

# BACnet® Protocol Implementation Conformance Statement

## Products

Product Name	Model #	Protocol Revision	Software Version	Firmware Version	Tested
MACH-ProCom	MP-C	14	8.08	8.08	✓

## Vendor Information

Reliable Controls Corporation  
120 Hallowell Road  
Victoria, B.C. Canada  
V9A 7K2  
[www.reliablecontrols.com](http://www.reliablecontrols.com)

## Product Description

With its extensive network routing ability to multiple open protocols, and its highly scalable I/O and small footprint, the Reliable Controls® MACH-ProCom™ achieves an optimum balance between form and function. This fully programmable, Internet-connected, BACnet Building Controller (B-BC) is ideal for large mechanical rooms and multi-building applications. The MACH-ProCom provides high speed 10/100 Ethernet, SMART-Net communications, expandable I/O, and protocol support for BACnet®, SMTP, and Modbus RTU and TCP (both master and slave). Points are added to the MACH-ProCom using convenient MACH-ProPoint™ expansion modules. Up to 8 MACH-ProPoint expansion modules can be added to each MACH-ProCom controller.

# BACnet® Protocol Implementation Conformance Statement

## Product Tested

Model #	Product Name
MP-C	MACH-ProCom

## BACnet Standard Device Profile

Product	Device Profile
MACH-ProCom™	BACnet Building Controller (B-BC)

## Segmentation Capability

Segmentation Type	Supported	Window Size
Able to transmit segmented messages	Yes	8
Able to receive segmented messages	Yes	8

## Data Link Layer Options

Data Link	Options
Ethernet (ISO 8802-3)	
BACnet/IP	x 2
MS/TP Master	9600, 19200, 38400, 76800
AUX-Net (MS/TP) Master	9600, 19200, 38400, 76800
Point-To-Point	9600, 19200, 38400, 57600, 115200

## Device Address Binding

Static Binding Supported	No
--------------------------	----

## Broadcast Capability

BACnet/IP Broadcast Management Device (BBMD)
Yes, supports registration by foreign devices.

## Networking Options

Router Options	
BACnet/IP1 <-> BACnet/IP2	BACnet/IP2 <-> PTP
BACnet/IP1 <-> Ethernet	Ethernet <-> MS/TP-Net
BACnet/IP1 <-> MS/TP-Net	Ethernet <-> AUX-Net
BACnet/IP1 <-> AUX-Net	Ethernet <-> PTP
BACnet/IP1 <-> PTP	MS/TP-Net <-> AUX-Net
BACnet/IP2 <-> Ethernet	MS/TP-Net <-> PTP
BACnet/IP2 <-> MS/TP-Net	AUX-Net <-> PTP
BACnet/IP2 <-> AUX-Net	

## Character Sets

Character Sets Supported	UTF-8
--------------------------	-------

## Supported BIBBs

Supported BIBBs	BIBB Name
DS-RP-A	Data Sharing-ReadProperty-A
DS-RP-B	Data Sharing-ReadProperty-B
DS-RPM-A	Data Sharing-ReadPropertyMultiple-A
DS-RPM-B	Data Sharing-ReadPropertyMultiple-B
DS-WP-A	Data Sharing-WriteProperty-A
DS-WP-B	Data Sharing-WriteProperty-B
DS-WPM-B	Data Sharing-WritePropertyMultiple-B
DS-COV-A	Data Sharing-COV-A
DS-COV-B	Data Sharing-COV-B
DS-COVU-A	Data Sharing-COV-Unsolicited-A
DS-COVU-B	Data Sharing-COV-Unsolicited-B
AE-N-I-B	Alarm and Event-Notification Internal-B
AE-N-E-B	Alarm and Event-Notification External-B
AE-ACK-B	Alarm and Event-ACK-B
AE-ASUM-B	Alarm and Event-Alarm Summary-B
AE-ESUM-B	Alarm and Event-Enrollment Summary-B
AE-INFO-B	Alarm and Event-Information-B
SCHED-I-B	Scheduling-Internal-B
SCHED-E-B	Scheduling-External-B
T-VMT-I-B	Trending-Viewing and Modifying Trends Internal-B
T-VMT-E-B	Trending-Viewing and Modifying Trends External-B
T-ATR-B	Trending-Automated Trend Retrieval-B
T-VMMV-I-B	Trending-Viewing & Modifying Multiple Value Internal-B
T-VMMV-E-B	Trending-Viewing & Modifying Multiple Value External-B
T-AMVR-B	Trending-Automated Multiple Value Retrieval-B
DM-DDB-A	Device Management-Dynamic Device Binding-A
DM-DDB-B	Device Management-Dynamic Device Binding-B
DM-DOB-B	Device Management-Dynamic Object Binding-B
DM-DCC-B	Device Management-Device Communication Control-B
DM-ATS-A	Device Management-Automatic Time Synchronization-A
DM-TS-A	Device Management-Time Synchronization-A
DM-TS-B	Device Management-Time Synchronization-B
DM-UTC-A	Device Management-UTCTimeSynchronization-A
DM-UTC-B	Device Management-UTCTimeSynchronization-B
DM-RD-B	Device Management-Reinitialize Device-B
DM-BR-B	Device Management-Backup and Restore-B
DM-R-B	Device Management-Restart-B
DM-LM-B	Device Management-List Manipulation-B
DM-OCD-B	Device Management-Object Creation and Deletion-B
NM-RC-B	Network Management-Router Configuration-B

