

Group: Controls

Part Number: ED 15113

Date: August 2010

Supersedes: ED 15113-1

**MicroTech<sup>®</sup> III**  
**Applied Air Handling Unit Controller**  
**Protocol Implementation Conformance Statement (PICS)**  
**ANSI/ASHRAE 135-2004, BACnet<sup>®</sup>**

**Applied Rooftop Models: RPE, RDE, RPS, RDT, RFS, RCS, RDS and RAH**

**Self-Contained Models: SWP and SWT**

**Maverick II<sup>™</sup> Commercial Rooftop model MPS**

# Table of Contents

---

- Table of Contents** ..... **2**
- Introduction** ..... **3**
- Notice ..... 3
- Limited Warranty ..... 3
- BACnet Protocol Implementation Conformance Statement**..... **4**
- Product Description..... 4
- BACnet Standardized Device Profile..... 4
- BACnet Interoperability Building Blocks (BIBBs) Supported ..... 5
- Standard Object Types Supported**..... **6**
- Data Link Layer Options..... 9
- Segmentation Capability ..... 9
- Device Address Binding ..... 9
- Networking Options ..... 9
- Character Sets Supported ..... 9

# Introduction

---

This document contains the Protocol Implementation Conformance Statement (PICS) for MicroTech® III Applied Air (Rooftop, Self-Contained, and Maverick II) Units from McQuay International as required by ANSI/ASHRAE (American National Standards Institute/American Society of Heating, Refrigeration, and Air Conditioning Engineers) Standard 135-2004, BACnet; A Data Communication Protocol for Building Automation and Control Networks.

## Notice

© 2010 McQuay International, Minneapolis MN. All rights reserved throughout the world

McQuay International reserves the right to change any information contained herein without prior notice. The user is responsible for determining whether this product is appropriate for his or her application.

™ ®The following are tradenames or registered trademarks of their respective companies: or BACnet from the American Society of Heating, Refrigerating and Air-Conditioning Engineers; Windows from Microsoft Corporation; McQuay and MicroTech III and Maverick II from McQuay International.

## Limited Warranty

Consult your local McQuay Representative for warranty details. Refer to Form 933-430285Y. To find your local McQuay Representative, go to [www.mcquay.com](http://www.mcquay.com).

# BACnet Protocol Implementation Conformance Statement

---

Date:	August 2010
Vendor Name:	McQuay International
Product Name:	Applied Air Handling Unit Controller
Product Model Number:	AHU
Applications Software Version:	2506017305
Firmware Revision:	1.1.30s
BACnet Protocol Revision:	Version 1 Revision 4

## Product Description

The MicroTech III Applied Air Handling Unit Controller with optional BACnet Communication Module is a microprocessor-based controller designed to operate McQuay International Air Handling (Rooftop, Self-Contained or Maverick II) Units and be integrated into BACnet building automation systems.

The controller provides normal temperature, static pressure and ventilation control and alarm monitoring with alarm-specific component shutdown in critical system conditions. Access to temperatures, pressures, operating states, alarm messages, control parameters and schedules is available through an equipment-mounted keypad/display and the BACnet control network.

## BACnet Standardized Device Profile

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Specific Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

## BACnet Interoperability Building Blocks (BIBBs) Supported

BIBB Name	Designation
Data Sharing – ReadProperty – B	DS-RP-B
Data Sharing – ReadPropertyMultiple – B	DS-RPM-B
Data Sharing – WriteProperty – B	DS-WP-B
Data Sharing – WritePropertyMultiple – B	DS-WPM-B
Data Sharing – COV – B	DS-COV-B
Data Sharing – ReadProperty – A	DS-RP-A
Data Sharing – WriteProperty – A	DS-WP-A
Data Sharing – COV – A	DS-COV-A
Alarm & Event – Notification Internal - B	AE-N-I-B
Alarm & Event – ACK –B	AE-ACK-B
Alarm & Event – Information - B	AE-INFO-B
Alarm & Event – Alarm Summary - B	AE-ASUM-B
Scheduling – Internal - B	SCHED-I-B
Device Management – Dynamic Device Binding – A	DM-DDB-A
Device Management – Dynamic Device Binding – B	DM-DDB-B
Device Management – Dynamic Object Binding – B	DM-DOB-B
Device Management – Device Communication Control – B	DM-DCC-B
Device Management – TimeSynchronization – B	DM-TS-B
Device Management – UTCTimeSynchronization – B	DM-UTS-B
Device Management – Reinitialize Device – B	DM-RD-B
Device Management – List Manipulation – B	DM-LM-B

