



## **BACnet PICS Geniax BACnet Module**

Date: 28.03.2011  
Vendor Name: WILO SE (Vendor-ID: 251)  
Product Name: Geniax BACnet Module  
Product Model Number: 2105645  
Applications Software Version: 1.0  
Firmware Revision: 0.5.00.00  
BACnet Protocol Version: 1  
BACnet Protocol Revision: 7

## **Product Description:**

The Wilo BACnet Module provides access to BACnet-networks acting as a BACnet-Client (if configured) and BACnet-Server serving data from the Wilo Geniax System.

## **BACnet Standardized Device Profile (Annex L):**

- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Workstation (B-OWS)
- BACnet Operator Display (B-OD)
- 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):

### 1. Data-Sharing BIBBs

Data Sharing Read-Property-A .....	DS-RP-A
Data Sharing Read-Property-B .....	DS-RP-B
Data Sharing Read-Property-Multiple-A .....	DS-RPM-A
Data Sharing Read-Property-Multiple-B.....	DS-RPM-B
Data Sharing Write-Property-A .....	DS-WP-A
Data Sharing Write-Property-B .....	DS-WP-B
Data Sharing Write-Property-Multiple-B.....	DS-WPM-B
Data Sharing COV-A .....	DS-COV-A
Data Sharing COV-B .....	DS-COV-B
Data Sharing COVP-B .....	DS-COVP-B

### 2. Alarm and Event BIBBs

Alarm and Event-Notification-Internal B .....	AE-N-I-B
Alarm and Event-ACK-B .....	AE-ACK-B
Alarm and Event-Alarm Summary-B .....	AE-ASUM-B
Alarm and Event-Enrollment Summary-B .....	AE-ESUM-B
Alarm and Event-Event Information-B.....	AE-INFO-B

### 3. Scheduling BIBBs

Scheduling-Internal-B.....	SCHED-I-B
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### 4. Trending BIBBs

No Trending BIBBS supported.

### 5. Device Management BIBBs

Device Management-Dynamic Device Binding-B .....	DM-DDB-B
Device Management-Dynamic Object Binding-B .....	DM-DOB-B
Device Management-DeviceCommunicationControl-B .....	DM-DCC-B
Device Management-TimeSynchronization-B .....	DM-TS-B
Device Management-UTCTimeSynchronization-B.....	DM-UTC-B
Device Management-ReinitializeDevice-B .....	DM-RD-B
Device Management-List Manipulation-B .....	DM-LM-B

### 6. Network Management BIBBs:

No Network Management BIBBS supported.

### 7. Segmentation Capability:

- Segmented requests supported ..... Window Size: 16
- Segmented responses supported ..... Window Size: 16



## 8. 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: \_\_\_\_\_

## 9. 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

## 10. Network 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?  
Number of FD-Entries: 50

## 11. 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:**



## Standard Object Types Supported:

The supported object-types are:

- Analog-Input ..... (0)
- Analog-Output ..... (1)
- Analog-Value..... (2)
- Binary-Input..... (3)
- Binary-Output ..... (4)
- Binary-Output ..... (5)
- Calendar..... (6)
- Device ..... (8)
- Multistate-Input..... (13)
- Multistate-Output ..... (14)
- Notification-Class..... (15)
- Schedule ..... (17)
- Multistate-Value ..... (19)

Creation and Deletion of objects is not supported.

## Conformance Code

R = Required + Readable

W = Writable + Readable

-/R/W = Configurable to be not supported (-), Readable (R) or Writable (W)

## Analog-Input

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	REAL	R1	R1/W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R/W
Out_Of_Service	BOOLEAN	R	R/W
Update_Interval	Unsigned	O	-/R/W
Units	BACnetEngineeringUnits	R	R/W
Min_Pres_Value	REAL	O	-/R/W
Max_Pres_Value	REAL	O	-/R/W
Resolution	REAL	O	-/R/W
COV_Increment	REAL	O2	-/R/W
Time_Delay	Unsigned	O3	-/R/W
Notification_Class	Unsigned	O3	-/R/W
High_Limit	REAL	O3	-/R/W
Low_Limit	REAL	O3	-/R/W
Deadband	REAL	O3	-/R/W
Limit_Enable	BACnetLimitEnable	O3	-/R/W
Event_Enable	BACnetEventTransitionBits	O3	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O3	-/R
Notify_Type	BACnetNotifyType	O3	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O3	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> This property is required to be writable when Out\_Of\_Service is TRUE.

<sup>2</sup> This property is required if the object supports COV reporting.

<sup>3</sup> These properties are required if the object supports intrinsic reporting.



