

# SIEMENS



## **Desigo™ BACnetRouter PXG3.M and PXG3.L V6.0 BACnet Protocol Implementation Conformance Statement (PICS) Basic documentation**

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# 1 Desigo PXG3.M BACnet router

<b>Date</b>	: 24 August 2016
<b>Vendor name</b>	: Siemens Building Technologies (Vendor ID 7)
<b>Product name</b>	: Desigo BACnet Router
<b>Product model number</b>	: PXG3.M
<b>BACnet protocol version</b>	: 1.13
<b>Application software version</b>	: –
<b>Firmware revision</b>	: 01.20.54.29

## 1.1 Product description

The DESIGO PXG3.M BACnet router connects a BACnet MS/TP channel to a BACnet/IP network. In addition, the BACnet router supports the functionality of the BBMD (BACnet Broadcast Management Device) in order to distribute the BACnet broadcast messages across the IP routers including foreign device support. The configuration can be performed through the built-in Web server using a standard Web browser.

## 1.2 BACnet standardized device profile (Annex L)

<input type="checkbox"/>	BACnet Advanced Workstation	(B-AWS)
<input type="checkbox"/>	BACnet Operator Workstation	(B-OWS)
<input type="checkbox"/>	BACnet Operator Display	(B-OD)
<input type="checkbox"/>	BACnet Building Controller	(B-BC)
<input type="checkbox"/>	BACnet Advanced Application Controller	(B-AAC)
<input type="checkbox"/>	BACnet Application Specific Controller	(B-ASC)
<input type="checkbox"/>	BACnet Smart Sensor	(B-SS)
<input type="checkbox"/>	BACnet Smart Actuator	(B-SA)
<input checked="" type="checkbox"/>	BACnet General	(B-GEN)

### 1.3 BACnet interoperability building blocks supported (Annex K)

#### Data sharing

<input checked="" type="checkbox"/>	Data Sharing – ReadProperty-A	DS-RP-A
<input checked="" type="checkbox"/>	Data Sharing – ReadProperty-B	DS-RP-B
<input checked="" type="checkbox"/>	Data Sharing – ReadPropertyMultiple-A	DS-RPM-A
<input checked="" type="checkbox"/>	Data Sharing – ReadPropertyMultiple-B	DS-RPM-B
<input type="checkbox"/>	Data Sharing – WriteProperty-A	DS-WP-A
<input checked="" type="checkbox"/>	Data Sharing – WriteProperty-B	DS-WP-B
<input type="checkbox"/>	Data Sharing – WritePropertyMultiple-A	DS-WPM-A
<input checked="" type="checkbox"/>	Data Sharing – WritePropertyMultiple-B	DS-WPM-B
<input type="checkbox"/>	Data Sharing – ChangeofValue -A	DS-COV-A
<input type="checkbox"/>	Data Sharing – ChangeofValue -B	DS-COV-B
<input type="checkbox"/>	Data Sharing – ChangeofValueProperty -A	DS-COVP-A
<input checked="" type="checkbox"/>	Data Sharing – ChangeofValueProperty -B	DS-COVP-B
<input type="checkbox"/>	Data Sharing – ChangeofValue-Unsolicited-A	DS-COVU-A
<input type="checkbox"/>	Data Sharing – ChangeofValue-Unsolicited-B	DS-COVU-B
<input type="checkbox"/>	Data Sharing – View-A	DS-V-A
<input type="checkbox"/>	Data Sharing – Advanced View-A	DS-AV-A
<input type="checkbox"/>	Data Sharing – Modify-A	DS-M-A
<input type="checkbox"/>	Data Sharing – Advanced Modify-A	DS-AM-A