# Standard Object Types Supported

Object-Type	Creatable	Deleteable	Optional Properties Supported	Writeable Properties Not Required To Be Writeable
Analog Input	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability COV_Increment High_Limit Low_Limit Notification_Class Min_Pres_Value Max_Pres_Value Deadband Acked_Transitions Event_Enable Notify_Type Limit_Enable Time_Delay Event_Time_Stamps	Present_Value <sup>1</sup> COV_Increment <sup>2</sup> Event_Enable
Analog Output	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Min_Pres_Value Max_Pres_Value COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	Present_Value COV_Increment <sup>2</sup> Event_Enable
Analog Value	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Priority_Array Relinquish_Default COV_Increment Time_Delay Notification_Class High_Limit Low_Limit Deadband Limit_Enable Event_Enable Acked_Transitions Notify_Type Event_Time_Stamps	Present_Value <sup>1</sup> COV_Increment <sup>2</sup> Event_Enable

Object-Type	Creatable	Deleteable	Optional Properties Supported	Writeable Properties Not Required To Be Writeable
Binary Input	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Inactive_Text Active_Text Notification_Class Acked_Transitions Event_Enable Alarm_Value Notify_Type Time_Delay Event_Time_Stamps	Present_Value Event_Enable
Binary Output	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Inactive_Text Active_Text Notification_Class Feedback_Value Acked_Transitions Event_Enable Notify_Type Time_Delay Event_Time_Stamps	Present_Value Event_Enable
Binary Value	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability Inactive_Text Active_Text Priority_Array Relinquish_Default Notification_Class Acked_Transitions Event_Enable Alarm_Value Notify_Type Time_Delay Event_Time_Stamps	Acked_Transitions Event_Enable Present_Value <sup>1</sup>
Device	<input type="checkbox"/>	<input type="checkbox"/>	Description Location Active_Cov_Subscription Local_Time Local_Date UTC_Offset ADPU_Segment_Timeout Daylight_Savings_Status Max_Segments_Accepted Max_Master (MS/TP only) Max_Info_Frames (MS/TP only)	Description Location Max_ADPU_Length_Accepted (1476>=x>=50) UTC_Offset Max_Segments_Accepted ADPU_Segment_Timeout (>100) APDU_Timeout (>100) Number_Of_APDU_Retries Segmentation_Supported Max_Master (MS/TP Only) Max_Info_Frames (MS/TP Only)

Object-Type	Creatable	Deleteable	Optional Properties Supported	Writeable Properties Not Required To Be Writeable
Multi-State Input	<input type="checkbox"/>	<input type="checkbox"/>	Description State_Text Notification_Class Acked_Transitions Event_Enable Notify_Type Time_Delay Alarm_Values Fault_Values Reliability Event_Time_Stamps	
Multi-State Output	<input type="checkbox"/>	<input type="checkbox"/>	Description Reliability State_Text Notification_Class Acked_Transitions Event_Enable Notify_Type Time_Delay Event_Time_Stamps Feedback_Value	Event_Enable
Multi-State Value	<input type="checkbox"/>	<input type="checkbox"/>	Description Priority_Array Relinquish_Default Notification_Class Reliability Acked_Transitions Event_Enable Alarm_Values Fault_Values Notify_Type Time_Delay Event_Time_Stamps State_Text	Present_Value <sup>1</sup> Event_Enable
Notification Class	<input type="checkbox"/>	<input type="checkbox"/>	Description	Object_Name Description Recipient_List (Max 20) Priority Ack_Required
Calendar	<input type="checkbox"/>	<input type="checkbox"/>	Description	Date_List (Max 10)
Schedule	<input type="checkbox"/>	<input type="checkbox"/>	Weekly_Schedule Exception_Schedule	Object_Name Effective_Period Weekly_Schedule Exception_Schedule List_Of_Object_Property_Refs

<sup>1</sup> Some objects of this type are read only. For those objects, the Present\_Value is not commandable or writable.

<sup>2</sup> Changes to this property do not take effect until the power is cycled on the unit controller. After changing COV\_Increment, you must wait at least one minute before cycling power. Otherwise, this change will not be saved.



This document contains the most current product information as of this printing. For the most current product information, please go to [www.mcquay.com](http://www.mcquay.com).

