



SAUTER BACnet PICS

SAUTER modulo 5 ecos504/505

BACnet Protocol Implementation Conformance Statement

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Note:

This statement corresponds to the ANSI/ASHRAE Standard 135-2024 release.
Changes are taking place constantly, without prior notification.

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Legend:

This document contains tables with symbols and abbreviations for which the following legend applies:

☒	yes, supported	☐	no, not supported
-, n/a	not applicable	CC	Conformance Code
()	comments in parenthesis	R	Required Readable
W	Required Readable and Writable	O	(Conditionally) Optional
OC	Dynamic object creation	OD	Dynamic object deletion
OOS	Out-Of-Service writeable	COV	Change of value
CMD	Object commandable	IR/AR	Intrinsic / Algorithmic change reporting

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I. BACnet Protocol Implementation Conformance Statement

I.1 SAUTER EY-modulo 5 Room Automation Controllers

Date	February 2022
Vendor Name	Fr. Sauter AG (Vendor ID: 80)
Product Name	EY-modulo 5 Room Automation Controller
Product Model Number	All BACnet Room Automation Station ecos504 and ecos505: EY-RC504Fxxx¹ where xxx ¹ is 001, 011, 021, 041, 0C1, 0D1, 101, 202 EY-RC505Fxxx² where xxx ² is 031, 051, 061, 071, 081, 091, 0A1, 0B1, 0E1, 0F1, 0G1, 0H1, 0J1, 0K1
Applications Software Version	2.26 (CASE Engine Interface, Function Index)
Firmware Revision	V6.0.0b5071 (BACnet Firmware)
BACnet Protocol Revision	Version 1, Revision 24

I.1.1 BACnet Conformance Certificate (BCC)

BACnet Profile	B-BC, B-LD, B-GW
Date	28 th Feb 2022
Test Report	21.080.002.002 (iHomeLab)
BTL-Listing	BTL-30832
Firmware	V4.0.1
Model	EY-RC504Fxxx ¹ EY-RC505Fxxx ²

I.1.2 Product Description

The SAUTER BACnet Room Automation Stations ecos504/505 from the family SAUTER modulo are programmable automation stations for common room automation control applications (e.g. room control, light, blinds, fan...). The software component on the controller is a BACnet Server and includes as well BACnet Client functionality for peer-to-peer communication with other BACnet devices. When BACnet/IP data-link is in use, it supports BBMD and FD functionality. Alternatively, BACnet Secure Connect data-link can be enabled.

The ecos504/505 are BACnet Building Controllers (B-BC) with integrated gateway capabilities to support fieldbus systems like SLC/RS-485, EnOcean via SLC/RS-485, KNX/TP1, DALI, SMI, Modbus/RTU+ASCII via RS-485 and M-Bus, depending on the product model. Adding a software component allows to combine BACnet with MQTT to communicate with the IoT world.

I.1.3 BACnet Standardized Device Profile (Annex L)

- ☒ B-BC BACnet Building Controller
- ☒ B-LD BACnet Lighting Device
- ☒ B-GW BACnet Gateway

I.1.4 BACnet Interoperability Building Blocks (Annex K)

Supported BIBBs

Data Sharing-		BIBB	-A	-B
Read Property-	DS-RP-	☒	☒	☒
Read Property Multiple-	DS-RPM-	☒	☒	☒
Write Property-	DS-WP-	☒	☒	☒
Write Property Multiple-	DS-WPM-	☐	☒	☒
Change Of Value-	DS-COV-	☒	☒	☒
Change Of Value Property-	DS-COVP-	☐	☒	☒
Change Of Value Unsubscribed-	DS-COVU-	☒	☒	☒
Lighting Output-	DS-LO-	☐	☒	☒
Read Range-	DS-RR-	☐	☒	☒

Alarm and Event Management-		BIBB	-A	-B
Notification-	AE-N-	☒	-	☒
Notification-Internal-	AE-N-I-	-	☒	☒
Notification-External-	AE-N-E-	-	☒	☒
Acknowledge-	AE-ACK-	☐	☒	☒
Alarm Summary-	AE-ASUM-	☐	☒	☒
Enrollment Summary-	AE-ESUM-	☐	☒	☒
Information-	AE-INFO-	☐	☒	☒
Event-Log-Internal-	AE-EL-I-	-	☒	☒
Event Log-External-	AE-EL-E-	-	☒	☒
Configurable Recipient Lists-	AE-CRL-	-	☒	☒

