



**750-829**  
**BACnet Protocol Implementation Conformance**  
**Statement (PICS)**

© 2018 WAGO Kontakttechnik GmbH & Co. KG  
All rights reserved.

**WAGO Kontakttechnik GmbH & Co. KG**

Hansastraße 27  
D-32423 Minden

Phone: +49 (0) 571/8 87 – 0  
Fax: +49 (0) 571/8 87 – 1 69

E-Mail: [info@wago.com](mailto:info@wago.com)

Web: <http://www.wago.com>

**Technical Support**

Phone: +49 (0) 571/8 87 – 5 55  
Fax: +49 (0) 571/8 87 – 85 55

E-Mail: [support@wago.com](mailto:support@wago.com)

Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

E-Mail: [documentation@wago.com](mailto:documentation@wago.com)

We wish to point out that the software and hardware terms as well as the trademarks of companies used and/or mentioned in the present manual are generally protected by trademark or patent.

WAGO is a registered trademark of WAGO Verwaltungsgesellschaft mbH.

# Table of Contents

<b>1</b>	<b>BACnet Protocol Implementation Conformance Statement.....</b>	<b>4</b>
1.1	Product Description .....	4
1.2	List all BACnet Interoperability Building Blocks Supported (Annex K).....	5
1.2.1	Data-Sharing BIBBs.....	5
1.2.2	Alarm and Event BIBBs.....	5
1.2.3	Scheduling BIBBs .....	5
1.2.4	Trending BIBBs.....	5
1.2.5	Device Management BIBBs .....	6
1.3	Segmentation Capability.....	7
1.4	Standard Object Types Supported.....	8
1.4.1	Accumulator.....	8
1.4.2	Analog Input.....	10
1.4.3	Analog Output.....	12
1.4.4	Analog Value .....	13
1.4.5	Averaging.....	14
1.4.6	Binary Input.....	15
1.4.7	Binary Output.....	16
1.4.8	Binary Value .....	18
1.4.9	Calendar .....	20
1.4.10	Command .....	21
1.4.11	Device.....	22
1.4.12	Event Enrollment.....	24
1.4.13	File.....	25
1.4.14	Group.....	26
1.4.15	Loop.....	27
1.4.16	Multi-state Input .....	29
1.4.17	Multi-state Output.....	30
1.4.18	Multi-state Value .....	31
1.4.19	Notification Class .....	32
1.4.20	Program.....	33
1.4.21	Pulse Converter .....	34
1.4.22	Schedule.....	36
1.4.23	Trend Log .....	37
1.5	Data Link Layer Options .....	39
1.6	Networking Options .....	39
1.7	Character Sets Supported .....	39
1.8	Network Security Options .....	39
	<b>List of Tables .....</b>	<b>40</b>

# 1 BACnet Protocol Implementation Conformance Statement

Date:	21.06.2018
Vendor Name:	WAGO Kontakttechnik GmbH & Co. KG
Product Name:	BACnet MS/TP Controller
Product Model Number:	750-829
Applications Software Version:	---
Firmware Revision:	01.04.15(13)
BACnet Protocol Revision:	1 Rev. 12

## 1.1 Product Description

The BACnet Controller provides access to BACnet-networks acting either as a BACnet-Client or as a BACnet-Server.

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)

## 1.2 List all BACnet Interoperability Building Blocks Supported (Annex K)

### 1.2.1 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-A	DS-COVP-A
Data Sharing COVP-B	DS-COVP-B

### 1.2.2 Alarm and Event BIBBs

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

### 1.2.3 Scheduling BIBBs

Scheduling-Internal-B	SCHE-I-B
Scheduling-External-B	SCHE-E-B

### 1.2.4 Trending BIBBs

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

### 1.2.5 Device Management BIBBs

Device Management Dynamic Device Binding-A	DM-DDB-A
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 Restart-A	DM-R-A
Device Management Restart-B	DM-R-B
Device Management TimeSynchronization-B	DM-TS-B
Device Management UTCTimeSynchronization-B	DM-UTC-B
Device Management ReinitializeDevice-B	DM-RD-B
Device Management Backup and Restore-B	DM-BR-B
Device Management List Manipulation-B	DM-LM-B
Device Management Object Creation and Deletion-B	DM-OCD-B

### 1.3 Segmentation Capability

- |                                     |                               |                |
|-------------------------------------|-------------------------------|----------------|
| <input checked="" type="checkbox"/> | Segmented requests supported  | Window Size 16 |
| <input checked="" type="checkbox"/> | Segmented responses supported | Window Size 16 |

## 1.4 Standard Object Types Supported



### Note

The following Property Range Restriction applies to all properties with Property Datatype “CharacterString”:

Depending on the UTF-8 character between 25 and 101 characters. The PLC application can never use more than 47 characters.