#### Alarm and event management

<input type="checkbox"/>	Alarm and Event – Notification-A	AE-N-A
<input type="checkbox"/>	Alarm and Event – Notification Internal-B	AE-N-I-B
<input type="checkbox"/>	Alarm and Event – Notification External-B	AE-N-E-B
<input type="checkbox"/>	Alarm and Event – ACK-A	AE-ACK-A
<input type="checkbox"/>	Alarm and Event – ACK-B	AE-ACK-B
<input type="checkbox"/>	Alarm and Event – Alarm Summary-A	AE-ASUM-A
<input type="checkbox"/>	Alarm and Event – Alarm Summary-B	AE-ASUM-B
<input type="checkbox"/>	Alarm and Event – Enrollment Summary-A	AE-ESUM-A
<input type="checkbox"/>	Alarm and Event – Enrollment Summary-B	AE-ESUM-B
<input type="checkbox"/>	Alarm and Event – Information-A	AE-INFO-A
<input type="checkbox"/>	Alarm and Event – Information-B	AE-INFO-B
<input type="checkbox"/>	Alarm and Event – LifeSafety-A	AE-LS-A
<input type="checkbox"/>	Alarm and Event – LifeSafety-B	AE-LS-B
<input type="checkbox"/>	Alarm and Event – View Notifications-A	AE-VN-A
<input type="checkbox"/>	Alarm and Event – Advanced View Notifications-A	AE-AVN-A
<input type="checkbox"/>	Alarm and Event – View and Modify-A	AE-VM-A
<input type="checkbox"/>	Alarm and Event – Advanced View and Modify-A	AE-AVM-A
<input type="checkbox"/>	Alarm and Event – Alarm Summary View-A	AE-AS-A
<input type="checkbox"/>	Alarm and Event – Event Log View-A	AE-ELV-A
<input type="checkbox"/>	Alarm and Event – Event Log View and Modify-A	AE-ELVM-A
<input type="checkbox"/>	Alarm and Event – Event Log-Internal-B	AE-EL-I-B
<input type="checkbox"/>	Alarm and Event – Event Log-External-B	AE-EL-E-B

**Scheduling**

<input type="checkbox"/>	Scheduling – A	SCHED-A
<input type="checkbox"/>	Scheduling – Internal-B	SCHED-I-B
<input type="checkbox"/>	Scheduling – External-B	SCHED-E-B
<input type="checkbox"/>	Scheduling – Advanced View Modify-A	SCH-AVM-A
<input type="checkbox"/>	Scheduling – View Modify-A	SCH-VM-A
<input type="checkbox"/>	Scheduling – Weekly Schedule-A	SCH-WS-A
<input type="checkbox"/>	Scheduling – Weekly Schedule Internal-B	SCH-WS-I-B
<input type="checkbox"/>	Scheduling – Readable-B	SCH-R-B

**Trending**

<input type="checkbox"/>	Trending – Viewing and Modifying Trends-A	T-VMT-A
<input type="checkbox"/>	Trending – Viewing and Modifying Internal-B	T-VM-I-B
<input type="checkbox"/>	Trending – Viewing and Modifying External-B	T-VM-E-B
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values-A	T-VMMV-A
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values Internal-B	T-VMMV-I-B
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values External -B	T-VMMV-E-B
<input type="checkbox"/>	Trending – Automated Multiple Value Retrieval-A	T-AMVR-A
<input type="checkbox"/>	Trending – Automated Multiple Value Retrieval-B	T-AMVR-B
<input type="checkbox"/>	Trending – View-A	T-V-A
<input type="checkbox"/>	Trending – Advanced View and Modify-A	T-AVM-A
<input type="checkbox"/>	Trending – Archival-A	T-A-A
<input type="checkbox"/>	Trending – Automated Trend Retrieval-A	T-ATR-A
<input type="checkbox"/>	Trending – Automated Trend Retrieval-B	T-ATR-B