Scheduling-		BIBB	-A	-B
Internal-	SCHED-I-	-	☒	☒
External-	SCHED-E-	-	☒	☒

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

Device Management- / Gateway-		BIBB	-A	-B
Dynamic Device Binding-	DM-DDB-	☒	☒	☒
Dynamic Object Binding-	DM-DOB-	☐	☒	☒
Device Communication Control-	DM-DCC-	☐	☒	☒
Time Synchronization	DM-TS-	☒	☒	☒
UTC Time Synchronization-	DM-UTC-	☒	☒	☒
Reinitialize Device-	DM-RD-	☒	☒	☒
Backup and Restore-	DM-BR-	☐	☒	☒
Restart-	DM-R-	☒	☒	☒
List Manipulation-	DM-LM-	☐	☒	☒

Device Management- / Gateway-	BIBB	-A	-B
Object Creation and Deletion-	DM-OCD-	☐	☒
Automatic Time Synchronization-	DM-ATS-	☒	-
Manual Time Synchronization-	DM-MTS-	☒	-
BBMD-Configuration-	NM-BBMDC-	☐	☒
Foreign Device Registration-	NM-FDR-	☒	☒
Embedded Objects-	GW-EO-	-	☒

The table below consolidates all BIBBs required for B-BC, B-LD, B-GW profile as of Annex L. Supplementary BIBBs are in *italics*.

Data Sharing	Alarm & Event Management	Scheduling	Trending	Device & Network Management / Gateway
DS-RP-A, -B DS-RPM-A, -B DS-WP-A, -B DS-WPM-B DS-COV-A, -B DS-COVP-B DS-COVU-A, -B DS-LO-B DS-RR-B	AE-N-A AE-N-I-B AE-N-E-B AE-ACK-B AE-ASUM-B AE-ESUM-B AE-INFO-B AE-EL-I-B AE-EL-E-B AE-CRL-B	SCHED-E-B SCHED-I-B	T-VMT-I-B T-ATR-B T-VMT-E-B	DM-DDB-A, -B DM-DOB-B DM-DCC-B DM-TS-A, -B DM-UTC-A, -B DM-RD-B DM-BR-B DM-R-A, -B DM-LM-B DM-OCD-B DM-ATS-A DM-MTS-A NM-BBMDC- NM-FDR-A, -B GW-EO-B

I.1.5 Segmentation Capability

- ☒ Able to transmit segmented messages
- ☒ Able to receive segmented messages

Window Size: 16
Window Size: 16

I.1.6 Object Types

Standard and proprietary object types are supported and may be present in the device.

Note:

Present-Value and Reliability properties are writable when Out-Of-Service = True.

Standard and proprietary objects may support optional functionality (Overview):

Object Type	ID	OC	OD	CMD	OOS	COV	IR/AR
Analog Input	0	☐	☐	-	☒	☒	☒
Analog Output	1	☐	☐	☒	☒	☒	☒
Analog Value	2	☐	☐	☒	☒	☒	☒
Binary Input	3	☐	☐	-	☒	☒	☒
Binary Output	4	☐	☐	☒	☒	☒	☒
Binary Value	5	☐	☐	☒	☒	☒	☒
Calendar	6	☒	☒	-	-	-	-
Command	7	☒	☒	-	-	☒	-
Device	8	☐	☐	-	-	-	-
Event Log	25	☐	☐	-	-	-	☒
Event Enrollment	9	☒	☒	-	-	-	☒
File	10	☐	☐	-	-	-	-
Lighting Output	54	☐	☐	☒	☒	☒	-
Loop	12	☐	☐	-	☒	☒	☒
Multi-State Input	13	☐	☐	-	☒	☒	☒
Multi-State Output	14	☐	☐	☒	☒	☒	☒
Multi-State Value	19	☐	☐	☒	☒	☒	☒
Notification Class	15	☒	☒	-	-	-	-
Positive Integer Value	48	☐	☐	☒	☒	☒	☒
Program	16	☐	☐	-	-	-	-
Pulse Converter	24	☐	☐	-	☒	☒	☒
Schedule	17	☒	☒	-	☒	-	-
Structured View	29	☐	☐	-	-	-	-
Trend Log	20	☒	☒	-	-	-	☒
Network Port	56	☐	☐	-	-	-	-
IO Unit	384	☐	☐	-	-	-	-

Some standard objects may have proprietary properties in addition (Clause 23). There are no specific property range restrictions except those within the system SAUTER modulo and the range restrictions of the BACnet Standard. Supported standard and proprietary objects may support the following optional and proprietary properties and in addition to the standard conformance code some writable properties:

