

BACnet Protocol Implementation Conformance Statement

Date: August 21, 2009

Vendor Name: SysMik GmbH Dresden

Product Name	Product Model Number
ICS-709-B	1226-100202-07-9
ICS-709M-B	1226-100202-08-6
ICS-852-B	1226-100202-14-7
ICS-852M-B	1226-100202-15-4
ICS-852X-B	1226-100202-16-1
ICS-852MX-B	1226-100202-17-8

Applications Software Version: generic

Firmware Revision: 55.21

BACnet Protocol Revision: 1.6

Product Description:

ICS product family contains programmable multi protocol controlles with modular IO extension (digital and analog IO, S0 metering, DALI light control...) for flexible automation. Following models support BACnet communication:

- ICS-709-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ TP/FT-10)
- ICS-709M-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ TP/FT-10)
 - o Display and keypad
- ICS-852-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ IP-852 and LONMARK™ TP/FT-10)
- ICS-852M-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ IP-852 and LONMARK™ TP/FT-10)
 - o Display and keypad
- ICS-852X-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ IP-852 and LONMARK™ TP/FT-10)
 - o ANSI/EIA-709 router TP/FT-10 to IP-852
- ICS-852MX-B
 - o BACnet/IP
 - o ANSI/EIA-709 (LONMARK™ IP-852 and LONMARK™ TP/FT-10)
 - o ANSI/EIA-709 router TP/FT-10 to IP-852
 - o Display and keypad

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):

DS-RP-B
DS-RPM-A
DS-RPM-B
DS-WP-A
DS-WP-B
DS-WPM-B
DS-COV-A
DS-COV-B
AE-N-I-B
AE-ACK-B
AE-ASUM-B
AE-ESUM-B
AE-INFO-B
SCHED-I-B
T-VMT-I-B
T-ATR-B
DM-DDB-A
DM-DDB-B
DM-DOB-B
DM-DCC-B
DM-TS-B
DM-UTC-B
DM-RD-B

Segmentation Capability:

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

Standard Object Types Supported:

Object type	Supported	Can be created dynamically	Can be deleted dynamically
Analog Input Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Output Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analog Value Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Averaging Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Input Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Output Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Binary Value Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calendar Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Command Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Device Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Enrollment Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
File Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Safety Point Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Safety Zone Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loop Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multistate Input Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multistate Output Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multistate Value Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notification Class Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedule Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log Object	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accumulator Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pulse Converter Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event Log Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global Group Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trend Log Multiple Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Load Control Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Structured View Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Door Object	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Analog Input

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value ¹	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
Update_Interval	Update_Interval	
	Units	
Min_Pres_Value	Min_Pres_Value	
Max_Pres_Value	Max_Pres_Value	
Resolution		
COV_Increment	COV_Increment	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
High_Limit	High_Limit	
Low_Limit	Low_Limit	
Deadband	Deadband	
Limit_Enable	Limit_Enable	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

¹ Writable, when Out_Of_Service is TRUE

Analog Output

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
	Units	
Min_Pres_Value	Min_Pres_Value	
Max_Pres_Value	Max_Pres_Value	
Resolution		
	Relinquish_Default	
COV_Increment	COV_Increment	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
High_Limit	High_Limit	
Low_Limit	Low_Limit	
Deadband	Deadband	
Limit_Enable	Limit_Enable	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Analog Value

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Reliability		
	Out_Of_Service	
	Units	
Priority_Array		
Relinquish_Default	Relinquish_Default	
COV_Increment	COV_Increment	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
High_Limit	High_Limit	
Low_Limit	Low_Limit	
Deadband	Deadband	
Limit_Enable	Limit_Enable	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Binary Input

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value ¹	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
	Polarity	
Inactive_Text	Inactive_Text	up to 32 characters
Active_Text	Active_Text	up to 32 characters
Elapsed_Active_Time	Elapsed_Active_Time	write 0 to reset
Time_Of_Elapsed_Time_Reset		
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Alarm_Value	Alarm_Value	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

