



Swegon GOLD BACnet PICS

Version E

BACnet Protocol Implementation Conformance Statement



Control system IQlogic, for AHU GOLD, version E

Date: April 29, 2014
Vendor Name: Swegon AB (Vendor-Identifier: 300)
Product Name: GOLD IQlogic
Product Model Number: Version E
Application Software Version: 1.11
Firmware Revision: 1.0
BACnet Protocol Revision: 12

Product Description:

This BACnet driver is implemented in GOLD PV 1.11 and provides the function of monitoring and operating the air handling unit. The supported Data Link Layer Options are BACnet / IP.

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 | DS-RP-B DS-RPM-B DS-WP-B DS-WPM-B DS-COV-B DS-COVP-B | Data Sharing-Read Property-B Data Sharing-Read Property Multiple-B Data Sharing-Write Property-B Data Sharing-Write Property Multiple-B Data Sharing-COV-B Data Sharing-COV Property-B |
| Alarm&Event Management | AE-N-I-B AE-ACK-B AE-INFO-B AE-ASUM-B AE-ESUM-B | Alarm&Event-Notification Internal-B Alarm&Event-Acknowledge Alarm-B Alarm&Event-Event Information-B Alarm&Event-Alarm Summary-B Alarm&Event-Enrollment Summary -B |
| Scheduling | SCHED-I-B | Scheduling-Internal-B |
| Device Management | DM-DDB-A DM-DDB-B DM-DOB-B DM-DCC-B DM-TS-B DM-UTC-B DM-RD-B DM-R-B DM-LM-B | Device Management-Dynamic Device Binding-A Device Management-Dynamic Device Binding-B Device Management-Dynamic Object Binding-B Device Management-Dynamic Communication Control-B Device Management-TimeSynchronization-B Device Management-UTCTimeSynchronization-B Device Management-Reinitialize Device-B Device Management-Restart-B Device Management-List Manipulation-B |

Segmentation Capability:

- Segmented requests supported Window Size: 32
- Segmented responses supported Window Size: 32

Standard Object Types Supported:

The CreateObject and DeleteObject services are not supported, so no objects are dynamically creatable or deletable through BACnet service requests.

Device Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------------------|---|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| System_Status | BACnetDeviceStatus | R | R |
| Vendor_Name | CharacterString | R | R |
| Vendor_Identifier | Unsigned16 | R | R |
| Model_Name | CharacterString | R | R |
| Firmware_Revision | CharacterString | R | R |
| Application_Software_Version | CharacterString | R | R |
| Location | CharacterString | O | WP |
| Description | CharacterString | O | WP |
| Protocol_Version | Unsigned | R | R |
| Protocol_Revision | Unsigned | R | R |
| Protocol_Services_Supported | BACnetServicesSupported | R | R |
| Protocol_Object_Types_Supported | BACnetObjectTypesSupported | R | R |
| Object_List | BACnetARRAY[N]of BACnetObjectIdentifier | R | R |
| Structured_Object_List | BACnetARRAY[N]of BACnetObjectIdentifier | O | n/a |
| Max_APDU_Length_Accepted | Unsigned | R | R |
| Segmentation_Supported | BACnetSegmentation | R | R |
| Max_Segments_Accepted | Unsigned | O ¹ | R |
| VT_Classes_Supported | List of BACnetVTClass | O ² | n/a |
| Active_VT_Sessions | List of BACnetVTSession | O ² | n/a |
| Local_Time | Time | O ^{3,4,15} | R |
| Local_Date | Date | O ^{3,4,15} | R |
| UTC_Offset | INTEGER | O ⁴ | R |
| Daylight_Savings_Status | BOOLEAN | O ⁴ | R |
| APDU_Segment_Timeout | Unsigned | O ¹ | R |
| APDU_Timeout | Unsigned | R | R |
| Number_Of_APDU_Retries | Unsigned | R | R |
| Time_Synchronization_Recipients | List of BACnetRecipient | O ⁵ | n/a |
| Max_Master | Unsigned(1..127) | O ⁶ | n/a |
| Max_Info_Frames | Unsigned | O ⁶ | n/a |
| Device_Address_Binding | List of BACnetAddressBinding | R | R |
| Database_Revision | Unsigned | R | R |
| Configuration_Files | BACnetARRAY[N]of BACnetObjectIdentifier | O ⁷ | n/a |
| Last_Restore_Time | BACnetTimeStamp | O ⁷ | n/a |
| Backup_Failure_Timeout | Unsigned16 | O ⁸ | n/a |
| Backup_Preparation_Time | Unsigned16 | O | n/a |
| Restore_Preparation_Time | Unsigned16 | O | n/a |
| Restore_Completion_Time | Unsigned16 | O | n/a |
| Backup_And_Restore_State | BACnetBackupState | O | n/a |
| Active_COV_Subscriptions | List of BACnetCOVSubscription | O ⁹ | R |
| Slave_Proxy_Enable | BACnetARRAY[N] of BOOLEAN | O ¹⁰ | n/a |