**Device management**

<input checked="" type="checkbox"/>	Device Management – Dynamic Device Binding-A	DM-DDB-A
<input checked="" type="checkbox"/>	Device Management – Dynamic Device Binding-B	DM-DDB-B
<input type="checkbox"/>	Device Management – Dynamic Object Binding-A	DM-DOB-A
<input checked="" type="checkbox"/>	Device Management – Dynamic Object Binding-B	DM-DOB-B
<input type="checkbox"/>	Device Management – DeviceCommunicationControl-A	DM-DCC-A
<input checked="" type="checkbox"/>	Device Management – DeviceCommunicationControl-B	DM-DCC-B
<input type="checkbox"/>	Device Management – Private Transfer-A	DM-PT-A
<input type="checkbox"/>	Device Management – Private Transfer-B	DM-PT-B
<input type="checkbox"/>	Device Management – Text Message-A	DM-TM-A
<input type="checkbox"/>	Device Management – Text Message-B	DM-TM-B
<input type="checkbox"/>	Device Management – TimeSynchronization-A	DM-TS-A
<input checked="" type="checkbox"/>	Device Management – TimeSynchronization-B	DM-TS-B
<input type="checkbox"/>	Device Management – UTCTimeSynchronization-A	DM-UTC-A
<input checked="" type="checkbox"/>	Device Management – UTCTimeSynchronization-B	DM-UTC-B
<input type="checkbox"/>	Device Management – ReinitializeDevice-A	DM-RD-A
<input checked="" type="checkbox"/>	Device Management – ReinitializeDevice-B	DM-RD-B
<input type="checkbox"/>	Device Management – Backup and Restore-A	DM-BR-A
<input checked="" type="checkbox"/>	Device Management – Backup and Restore-B	DM-BR-B
<input type="checkbox"/>	Device Management – Restart-A	DM-R-A
<input checked="" type="checkbox"/>	Device Management – Restart-B	DM-R-B
<input type="checkbox"/>	Device Management – List Manipulation-A	DM-LM-A
<input checked="" type="checkbox"/>	Device Management – List Manipulation-B	DM-LM-B
<input type="checkbox"/>	Device Management – Object Creation and Deletion-A	DM-OCD-A
<input type="checkbox"/>	Device Management – Object Creation and Deletion-B	DM-OCD-B
<input type="checkbox"/>	Device Management – Virtual Terminal-A	DM-VT-A
<input type="checkbox"/>	Device Management – Virtual Terminal-B	DM-VT-B
<input type="checkbox"/>	Device Management – Automatic Network Mapping-A	DM-ANM-A
<input type="checkbox"/>	Device Management – Automatic Device Mapping-A	DM-ADM-A
<input type="checkbox"/>	Device Management – Automatic Time Synchronization-A	DM-ATS-A
<input type="checkbox"/>	Device Management – Manual Time Synchronization-A	DM-MTS-A

**Network management**

<input type="checkbox"/>	Network Management – Connection Establishment-A	NM-CE-A
<input type="checkbox"/>	Network Management – Connection Establishment-B	NM-CE-B
<input type="checkbox"/>	Network Management – Router Configuration-A	NM-RC-A
<input type="checkbox"/>	Network Management – Router Configuration-B	NM-RC-B

## 1.4 Standard object types supported

Object type	Supported	Can be created dynamically	Can be deleted dynamically
Analog Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calendar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Enrollment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
File	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notification Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Averaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life-Safety-Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life-Safety-Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accumulator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pulse-Converter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log Multiple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Load Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Structured-View	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Door	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(unassigned)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Credential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credential Data Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Network Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bitstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Characterstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Object type	Supported	Can be created dynamically	Can be deleted dynamically
Date Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Datetime Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Datetime Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integer Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large Analog Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Octetstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive Integer Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Device

Properties	supported	Readable/ Writable	Range restrictions
Object_Identifier	<input checked="" type="checkbox"/>	R	
Object_Name	<input checked="" type="checkbox"/>	R	
Object_Type	<input checked="" type="checkbox"/>	R	
System_Status	<input checked="" type="checkbox"/>	R	
Vendor_Name	<input checked="" type="checkbox"/>	R	
Vendor_Identifier	<input checked="" type="checkbox"/>	R	
Model_Name	<input checked="" type="checkbox"/>	R	
Firmware_Revision	<input checked="" type="checkbox"/>	R	
Application_Software_Version	<input checked="" type="checkbox"/>	R	
Location	<input checked="" type="checkbox"/>	W	
Description	<input checked="" type="checkbox"/>	W	
Protocol_Version	<input checked="" type="checkbox"/>	R	
Protocol_Revision	<input checked="" type="checkbox"/>	R	
Protocol_Services_Supported	<input checked="" type="checkbox"/>	R	
Protocol_Object_Types_Supported	<input checked="" type="checkbox"/>	R	
Object_List	<input checked="" type="checkbox"/>	R	
Structured_Object_List	<input type="checkbox"/>		
Max_APDU_Length_Accepted	<input checked="" type="checkbox"/>	R	
Segmentation_Supported	<input checked="" type="checkbox"/>	R	
Max_Segments_Accepted	<input checked="" type="checkbox"/>	R	
VT_Classes_Supported	<input type="checkbox"/>		
Active_VT_Sessions	<input type="checkbox"/>		
Local_Time	<input checked="" type="checkbox"/>	W	
Local_Date	<input checked="" type="checkbox"/>	W	..17.1.2038
UTC_Offset	<input checked="" type="checkbox"/>	R	
Daylight_Savings_Status	<input checked="" type="checkbox"/>	R	
APDU_Segment_Timeout	<input checked="" type="checkbox"/>	R	
APDU_Timeout	<input checked="" type="checkbox"/>	R	
Number_Of_APDU_Retries	<input checked="" type="checkbox"/>	R	
List_Of_Session_Keys	<input type="checkbox"/>		
Time_Synchronization_Recipients	<input type="checkbox"/>		
Max_Master	<input checked="" type="checkbox"/>	R	
Max_Info_Frames	<input checked="" type="checkbox"/>	R	
Device_Address_Binding	<input checked="" type="checkbox"/>	R	
Database_Revision	<input checked="" type="checkbox"/>	R	
Configuration_Files	<input checked="" type="checkbox"/>	R	
Last_Restore_Time	<input checked="" type="checkbox"/>	R	
Backup_Failure_Timeout	<input checked="" type="checkbox"/>	W	0..65535
Backup_Preparation_Time	<input checked="" type="checkbox"/>	R	
Restore_Preparation_Time	<input checked="" type="checkbox"/>	R	
Restore_Completion_Time	<input checked="" type="checkbox"/>	R	
Backup_And_Restore_State	<input checked="" type="checkbox"/>	R	
Active_COV_Subscriptions	<input checked="" type="checkbox"/>	R	
Slave_Proxy_Enable	<input checked="" type="checkbox"/>	W	0..1

