BACnet Protocol
Implementation Conformance Statement

Products

Product	Model Number	Protocol Revision	Firmware Version
MACH-2™	M2	135-2004	6.56
MACH-2™ - HOA Switches, Connectors	M2-HC	135-2004	6.56

Vendor Information

Reliable Controls Corporation
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Product Description

Peer-to-peer controller accommodating eight universal inputs and eight universal outputs in the base configuration. The MACH-2 is expandable to thirty-two universal inputs and thirty-two universal outputs via 3 expansion connectors. Additional I/O can be added via the controller's Smart-Net™ port. The controller networks to other BACnet controllers using MS/TP over an EIA-485 port. The controllers contain an EIA-232 port for direct workstation or modem connection via either BACnet PTP or Reliable Controls Protocol. The intended use of the MACH-2 is for advanced mechanical equipment control.

BACnet Standardized Device Profile

Product	Device Profile	Tested
M2, M2-HC	BACnet Building Controller (B-BC)	

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-ReadProperyMultiple-A
DS-RPM-B	Data Sharing-ReadProperyMultiple-B
DS-WP-A	Data Sharing-WriteProperty-A
DS-WP-B	Data Sharing-WriteProperty-B
DS-WPM-B	Data Sharing-WriteProperyMultiple-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
AE-N-A	Alarm and Event-Notification-A
AE-N-I-B	Alarm and Event-Notification Internal-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
DM-DCC-B	Device Management-Device Communication Control-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-OCD-B	Device Management-Object Creation and Deletion-B
DM-PT-B	Device Management-Private Transfer-B
DM-PT-A	Device Management-Private Transfer-A
DM-RD-B	Device Management-Reinitialize Device-B
DM-TS-A	Device Management-Time Synchronization-A
DM-TS-B	Device Management-Time Synchronization-B
NM-RC-B	Network Management-Router Configuration-B

Segmentation Capability

Segmentation Type	Supported	Window Size (MS/TP product limited to 1)
Able to transmit segmented messages	Yes	1
Able to receive segmented messages	Yes	1

Standard Object Types Supported

Object Type	Dynamically Creatable	Dynamically Deletable	Optional Properties Supported	**Writable** Properties
Analog Input	No	No	Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Notify_Type
Analog Output	No	No	Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Notify_Type
Analog Value	Yes	Yes	Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, High_Limit, Low_Limit, Deadband, Limit_Enable, Event_Enable, Notify_Type
Binary Input	No	No	Time_Delay, Notification_Class, Alarm_Value, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, Alarm_Value, Event_Enable, Notify_Type
Binary Output	No	No	Time_Delay, Notification_Class, Feedback_Value, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, Event_Enable, Notify_Type
Binary Value	Yes	Yes	Time_Delay, Notification_Class, Alarm_Value, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Present_Value, Out_Of_Service, Time_Delay, Notification_Class, Alarm_Value, Event_Enable, Notify_Type
Calendar	Yes	Yes		Object_Name, Date_List
Multi-State Output	No	No		Object_Name, Present_Value, Out_Of_Service
Notification Class	Yes	Yes		Object_Name, Priority, Ack_Required, Recipient_List
Schedule	Yes	Yes	Weekly_Schedule. Exception_Schedule	Object_Name, Present_Value, Effective_Period, Weekly_Schedule. Exception_Schedule, Schedule_Default, List_Of_Object_Property_References, Priority_For_Writing, Out_Of_Service

Trend Log	Yes	Yes	Start_Time, Stop_Time, Log_DeviceObjectProperty, Log_Interval, Notification_Threshold, Records_Since_Notification, Last_Notify_Record, Notification_Class, Event_Enable, Acked_Transitions, Notify_Type, Event_Time_Stamps	Object_Name, Log_Enable, Stop_When_Full, Record_Count,
Device	No	No	Max_Segments_Accepted, Local_Time, Local_Date, Time_Synchronization_Recipients, Max_Master, Max_Info_Frames	Number_Of_APDU_Retries, APDU_Timeout, APDU_Segment_Timeout, Time_Synchronization_Recipients, Max_Info_Frames

Data Link Layer Options

Data Link	Options
MS/TP Master	9600, 19200, 38400, 76800
Point-To-Point	9600, 19200, 38400, 57600

Device Address Binding

Static Binding Supported
No

Networking Options

Router Options
MS/TP <-> PTP

Character Sets

Character Sets supported
ANSI X3.4