I.1.6.1 Device Management

Device (DEV = 8)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
System-Status	R	☒		
Vendor-Name	R	☒		
Vendor-Identifier	R	☒		
Model-Name	R	☒		
Firmware-Revision	R	☒		
Application-Software-Version	R	☒		
Location	O	☒	☒	(up to 128 characters)
Description	O	☒	☒	(up to 128 characters)
Protocol-Version	R	☒		
Protocol-Revision	R	☒		
Protocol-Services-Supported	R	☒		
Protocol-Object-Types-Supported	R	☒		
Object-List	R	☒		
Structured-Object-List	O	☒	☐	
Max-APDU-Length-Accepted	R	☒		
Segmentation-Supported	R	☒		
Max-Segments-Accepted	O	☒		
Local-Time	O	☒	☒	(time sync service)
Local-Date	O	☒	☒	(time sync service)
UTC-Offset	O	☒	☒	-780..780 (configurable)
Daylight-Savings-Status	O	☒	☐	(automatic DST)
APDU-Segment-Timeout	O	☒	☐	
APDU-Timeout	R	☒		
Number-Of-APDU-Retries	R	☒		
Time-Synchronization-Recipients	O	☒	☒	(up to 32 recipients)
Device-Address-Binding	R	☒		(up to 100 devices)
Database-Revision	R	☒		
Configuration-Files	O	☒	☐	
Last-Restore-Time	O	☒	☐	
Backup-Failure-Timeout	O	☒	☒	
Backup-Preparation-Time	O	☒	☐	
Restore-Preparation-Time	O	☒	☐	
Restore-Completion-Time	O	☒	☐	
Backup-And-Restore-State	O	☒	☐	
Active-COV-Subscriptions	O	☒	☐	
Last-Restart-Reason	O	☒		
Time-Of-Device-Restart	O	☒		
Restart-Notification-Recipients	O	☒		(up to 32 recipients)
UTC-Time-Synchronization-Recipients	O	☒	☒	(up to 32 recipients)
Time-Synchronization-Interval	O	☒	☒	
Align-Intervals	O	☒	☒	
Interval-Offset	O	☒	☒	
Serial-Number	O	☒	☐	
Property-List	R	☒	☐	

Standard Property	CC	R	W	Range Restriction
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
MAC-Address	8207	☒	☐	
Hardware-Revision	8208	☒	☐	
Log-Object-List	8252	☒	☐	
Firmware-Index	8255	☒	☐	
Serial-Number	8277	☒	☐	
Production-Date	8278	☒	☐	
Status-Flag-Sum	8300	☒	☐	
Number-Of-Active-Transition	8301	☒	☐	
Number-Of-Open-Transition	8302	☒	☐	
MSP-Version	8313	☒	☐	
Sauter-Character-Set	8351	☒	☐	0: UTF8; 5: ISO-8859-1
Sauter-DST-Start-Date	8352	☒	☐	
Sauter-DST-End-Date	8353	☒	☐	
Sauter-DST-Start-Offset	8354	☒	☐	
Sauter-DST-End-Offset	8355	☒	☐	
Sauter-Disable-Event-Message-Text	8358	☒	☒	
Sauter-Battery-OK-Indication	8380	☒	☐	
Sauter-Latitude	8348	☒	☒	
Sauter-Longitude	8347	☒	☒	
Sauter-Software-Product	8357	☒	☐	

File (FL = 10)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	
File-Type	R	☒		
File-Size	R	☒	☒	0 (delete)
Modification-Date	R	☒		
Archive	W	☒	☒	
Read-Only	R	☒		
File-Access-Method	R	☒		
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Program (PRG = 16)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Program-State	R	☒		
Program-Change	W	☒	☒	
Reason-For-Halt	O	☒		
Description-Of-Halt	O	☒		
Program-Location	O	☒		
Description	O	☒	☒	(up to 128 characters)
Instance-Of	O	☒		
Status-Flags	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒		
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Download-User	8322	☒	☐	
Download-Comment	8323	☒	☐	
Sauter-DDC-Inputs	8257	☒	☐	
Sauter-DDC-Outputs	8258	☒	☐	
Sauter-DDC-Params	8259	☒	☐	
Sauter-DDC-Memories	8260	☒	☐	

Structured View (SV = 29)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☐	(up to 128 characters)
Node-Type	R	☒		
Node-Subtype	O	☒	☐	
Subordinate-List	R	☒		
Subordinate-Annotations	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Network Port (NP = 56)

Depending on the value of Network_Type property, the object properties required change. Properties are splitted into Base properties which are independent of the Network_Type value, and a subset of properties related to the specific value of the Network_Type Property.