**Device**

Manual_Slave_Adress_Binding	<input checked="" type="checkbox"/>	W	
Auto_Slave_Discovery	<input checked="" type="checkbox"/>	W	0..1
Slave_Address_Binding	<input checked="" type="checkbox"/>	R	
Last_Restart_Reason	<input checked="" type="checkbox"/>	R	
Time_Of_Device_Restart	<input checked="" type="checkbox"/>	R	
Restart_Notification_Recipients	<input checked="" type="checkbox"/>	W	
UTC_Time_Synchronization_Recipients	<input type="checkbox"/>		
Time_Synchronization_Interval	<input type="checkbox"/>		
Align_Intervals	<input type="checkbox"/>		
Interval_Offset	<input type="checkbox"/>		
Profile_Name	<input checked="" type="checkbox"/>	R	

**File**

Properties	supported	Readable/ Writable	Range restrictions
Object_Identifier	<input checked="" type="checkbox"/>	R	
Object_Name	<input checked="" type="checkbox"/>	W	
Object_Type	<input checked="" type="checkbox"/>	R	
Description	<input checked="" type="checkbox"/>	W	
File_Type	<input checked="" type="checkbox"/>	R	
File_Size	<input checked="" type="checkbox"/>	C	0..0
Modification_Date	<input checked="" type="checkbox"/>	R	
Archive	<input checked="" type="checkbox"/>	W	
Read_Only	<input checked="" type="checkbox"/>	R	
File_Access_Method	<input checked="" type="checkbox"/>	R	
Profile_Name	<input checked="" type="checkbox"/>	R	

Conditional File\_Size writable during RESTORE only

## 1.5 Segmentation capability

<input checked="" type="checkbox"/>	Able to transmit segmented messages	Window size	configurable
<input checked="" type="checkbox"/>	Able to receive segmented messages	Window size	configurable

## 1.6 Data Link Layer options

<input checked="" type="checkbox"/>	BACnet IP, (Annex J)	
<input type="checkbox"/>	BACnet IP, (Annex J), Foreign Device	
<input type="checkbox"/>	ISO 8802-3, Ethernet (Clause 7)	
<input type="checkbox"/>	ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)	
<input type="checkbox"/>	ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s)	
<input checked="" type="checkbox"/>	MS/TP master (Clause 9), baud rate(s)	: 9600 : 19200 : 38400 : 76800 : 115200
<input type="checkbox"/>	MS/TP slave (Clause 9), baud rate(s)	
<input type="checkbox"/>	Point-To-Point, EIA 232 (Clause 10), baud rate(s)	:
<input type="checkbox"/>	Point-To-Point, modem, (Clause 10), baud rate(s)	:
<input type="checkbox"/>	LonTalk, (Clause 11), medium:	
<input type="checkbox"/>	Other	

## 1.7 Device address binding

Is static device binding supported?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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## 1.8 Networking options

<input checked="" type="checkbox"/>	Router, Clause 6	
<input type="checkbox"/>	Annex H, BACnet Tunnelling Router over IP	
<input checked="" type="checkbox"/>	BACnet/IP Broadcast Management Device (BBMD)	
	Does the BBMD support registrations by Foreign Devices?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## 1.9 Character sets supported

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

<input checked="" type="checkbox"/> UTF-8	<input type="checkbox"/> IBM / Microsoft DBCS	<input type="checkbox"/> ISO 8859-1
<input type="checkbox"/> ISO 10646 (UCS-2)	<input type="checkbox"/> ISO 10646 (UCS-4)	<input type="checkbox"/> JIS C 6226