## Analog-Output

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	REAL	W	W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Units	BACnetEngineeringUnits	R	R/W
Min_Pres_Value	REAL	O	-/R/W
Max_Pres_Value	REAL	O	-/R/W
Resolution	REAL	O	-/R/W
Priority_Array	BACnetPriorityArray	R	R
Relinquish_Default	REAL	R	R/W
COV_Increment	REAL	O1	-/R/W
Time_Delay	Unsigned	O2	-/R/W
Notification_Class	Unsigned	O2	-/R/W
High_Limit	REAL	O2	-/R/W
Low_Limit	REAL	O2	-/R/W
Deadband	REAL	O2	-/R/W
Limit_Enable	BACnetLimitEnable	O2	-/R/W
Event_Enable	BACnetEventTransitionBits	O2	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O2	-/R
Notify_Type	BACnetNotifyType	O2	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O2	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> This property is required if the object supports COV reporting.

<sup>2</sup> These properties are required if the object supports intrinsic reporting.

## Analog-Value

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	REAL	R4	R/W
Description	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Units	BACnetEngineeringUnits	R	R/W
Priority_Array	BACnetPriorityArray	O1	-/R
Relinquish_Default	REAL	O1	-/R/W
COV_Increment	REAL	O2	-/R/W
Time_Delay	Unsigned	O3	-/R/W
Notification_Class	Unsigned	O3	-/R/W
High_Limit	REAL	O3	-/R/W
Low_Limit	REAL	O3	-/R/W
Deadband	REAL	O3	-/R/W
Limit_Enable	BACnetLimitEnable	O3	-/R/W
Event_Enable	BACnetEventTransitionBits	O3	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O3	-/R
Notify_Type	BACnetNotifyType	O3	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O3	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> If Present\_Value is commandable, then both of these properties shall be present.

<sup>2</sup> This property is required if the object supports COV reporting.

<sup>3</sup> These properties are required if the object supports intrinsic reporting.

<sup>4</sup> 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.



**Binary-Input**

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	BACnetBinaryPV	R1	R/W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Polarity	BACnetPolarity	R	R/W
Inactive_Text	CharacterString	O2	-/R/W
Active_Text	CharacterString	O2	-/R/W
Change_Of_State_Time	BACnetDateTime	O3	-/R
Change_Of_State_Count	Unsigned	O3	-/R
Time_Of_State_Count_Reset	BACnetDateTime	O3	-/R
Elapsed_Active_Time	Unsigned32	O4	-/R
Time_Of_Active_Time_Reset	BACnetDateTime	O4	-/R
Time_Delay	Unsigned	O5	-/R/W
Notification_Class	Unsigned	O5	-/R/W
Alarm_Value	BACnetBinaryPV	O5	-/R/W
Event_Enable	BACnetEventTransitionBits	O5	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O5	-/R
Notify_Type	BACnetNotifyType	O5	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O5	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> This property is required to be writable when Out\_Of\_Service is TRUE.

<sup>2</sup> If one of the optional properties Inactive\_Text or Active\_Text is present, then both of these properties shall be present.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> These properties are required if the object supports intrinsic reporting.



## Binary-Output

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	BACnetBinaryPV	W	R/W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Polarity	BACnetPolarity	R	R/W
Inactive_Text	CharacterString	O1	-/R/W
Active_Text	CharacterString	O1	-/R/W
Change_Of_State_Time	BACnetDateTime	O2	-/R
Change_Of_State_Count	Unsigned	O2	-/R
Time_Of_State_Count_Reset	BACnetDateTime	O2	-/R
Elapsed_Active_Time	Unsigned32	O3	-/R
Time_Of_Active_Time_Reset	BACnetDateTime	O3	-/R
Minimum_Off_Time	Unsigned32	O	-/R/W
Minimum_On_Time	Unsigned32	O	-/R/W
Priority_Array	BACnetPriorityArray	R	R
Relinquish_Default	BACnetBinaryPV	R	R/W
Time_Delay	Unsigned	O4	-/R/W
Notification_Class	Unsigned	O4	-/R/W
Feedback_Value	BACnetBinaryPV	O4	-/R/W
Event_Enable	BACnetEventTransitionBits	O4	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O4	-/R
Notify_Type	BACnetNotifyType	O4	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O4	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> If one of the optional properties Inactive\_Text or Active\_Text is present, then both of these properties shall be present.

<sup>2</sup> 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.

<sup>3</sup> 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.

<sup>4</sup> These properties are required if the object supports intrinsic reporting.