Base properties (present on any Network_Type value)

Standard Property	CC	R	W	Range Restriction
Object_Identifier	R	☒		
Object_Name	R	☒		
Object_Type	R	☒		
Description	O	☒	☐	
Status_Flags	R	☒		
Reliability	R	☒		
Out_Of_Service	R	☒	☐	
Network_Type	R	☒		
Protocol_Level	R	☒		
Reference_Port	O	☒	☐	
Changes_Pending	R	☒		
Command	O	☒	☒	
Current_Health	O	☒	☐	
Command_Validation_Result	O	☒	☐	
Property_List	R	☒		
Profile_Name	O	☒	☐	

Case 1: Network_Type == ETHERNET &
Protocol_Level == PHYSICAL

Standard Property	CC	R	W	Range Restriction
MAC_Address	(R)	☒		
Link_Speed	O	☒	☐	
Network_Interface_Name	O	☒	☐	

(R): The properties that are required based on the Network_Type and Protocol_Level are identified in the sub-tables with a (R) conformance code.

Case 2: Network_Type == IPV4 &
Protocol_Level == BACNET_APPLICATION

Standard Property	CC	R	W	Range Restriction
Network_Number	(R)	☒	☐	
Network_Number_Quality	(R)	☒		
APDU_Length	(R)	☒		
MAC_Address	(R)	☒		
BACnet_IP_Mode	(R)	☒	☐	
BACnet_IP_UDP_Port	(R)	☒		
BBMD_Broadcast_Distribution_Table	O	☒	☒	
BBMD_Accept_FD_Registrations	O	☒	☒	
BBMD_Foreign_Device_Table	O	☒	☐	
FD_BBMD_Address	O	☒	☒	
FD_Subscription_Lifetime	O	☒	☐	

(R): The properties that are required based on the Network_Type and Protocol_Level are identified in the sub-tables with a (R) conformance code.

Case 3: Network_Type == IPV4 &
Protocol_Level == PROTOCOL

Standard Property	CC	R	W	Range Restriction
IP_Address	(R)	☒	☐	
IP_Subnet_Mask	(R)	☒	☐	
IP_Default_Gateway	(R)	☒	☐	
IP_DNS_Server	(R)	☒	☐	
IP_DHCP_Enable	O	☒	☐	
IP_DHCP_Lease_Time	O	☒	☐	
IP_DHCP_Lease_Time_Remaining	O	☒	☐	
IP_DHCP_Server	O	☒	☐	

(R): The properties that are required based on the Network_Type and Protocol_Level are identified in the sub-tables with a (R) conformance code.

Case 4: Network_Type == SECURE_CONNECT &
Protocol_Level == BACNET_APPLICATION

Standard Property	CC	R	W	Range Restriction
Network_Number	(R)	☒	☐	
Network_Number_Quality	(R)	☒		
APDU_Length	(R)	☒		
MAC_Address	(R)	☒		
Max_BVLC_Length_Accepted	(R)	☒		
Max_NPDU_Length_Accepted	(R)	☒		
SC_Primary_Hub_URI	(R)	☒	☐	
SC_Failover_Hub_URI	(R)	☒	☐	
SC_Minimum_Reconnect_Time	(R)	☒		
SC_Maximum_Reconnect_Time	(R)	☒		
SC_Connect_Wait_Timeout	(R)	☒		
SC_Disconnect_Wait_Timeout	(R)	☒		
SC_Heartbeat_Timeout	(R)	☒		
SC_Hub_Connector_State	(R)	☒		
Operational_Certificate_File	(R)	☒		
Issuer_Certificate_Files	(R)	☒		
Certificate_Signing_Request_File	(R)	☒		
SC_Primary_Hub_Connection_Status	O	☒	☐	
SC_Failover_Hub_Connection_Status	O	☒	☐	
SC_Hub_Function_Enable	O	☒	☐	
SC_Hub_Function_Accept_URIs	O	☒	☐	
SC_Hub_Function_Binding	O	☒	☐	
SC_Hub_Function_Connection_Status	O	☒	☐	
SC_Failed_Connection_Requests	O	☒	☐	

I.1.6.2 Input, Output, Value

Analog Input (AI = 0)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒		
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Update-Interval	O	☒	☐	
Units	R	☒	☒	
Min-Pres-Value	O	☒	☒	
Max-Pres-Value	O	☒	☒	
Resolution	O	☒		
COV-Increment	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
High-Limit	O	☒	☒	
Low-Limit	O	☒	☒	
Deadband	O	☒	☒	
Limit-Enable	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒		
Interface-Value	R	☒		
Fault-High-Limit	O	☒	☒	
Fault-Low-Limit	O	☒	☒	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Offset	8250	☒	☒	REAL
Slope	8251	☒	☒	REAL
COV-Synchronization-Period	8314	☒	☒	

