

BACnet PICS Vitogate 300

Date: 02.10.2018
Vendor Name: Viessmann Elektronik GmbH
Product Name: Vitogate 300
Product Model Number: 1.0
Application Software Version: 2.1
Firmware Revision: 1.4
BACnet Protocol Version: 1
BACnet Protocol Revision: 14

Product Description:

The Viessmann Vitogate 300 provides access from Viessmann LON devices to BACnet-networks acting 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)

List all BACnet Interoperability Building Blocks Supported (Annex K):

1. Data-Sharing BIBBs

Data Sharing Read-Property-B	DS-RP-B
Data Sharing Read-Property-Multiple-B	DS-RPM-B
Data Sharing Write-Property-B	DS-WP-B
Data Sharing Write Property-Multiple-B	DS-WPM-B
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

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

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-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
Device-Management-Restart-B	DM-R-B

6. Network Management BIBBs

Network-Management-Router Configuration-B	NM-RC-B
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Segmentation Capability:

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

BACnet PICS Vitogate 300 (Fortsetzung)

Date 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): 9600, 19200, 38400, 76800, 115200
- MS/TP slave (Clause 9), baud rate(s): 9600, 19200, 38400, 76800, 115200
- 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
(Yes, if multiple datalayer are activated. Changeable by configuration)

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 (configurable)

Character Sets Supported:

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

- UTF-8
- IBM™/Microsoft™ DBCS
- ISO 8859-1
- ISO 10 646 (UCS-2)
- ISO 10 646 (UCS-4)
- JIS C 6226

If this product is a communication gateway, describe the types of non-BACnet equipment/network(s) that the gateway supports:

This BACnet-Gateway provides interfaces to Viessmann LON/RDAP communication protocol.

Standard Object Types Supported

The supported object-types are:

Analog-Input	(0)
Analog-Value	(2)
Binary-Input	(3)
Binary-Value	(5)
Calendar Object Type	(6)
Device	(8)
Multistate-Input	(13)
Notification-Class	(15)
Schedule	(17)
Multistate-Value	(19)
Trend-Log	(20)

Creation and Deletion of objects is not supported.

Analog-Input

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	REAL	R ^{*1}	R ^{*1} /W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
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}	R/W
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
High_Limit	REAL	O ^{*3}	-/R
Low_Limit	REAL	O ^{*3}	-/R
Deadband	REAL	O ^{*3}	-/R
Limit_Enable	BACnetLimitEnable	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

Analog-Value

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	REAL	R ^{*1}	R/W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
Units	BACnetEngineeringUnits	R	R
COV_Increment	REAL	O ^{*2}	R/W
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
High_Limit	REAL	O ^{*3}	-/R
Low_Limit	REAL	O ^{*3}	-/R
Deadband	REAL	O ^{*3}	-/R
Limit_Enable	BACnetLimitEnable	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

*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.

Binary-Input

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	BACnetBinaryPV	R ^{*1}	R ^{*1} /W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
Polarity	BACnetPolarity	R	R
Inactive_Text	CharacterString	O ^{*4}	R
Active_Text	CharacterString	O ^{*4}	R
Change_Of_State_Time	BACnetDateTime	O ^{*5}	-/R
Change_Of_State_Count	Unsigned	O ^{*5}	-/R
Time_Of_State_Count_Reset	BACnetDateTime	O ^{*5}	-/R
Elapsed_Active_Time	Unsigned32	O ^{*6}	-/R
Time_Of_Active_Time_Reset	BACnetDateTime	O ^{*6}	-/R
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
Alarm_Value	BACnetBinaryPV	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

^{*1} This property ist required to be writable when Out_Of_Service ist TRUE.

^{*4} If one of the optional properties Inactive_Text or Active_Text ist present, then both of these properties shall be present.

^{*5} 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.

^{*6} 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.

^{*3} These properties are required if the object supports intrinsic reporting.

Binary-Value

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	BACnetBinaryPV	R ^{*1}	R/W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
Polarity	BACnetPolarity	R	R
Inactive_Text	CharacterString	O ^{*4}	R
Active_Text	CharacterString	O ^{*4}	R
Change_Of_State_Time	BACnetDateTime	O ^{*5}	-/R
Change_Of_State_Count	Unsigned	O ^{*5}	-/R
Time_Of_State_Count_Reset	BACnetDateTime	O ^{*5}	-/R
Elapsed_Active_Time	Unsigned32	O ^{*6}	-/R
Time_Of_Active_Time_Reset	BACnetDateTime	O ^{*6}	-/R
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
Alarm_Value	BACnetBinaryPV	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

Calendar Object Type

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R/W
Object_Type	BACnetObjectType	R	R
Description	CharacterString	O	R/W
Present_Value	BOOLEAN	R ^{*1}	R
Date_List	BACnetLIST of BACnetCalendarEntry	R	R/W
Property_List	BACnetARRAY[N] of BACnetPropertyIdentifier	R	R
Profile_Name	CharacterString	O	R

Device

Property Identifier	Property Datatype	Conf.-Code	Vitogate
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_Vers.	CharacterString	R	R
Location	CharacterString	R	R

^{*1} This property is required to be writable when Out_Of_Service is TRUE.