| | | | |
|-------------------------------------|------------------------------|-----------------|-----|
| Manual_Slave_Address_Binding | List of BACnetAddressBinding | O ¹⁰ | n/a |
| Auto_Slave_Discovery | BACnetARRAY[N] of BOOLEAN | O ¹¹ | n/a |
| Slave_Address_Binding | List of BACnetAddressBinding | O ¹² | n/a |
| Last_Restart_Reason | BACnetRestartReason | O ¹³ | R |
| Time_Of_Device_Restart | BACnetTimeStamp | O ¹³ | R |
| Restart_Notification_Recipients | List of BACnetRecipient | O ¹³ | WP |
| UTC_Time_Synchronization_Recipients | List of BACnetRecipient | O ⁵ | n/a |
| Time_Synchronization_Interval | Unsigned | O ¹⁴ | n/a |
| Align_Intervals | BOOLEAN | O ¹⁴ | n/a |
| Interval_Offset | Unsigned | O ¹⁴ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ Required if segmentation of any kind is supported.

² If one of the properties VT_Classes_Supported or Active_VT_Sessions is present, then both of these properties shall be present. Both properties are required if support for VT Services is indicated in the PICS.

³ If the device supports the execution of the TimeSynchronization service, then these properties shall be present.

⁴ If the device supports the execution of the UTCTimeSynchronization service, then these properties shall be present.

⁵ If this property is present, then Time_Synchronization_Interval, Align_Intervals and Interval_Offset shall be present. If present, this property shall be writable.

⁶ These properties are required if the device is an MS/TP master node.

⁷ These properties are required if the device supports execution of the backup and restore procedures.

⁸ This property shall be present and writable if the device supports the backup and restore procedures.

⁹ This property is required if the device supports execution of either the SubscribeCOV or SubscribeCOVProperty service.

¹⁰ This property shall be present and writable if the device is capable of being a Slave-Proxy device.

¹¹ This property shall be present if the device is capable of being a Slave-Proxy device that implements automatic discovery of slaves.

¹² This property shall be present if the device is capable of being a Slave-Proxy device.

¹³ These properties are required if the device supports the restart procedure as described in Clause 19.3.

¹⁴ If either Time_Synchronization_Recipients or UTC_Time_Synchronization_Recipients is present, then this property shall be present and writable.

¹⁵ These properties shall be present if the device is capable of tracking date and time.

Analog-Input Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | REAL | R ¹ | R ¹ |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Update_Interval | Unsigned | O | n/a |
| Units | BACnetEngineeringUnits | R | R |
| Min_Pres_Value | REAL | O | R |
| Max_Pres_Value | REAL | O | R |
| Resolution | REAL | O | R |
| COV_Increment | REAL | O ² | WP |
| Time_Delay | Unsigned | O ³ | WP |
| Notification_Class | Unsigned | O ³ | WP |
| High_Limit | REAL | O ³ | WP |
| Low_Limit | REAL | O ³ | WP |
| Deadband | REAL | O ³ | WP |
| Limit_Enable | BACnetLimitEnable | O ³ | WP |
| Event_Enable | BACnetEventTransitionBits | O ³ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ³ | R |
| Notify_Type | BACnetNotifyType | O ³ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ³ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁴ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ This property is required to be writable when Out_Of_Service is TRUE.

² This property is required if the object supports COV reporting.

³ These properties are required if the object supports intrinsic reporting.

⁴ This property, if present, is required to be read only.