Analog Output (AO = 1)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	W	☒	☒	
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Units	R	☒	☒	
Min-Pres-Value	O	☒	☒	
Max-Pres-Value	O	☒	☒	
Resolution	O	☒	☐	
Priority-Array	R	☒		
Relinquish-Default	R	☒		
COV-Increment	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
High-Limit	O	☒	☒	
Low-Limit	O	☒	☒	
Deadband	O	☒	☒	
Limit-Enable	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒		
Interface-Value	O	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Min-Hardware-Value	8248	☒	☒	REAL
Max-Hardware-Value	8249	☒	☒	REAL
Priority-Array-Reset	8309	☒	☐	
COV-Synchronization-Period	8314	☒	☒	
Hardware-Output-Value	8334	☒	☐	

Analog Value (AV = 2)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒	☒	(CMD enabled)
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Units	R	☒	☒	
Priority-Array	O	☒	☐	
Relinquish-Default	O	☒	☒	
COV-Increment	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
High-Limit	O	☒	☒	
Low-Limit	O	☒	☒	
Deadband	O	☒	☒	
Limit-Enable	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Min-Pres-Value	O	☒	☒	
Max-Pres-Value	O	☒	☒	
Resolution	O	☐	☐	
Property-List	R	☒	☐	
Fault-High-Limit	O	☒	☒	
Fault-Low-Limit	O	☒	☒	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	(CMD enabled)
COV-Synchronization-Period	8314	☒	☒	
Min-Range-Value	8332	☒	☒	
Max-Range-Value	8333	☒	☒	

Binary Input (BI = 3)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-value	R	☒		
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Polarity	R	☒		
Inactive-Text	O	☒	☒	(up to 32 characters)
Active-Text	O	☒	☒	(up to 32 characters)
Change-Of-State-Time	O	☒	☐	
Change-Of-State-Count	O	☒	☒	0 (reset)
Time-Of-State-Count-Reset	O	☒	☐	
Elapsed-Active-Time	O	☒	☒	0 (reset)
Time-Of-Active-Time-Reset	O	☒	☐	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Alarm-Value	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Interface-Value	O	☒		
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)

Binary Output (BO = 4)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	W	☒	☒	
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Polarity	R	☒		
Inactive-Text	O	☒	☒	(up to 32 characters)
Active-Text	O	☒	☒	(up to 32 characters)
Change-Of-State-Time	O	☒	☐	
Change-Of-State-Count	O	☒	☒	0 (reset)
Time-Of-State-Count-Reset	O	☒	☐	
Elapsed-Active-Time	O	☒	☒	0 (reset)
Time-Of-Active-Time-Reset	O	☒	☐	
Minimum-Off-Time	O	☒	☒	
Minimum-On-Time	O	☒	☒	
Priority-Array	R	☒		
Relinquish-Default	R	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Feedback-Value	O	☒	☐	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Interface-Value	O	☒		
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	
Hardware-Output-Value	8334	☒	☐	

Binary Value (BV = 5)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒	☒	(CMD enabled)
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Inactive-Text	O	☒	☒	(up to 32 characters)
Active-Text	O	☒	☒	(up to 32 characters)
Change-Of-State-Time	O	☒	☐	
Change-Of-State-Count	O	☒	☒	0 (reset)
Time-Of-State-Count-Reset	O	☒	☐	
Elapsed-Active-Time	O	☒	☒	0 (reset)
Time-Of-Active-Time-Reset	O	☒	☐	
Minimum-Off-Time	O	☒	☒	
Minimum-On-Time	O	☒	☒	
Priority-Array	O	☒	☐	
Relinquish-Default	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Alarm-Value	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	(CMD enabled)

Multi-State Input (MI = 13)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒		
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Number-Of-States	R	☒		
State-Text	O	☒	☐	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Alarm-Values	O	☒	☒	
Fault-Values	O	☒	☐	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Interface-Value	O	☒		
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)

Multi-State Output (MO = 14)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-value	W	☒	☒	1.. up to 12
Description	O	☒	☒	(up to 128 characters)
Device-Type	O	☒	☐	
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Number-Of-States	R	☒		
State-Text	O	☒	☐	
Priority-Array	R	☒		
Relinquish-Default	R	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Feedback-Value	O	☒	☐	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Interface-Value	O	☒		
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	
Hardware-Output-Value	8334	☒	☐	

Multi-State Value (MV = 19)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒	☒	1.. up to 12 (CMD enbl.)
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Number-Of-States	R	☒		
State-Text	O	☒	☐	
Priority-Array	O	☒	☐	
Relinquish-Default	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Alarm-Values	O	☒	☐	
Fault-Values	O	☒	☐	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	(CMD enabled)