## 2 Desigo PXG3.L BACnet router

<b>Date</b>	: 24 August 2016
<b>Vendor name</b>	: Siemens Building Technologies (Vendor ID 7)
<b>Product name</b>	: Desigo BACnet Router
<b>Product model number</b>	: PXG3.L
<b>BACnet protocol version</b>	: 1.13
<b>Application software version</b>	: –
<b>Firmware revision</b>	: 01.20.54.2

### 2.1 Product description

The DESIGO PXG3.L BACnet router connects:

- a BACnet MS/TP channel to a BACnet/IP network
- a BACnet MS/TP channel to a BACnet/Lon network
- a BACnet/Lon network to a BACnet/IP network

In addition, the BACnet router supports the functionality of the BBMD (BACnet Broadcast Management Device) in order to distribute the BACnet broadcast messages across the IP routers including foreign device support.

The configuration can be performed through the built-in Web server using a standard Web browser.

### 2.2 BACnet standardized device profile (Annex L)

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<input type="checkbox"/>	BACnet Building Controller	(B-BC)
<input type="checkbox"/>	BACnet Advanced Application Controller	(B-AAC)
<input type="checkbox"/>	BACnet Application Specific Controller	(B-ASC)
<input type="checkbox"/>	BACnet Smart Sensor	(B-SS)
<input type="checkbox"/>	BACnet Smart Actuator	(B-SA)
<input checked="" type="checkbox"/>	BACnet General	(B-GEN)

## 2.3 BACnet interoperability building blocks supported (Annex K)

### Data sharing

<input checked="" type="checkbox"/>	Data Sharing – ReadProperty-A	DS-RP-A
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<input checked="" type="checkbox"/>	Data Sharing – ReadPropertyMultiple-A	DS-RPM-A
<input checked="" type="checkbox"/>	Data Sharing – ReadPropertyMultiple-B	DS-RPM-B
<input type="checkbox"/>	Data Sharing – WriteProperty-A	DS-WP-A
<input checked="" type="checkbox"/>	Data Sharing – WriteProperty-B	DS-WP-B
<input type="checkbox"/>	Data Sharing – WritePropertyMultiple-A	DS-WPM-A
<input checked="" type="checkbox"/>	Data Sharing – WritePropertyMultiple-B	DS-WPM-B
<input type="checkbox"/>	Data Sharing – ChangeofValue -A	DS-COV-A
<input type="checkbox"/>	Data Sharing – ChangeofValue -B	DS-COV-B
<input type="checkbox"/>	Data Sharing – ChangeofValueProperty -A	DS-COVP-A
<input checked="" type="checkbox"/>	Data Sharing – ChangeofValueProperty -B	DS-COVP-B
<input type="checkbox"/>	Data Sharing – ChangeofValue-Unsolicited-A	DS-COVU-A
<input type="checkbox"/>	Data Sharing – ChangeofValue-Unsolicited-B	DS-COVU-B
<input type="checkbox"/>	Data Sharing – View-A	DS-V-A
<input type="checkbox"/>	Data Sharing – Advanced View-A	DS-AV-A
<input type="checkbox"/>	Data Sharing – Modify-A	DS-M-A
<input type="checkbox"/>	Data Sharing – Advanced Modify-A	DS-AM-A

### Alarm and event management

<input type="checkbox"/>	Alarm and Event – Notification-A	AE-N-A
<input type="checkbox"/>	Alarm and Event – Notification Internal-B	AE-N-I-B
<input type="checkbox"/>	Alarm and Event – Notification External-B	AE-N-E-B
<input type="checkbox"/>	Alarm and Event – ACK-A	AE-ACK-A
<input type="checkbox"/>	Alarm and Event – ACK-B	AE-ACK-B
<input type="checkbox"/>	Alarm and Event – Alarm Summary-A	AE-ASUM-A
<input type="checkbox"/>	Alarm and Event – Alarm Summary-B	AE-ASUM-B
<input type="checkbox"/>	Alarm and Event – Enrollment Summary-A	AE-ESUM-A
<input type="checkbox"/>	Alarm and Event – Enrollment Summary-B	AE-ESUM-B
<input type="checkbox"/>	Alarm and Event – Information-A	AE-INFO-A
<input type="checkbox"/>	Alarm and Event – Information-B	AE-INFO-B
<input type="checkbox"/>	Alarm and Event – LifeSafety-A	AE-LS-A
<input type="checkbox"/>	Alarm and Event – LifeSafety-B	AE-LS-B
<input type="checkbox"/>	Alarm and Event – View Notifications-A	AE-VN-A
<input type="checkbox"/>	Alarm and Event – Advanced View Notifications-A	AE-AVN-A
<input type="checkbox"/>	Alarm and Event – View and Modify-A	AE-VM-A
<input type="checkbox"/>	Alarm and Event – Advanced View and Modify-A	AE-AVM-A
<input type="checkbox"/>	Alarm and Event – Alarm Summary View-A	AE-AS-A
<input type="checkbox"/>	Alarm and Event – Event Log View-A	AE-ELV-A
<input type="checkbox"/>	Alarm and Event – Event Log View and Modify-A	AE-ELVM-A
<input type="checkbox"/>	Alarm and Event – Event Log-Internal-B	AE-EL-I-B
<input type="checkbox"/>	Alarm and Event – Event Log-External-B	AE-EL-E-B