### 1.4.1 Accumulator

Dynamically Creatable: No  
Dynamically Deletable: No  
Proprietary Properties: Message\_Text (512)

Table 1: Accumulator

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	Unsigned	R <sup>1</sup>	R <sup>1</sup>	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	W	
Out_Of_Service	BOOLEAN	R	W	
Scale	BACnetScale	R	W	
Units	BACnetEngineeringUnits	R	W	
Prescale	BACnetPrescale	O	W	
Max_Pres_Value	Unsigned	R	W	
Value_Change_Time	BACnetDateTime	O <sup>2</sup>	R	
Value_Before_Change	Unsigned	O <sup>2,3</sup>	R	
Value_Set	Unsigned	O <sup>2,3</sup>	W	
Logging_Record	BACnetAccumulatorRecord	O	-	
Logging_Object	BACnetObjectIdentifier	O	-	
Pulse_Rate	Unsigned	O <sup>1,4</sup>	R	
High_Limit	Unsigned	O <sup>4</sup>	W	
Low_Limit	Unsigned	O <sup>4</sup>	W	
Limit_Monitoring_Interval	Unsigned	O <sup>4</sup>	W	
Notification_Class	Unsigned	O <sup>4</sup>	W	
Time_Delay	Unsigned	O <sup>4</sup>	W	
Limit_Enable	BACnetLimitEnable	O <sup>4</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>4</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>4</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>4</sup>	W	



Table 1: Accumulator

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>4</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>5</sup>	R	
Profile_Name	CharacterString	O	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 1 This property is required to be writable when Out\_Of\_Service is TRUE.
- 2 These properties are required if either Value\_Before\_Change or Value\_Set is writable.
- 3 Either Value\_Before\_Change or Value\_Set may be writable, but not both.
- 4 These properties are required if the object supports intrinsic reporting.
- 5 This property, if present, is required to be read only.

## 1.4.2 Analog Input

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 2: Analog Input

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	REAL	R <sup>1</sup>	R <sup>1</sup>	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	R	W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Update_Interval	Unsigned	O	R	
Units	BACnetEngineeringUnits	R	W	
Min_Pres_Value	REAL	O	W	
Max_Pres_Value	REAL	O	W	
Resolution	REAL	O	R	
COV_Increment	REAL	O <sup>2</sup>	W	
Time_Delay	Unsigned	O <sup>3</sup>	W	
Notification_Class	Unsigned	O <sup>3</sup>	W	
High_Limit	REAL	O <sup>3</sup>	W	
Low_Limit	REAL	O <sup>3</sup>	W	
Deadband	REAL	O <sup>3</sup>	W	
Limit_Enable	BACnetLimitEnable	O <sup>3</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>3</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>3</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>3</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>3</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>4</sup>	R	
Profile_Name	CharacterString	Ø	-	

Table 2: Analog Input

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 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.

### 1.4.3 Analog Output

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 3: Analog Output

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	REAL	W	W	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	R	W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Units	BACnetEngineeringUnits	R	W	
Min_Pres_Value	REAL	O	W	
Max_Pres_Value	REAL	O	W	
Resolution	REAL	O	R	
Priority_Array	BACnetPriorityArray	R	R	
Relinquish_Default	REAL	R	W	
COV_Increment	REAL	O <sup>1</sup>	W	
Time_Delay	Unsigned	O <sup>2</sup>	W	
Notification_Class	Unsigned	O <sup>2</sup>	W	
High_Limit	REAL	O <sup>2</sup>	W	
Low_Limit	REAL	O <sup>2</sup>	W	
Deadband	REAL	O <sup>2</sup>	W	
Limit_Enable	BACnetLimitEnable	O <sup>2</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>2</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>2</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>2</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>2</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>3</sup>	R	
Profile_Name	CharacterString	⊖	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

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.