Positive Integer Value (PIV = 48)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Present-Value	R	☒	☒	(CMD enabled)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Units	R	☒	☒	
Priority-Array	O	☒	☐	
Relinquish-Default	O	☒	☒	
COV-Increment	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
High-Limit	O	☒	☒	
Low-Limit	O	☒	☒	
Deadband	O	☒	☒	
Limit-Enable	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Min-Pres-Value	O	☒	☒	
Max-Pres-Value	O	☒	☒	
Property-List	R	☒	☐	
Fault-High-Limit	O	☒	☒	
Fault-Low-Limit	O	☒	☒	
Interface-Value	O	☒		
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Priority-Array-Reset	8309	☒	☐	(CMD enabled)
COV-Synchronization-Period	8314	☒	☒	

Lighting Output (LO = 54)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	W	☒	☒	
Tracking-Value	R	☒		
Lighting-Command	W	☒	☒	
In-Progress	R	☒		
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Blink-Warn-Enable	W	☒	☒	
Egress-Time	R	☒	☒	
Egress-Active	R	☒		
Default-Fade-Time	R	☒	☒	
Default-Ramp-Rate	R	☒	☒	
Default-Step-Increment	R	☒	☒	
Transition	O	☒	☒	
Priority-Array	R	☒		
Relinquish-Default	R	☒	☒	
Min-Actual-Value	O	☒	☒	
Max-Actual-Value	O	☒	☒	
Lighting-Command-Default-Priority	R	☒	☒	
COV-Increment	O	☒	☒	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Priority-Array-Reset	8309	☒	☐	
COV-Synchronization-Period	8314	☒	☒	
Sauter-Default-On-Value	8337	☒	☒	
Sauter-On-Delay	8338	☒	☒	
Sauter-Manual-Priority	8341	☒	☒	
Sauter-Manual-Timeout	8342	☒	☒	
Sauter-Fading-Mode	8385	☒	☒	
Sauter-Lamp-Curve	8386	☒	☒	
Sauter-Output-Is-Active	8387	☒	☐	

I.1.6.3 Scheduling

Calendar (CAL = 6)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Present-Value	R	☒		
Date-List	R	☒	☒	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Schedule (SCHD = 17)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒		
Description	O	☒	☒	(up to 128 characters)
Effective-Period	R	☒	☒	
Weekly-Schedule	O	☒	☒	
Exception-Schedule	O	☒	☒	
Schedule-Default	R	☒	☒	
List-Of-Object-Property-References	R	☒	☒	
Priority-For-Writing	R	☒	☒	
Status-Flags	R	☒		
Reliability	R	☒		
Out-Of-Service	R	☒	☒	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

I.1.6.4 Alarm and Event Management

Event Enrollment (EE = 9)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Event-Type	R	☒		Floating_Limit (4) Out-of-range (5), Unsigned-range (11), Signed-out-of-range (15), Unsigned-out-of-range (16), Change-of-status-flags (18)
Notify-Type	R	☒	☒	
Event-Parameters	R	☒	☒	(see event-type)
Object-Property-Reference	R	☒	☒	
Event-State	R	☒		
Event-Enable	R	☒	☒	
Acked-Transitions	R	☒		
Notification-Class	R	☒	☒	
Event-Time-Stamps	R	☒		
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	R	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	(W, when no Ref set)
Time-Delay-Normal	O	☒	☒	
Status-flags	R	☒		
Reliability	R	☒		
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)

Notification Class (NC = 15)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Notification-Class	R	☒		
Priority	R	☒	☒	
Ack-Required	R	☒	☒	
Recipient-List	R	☒	☒	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Status-Flag-Sum	8300	☒	☐	
Number-Of-Active-Transition	8301	☒	☐	
Number-Of-Open-Transition	8302	☒	☐	

I.1.6.5 Trending and Logging

Trend Log (TL = 20)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Enable	W	☒	☒	
Start-Time	O	☒	☒	
Stop-Time	O	☒	☒	
Log-DeviceObjectProperty	O	☒	☐	
Log-Interval	O	☒	☒	
COV-Resubscription-Interval	O	☐	☐	
Client-COV-Increment	O	☒	☒	(NULL)
Stop-When-Full	R	☒	☒	
Buffer-Size	R	☒		(Create only)
Log-Buffer	R	☒		
Record-Count	W	☒	☒	0 (Reset)
Total-Record-Count	R	☒		
Logging-Type	R	☒	☒	
Align-Intervals	O	☒	☒	
Interval-Offset	O	☒	☒	
Trigger	O	☒	☒	
Status-Flags	R	☒	☐	
Reliability	O	☒	☐	
Notification-Threshold	O	☒	☒	
Records-Since-Notification	O	☒	☐	
Last-Notify-Record	O	☒	☐	
Event-State	R	☒		
Notification-Class	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Event Log (EL = 25)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Property-List	R	☒		
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Enable	W	☒	☒	
Start-Time	O	☒	☒	
Stop-Time	O	☒	☒	
Stop-When-Full	R	☒	☒	
Buffer-Size	R	☒		Max. 8 (Create only)
Log-Buffer	R	☒		
Record-Count	W	☒	☒	0 (Reset)
Total-Record-Count	R	☒		
Notification-Threshold	O	☒	☒	
Records-Since-Notification	O	☒	☐	
Last-Notify-Record	O	☒	☐	
Notification-Class	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☒	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Sauter-Event-Log-Accepted-List	8413	☒		