**Scheduling**

<input type="checkbox"/>	Scheduling – A	SCHEd-A
<input type="checkbox"/>	Scheduling – Internal-B	SCHEd-I-B
<input type="checkbox"/>	Scheduling – External-B	SCHEd-E-B
<input type="checkbox"/>	Scheduling – Advanced View Modify-A	SCH-AVM-A
<input type="checkbox"/>	Scheduling – View Modify-A	SCH-VM-A
<input type="checkbox"/>	Scheduling – Weekly Schedule-A	SCH-WS-A
<input type="checkbox"/>	Scheduling – Weekly Schedule Internal-B	SCH-WS-I-B
<input type="checkbox"/>	Scheduling – Readable-B	SCH-R-B

**Trending**

<input type="checkbox"/>	Trending – Viewing and Modifying Trends-A	T-VMT-A
<input type="checkbox"/>	Trending – Viewing and Modifying Internal-B	T-VM-I-B
<input type="checkbox"/>	Trending – Viewing and Modifying External-B	T-VM-E-B
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values-A	T-VMMV-A
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values Internal-B	T-VMMV-I-B
<input type="checkbox"/>	Trending – Viewing and Modifying Multiple Values External -B	T-VMMV-E-B
<input type="checkbox"/>	Trending – Automated Multiple Value Retrieval-A	T-AMVR-A
<input type="checkbox"/>	Trending – Automated Multiple Value Retrieval-B	T-AMVR-B
<input type="checkbox"/>	Trending – View-A	T-V-A
<input type="checkbox"/>	Trending – Advanced View and Modify-A	T-AVM-A
<input type="checkbox"/>	Trending – Archival-A	T-A-A
<input type="checkbox"/>	Trending – Automated Trend Retrieval-A	T-ATR-A
<input type="checkbox"/>	Trending – Automated Trend Retrieval-B	T-ATR-B

**Device management**

<input checked="" type="checkbox"/>	Device Management – Dynamic Device Binding-A	DM-DDB-A
<input checked="" type="checkbox"/>	Device Management – Dynamic Device Binding-B	DM-DDB-B
<input type="checkbox"/>	Device Management – Dynamic Object Binding-A	DM-DOB-A
<input checked="" type="checkbox"/>	Device Management – Dynamic Object Binding-B	DM-DOB-B
<input type="checkbox"/>	Device Management – DeviceCommunicationControl-A	DM-DCC-A
<input checked="" type="checkbox"/>	Device Management – DeviceCommunicationControl-B	DM-DCC-B
<input type="checkbox"/>	Device Management – Private Transfer-A	DM-PT-A
<input type="checkbox"/>	Device Management – Private Transfer-B	DM-PT-B
<input type="checkbox"/>	Device Management – Text Message-A	DM-TM-A
<input type="checkbox"/>	Device Management – Text Message-B	DM-TM-B
<input type="checkbox"/>	Device Management – TimeSynchronization-A	DM-TS-A
<input checked="" type="checkbox"/>	Device Management – TimeSynchronization-B	DM-TS-B
<input type="checkbox"/>	Device Management – UTCTimeSynchronization-A	DM-UTC-A
<input checked="" type="checkbox"/>	Device Management – UTCTimeSynchronization-B	DM-UTC-B
<input type="checkbox"/>	Device Management – ReinitializeDevice-A	DM-RD-A
<input checked="" type="checkbox"/>	Device Management – ReinitializeDevice-B	DM-RD-B
<input type="checkbox"/>	Device Management – Backup and Restore-A	DM-BR-A
<input checked="" type="checkbox"/>	Device Management – Backup and Restore-B	DM-BR-B
<input type="checkbox"/>	Device Management – Restart-A	DM-R-A
<input checked="" type="checkbox"/>	Device Management – Restart-B	DM-R-B
<input type="checkbox"/>	Device Management – List Manipulation-A	DM-LM-A
<input checked="" type="checkbox"/>	Device Management – List Manipulation-B	DM-LM-B
<input type="checkbox"/>	Device Management – Object Creation and Deletion-A	DM-OCD-A
<input type="checkbox"/>	Device Management – Object Creation and Deletion-B	DM-OCD-B
<input type="checkbox"/>	Device Management – Virtual Terminal-A	DM-VT-A
<input type="checkbox"/>	Device Management – Virtual Terminal-B	DM-VT-B
<input type="checkbox"/>	Device Management – Automatic Network Mapping-A	DM-ANM-A
<input type="checkbox"/>	Device Management – Automatic Device Mapping-A	DM-ADM-A
<input type="checkbox"/>	Device Management – Automatic Time Synchronization-A	DM-ATS-A
<input type="checkbox"/>	Device Management – Manual Time Synchronization-A	DM-MTS-A

