

BACnet Protocol Implementation Conformance Statement

Date: 2019-11-10

Vendor Name: Domat Control System s.r.o.

Product Name: mark... PLCs with Merbon runtime

Product Model Number: markMX, mark220, mark320, mark125, ICIO205, IMIO105, IMIO110, wMX..., wCIO..., w750...

Application Software Version: 2.4.0.1 **Firmware Revision:** 201911 **BACnet Protocol Revision:** 135-2012

Product Description:

Mark PLCs are freely programmable controllers for use in HVAC automation, building and process control, and data integration.

BACnet Standardized Device Profile (Annex L):

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

None

Segmentation Capability:

- Able to transmit segmented messages Window Size 1476
- Able to receive segmented messages Window Size 1476

Standard Object Types Supported:

If not stated otherwise,

- Creating or deleting of dynamic objects is not supported
- No additional writable properties (other than the ones required by this standard) are supported
- No proprietary properties are implemented
- No range restrictions on properties exist

Device

Required properties supported:

Object_Identifier

Object_Name

Object_Type

System_Status

Vendor_Name
Vendor_Identifier
Model_Name
Firmware_Revision
Application_Software_Version
Protocol_Version
Protocol_Revision
Protocol_Services_Supported
Protocol_Object_Types_Supported
Object_List
Max_APDU_Length_Accepted
Segmentation_Supported
APDU_Timeout
Number_Of_APDU_Retries
Device_Address_Binding
Database_Revision
Property_List

Optional properties supported:

Description
Local_Time
Local_Date
Max_Segments_Accepted
UTC_Offset
Daylight_Savings_Status

AI - Analog Input

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Units
Property_List

Optional properties supported:

Description
Min_Pres_Value
Max_Pres_Value

AO - Analog Output

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Units
Property_List

Optional properties supported:

Description
Min_Pres_Value
Max_Pres_Value

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

AV - Analog Value

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Units
Property_List

Optional properties supported:

Description
Min_Pres_Value
Max_Pres_Value

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

BI - Binary Input

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Polarity
Property_List

Optional properties supported:

Description
Active_Text
Inactive_Text

BO - Binary Output

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags

Event_State
Out_Of_Service
Polarity
Property_List

Optional properties supported:

Description
Active_Text
Inactive_Text

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

BV - Binary Value

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Property_List

Optional properties supported:

Description
Active_Text
Inactive_Text

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

MI - Multistate Input

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Number_Of_States
Property_List

Optional properties supported:

Description
State_Text

MO - Multistate Output

Required properties supported:

Object_Identifier
Object_Name
Object_Type

Present_Value
Status_Flags
Event_State
Out_Of_Service
Number_Of_States
Property_List

Optional properties supported:

Description
State_Text

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

MV - Multistate Value

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Present_Value
Status_Flags
Event_State
Out_Of_Service
Number_Of_States
Property_List

Optional properties supported:

Description
State_Text

Not supported properties:

Priority_Array, Relinquish_Default, Current_Command_Priority

Schedule

Required properties supported:

Present_Value
Schedule_Default
Status_Flags
Reliability
Out_Of_Service
Number_Of_States
Property_List

Optional properties supported:

Weekly_Schedule
Description
State_Text
Event_State

Not supported properties:

Object_Identifier, Object_Name, Object_Type, Effective_Period, Priority_For_Writing,
List_Of_Object_Property_References

Real, Boolean, and Integer value types are supported in schedules, depending on the schedule type engineered in the PLC. Weekly_Schedule is supported.

Event Enrollment

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Event_Type
Notify_Type
Event_Parameters
Object_Property_Reference
Event_State
Event_Enable
Acked_Transitions
Notification_Class
Event_Time_Stamps
Event_Detection_Enable
Status_Flags
Reliability
Property_List

Optional properties supported:

Description

Notification Class

Required properties supported:

Object_Identifier
Object_Name
Object_Type
Notification_Class
Priority
Ack_Required
Recipient_list
Property_List

Optional properties supported:

Description
Event_State
Status_Flags

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ATA 878.1, EIA-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: _____
- BACnet/ZigBee (ANNEX O)
- 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
 - Does the BBMD support network address translation? Yes No

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)

Character Sets Supported:

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

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

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

Other protocols supported are Modbus RTU (server / client), Modbus TCP (server / client), M-Bus, IEC 62056-21, SSCP (Domat Control System proprietary protocol), SoftPLC Link (Domat Control System proprietary protocol).

Further information can be found at www.domat.cz, or contact technical support at support@domat.cz.