I.1.6.6 Application

Command (CMD = 7)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	W	☒	☒	[0..12]
Description	O	☒	☒	(up to 128 characters)
In-Process	R	☒		
All-Writes-Successful	R	☒		
Action	R	☒	☒	(array, up to 12, max. 16 action commands each)
Action-Text	O	☒	☒	(array, up to 12, max. 32 characters long each)
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Pulse Converter (PC = 24)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Present-Value	R	☒		
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Units	R	☒	☒	
Scale-Factor	R	☒	☒	
Adjust-Value	W	☒	☒	
Count	R	☒		
Update-Time	R	☒		
Count-Change-Time	R	☒		
Count-Before-Change	R	☒		
COV-Increment	O	☒	☒	
COV-Period	O	☒	☒	
Notification-Class	O	☒	☒	
Time-Delay	O	☒	☒	
High-Limit	O	☒	☒	
Low-Limit	O	☒	☒	
Deadband	O	☒	☒	
Limit-Enable	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Reference	8244	☒	☐	(IR enabled)
Event-Suppress-Active	8245	☒	☐	(IR enabled)
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Hardware-Input-Module-Id	8263	☒	☐	
Hardware-Input-Channel-Id	8264	☒	☐	
PC-Limit-Monitoring-Interval	8281	☒	☒	Unsigned, 1..86400
PC-Pulse-Rate	8282	☒	☒	REAL

Loop (LP = 12)

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Present-Value	R	☒		
Description	O	☒	☒	(up to 128 characters)
Status-Flags	R	☒		
Event-State	R	☒		
Reliability	O	☒	☐	
Out-Of-Service	R	☒	☒	
Update-Interval	O	☒	☐	
Output-Units	R	☒	☒	
Manipulated-Variable-Reference	R	☒		
Controlled-Variable-Reference	R	☒		
Controlled-Variable-Value	R	☒		
Controlled-Variable-Units	R	☒	☒	
Setpoint-Reference	R	☒		
Setpoint	R	☒	☒	(W, if no Setpoint-Ref)
Action	R	☒	☒	
Proportional-Constant	O	☒	☒	
Proportional-Constant-Units	O	☒	☒	
Integral-Constant	O	☒	☒	
Integral-Constant-Units	O	☒	☒	
Derivative-Constant	O	☒	☒	
Derivative-Constant-Units	O	☒	☒	
Bias	O	☒	☒	
Maximum-Output	O	☒	☒	
Minimum-Output	O	☒	☒	
Priority-For-Writing	R	☒	☐	
COV-Increment	O	☒	☒	
Time-Delay	O	☒	☒	
Notification-Class	O	☒	☒	
Error-Limit	O	☒	☒	
Deadband	O	☒	☒	
Event-Enable	O	☒	☒	
Acked-Transitions	O	☒	☐	
Notify-Type	O	☒	☒	
Event-Time-Stamps	O	☒	☐	
Event-Message-Texts	O	☒	☐	
Event-Message-Texts-Config	O	☒	☒	
Event-Detection-Enable	O	☒	☐	
Event-Algorithm-Inhibit-Ref	O	☒	☐	
Event-Algorithm-Inhibit	O	☒	☒	(W, when no Ref set)
Time-Delay-Normal	O	☒	☒	
Reliability-Evaluation-Inhibit	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Event-Suppress-Cascade-Active	8246	☒	☐	(IR enabled)
Controller-Deadband	8262	☒	☐	
COV-Synchronization-Period	8314	☒	☒	

I.1.6.7 Proprietary Objects

The proprietary objects are implemented according to all requirements for Conformance and Interoperability (Clause 22) and according to Extending BACnet To Accommodate Vendor Proprietary Information (Clause 23).

There are no specific property range restrictions except those specified in the BACnet Standard.

Proprietary object types are supported as listed:

IO Unit (IOU = 384)

Description: The IO-Unit object type defines the hardware units and represents the hardware inputs and outputs from the BACnet building controller and from the I/O-modules, the operating panel and the communication modules connected to the controller.