### 1.4.4 Analog Value

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 4: Analog Value

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	REAL	R <sup>4</sup>	W	
Description	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	W	
Out_Of_Service	BOOLEAN	R	W	
Units	BACnetEngineeringUnits	R	W	
Priority_Array	BACnetPriorityArray	O <sup>1</sup>	R	
Relinquish_Default	REAL	O <sup>1</sup>	W	
COV_Increment	REAL	O <sup>2</sup>	W	
Time_Delay	Unsigned	O <sup>3</sup>	W	
Notification_Class	Unsigned	O <sup>3</sup>	W	
High_Limit	REAL	O <sup>3</sup>	W	
Low_Limit	REAL	O <sup>3</sup>	W	
Deadband	REAL	O <sup>3</sup>	W	
Limit_Enable	BACnetLimitEnable	O <sup>3</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>3</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>3</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>3</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>3</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>5</sup>	R	
Profile_Name	CharacterString	Q	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 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.

## 1.4.5 Averaging

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: No

Table 5: Averaging

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Minimum_Value	REAL	R	R	
Minimum_Value_Stamp	BACnetDateTime	O	R	
Average_Value	REAL	R	R	
Variance_Value	REAL	O	R	
Maximum_Value	REAL	R	R	
Maximum_Value_Stamp	BACnetDateTime	O	R	
Description	CharacterString	O	W	See note, page 8
Attempted_Samples	Unsigned	W <sup>1</sup>	W	
Valid_Samples	Unsigned	R	R	
Object_Property_Reference	BACnetDeviceObject-PropertyReference	R <sup>1</sup>	W	
Window_Interval	Unsigned	W <sup>1</sup>	W	
Window_Samples	Unsigned	W <sup>1</sup>	W	
Profile_Name	CharacterString	O	-	

<sup>1</sup> If any of these properties are written to using BACnet services, then all of the buffer samples shall become invalid, 'Attempted\_Samples' shall become zero, 'Valid\_Samples' shall become zero, 'Minimum\_Value' shall become INF, 'Average\_Value' shall become NaN and 'Maximum\_Value' shall become -INF.

## 1.4.6 Binary Input

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 6: Binary Input

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	BACnetBinaryPV	R <sup>1</sup>	R <sup>1</sup>	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	R	W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Polarity	BACnetPolarity	R	W	
Inactive_Text	CharacterString	O <sup>2</sup>	W	See note, page 8
Active_Text	CharacterString	O <sup>2</sup>	W	See note, page 8
Change_Of_State_Time	BACnetDateTime	O <sup>3</sup>	R	
Change_Of_State_Count	Unsigned	O <sup>3</sup>	W	only 0 (zero) allowed for Write; count at least up to 65535
Time_Of_State_Count_Reset	BACnetDateTime	O <sup>3</sup>	R	
Elapsed_Active_Time	Unsigned32	O <sup>4</sup>	W	only 0 (zero) allowed for Write
Time_Of_Active_Time_Reset	BACnetDateTime	O <sup>4</sup>	R	
Time_Delay	Unsigned	O <sup>5</sup>	W	
Notification_Class	Unsigned	O <sup>5</sup>	W	
Alarm_Value	BACnetBinaryPV	O <sup>5</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>5</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>5</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>5</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>5</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>6</sup>	R	
Profile_Name	CharacterString	O	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

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.

## 1.4.7 Binary Output

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 7: Binary Output

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	BACnetBinaryPV	W	W	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	R	W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Polarity	BACnetPolarity	R	W	
Inactive_Text	CharacterString	O <sup>1</sup>	W	See note, page 8
Active_Text	CharacterString	O <sup>1</sup>	W	See note, page 8
Change_Of_State_Time	BACnetDateTime	O <sup>2</sup>	R	
Change_Of_State_Count	Unsigned	O <sup>2</sup>	W	only 0 (zero) allowed for Write; count at least up to 65535
Time_Of_State_Count_Reset	BACnetDateTime	O <sup>2</sup>	R	
Elapsed_Active_Time	Unsigned32	O <sup>3</sup>	W	only 0 (zero) allowed for Write
Time_Of_Active_Time_Reset	BACnetDateTime	O <sup>3</sup>	R	
Minimum_Off_Time	Unsigned32	O	W	
Minimum_On_Time	Unsigned32	O	W	
Priority_Array	BACnetPriorityArray	R	R	
Relinquish_Default	BACnetBinaryPV	R	W	
Time_Delay	Unsigned	O <sup>4</sup>	W	
Notification_Class	Unsigned	O <sup>4</sup>	W	
Feedback_Value	BACnetBinaryPV	O <sup>4</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>4</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>4</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>4</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>4</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>5</sup>	R	
Profile_Name	CharacterString	⊖	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8



- 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.