Analog-Output Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | REAL | W | W |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Units | BACnetEngineeringUnits | R | R |
| Min_Pres_Value | REAL | O | R |
| Max_Pres_Value | REAL | O | R |
| Resolution | REAL | O | R |
| Priority_Array | BACnetPriorityArray | R | R |
| Relinquish_Default | REAL | R | W |
| COV_Increment | REAL | O ¹ | WP |
| Time_Delay | Unsigned | O ² | WP |
| Notification_Class | Unsigned | O ² | WP |
| High_Limit | REAL | O ² | WP |
| Low_Limit | REAL | O ² | WP |
| Deadband | REAL | O ² | WP |
| Limit_Enable | BACnetLimitEnable | O ² | WP |
| Event_Enable | BACnetEventTransitionBits | O ² | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ² | R |
| Notify_Type | BACnetNotifyType | O ² | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ² | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ³ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ This property is required if the object supports COV reporting.

² These properties are required if the object supports intrinsic reporting.

³ This property, if present, is required to be read only.

Analog-Value Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | REAL | R ⁴ | W |
| Description | CharacterString | O | WP |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Units | BACnetEngineeringUnits | R | R |
| Priority_Array | BACnetPriorityArray | O ¹ | R |
| Relinquish_Default | REAL | O ¹ | W |
| COV_Increment | REAL | O ² | WP |
| Time_Delay | Unsigned | O ³ | WP |
| Notification_Class | Unsigned | O ³ | WP |
| High_Limit | REAL | O ³ | WP |
| Low_Limit | REAL | O ³ | WP |
| Deadband | REAL | O ³ | WP |
| Limit_Enable | BACnetLimitEnable | O ³ | WP |
| Event_Enable | BACnetEventTransitionBits | O ³ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ³ | R |
| Notify_Type | BACnetNotifyType | O ³ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ³ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁵ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ If Present_Value is commandable, then both of these properties shall be present.

² This property is required if the object supports COV reporting.

³ These properties are required if the object supports intrinsic reporting.

⁴ If Present_Value is commandable, then it is required to be writable. This property is required to be writable when Out_Of_Service is TRUE.

⁵ This property, if present, is required to be read only.

Binary-Input Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | BACnetBinaryPV | R ¹ | R ¹ |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Polarity | BACnetPolarity | R | WP |
| Inactive_Text | CharacterString | O ² | n/a |
| Active_Text | CharacterString | O ² | n/a |
| Change_Of_State_Time | BACnetDateTime | O ³ | n/a |
| Change_Of_State_Count | Unsigned | O ³ | n/a |
| Time_Of_State_Count_Reset | BACnetDateTime | O ³ | n/a |
| Elapsed_Active_Time | Unsigned32 | O ⁴ | n/a |
| Time_Of_Active_Time_Reset | BACnetDateTime | O ⁴ | n/a |
| Time_Delay | Unsigned | O ⁵ | WP |
| Notification_Class | Unsigned | O ⁵ | WP |
| Alarm_Value | BACnetBinaryPV | O ⁵ | WP |
| Event_Enable | BACnetEventTransitionBits | O ⁵ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ⁵ | R |
| Notify_Type | BACnetNotifyType | O ⁵ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ⁵ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁶ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ This property is required to be writable when Out_Of_Service is TRUE.

² If one of the optional properties Inactive_Text or Active_Text is present, then both of these properties shall be present.

³ If one of the optional properties Change_Of_State_Time, Change_Of_State_Count, or Time_Of_State_Count_Reset is present, then all of these properties shall be present.

⁴ If one of the optional properties Elapsed_Active_Time or Time_Of_Active_Time_Reset is present, then both of these properties shall be present.

⁵ These properties are required if the object supports intrinsic reporting.

⁶ This property, if present, is required to be read only.

Binary-Output Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | BACnetBinaryPV | W | W |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Polarity | BACnetPolarity | R | WP |
| Inactive_Text | CharacterString | O ¹ | n/a |
| Active_Text | CharacterString | O ¹ | n/a |
| Change_Of_State_Time | BACnetDateTime | O ² | n/a |
| Change_Of_State_Count | Unsigned32 | O ² | n/a |
| Time_Of_State_Count_Reset | BACnetDateTime | O ² | n/a |
| Elapsed_Active_Time | Unsigned32 | O ³ | n/a |
| Time_Of_Active_Time_Reset | BACnetDateTime | O ³ | n/a |
| Minimum_Off_Time | Unsigned32 | O | n/a |
| Minimum_On_Time | Unsigned32 | O | n/a |
| Priority_Array | BACnetPriorityArray | R | R |
| Relinquish_Default | BACnetBinaryPV | R | W |
| Time_Delay | Unsigned | O ⁴ | WP |
| Notification_Class | Unsigned | O ⁴ | WP |
| Feedback_Value | BACnetBinaryPV | O ⁴ | R |
| Event_Enable | BACnetEventTransitionBits | O ⁴ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ⁴ | R |
| Notify_Type | BACnetNotifyType | O ⁴ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ⁴ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁵ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ If one of the optional properties Inactive_Text or Active_Text is present, then both of these properties shall be present.