**Network management**

<input type="checkbox"/>	Network Management – Connection Establishment-A	NM-CE-A
<input type="checkbox"/>	Network Management – Connection Establishment-B	NM-CE-B
<input type="checkbox"/>	Network Management – Router Configuration-A	NM-RC-A
<input type="checkbox"/>	Network Management – Router Configuration-B	NM-RC-B

## 2.4 Standard object types supported

Object type	Supported	Can be created dynamically	Can be deleted dynamically
Analog Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calendar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Enrollment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
File	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Output	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notification Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Averaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multi-State Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life-Safety-Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life-Safety-Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accumulator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pulse-Converter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log Multiple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Load Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Structured-View	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Door	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(unassigned)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Credential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Rights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credential Data Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Network Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bitstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Characterstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



<b>Object type</b>	<b>Supported</b>	<b>Can be created dynamically</b>	<b>Can be deleted dynamically</b>
Date Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Date Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Datetime Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Datetime Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integer Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large Analog Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Octetstring Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive Integer Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time Pattern Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time Value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Device

Properties	supported	Readable/ Writable	Range restrictions
Object_Identifier	<input checked="" type="checkbox"/>	R	
Object_Name	<input checked="" type="checkbox"/>	R	
Object_Type	<input checked="" type="checkbox"/>	R	
System_Status	<input checked="" type="checkbox"/>	R	
Vendor_Name	<input checked="" type="checkbox"/>	R	
Vendor_Identifier	<input checked="" type="checkbox"/>	R	
Model_Name	<input checked="" type="checkbox"/>	R	
Firmware_Revision	<input checked="" type="checkbox"/>	R	
Application_Software_Version	<input checked="" type="checkbox"/>	R	
Location	<input checked="" type="checkbox"/>	W	
Description	<input checked="" type="checkbox"/>	W	
Protocol_Version	<input checked="" type="checkbox"/>	R	
Protocol_Revision	<input checked="" type="checkbox"/>	R	
Protocol_Services_Supported	<input checked="" type="checkbox"/>	R	
Protocol_Object_Types_Supported	<input checked="" type="checkbox"/>	R	
Object_List	<input checked="" type="checkbox"/>	R	
Structured_Object_List	<input type="checkbox"/>		
Max_APDU_Length_Accepted	<input checked="" type="checkbox"/>	R	
Segmentation_Supported	<input checked="" type="checkbox"/>	R	
Max_Segments_Accepted	<input checked="" type="checkbox"/>	R	
VT_Classes_Supported	<input type="checkbox"/>		
Active_VT_Sessions	<input type="checkbox"/>		
Local_Time	<input checked="" type="checkbox"/>	W	
Local_Date	<input checked="" type="checkbox"/>	W	..17.1.2038
UTC_Offset	<input checked="" type="checkbox"/>	R	
Daylight_Savings_Status	<input checked="" type="checkbox"/>	R	
APDU_Segment_Timeout	<input checked="" type="checkbox"/>	R	
APDU_Timeout	<input checked="" type="checkbox"/>	R	
Number_Of_APDU_Retries	<input checked="" type="checkbox"/>	R	
List_Of_Session_Keys	<input type="checkbox"/>		
Time_Synchronization_Recipients	<input type="checkbox"/>		
Max_Master	<input checked="" type="checkbox"/>	R	
Max_Info_Frames	<input checked="" type="checkbox"/>	R	
Device_Address_Binding	<input checked="" type="checkbox"/>	R	
Database_Revision	<input checked="" type="checkbox"/>	R	
Configuration_Files	<input checked="" type="checkbox"/>	R	
Last_Restore_Time	<input checked="" type="checkbox"/>	R	
Backup_Failure_Timeout	<input checked="" type="checkbox"/>	W	0..65535
Backup_Preparation_Time	<input checked="" type="checkbox"/>	R	
Restore_Preparation_Time	<input checked="" type="checkbox"/>	R	
Restore_Completion_Time	<input checked="" type="checkbox"/>	R	
Backup_And_Restore_State	<input checked="" type="checkbox"/>	R	
Active_COV_Subscriptions	<input checked="" type="checkbox"/>	R	
Slave_Proxy_Enable	<input checked="" type="checkbox"/>	W	0..1