## 1.4.8 Binary Value

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 8: Binary Value

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	BACnetBinaryPV	R <sup>1</sup>	W	
Description	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	W	
Out_Of_Service	BOOLEAN	R	W	
Inactive_Text	CharacterString	O <sup>2</sup>	W	See note, page 8
Active_Text	CharacterString	O <sup>2</sup>	W	See note, page 8
Change_Of_State_Time	BACnetDateTime	O <sup>3</sup>	R	
Change_Of_State_Count	Unsigned	O <sup>3</sup>	W	only 0 (zero) allowed for Write; count at least up to 65535
Time_Of_State_Count_Reset	BACnetDateTime	O <sup>3</sup>	R	
Elapsed_Active_Time	Unsigned32	O <sup>4</sup>	W	only 0 (zero) allowed for Write
Time_Of_Active_Time_Reset	BACnetDateTime	O <sup>4</sup>	R	
Minimum_Off_Time	Unsigned32	O	W	
Minimum_On_Time	Unsigned32	O	W	
Priority_Array	BACnetPriorityArray	O <sup>5</sup>	R	
Relinquish_Default	BACnetBinaryPV	O <sup>5</sup>	W	
Time_Delay	Unsigned	O <sup>6</sup>	W	
Notification_Class	Unsigned	O <sup>6</sup>	W	
Alarm_Value	BACnetBinaryPV	O <sup>6</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>6</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>6</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>6</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>6</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>7</sup>	R	
Profile_Name	CharacterString	O	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 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.

## 1.4.9 Calendar

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: No

Table 9: Calendar

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Present_Value	BOOLEAN	R	R	
Date_List	List of BACnetCalendarEntry	R	W	
Profile_Name	CharacterString	O	-	

### 1.4.10 Command

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: No

Table 10: Command

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Present_Value	Unsigned	W	W	
In_Process	BOOLEAN	R	R	
All_Writes_Successful	BOOLEAN	R	R	
Action	BACnetARRAY[N] of BACnetActionList	R	W	
Action_Text	BACnetARRAY[N] of CharacterString	O	W	See note, page 8
Profile_Name	CharacterString	Ø	-	

## 1.4.11 Device

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: No

Table 11: Device

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
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	W	See note, page 8
Description	CharacterString	O	W	See note, page 8
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	Ø	-	
Max_APDU_Length_Accepted	Unsigned	R	R	
Segmentation_Supported	BACnetSegmentation	R	R	
Max_Segments_Accepted	Unsigned	O <sup>1</sup>	R	
VT_Classes_Supported	List of BACnetVTClass	Ø <sup>2</sup>	-	
Active_VT_Sessions	List of BACnetVTSession	Ø <sup>2</sup>	-	
Local_Time	Time	O <sup>3,4,15</sup>	R	
Local_Date	Date	O <sup>3,4,15</sup>	R	
UTC_Offset	INTEGER	O <sup>4</sup>	W	
Daylight_Savings_Status	BOOLEAN	O <sup>4</sup>	W	
APDU_Segment_Timeout	Unsigned	O <sup>1</sup>	W	
APDU_Timeout	Unsigned	R	R	
Number_Of_APDU_Retries	Unsigned	R	W	
Time_Synchronization_Recipients	List of BACnetRecipient	Ø <sup>5</sup>	-	
Max_Master	Unsigned(1..127)	O <sup>6</sup>	-	
Max_Info_Frames	Unsigned	O <sup>6</sup>	-	
Device_Address_Binding	List of BACnetAddressBinding	R	R	
Database_Revision	Unsigned	R	R	