² If one of the optional properties Change_Of_State_Time, Change_Of_State_Count, or Time_Of_State_Count_Reset is present, then all of these properties shall be present.

³ If one of the optional properties Elapsed_Active_Time or Time_Of_Active_Time_Reset is present, then both of these properties shall be present.

⁴ These properties are required if the object supports intrinsic reporting.

⁵ This property, if present, is required to be read only.

Binary-Value Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | BACnetBinaryPV | R ¹ | W |
| Description | CharacterString | O | WP |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Inactive_Text | CharacterString | O ² | n/a |
| Active_Text | CharacterString | O ² | n/a |
| Change_Of_State_Time | BACnetDateTime | O ³ | n/a |
| Change_Of_State_Count | Unsigned32 | O ³ | n/a |
| Time_Of_State_Count_Reset | BACnetDateTime | O ³ | n/a |
| Elapsed_Active_Time | Unsigned32 | O ⁴ | n/a |
| Time_Of_Active_Time_Reset | BACnetDateTime | O ⁴ | n/a |
| Minimum_Off_Time | Unsigned32 | O | n/a |
| Minimum_On_Time | Unsigned32 | O | n/a |
| Priority_Array | BACnetPriorityArray | O ⁵ | R |
| Relinquish_Default | BACnetBinaryPV | O ⁵ | W |
| Time_Delay | Unsigned | O ⁶ | WP |
| Notification_Class | Unsigned | O ⁶ | WP |
| Alarm_Value | BACnetBinaryPV | O ⁶ | WP |
| Event_Enable | BACnetEventTransitionBits | O ⁶ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ⁶ | R |
| Notify_Type | BACnetNotifyType | O ⁶ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ⁶ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁷ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ If Present_Value is commandable, then it is required to be writable. This property is required to be writable when Out_Of_Service is TRUE.

² If one of the optional properties Inactive_Text or Active_Text is present, then both of these properties shall be present.

³ If one of the optional properties Change_Of_State_Time, Change_Of_State_Count, or Time_Of_State_Count_Reset is present, then all of these properties shall be present.

⁴ If one of the optional properties Elapsed_Active_Time or Time_Of_Active_Time_Reset is present, then both of these properties shall be present.

⁵ If Present_Value is commandable, then both of these properties shall be present.

⁶ These properties are required if the object supports intrinsic reporting.

⁷ This property, if present, is required to be read only.

Calendar Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Description | CharacterString | O | WP |
| Present_Value | BOOLEAN | R | R |
| Date_List | List of BACnetCalendarEntry | R | W ¹ |
| Profile_Name | CharacterString | O | n/a |

¹ DateList: max. 10 entries with dates from 1.1.2000 to 31.12.2099.

Multistate-Input Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | Unsigned | R ¹ | R ¹ |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O ² | R |
| Out_Of_Service | BOOLEAN | R | W |
| Number_Of_States | Unsigned | R | R |
| State_Text | BACnetARRAY[N]of CharacterString | O | R |
| Time_Delay | Unsigned | O ³ | WP |
| Notification_Class | Unsigned | O ³ | WP |
| Alarm_Values | List of Unsigned | O ³ | WP |
| Fault_Values | List of Unsigned | O ³ | WP |
| Event_Enable | BACnetEventTransitionBits | O ³ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ³ | R |
| Notify_Type | BACnetNotifyType | O ³ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ³ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁴ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ This property is required to be writable when Out_Of_Service is TRUE.

² This property is required if Fault_Values is present.

³ These properties are required if the object supports intrinsic reporting.

⁴ This property, if present, is required to be read only.