¹ Writable, when Out_Of_Service is TRUE

Binary Output

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
	Polarity	
Inactive_Text	Inactive_Text	up to 32 characters
Active_Text	Active_Text	up to 32 characters
Elapsed_Active_Time	Elapsed_Active_Time	write 0 to reset
Time_Of_Elapsed_Time_Reset		
	Relinquish_Default	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Feedback_Value	Feedback_Value	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Binary Value

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Reliability		
	Out_Of_Service	
Inactive_Text	Inactive_Text	up to 32 characters
Active_Text	Active_Text	up to 32 characters
Elapsed_Active_Time	Elapsed_Active_Time	write 0 to reset
Time_Of_Elapsed_Time_Reset		
Priority_Array		
Relinquish_Default	Relinquish_Default	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Alarm_Value	Alarm_Value	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Calendar

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
Description	Description	up to 100 characters
	Date_List	up to 20 entries
Profile_Name	Profile_Name	up to 100 characters

Device

Optional properties supported	Writable properties	Property range restrictions
Location	Location	up to 100 characters
Description	Description	up to 100 characters
Max_Segments_Accepted		
Local_Time		
Local_Date		
UTC_Offset	UTC_Offset	
Daylight_Saving_Status	Daylight_Saving_Status	
APDU_Segment_Timeout		
Active_COV_Subscriptions		
Profile_Name	Profile_Name	up to 100 characters

Multistate Input

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value ¹	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
State_Text	State_Text	up to 32 characters per element
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Alarm_Values	Alarm_Values	
Fault_Values	Fault_Values	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

¹Writable, when Out_Of_Service is TRUE

Multistate Output

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Device_Type	Device_Type	up to 100 characters
Reliability		
	Out_Of_Service	
	Relinquish_Default	
State_Text	State_Text	up to 32 characters per element
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Feedback_Value	Feedback_Value	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Notification Class

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
Description	Description	up to 100 characters
	Priority	
	Ack_Required	
	Recipient_List	
Profile_Name	Profile_Name	up to 100 characters

Schedule

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
Description	Description	up to 100 characters
Effective_Period	Effective_Period	
Weekly_Schedule	Weekly_Schedule	up to 20 entries per day
	Exception_Schedule	up to 20 exception schedules up to 20 entries per schedule
	Schedule_Default	
	List_Of_Object_Property_References	
	Priority_For_Writing	
	Out_Of_Service	
Profile_Name	Profile_Name	up to 100 characters

Multistate Value

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
	Present_Value	
Description	Description	up to 100 characters
Reliability		
	Out_Of_Service	
State_Text	State_Text	up to 32 characters per element
Priority_Array		
Relinquish_Default	Relinquish_Default	
Time_Delay	Time_Delay	
Notification_Class	Notification_Class	
Alarm_Values	Alarm_Values	
Fault_Values	Fault_Values	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Trendlog

Optional properties supported	Writable properties	Property range restrictions
	ObjectName	up to 100 characters
Description	Description	up to 100 characters
	Log_Enable	
	Record_Count	0
Notification_Threshold	Notification_Threshold	
Records_Since_Notification		
Last_Notify_Record		
Notification_Class	Notification_Class	
Event_Enable	Event_Enable	
Acked_Transitions		
Notify_Type	Notify_Type	
Event_Time_Stamps		
Profile_Name	Profile_Name	up to 100 characters

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _____
- MS/TP master (Clause 9), baud rate(s): _____
- MS/TP slave (Clause 9), baud rate(s): _____
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): _____
- Point-To-Point, modem, (Clause 10), baud rate(s): _____
- LonTalk, (Clause 11), medium: _____
- Other: _____

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

Character Sets Supported:

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

- ANSI X3.4
- IBM™/Microsoft™ DBCS
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (UCS-4)
- JIS C 6226

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

- ANSI/EIA-709 (LONMARK™ IP-852 / LONMARK™ TP/FT-10)
- DALI – Digital Addressable Lighting Interface