^{*4} If one of the optional properties Inactive_Text or Active_Text is present, then both of these properties shall be present.

^{*5} 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.

^{*6} 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.

^{*3} These properties are required if the object supports intrinsic reporting.



Device (Fortsetzung)

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Description	CharacterString	O	R
Protocol_Version	Unsigned	R	R
Protocol_Revision	Unsigned	R	R
Protocol_Services_Supported	BACnetServicesSupported	R	R
Protocol_Object_Types_Sup.	BACnetObjectTypesSupported	R	R
Object_List	BACnetARRAY[N] of BACnetObjectId.	R	R
Structured_Object_List	BACnetARRAY[N] of BACnetObjectId	O	–
Max_APDU_Length_Accepted	Unsigned	R	R
Segmentation_Supported	BACnetSegmentation	R	R
Max_Segments_Accepted	Unsigned	O ^{*7}	R
Local_Time	Time	O ^{*8*9}	R
Local_Date	Date	O ^{*8*9}	R
UTC_Offset	Integer	O ^{*8*9}	R
Daylight_Savings_Status	Boolean	O ^{*8*9}	R
APDU_Segment_Timeout	Unsigned	O ^{*7}	R
APDU_Timeout	Unsigned	O	R
Number_Of_APDU_Retries	Unsigned	O	R
Time_Synch_Recipients.	List of BACnetRecipient	O ^{*10}	–
Max_Master	Unsigned(1..127)	O ^{*11}	–/R
Max_Info_Frames	Unsigned	O ^{*11}	–/R
Device_Address_Binding	List of BACnetAddressBinding	R	R
Database_Revision	Unsigned	R	R
Configuration_Files	BACnetARRAY[3] of BACnetObjectId	O ^{*12}	–
Last_Restore_Time	BACnetTimeStamp	O ^{*12}	–
Backup_Failure_Timeout	Unsigned16	O ^{*13}	–
Backup_Preparation_Time	Unsigned16	O ^{*13}	–
Restore_Preparation_Time	Unsigned16	O ^{*13}	–
Restore_Completion_Time	Unsigned16	O ^{*13}	–
Backup_And_Restore_State	BACnetBackupState	O ^{*13}	–
Active_COV_Subscriptions	List of BACnetCOVSubscription	O ^{*14}	R
Slave_Proxy_Enable	BACnetARRAY[3] of Boolean	O ^{*15}	–
Manual_Slave_Address_Bind.	List of BACnetAddressBinding	O ^{*15}	–
Auto_Slave_Discovery	BACnetARRAY[N] of Boolean	O ^{*16}	–
Slave_Address_Binding	List of BACnetAddressBinding	O ^{*17}	–
Last_Restart_Reason	BACnetRestartReason	O ^{*18}	R
Time_Of_Device_Restart	BACnetTimeStamp	O ^{*18}	R
Restart_Notification_Recip.	List of BACnetRecipient	O ^{*18}	R/W
UTC_Time_Synch_Recip.	List of BACnetRecipient	O ^{*10}	–
Time_Synchronization_Interv.	Unsigned	O ^{*19}	–
Align_Intervals	Boolean	O ^{*19}	–
Interval_Offset	Unsigned	O ^{*19}	–

^{*7} Required if segmentation of any kind is supported.

^{*8} If the device supports the execution of the TimeSynchronization service, then these properties shall be present.

^{*9} If the device supports the execution of the UTCTimeSynchronization service, then these properties shall be present.

^{*10} If this property is present, then Time_Synchronization_Interval, Align_Intervals and Interval_Offset shall be present. If present, this property shall be writable.

^{*11} These properties are required if the device is an MS/TP master node.

^{*12} These properties are required if the device supports the backup and restore procedures.

^{*13} This property must be present and writable if the device supports the backup and restore procedures.

^{*14} This property is required if the device supports execution of either the SubscribeCOV or SubscribeCOVProperty service.

^{*15} This property shall be present and writable if the device is capable of being a Slave-Proxy device.

^{*16} This property shall be present if the device is capable of being a Slave-Proxy device that implements automatic discovery of slaves.

^{*17} This property shall be present if the device is capable of being a Slave-Proxy device.