## Supported Standard Object Types

Object Type	Dynamic Creation	Dynamic Deletion	Optional Properties Supported	Write Properties
Device	No	No	Local_Time, Local_Date, UTC_Offset, Max_Master, Max_Info_Frames, Description, APDU_Segment_Timeout, Daylight_Savings_Status, Max_Segments_Accepted, Configuration_Files, Last_Restore_Time, Backup_Failure_Timeout, Time_Synchronization_Recipients, UTC_Time_Synchronization_Recipients, Time_Synchronization_Interval, Interval_Offset, Align_Intervals, Last_Restart_Reason, Time_Of_Device_Restart, Restart_Notification_Recipients, Active_COV_Subscriptions, Location	UTC_Offset, Max_Info_Frames, Object_Name, Description, APDU_Segment_Timeout, APDU_Timeout, Number_Of_APDU_Retries, Backup_Failure_Timeout, Time_Synchronization_Recipients, UTC_Time_Synchronization_Recipients, Time_Synchronization_Interval, Interval_Offset, Align_Intervals, Restart_Notification_Recipients, Location
Analog Input	Yes	Yes	COV_Increment, Description, Event_Enable, Reliability, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Event_Time_Stamps, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Present_Value, COV_Increment, Object_Name, Units, Description, Event_Enable, Out_Of_Service, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config
Analog Output	Yes	Yes	COV_Increment, Description, Event_Enable, Reliability, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Event_Time_Stamps, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Present_Value, Relinquish_Default, COV_Increment, Object_Name, Description, Event_Enable, Out_Of_Service, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config
Analog Value	Yes	Yes	Priority_Array, Relinquish_Default, COV_Increment, Description, Event_Enable, Reliability, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Event_Time_Stamps, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Present_Value, Relinquish_Default, COV_Increment, Object_Name, Description, Event_Enable, Out_Of_Service, Units, High_Limit, Low_Limit, Deadband, Limit_Enable, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config
Binary Input	Yes	Yes	Description, Event_Enable, Reliability, Inactive_Text, Active_Text, Elapsed_Active_Time, Change_Of_State_Count, Change_Of_State_Time, Time_Of_State_Count_Reset, Time_Of_Active_Time_Reset, Alarm_Value, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Event_Time_Stamps, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Object_Name, Description, Event_Enable, Out_Of_Service, Inactive_Text, Active_Text, Alarm_Value, Polarity, Time_Delay, Notification_Class, Notify_Type, Acked_Transitions, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config
Binary Output	Yes	Yes	Minimum_Off_Time, Minimum_On_Time, Description, Reliability, Event_Enable, Inactive_Text, Active_Text, Time_Delay, Elapsed_Active_Time, Change_Of_State_Count, Change_Of_State_Time, Time_Of_State_Count_Reset, Time_Of_Active_Time_Reset, Notification_Class, Feedback_Value, Acked_Transitions, Notify_Type, Event_Time_Stamps, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Present_Value, Relinquish_Default, Minimum_Off_Time, Minimum_On_Time, Object_Name, Description, Event_Enable, Out_Of_Service, Inactive_Text, Active_Text, Elapsed_Active_Time, Time_Delay, Polarity, Feedback_Value, Notification_Class, Notify_Type, Acked_Transitions, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config
Binary Value	Yes	Yes	Priority_Array, Relinquish_Default, Minimum_Off_Time, Minimum_On_Time, Description, Event_Enable, Reliability, Inactive_Text, Active_Text, Elapsed_Active_Time, Change_Of_State_Count, Change_Of_State_Time, Time_Of_State_Count_Reset, Time_Of_Active_Time_Reset, Alarm_Value, Time_Delay, Notification_Class, Notify_Type, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config	Present_Value, Relinquish_Default, Minimum_Off_Time, Minimum_On_Time, Object_Name, Description, Event_Enable, Out_Of_Service, Inactive_Text, Active_Text, Elapsed_Active_Time, Alarm_Value, Time_Delay, Notification_Class, Acked_Transitions, Notify_Type, Time_Delay_Normal, Event_Algorithm_Inhibit, Event_Algorithm_Inhibit_Ref, Event_Detection_Enable, Event_Message_Text_Config