**Device**

Properties	supported	Readable/ Writable	Range restrictions
Manual_Slave_Adress_Binding	<input checked="" type="checkbox"/>	W	
Auto_Slave_Discovery	<input checked="" type="checkbox"/>	W	0..1
Slave_Address_Binding	<input checked="" type="checkbox"/>	R	
Last_Restart_Reason	<input checked="" type="checkbox"/>	R	
Time_Of_Device_Restart	<input checked="" type="checkbox"/>	R	
Restart_Notification_Recipients	<input checked="" type="checkbox"/>	W	
UTC_Time_Synchronization_Recipients	<input type="checkbox"/>		
Time_Synchronization_Interval	<input type="checkbox"/>		
Align_Intervals	<input type="checkbox"/>		
Interval_Offset	<input type="checkbox"/>		
Profile_Name	<input checked="" type="checkbox"/>	R	

**File**

Properties	supported	Readable/ Writable	Range restrictions
Object_Identifier	<input checked="" type="checkbox"/>	R	
Object_Name	<input checked="" type="checkbox"/>	W	
Object_Type	<input checked="" type="checkbox"/>	R	
Description	<input checked="" type="checkbox"/>	W	
File_Type	<input checked="" type="checkbox"/>	R	
File_Size	<input checked="" type="checkbox"/>	C	0..0
Modification_Date	<input checked="" type="checkbox"/>	R	
Archive	<input checked="" type="checkbox"/>	W	
Read_Only	<input checked="" type="checkbox"/>	R	
File_Access_Method	<input checked="" type="checkbox"/>	R	
Profile_Name	<input checked="" type="checkbox"/>	R	

Conditional: File\_Size writable during RESTORE only

## 2.5 Segmentation capability

<input checked="" type="checkbox"/>	Able to transmit segmented messages	Window size	configurable
<input checked="" type="checkbox"/>	Able to receive segmented messages	Window size	configurable

## 2.6 Data Link Layer options

<input checked="" type="checkbox"/>	BACnet IP, (Annex J)
<input type="checkbox"/>	BACnet IP, (Annex J), Foreign Device
<input type="checkbox"/>	ISO 8802-3, Ethernet (Clause 7)
<input type="checkbox"/>	ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
<input type="checkbox"/>	ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s)

<input checked="" type="checkbox"/>	MS/TP master (Clause 9), baud rate(s)	: 9600 : 19200 : 38400 : 76800 : 115200
<input type="checkbox"/>	MS/TP slave (Clause 9), baud rate(s)	
<input type="checkbox"/>	Point-To-Point, EIA 232 (Clause 10), baud rate(s)	:
<input type="checkbox"/>	Point-To-Point, modem, (Clause 10), baud rate(s)	
<input checked="" type="checkbox"/>	LonTalk, (Clause 11), medium:	: TP/FT-10
<input type="checkbox"/>	Other	

## 2.7 Device address binding

Is static device binding supported?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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## 2.8 Networking options

<input checked="" type="checkbox"/>	Router, Clause 6	
<input type="checkbox"/>	Annex H, BACnet Tunnelling Router over IP	
<input checked="" type="checkbox"/>	BACnet/IP Broadcast Management Device (BBMD)	
	Does the BBMD support registrations by Foreign Devices?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## 2.9 Character sets supported

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

<input checked="" type="checkbox"/> UTF-8	<input type="checkbox"/> IBM / Microsoft DBCS	<input type="checkbox"/> ISO 8859-1
<input type="checkbox"/> ISO 10646 (UCS-2)	<input type="checkbox"/> ISO 10646 (UCS-4)	<input type="checkbox"/> JIS C 6226