## Binary-Value

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	BACnetBinaryPV	R1	-/R/W
Description	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Inactive_Text	CharacterString	O2	-/R/W
Active_Text	CharacterString	O2	-/R/W
Change_Of_State_Time	BACnetDateTime	O3	-/R
Change_Of_State_Count	Unsigned32	O3	-/R
Time_Of_State_Count_Reset	BACnetDateTime	O3	-/R
Elapsed_Active_Time	Unsigned32	O4	-/R
Time_Of_Active_Time_Reset	BACnetDateTime	O4	-/R
Minimum_Off_Time	Unsigned32	O	-/R/W
Minimum_On_Time	Unsigned32	O	-/R/W
Priority_Array	BACnetPriorityArray	O5	-/R/W
Relinquish_Default	BACnetBinaryPV	O5	-/R/W
Time_Delay	Unsigned	O6	-/R/W
Notification_Class	Unsigned	O6	-/R/W
Alarm_Value	BACnetBinaryPV	O6	-/R/W
Event_Enable	BACnetEventTransitionBits	O6	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O6	-/R
Notify_Type	BACnetNotifyType	O6	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O6	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> 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.

<sup>2</sup> If one of the optional properties Inactive\_Text or Active\_Text is present, then both of these properties shall be present.

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> If Present\_Value is commandable, then both of these properties shall be present.

<sup>6</sup> These properties are required if the object supports intrinsic reporting.

## Calendar

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Description	CharacterString	O	-/R/W
Present_Value	BOOLEAN	R	R
Date_List	List of BACnetCalendarEntry	R	R/W
Profile_Name	CharacterString	O	-/R/W



## Device

Property Identifier	Property Datatype	Conformance Code	GGA-B
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	-/R
Description	CharacterString	O	-/R
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	-
Max_APDU_Length_Accepted	Unsigned	R	R
Segmentation_Supported	BACnetSegmentation	R	R
Max_Segments_Accepted	Unsigned	O1	-/R
VT_Classes_Supported	List of BACnetVTClass	O2	-
Active_VT_Sessions	List of BACnetVTSession	O2	-
Local_Time	Time	O3,4	R
Local_Date	Date	O3,4	R
UTC_Offset	INTEGER	O4	R
Daylight_Savings_Status	BOOLEAN	O4	R
APDU_Segment_Timeout	Unsigned	O1	-/R
APDU_Timeout	Unsigned	R	R
Number_Of_APDU_Retries	Unsigned	R	R
List_Of_Session_Keys	List of BACnetSessionKey	O	-
Time_Synchronization_Recipients	List of BACnetRecipient	O5	-/R
Max_Master	Unsigned(1..127)	O6	-/R
Max_Info_Frames	Unsigned	O6	-/R
Device_Address_Binding	List of BACnetAddressBinding	R	R
Database_Revision	Unsigned	R	R
Configuration_Files	BACnetARRAY[N] of BACnetObjectIdentifier	O7	-
Last_Restore_Time	BACnetTimeStamp	O7	-
Backup_Failure_Timeout	Unsigned16	O8	-
Active_COV_Subscriptions	List of BACnetCOVSubscription	O9	-/R
Slave_Proxy_Enable	BACnetARRAY[N] of BOOLEAN	O10	-/R
Manual_Slave_Address_Binding	List of BACnetAddressBinding	O10	-/R
Auto_Slave_Discovery	BACnetARRAY[N] of BOOLEAN	O11	-/R
Slave_Address_Binding	List of BACnetAddressBinding	O12	-/R
Last_Restart_Reason	BACnetRestartReason	O13	-
Time_Of_Device_Restart	BACnetTimeStamp	O13	-
Restart_Notification_Recipients	List of BACnetRecipient	O13	-
UTC_Time_Synchronization_Recipients	List of BACnetRecipient	O5	-/R
Time_Synchronization_Interval	Unsigned	O14	-/R
Align_Intervals	BOOLEAN	O14	-
Interval_Offset	Unsigned	O14	-
Profile_Name	CharacterString	O	-

<sup>1</sup> Required if segmentation of any kind is supported.

<sup>2</sup> 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.



- <sup>3</sup> If the device supports the execution of the TimeSynchronization service, then these properties shall be present.
- <sup>4</sup> If the device supports the execution of the UTCTimeSynchronization service, then these properties shall be present.
- <sup>5</sup> If this property is present, then Time\_Synchronization\_Interval, Align\_Intervals and Interval\_Offset shall be present. If present, this property shall be writable.
- <sup>6</sup> These properties are required if the device is an MS/TP master node.
- <sup>7</sup> These properties are required if the device supports the backup and restore procedures.
- <sup>8</sup> This property must be present and writable if the device supports the backup and restore procedures.
- <sup>9</sup> This property is required if the device supports execution of either the SubscribeCOV or SubscribeCOVProperty service.
- <sup>10</sup> This property shall be present and writable if the device is capable of being a Slave-Proxy device.
- <sup>11</sup> This property shall be present if the device is capable of being a Slave-Proxy device that implements automatic discovery of slaves.
- <sup>12</sup> This property shall be present if the device is capable of being a Slave-Proxy device.
- <sup>13</sup> These properties are required if the device supports the restart procedure as described in Clause 19.3.
- <sup>14</sup> If either Time\_Synchronization\_Recipients or UTC\_Time\_Synchronization\_Recipients is present, then this property shall be present and writable.

