0
	Controlled_Variable_Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Controlled_Variable_Units	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Controlled_Variable_Value	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	COV_Increment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Derivative_Constant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Derivative_Constant_Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction
	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Integral_Constant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Integral_Constant_Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Manipulated_Variable_Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Output_Units	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	Priority_For_Writing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Proportional_Constant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Proportional_Constant_Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Reliability	<input checked="" type="checkbox"/> C	<input checked="" type="checkbox"/>	
	Setpoint	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Setpoint_Reference	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Multi-State Value Object	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
<input checked="" type="checkbox"/> Create ¹	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Delete ¹	Present_Value	<input checked="" type="checkbox"/> C	<input type="checkbox"/>	
	State_Text	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Notification Class Object	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
<input checked="" type="checkbox"/> Create	Priority	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Delete	Recipient_List	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Program Object¹	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Description_Of_Halt	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Reason_For_Halt	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Program_Change	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Reason_For_Halt	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Schedule Object	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Effective_Period	<input checked="" type="checkbox"/>	<input type="checkbox"/>	endDate must be later than the startDate
	List_Of_Object_Property_References	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Out_Of_Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Priority_For_Writing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Object Type (& Create/Delete Support)	Property Identifier	Writable C-Conditional	Optional	Property Range Restriction
	Schedule_Default	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Weekly_Schedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Trend Log Object	Description	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0-64 characters
	Log_DeviceObjectProperty	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Log_Enable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Log_Interval	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Object_Name	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-36 characters
	Record_Count	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Start_Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Stop_Time	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Stop_When_Full	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

¹ applies to programmable eZFCP-424R4-24, eZP-440R4-230 and eZVP-440 models only.

Proprietary Properties Summary

Proprietary properties are supported.

Data Link Layer Options

MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 76800

Device Address Binding

Is static device binding supported? 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

Does the BBMD support network address translation? Yes No

Character Set Supported

ISO 10646 (UTF-8) / ANSI X3.4

Communication Gateway

enteliZONE is not a communications gateway.

Network Security Options

- Non-secure Device – is capable of operating without BACnet Network Security
- Secure Device – is capable of using BACnet Network Security (NS-SD BIBB)
 - Multiple Application-Specific Keys
 - Supports encryption (NS-ED BIBB)
 - Key Server (NS-KS BIBB)