Multistate-Output Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | Unsigned | W | W |
| Description | CharacterString | O | WP |
| Device_Type | CharacterString | O | n/a |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O | R |
| Out_Of_Service | BOOLEAN | R | W |
| Number_Of_States | Unsigned | R | R |
| State_Text | BACnetARRAY[N]of CharacterString | O | R |
| Priority_Array | BACnetPriorityArray | R | R |
| Relinquish_Default | Relinquish_Default | R | W |
| Time_Delay | Unsigned | O ¹ | WP |
| Notification_Class | Unsigned | O ¹ | WP |
| Feedback_Value | Unsigned | O ¹ | R |
| Event_Enable | BACnetEventTransitionBits | O ¹ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ¹ | R |
| Notify_Type | BACnetNotifyType | O ¹ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ¹ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ² | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ These properties are required if the object supports intrinsic reporting.

² This property, if present, is required to be read only.

Multistate-Value Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|-----------------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | Unsigned | R ¹ | W |
| Description | CharacterString | O | WP |
| Status_Flags | BACnetStatusFlags | R | R |
| Event_State | BACnetEventState | R | R |
| Reliability | BACnetReliability | O ² | R |
| Out_Of_Service | BOOLEAN | R | W |
| Number_Of_States | Unsigned | R | R |
| State_Text | BACnetARRAY[N]of CharacterString | O | R |
| Priority_Array | BACnetPriorityArray | O ³ | R |
| Relinquish_Default | Unsigned | O ³ | W |
| Time_Delay | Unsigned | O ⁴ | WP |
| Notification_Class | Unsigned | O ⁴ | WP |
| Alarm_Values | List of Unsigned | O ⁴ | WP |
| Fault_Values | List of Unsigned | O ⁴ | WP |
| Event_Enable | BACnetEventTransitionBits | O ⁴ | WP |
| Acked_Transitions | BACnetEventTransitionBits | O ⁴ | R |
| Notify_Type | BACnetNotifyType | O ⁴ | WP |
| Event_Time_Stamps | BACnetARRAY[3] of BACnetTimeStamp | O ⁴ | R |
| Event_Message_Texts | BACnetARRAY[3] of CharacterString | O ⁵ | n/a |
| Profile_Name | CharacterString | O | n/a |

¹ If Present_Value is commandable, then it is required to also be writable. This property is required to be writable when Out_Of_Service is TRUE.

² This property is required if Fault_Values is present.

³ If Present_Value is commandable, then both of these properties shall be present.

⁴ These properties are required if the object supports intrinsic reporting.

⁵ This property, if present, is required to be read only.

Notification Class Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|---------------------|----------------------------|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Description | CharacterString | O | WP |
| Notification_Class | Unsigned | R | R |
| Priority | BACnetARRAY[3] of Unsigned | R | WP |
| Ack_Required | BACnetEventTransitionBits | R | WP |
| Recipient_List | List of BACnetDestination | R | WP |
| Profile_Name | CharacterString | O | n/a |

Schedule Object Type

| Property Identifier | Property Datatype | Conformance Code Standard | Conformance Code GOLD IQlogic |
|------------------------------------|---|---------------------------|-------------------------------|
| Object_Identifier | BACnetObjectIdentifier | R | R |
| Object_Name | CharacterString | R | R |
| Object_Type | BACnetObjectType | R | R |
| Present_Value | Any | R | R |
| Description | CharacterString | O | WP |
| Effective_Period | BACnetDateRange | R | W |
| Weekly_Schedule | BACnetARRAY[7]of BACnetDailySchedule | O ¹ | W ² |
| Exception_Schedule | BACnetARRAY[N]of BACnetSpecialEvent | O ¹ | W ³ |
| Schedule_Default | Any | R | W |
| List_Of_Object_Property_References | List of BACnetDeviceObject PropertyReference | R | R |
| Priority_For_Writing | Unsigned(1..16) | R | WP |
| Status_Flags | BACnetStatusFlags | R | R |
| Reliability | BACnetReliability | R | R |
| Out_Of_Service | BOOLEAN | R | W |
| Profile_Name | CharacterString | O | n/a |

¹ At least one of these properties is required.

² Weekly_Schedule: max. 6 Time-Values per day.

³ Exception_Schedule: max. 2 entries with 6 Time-Values each.

The value-range is a value between 1-5, the time-range is from 00:00 to 23:59, where seconds and hundredths of seconds must be set to zero.

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): _____
- 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 (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:

Not applicable.