Table 11: Device

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Configuration_Files	BACnetARRAY[N] of BACnetObjectIdentifier	O <sup>7</sup>	W	
Last_Restore_Time	BACnetTimeStamp	O <sup>7</sup>	R	
Backup_Failure_Timeout	Unsigned16	O <sup>8</sup>	W	
Backup_Preparation_Time	Unsigned16	O	R	
Restore_Preparation_Time	Unsigned16	O	R	
Restore_Completion_Time	Unsigned16	O	R	
Backup_And_Restore_State	BACnetBackupState	O	R	
Active_COV_Subscriptions	List of BACnetCOVSubscription	O <sup>9</sup>	R	
Slave_Proxy_Enable	BACnetArray[N] of BOOLEAN	O <sup>10</sup>	-	
Manual_Slave_Address_Binding	List of BACnetAddressBinding	O <sup>10</sup>	-	
Auto_Slave_Discovery	BACnetArray[N] of BOOLEAN	O <sup>11</sup>	-	
Slave_Address_Binding	List of BACnetAddressBinding	O <sup>12</sup>	-	
Last_Restart_Reason	BACnetRestartReason	O <sup>13</sup>	R	
Time_of_Device_Restart	BACnetTimeStamp	O <sup>13</sup>	R	
Restart_Notification_Recipients	List of BACnetRecipient	O <sup>13</sup>	W	
UTC_Time_Synchronization_Recipients	List of BACnetRecipient	O <sup>5</sup>	-	
Time_Synchronization_Interval	Unsigned	O <sup>14</sup>	-	
Align_Intervals	BOOLEAN	O <sup>14</sup>	-	
Interval_Offset	Unsigned	O <sup>14</sup>	-	
Profile_Name	CharacterString	O	-	

- 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 Required if PICS indicates that this device is a Time Master. 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 the backup and restore procedures.
- 8 This property must 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. This property shall be present and writable if the device is capable of being a Slave-Proxy device.
- 10 This property shall be present if the device is capable of being a Slave-Proxy device that implements automatic discovery of slaves.
- 11 This property shall be present if the device is capable of being a Slave-Proxy device.
- 12 These properties are required if the device supports the Device Restart Procedure.
- 13 If either Time\_Synchronization\_Recipients or UTC\_Time\_Synchronization\_Recipients is present, then this property shall be present and writable.
- 14 This property shall be present if the device is capable of tracking date and time.
- 15

## 1.4.12 Event Enrollment

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: Message\_Text (512), Subscription\_Type (513),  
 COV\_Resubscription\_Intervall (514), COV\_Poll\_Intervall (515)

Table 12: Event-Enrollment

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Event_Type	BACnetEventType	R	R	
Notify_Type	BACnetNotifyType	R	W	
Event_Parameters	BACnetEventParameters	R	R	
Object_Property_Reference	BACnetDeviceObjectProperty Reference	R	R	
Event_State	BACnetEventState	R	R	
Event_Enable	BACnetEventTransitionBits	R	W	
Acked_Transitions	BACnetEventTransitionBits	R	R	
Notification_Class	Unsigned	R	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	R	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>1</sup>	R	
Profile_Name	CharacterString	Ø	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8
Subscription_Type	Enum	Proprietary	W	
COV_Resubscription_Intervall	Unsigned	Proprietary	W	
COV_Poll_Intervall	Unsigned	Proprietary	W	

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



### 1.4.13 File

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: No

Table 13: File

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
File_Type	CharacterString	R	R	
File_Size	Unsigned	R <sup>1</sup>	W	
Modification_Date	BACnetDateTime	R	R	
Archive	BOOLEAN	W	W	
Read_Only	BOOLEAN	R	W	
File_Access_Method	BACnetFileAccessMethod	R	R	
Record_Count	Unsigned	Ø <sup>2</sup>	-	
Profile_Name	CharacterString	Ø	-	

- 1 If the file size can be changed by writing to the file, and File\_Access\_Method is STREAM\_ACCESS, then this property shall be writable.
- 2 This property shall be present only if File\_Access\_Method is RECORD\_ACCESS. If the number of records can be changed by writing to the file, then this property shall be writable.

### 1.4.14 Group

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: No

Table 14: Group

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
List_Of_Group_Members	List of ReadAccessSpecification	R	W	
Present_Value	List of ReadAccessResult	R	R	
Profile_Name	CharacterString	Q	-	