Standard Property	CC	R	W	Range Restriction
Object-Identifier	R	☒		
Object-Name	R	☒		
Object-Type	R	☒		
Description	O	☒	☒	(up to 128 characters)
Firmware-Revision	O	☒	☐	
Property-List	R	☒	☐	
Profile-Name	O	☒	☐	
System-Status	O	☒	☐	O ¹

Proprietary Property	ID	R	W	Property Datatype Range Restriction
Hardware-Revision	8208	☒	☐	
IOunit-Idx	8227	☒	☐	
Plugged-In	8228	☒	☐	
Serial-Number-Actual	8230	☒	☐	
OP-Unit-Serial-Number-Expected	8235	☒	☐	
Model-Name-Expected	8237	☒	☐	
Model-Name-Actual	8238	☒	☐	
Channel-Values	8239	☒	☐	O ¹
Channel-Types	8240	☒	☐	O ¹
Sauter-On-Delay	8338	☒	☐	O ¹
cm-protocol-id-actual	8269	☒	☐	O ²
cm-protocol-id-expected	8270	☒	☐	O ²
cm-protocol-version	8271	☒	☐	O ²
cm-status	8276	☒	☒	O ²

O¹: Properties only present for ecoLink (EY-EM: IO modules), ecoUnit (EY-RU: room units), ecosCom581 (EY-CM581: EnOcean-GW), when IOunit-Idx ∈ [1000,1031;2000,2031;1500,1503;2500,2503;1498,1499;2498,2499]

O²: Properties only present for ecosCom (EY-CM: COM modules), when IOunit-Idx ∈ [1,3]

I.1.7 Data Link Layer Options

- ☒ BACnet IP, (Annex J)
- ☒ BACnet IP, (Annex J) BACnet Broadcast Management Device (BBMD)
- ☐ BACnet IP, (Annex J) Network Address Translation (NAT Traversal)
- ☒ BACnet Secure Connect (Annex AB)
 - ☒ BACnet Secure Connect Node
 - If direct connections are supported:
 - Maximum number of simultaneous direct connections initiated: **none**
 - Maximum number of simultaneous direct connections accepted: **none**
 - ☐ BACnet Secure Connect Hub Function
 - Maximum number of simultaneous hub connections accepted: **none**
 - ☐ HTTPS Proxy Support
 - List the types of HTTPS proxies supported: **none**
 - ☐ Additional cipher suites, digital signatures, and key exchanges supported beyond those required for the BACnet/SC TLS V1.3 cipher suite application profile defined in Clause AB.7.4
 - The additional cipher suites, digital signatures, or key exchanges supported using the names as of the TLS Cipher Suite Registry at IANA (See RFC 8446):
none
 - ☐ Additional Transport Layer Security versions other than V1.3 supported
 - The TLS versions other than V1.3 that are supported, including the supported cipher suites, digital signatures, and key exchanges for the version, using the cipher suite names as defined by the TLS version supported:
none
 - ☒ Generates private keys internally, and provides matching certificate signing requests.
 - ☒ DNS host name resolution supported (RFC 1123)
 - ☒ mDNS host name resolution supported (RFC 6762)

I.1.8 Device Address Binding

Is static device binding supported? ¹

- ☐ YES ☒ NO

I.1.9 Networking Options

- ☐ Router (Clause 6) List of all routing configurations:
- ☐ BACnet Tunneling Router over IP (Annex H)

I.1.10 Character Sets

Supports following character sets²:

- | | | |
|---|---|--|
| ☒ ISO 10646 (UTF-8) | ☐ IBM™/Microsoft™ DBCS | ☒ ISO 8859-1 |
| ☐ ISO 10646 (UCS-2) | ☐ ISO 10646 (UCS-4) | ☐ JIS 0208 |

Outgoing character strings are communicated according to the selected character set (Sauter-character-set).

Incoming character strings with character sets other than ISO 10646 (UTF-8) will be mapped to ISO 10646 (UTF-8) internally.

¹ This is currently necessary for two-way communication with MS/TP slaves and certain other devices.

² Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

I.1.11 Communication Gateway

In conjunction with the extension module ecosCom581, EnOcean devices can be supported (ISO/IEC 14543-3-10).

The room automation stations ecos504/505 can have up to 3 communication modules with a various combination of physical interfaces to communicate with Non-BACnet devices on a sub-network. Following sub-network communication protocols are supported:

- KNX/TP1 for KNX integration (ISO/IEC 14543-3)
- DALI as DALI-2 application controller (IEC 62386)
- SMI(LoVo) as SMI actuator (Standard Motor Interface)
- RS-485 for Modbus/RTU- and Modbus/ASCII-Master
- M-Bus (EN 13757-2) and RS-232 as M-Bus-Master (EN 13757-3)

The room automation stations ecos504/505 uses the basic approach to be a BACnet gateway as of Clause H.1.1.3 of ASHRAE 135-2024.



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