## Multistate-Input

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	R1	R/W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O2	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Number_Of_States	Unsigned	R	R/W
State_Text	BACnetARRAY[N]of CharacterString	O	-/R/W
Time_Delay	Unsigned	O3	-/R/W
Notification_Class	Unsigned	O3	-/R/W
Alarm_Values	List of Unsigned	O3	-/R/W
Fault_Values	List of Unsigned	O3	-/R/W
Event_Enable	BACnetEventTransitionBits	O3	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O3	-/R
Notify_Type	BACnetNotifyType	O3	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O3	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> This property is required to be writable when Out\_Of\_Service is TRUE.

<sup>2</sup> This property shall be required if Fault\_Values is present.

<sup>3</sup> These properties are required if the object supports intrinsic reporting.



## Multistate-Output

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	W	W
Description	CharacterString	O	-/R/W
Device_Type	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Number_Of_States	Unsigned	R	R/W
State_Text	BACnetARRAY[N]of CharacterString	O	-/R/W
Priority_Array	BACnetPriorityArray	R	R
Relinquish_Default	Unsigned	R	R/W
Time_Delay	Unsigned	O1	-/R/W
Notification_Class	Unsigned	O1	-/R/W
Feedback_Value	Unsigned	O1	-/R/W
Event_Enable	BACnetEventTransitionBits	O1	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O1	-/R
Notify_Type	BACnetNotifyType	O1	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O1	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> These properties are required if the object supports intrinsic reporting.

## Notification-Class

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Description	CharacterString	O	-/R/W
Notification_Class	Unsigned	R	R/W
Priority	BACnetARRAY[3] of Unsigned	R	R/W
Ack_Required	BACnetEventTransitionBits	R	R/W
Recipient_List	List of BACnetDestination	R	R/W
Profile_Name	CharacterString	O	-/R/W



## Schedule

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Any	R	R/W
Description	CharacterString	O	-/R/W
Effective_Period	BACnetDateRange	R	R/W
Weekly_Schedule	BACnetARRAY[7]of BACnetDailySchedule	O1	-/R/W
Exception_Schedule	BACnetARRAY[N]of BACnetSpecialEvent	O1	-/R/W
Schedule_Default	Any	R	R/W
List_Of_Object_Property_References	List of BACnetDeviceObjectPropertyReference	R	R/W
Priority_For_Writing	Unsigned(1..16)	R	R/W
Status_Flags	BACnetStatusFlags	R	R
Reliability	BACnetReliability	R	R/W
Out_Of_Service	BOOLEAN	R	R/W
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> At least one of these properties is required.

### Property Range Restrictions:

Weekly Schedule can contain up to 3 Time/Value pairs per day plus additional 3 NULL-Values per day.

## Multistate-Value

Property Identifier	Property Datatype	Conformance Code	GGA-B
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	R1	R/W
Description	CharacterString	O	-/R/W
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O2	-/R/W
Out_Of_Service	BOOLEAN	R	R/W
Number_Of_States	Unsigned	R	R/W
State_Text	BACnetARRAY[N] of CharacterString	O	-/R/W
Priority_Array	BACnetPriorityArray	O3	-/R/W
Relinquish_Default	Unsigned	O3	-/R/W
Time_Delay	Unsigned	O4	-/R/W
Notification_Class	Unsigned	O4	-/R/W
Alarm_Values	List of Unsigned	O4	-/R/W
Fault_Values	List of Unsigned	O4	-/R/W
Event_Enable	BACnetEventTransitionBits	O4	-/R/W
Acked_Transitions	BACnetEventTransitionBits	O4	-/R
Notify_Type	BACnetNotifyType	O4	-/R/W
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O4	-/R
Profile_Name	CharacterString	O	-/R/W

<sup>1</sup> 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.

<sup>2</sup> This property shall be required if Fault\_Values is present.

<sup>3</sup> If Present\_Value is commandable, then both of these properties shall be present.

<sup>4</sup> These properties are required if the object supports intrinsic reporting.