### 1.4.15 Loop

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 15: Loop

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	REAL	R	R	
Description	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	W	
Out_Of_Service	BOOLEAN	R	W	
Update_Interval	Unsigned	O	R	
Output_Units	BACnetEngineeringUnits	R	W	
Manipulated_Variable_Reference	BACnetObjectProperty Reference	R	W	
Controlled_Variable_Reference	BACnetObjectProperty Reference	R	W	
Controlled_Variable_Value	REAL	R	R	
Controlled_Variable_Units	BACnetEngineeringUnits	R	W	
Setpoint_Reference	BACnetSetpointReference	R	W	
Setpoint	REAL	R	W	
Action	BACnetAction	R	W	
Proportional_Constant	REAL	O <sup>1</sup>	W	
Proportional_Constant_Units	BACnetEngineeringUnits	O <sup>1</sup>	W	
Integral_Constant	REAL	O <sup>1</sup>	W	
Integral_Constant_Units	BACnetEngineeringUnits	O <sup>1</sup>	W	
Derivative_Constant	REAL	O <sup>1</sup>	W	
Derivative_Constant_Units	BACnetEngineeringUnits	O <sup>1</sup>	W	
Bias	REAL	O	W	
Maximum_Output	REAL	O	W	
Minimum_Output	REAL	O	W	
Priority_For_Writing	Unsigned	R	W	
COV_Increment	REAL	O <sup>2</sup>	W	
Time_Delay	Unsigned	O <sup>3</sup>	W	
Notification_Class	Unsigned	O <sup>3</sup>	W	
Error_Limit	REAL	O <sup>3</sup>	W	
Deadband	REAL	O <sup>3</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>3</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>3</sup>	R	
Notify_Type	BACnerNotifyType	O <sup>3</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>3</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>4</sup>	R	

Table 15: Loop

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Profile_Name	CharacterString	0	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 1 If one of these optional properties is present, 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 This property, if present, is required to be read only.

## 1.4.16 Multi-state Input

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 16: Multi State Input

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	Unsigned	R <sup>1</sup>	R <sup>1</sup>	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O <sup>2</sup>	R	W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Number_of_States	Unsigned	R	W	
State_Text	BACnetARRAY[N] of CharacterString	O	W	See note, page 8
Time_Delay	Unsigned	O <sup>3</sup>	W	
Notification_Class	Unsigned	O <sup>3</sup>	W	
Alarm_Values	List of Unsigned	O <sup>3</sup>	W	
Fault_Values	List of Unsigned	O <sup>3</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>3</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>3</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>3</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>3</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>4</sup>	R	
Profile_Name	CharacterString	⊖	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

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.

## 1.4.17 Multi-state Output

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 17: Multi State Output

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	Unsigned	W	W	
Description	CharacterString	O	W	See note, page 8
Device_Type	CharacterString	O	W	
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	R	no-fault-detected not allowed when Present_Value = Fault_Value; W if OoS = true
Out_Of_Service	BOOLEAN	R	W	
Number_Of_States	Unsigned	R	W	
State_Text	BACnetARRAY[N] of CharacterString	O	W	See note, page 8
Priority_Array	BACnetPriorityArray	R	R	
Relinquish_Default	Unsigned	R	W	
Time_Delay	Unsigned	O <sup>1</sup>	W	
Notification_Class	Unsigned	O <sup>1</sup>	W	
Feedback_Value	Unsigned	O <sup>1</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>1</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>1</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>1</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>1</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>2</sup>	R	
Profile_Name	CharacterString	Ø	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

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

<sup>2</sup> This property, if present, is required to be read only.

### 1.4.18 Multi-state Value

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 18: Multi State Value

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	Unsigned	R <sup>1</sup>	W	
Description	CharacterString	O	W	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O <sup>2</sup>	W	no-fault-detected not allowed when Present_Value = Fault_Value
Out_Of_Service	BOOLEAN	R	W	
Number_Of_States	Unsigned	R	W	
State_Text	BACnetARRAY[N] of CharacterString	O	W	See note, page 8
Priority_Array	BACnetPriorityArray	O <sup>3</sup>	R	
Relinquish_Default	Unsigned	O <sup>3</sup>	W	
Time_Delay	Unsigned	O <sup>4</sup>	W	
Notification_Class	Unsigned	O <sup>4</sup>	W	
Alarm_Values	List of Unsigned	O <sup>4</sup>	W	
Fault_Values	List of Unsigned	O <sup>4</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>4</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>4</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>4</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>4</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>5</sup>	R	
Profile_Name	CharacterString	Ø	-	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 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 shall be 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.

## 1.4.19 Notification Class

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: No

Table 19: Notification Class

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Notification_Class	Unsigned	R	R	
Priority	BACnetARRAY[3] of Unsigned	R	W	
Ack_Required	BACnetEventTransitionBits	R	W	
Recipient_List	List of BACnetDestination	R	W	Limitation for entries of recipients as "ObjectIdentifier": FW07 – 20 entries, FW09 – 30 entries Limitation for entries of recipients as "Address": FW07 – 15 entries, FW09 – 22 entries
Profile_Name	CharacterString	Q	-	