^{*18} These properties are required if the device supports the restart procedure as described in Clause 19.3.

^{*19} If either Time_Synchronization_Recipients or UTC_Time_Synchronization_Recipients is present, then this property shall be present and writable.

Multstate-Input

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	R ^{*1}	R ^{*1} /W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
Number_Of_States	Unsigned	R	R
State_Text	BACnetARRAY[N] of CharacterString	O	R
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
Alarm_Values	List of Unsigned	O ^{*3}	-/R
Fault_Values	List of Unsigned	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

Notification-Class

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

Schedule

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	R	R ^{*1} /W
Description	CharacterString	O	R
Effective_Period	BACnetDateRange	R	R/W
Weekly_Schedule	BACnetARRAY[7]of BACnetDailySchedule	O ^{*20}	R/W
Exception_Schedule	BACnetARRAY[N]of BACnetSpecialEvent	O ^{*20}	R/W
Schedule_Default	Unsigned	R	R
List_Of_B...References	List of BACnet...Reference	R	R
Priority_For_Writing	Unsigned (1..16)	R	R
Status_Flags	BACnetStatusFlags	R	R
Reliability	BACnetReliability	O	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W

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

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

*20 At least one of these properties is required.

Multistate-Value

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Present_Value	Unsigned	R ^{*1}	R/W
Description	CharacterString	O	R
Status_Flags	BACnetStatusFlags	R	R
Event_State	BACnetEventState	R	R
Reliability	BACnetReliability	O ^{*21}	R ^{*1} /W
Out_Of_Service	BOOLEAN	R	R/W
Number_Of_States	Unsigned	R	R
State_Text	BACnetARRAY[N] of CharacterString	O	R
Time_Delay	Unsigned	O ^{*3}	-/R
Notification_Class	Unsigned	O ^{*3}	-/R
Alarm_Values	List of Unsigned	O ^{*3}	-/R
Fault_Values	List of Unsigned	O ^{*3}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*3}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*3}	-/R
Notify_Type	BACnetNotifyType	O ^{*3}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*3}	-/R

5833745 ^{*1} This property ist required to be writable when Out_Of_Service ist TRUE.

^{*21} This property shall be required if Fault_Values ist present.

^{*3} These properties are required if the object supports intrinsic reporting.

Trend-Log

Property Identifier	Property Datatype	Conf.-Code	Vitogate
Object_Identifier	BACnetObjectIdentifier	R	R
Object_Name	CharacterString	R	R
Object_Type	BACnetObjectType	R	R
Description	CharacterString	O	R
Enable	BOOLEAN	W	W
Start_Time	BACnetDateTime	O ^{*22*23}	R/W
Stop_Time	BACnetDateTime	O ^{*22*23}	R/W
Log_DeviceObjectProperty	BACnetDeviceObjectPropertyReference	O ^{*22}	R
Log_Interval	Unsigned	O ^{*22*24}	R
Stop_When_Full	Boolean	R	R
Buffer_Size	Unsigned32	R	R
Log_Buffer	List of BACnetLogRecord	R	R
Record_Count	Unsigned32	W	W
Total_Record_Count	Unsigned32	R	R
Notification_Threshold	Unsigned32	O ^{*25}	-/R
Records_Since_Notification	Unsigned32	O ^{*25}	-/R
Last_Notify_Record	Unsigned32	O ^{*25}	-/R
Event_State	BACnetEventState	R	R
Notification_Class	Unsigned	O ^{*25}	-/R
Event_Enable	BACnetEventTransitionBits	O ^{*25}	-/R
Acked_Transitions	BACnetEventTransitionBits	O ^{*25}	-/R
Notify_Type	BACnetNotifyType	O ^{*25}	-/R
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{*25}	-/R
Logging_Type	BACnetLoggingType	R	R
Align_Intervals	Boolean	O ^{*26}	R
Interval_Offset	Unsigned	O ^{*26}	R
Status_Flags	BACnetStatusFlags	R	R
Reliability	BACnetReliability	O	R

^{*22} These properties are required to be present if the monitored property is a BACnet property.

^{*23} If present, these properties are required to be writable.

^{*24} 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.

^{*25} These properties are required to be present if the object supports intrinsic reporting.

^{*26} These properties are required to be present if the object supports clock-aligned logging.



Technische Änderungen vorbehalten!

Viessmann Ges.m.b.H.
A-4641 Steinhaus bei Wels
Telefon: 07242 62381-110
Telefax: 07242 62381-440
www.viessmann.at

Viessmann Werke GmbH & Co. KG
D-35107 Allendorf
Telefon: 06452 70-0
Telefax: 06452 70-2780
www.viessmann.de

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