## 1.4.20 Program

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: No

Table 20: Program

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Program_State	BACnetProgramState	R	R	
Program_Change	BACnetProgramRequest	W	W	
Reason_for_Halt	BACnetProgramError	O <sup>1</sup>	R	
Description_Of_Halt	CharacterString	O <sup>1</sup>	R	See note, page 8
Program_Location	CharacterString	O	R	See note, page 8
Description	CharacterString	O	W	See note, page 8
Instance_Of	CharacterString	O	R	See note, page 8
Status_Flags	BACnetStatusFlags	R	R	
Reliability	BACnetReliability	O	R	
Out_of_Service	BOOLEAN	R	R	
Profile_Name	CharacterString	⊖		

1 If one of the optional properties Reason\_For\_Halt or Description\_Of\_Halt is present, then both of these properties shall be present.

## 1.4.21 Pulse Converter

Dynamically Creatable: No  
 Dynamically Deletable: No  
 Proprietary Properties: Message\_Text (512)

Table 21: Pulse Converter

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Present_Value	REAL	R <sup>1</sup>	R <sup>1</sup>	
Input_Reference	BACnetObjectProperty Reference	O	W	
Status_Flags	BACnetStatusFlags	R	R	
Event_State	BACnetEventState	R	R	
Reliability	BACnetReliability	O	W	
Out_Of_Service	BOOLEAN	R	W	
Units	BACnetEngineeringUnits	R	W	
Scale_Factor	REAL	R	W	
Adjust_Value	REAL	W	W	
Count	Unsigned	R	R	
Update_Time	BACnetDateTime	R	R	
Count_Change_Time	BACnetDateTime	R	R	
Count_Before_Change	Unsigned	R	R	
COV_Increment	REAL	O <sup>2</sup>	W	
COV_Period	Unsigned	O <sup>2</sup>	W	
Notification_Class	Unsigned	O <sup>3</sup>	W	
Time_Delay	Unsigned	O <sup>3</sup>	W	
High_Limit	REAL	O <sup>3</sup>	W	
Low_Limit	REAL	O <sup>3</sup>	W	
Deadband	REAL	O <sup>3</sup>	W	
Limit_Enable	BACnetLimitEnable	O <sup>3</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>3</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>3</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>3</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>3</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>4</sup>	R	
Profile_Name	CharacterString	Ø	-	

Table 21: Pulse Converter

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

- 1 This property is required to be writable when Out\_Of\_Service is TRUE.
- 2 These properties are 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.

## 1.4.22 Schedule

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: No

Table 22: Schedule

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Present_Value	Any	R	R	
Description	CharacterString	O	W	See note, page 8
Effective_Period	BACnetDateRange	R	W	
Weekly_Schedule	BACnetARRAY[7]of BACnetDailySchedule	O <sup>1</sup>	W	
Exception_Schedule	BACnetARRAY[N]of BACnetSpecialEvent	O <sup>1</sup>	W	
Schedule_Default	Any	R	W	
List_Of_Object_Property_References	List of BACnetDeviceObject PropertyReference	R	W	
Priority_For_Writing	Unsigned(1..16)	R	W	
Status_Flags	BACnetStatusFlags	R	R	
Reliability	BACnetReliability	R	R	
Out_Of_Service	BOOLEAN	R	W	
Profile_Name	CharacterString	Ø	-	

1 At least one of these properties is required.

### 1.4.23 Trend Log

Dynamically Creatable: Yes  
 Dynamically Deletable: Yes  
 Proprietary Properties: Message\_Text (512)

Table 23: Trend Log

Property Identifier	Property Datatype	Conformance Code	WAGO	Property Range Restrictions
Object_Identifier	BACnetObjectIdentifier	R	R	
Object_Name	CharacterString	R	R	
Object_Type	BACnetObjectType	R	R	
Description	CharacterString	O	W	See note, page 8
Enable	BOOLEAN	W	W	
Start_Time	BACnetDateTime	O <sup>1,2</sup>	W	
Stop_Time	BACnetDateTime	O <sup>1,2</sup>	W	
Log_DeviceObject Property	BACnetDeviceObject PropertyReference	O <sup>1</sup>	W	
Log_Interval	Unsigned	O <sup>1,3</sup>	W	> 99 required
COV_Resubscription_Interval	Unsigned	O	W	
Client_COV_Increment	BACnetClientCOV	O	W	
Stop_When_Full	BOOLEAN	R	W	
Buffer_Size	Unsigned32	R	W	
Log_Buffer	List of BACnetLogRecord	R	R	
Record_Count	Unsigned32	W	W	
Total_Record_Count	Unsigned32	R	R	
Notification_Threshold	Unsigned32	O <sup>4</sup>	W	
Records_Since_Notification	Unsigned32	O <sup>4</sup>	R	
Last_Notify_Record	Unsigned32	O <sup>4</sup>	R	
Event_State	BACnetEventState	R	R	
Notification_Class	Unsigned	O <sup>4</sup>	W	
Event_Enable	BACnetEventTransitionBits	O <sup>4</sup>	W	
Acked_Transitions	BACnetEventTransitionBits	O <sup>4</sup>	R	
Notify_Type	BACnetNotifyType	O <sup>4</sup>	W	
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O <sup>4</sup>	R	
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O <sup>6</sup>	R	
Profile_Name	CharacterString	O	-	
Logging_Type	BACnetLoggingType	R	R	
Align_Intervals	BOOLEAN	O <sup>5</sup>	W	
Interval_Offset	Unsigned	O <sup>5</sup>	W	
Trigger	BOOLEAN	O	W	
Status_Flags	BACnetStatusFlags	R	R	
Reliability	BACnetReliability	O	R	
Message_Text (512)	BACnetARRAY[3] of CharacterString	Proprietary	W	See note, page 8

## 38 BACnet Protocol Implementation Conformance Statement

### 750-829 BACnet Protocol Implementation Conformance Statement (PICS)

---

- 1 These properties are required to be present if the monitored property is a BACnet property.
- 2 If present, these properties are required to be writable.
- 3 If present, this property is required to be writable when Logging\_Type has the value POLLED or the value COV. Also, if present this property is required to be read-only if Logging\_Type has the value TRIGGERED.
- 4 These properties are required to be present if the object supports intrinsic reporting.
- 5 These properties are required to be present if the object supports clock-aligned logging.
- 6 This property, if present, is required to be read only.

## 1.5 Data Link Layer Options

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ASTM 878.1, 2.5 Mb. ARCNET (Clause 8)
- ASTM 878.1, RS-485 ARCNET (Clause 8) baud rate(s): \_\_\_\_\_
- MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400, 57600, 76800, 115200
- MS/TP slave (Clause 9), baud rate(s): \_\_\_\_\_
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): max. EIA 232
- Point-To-Point, modem, (Clause 10), baud rate(s): max. modem
- LonTalk, (Clause 11), medium: \_\_\_\_\_
- Other: \_\_\_\_\_

## 1.6 Networking Options

- Router, Clause 6 - List all routing configurations:
- Annex H, BACnet Tunneling Router over IP
- BACnet Broadcast Management Device (BBMD)

Does the BBMD support registrations by Foreign Devices? Yes   
 (BTD, FDT summarized number limitation: max. 16) No

## 1.7 Character Sets Supported

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

- |                                                       |                                               |                                     |
|-------------------------------------------------------|-----------------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> ISO 10646 (UTF-8) | <input type="checkbox"/> IBM™/Microsoft™ DBCS | <input type="checkbox"/> ISO 8859-1 |
| <input checked="" type="checkbox"/> ISO 10646 (UCS-2) | <input type="checkbox"/> ISO 10646 (UCS-4)    | <input type="checkbox"/> JIS X 0208 |

## 1.8 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)

## List of Tables

Table 1: Accumulator .....	8
Table 2: Analog Input .....	10
Table 3: Analog Output .....	12
Table 4: Analog Value .....	13
Table 5: Averaging .....	14
Table 6: Binary Input .....	15
Table 7: Binary Output .....	16
Table 8: Binary Value .....	18
Table 9: Calendar.....	20
Table 10: Command.....	21
Table 11: Device .....	22
Table 12: Event-Enrollment.....	24
Table 13: File .....	25
Table 14: Group .....	26
Table 15: Loop.....	27
Table 16: Multi State Input .....	29
Table 17: Multi State Output.....	30
Table 18: Multi State Value .....	31
Table 19: Notification Class.....	32
Table 20: Program .....	33
Table 21: Pulse Converter.....	34
Table 22: Schedule .....	36
Table 23: Trend Log.....	37







WAGO Kontakttechnik GmbH & Co. KG  
Postfach 2880 • 32385 Minden  
Hansastraße 27 • 32423 Minden  
Phone: 0571/887 – 0  
Fax: 0571/887 – 169  
E-Mail: [info@wago.com](mailto:info@wago.com)  
Internet: <http://www.wago.com>