

McQuay Rooftop and Self-Contained Air-Conditioning Systems Feature MicroTech II™ Controllers with Protocol Selectability™

McQuay's new MicroTech II™ unit controllers feature powerful DDC technology with Protocol Selectability™ for easy integration into your building automation system (BAS) of choice.

Benefits

- Easy, low-cost integration into most building automation systems!
- You select either BACnet® or LONWORKS® communications to communicate control and monitoring information to your BAS, without the need for costly gateways. Units are LONMARK® certified with the appropriate communication module for LONWORKS® networks.



- Factory integrated and tested controller, sensors, actuators and unit options promote quick, reliable start-up and minimize costly field commissioning.
- Detailed equipment status information is available to your BAS regardless of protocol.
- Flexible BAS network communication options for the life of your McQuay equipment.



Integrated Capabilities Provided By MicroTech II Controls:

- **For ASHRAE Standard 62.1-2001 Compliance** – McQuay applied rooftop and self-contained units with MicroTech II controllers communicate with your BAS to provide proper building ventilation control. McQuay's exclusive DesignFlow™ precision outdoor air measurement system and SuperMod™ high turndown gas burner for rooftop systems are also fully integrated with MicroTech II controls. These options provide direct measurement and control of outdoor air intake to within $\pm 5\%$ of the minimum ventilation air volume and provide precise and economical tempering of supply air flow.
- **For ASHRAE Standard 90.1-1999 Compliance** – When the duct static pressure setpoint is required to be reset at light loads so that one of the VAV boxes is 100% open, communication between the BAS and MicroTech II allows easy compliance. MicroTech II also supports multiple sensors so that duct static pressure can be measured far enough downstream to allow a setpoint equal to one-third of the fan's total static pressure. Discharge air temperature reset is a standard control feature and is accomplished using built-in control algorithms or input from your BAS. Finally, McQuay applied rooftop units are available with a factory-installed, fully integrated energy recovery wheel to meet ASHRAE Standard 90.1 requirements for buildings with high ventilation rates.
- **For Proper Building Static Pressure Control** – To help your BAS maintain control of building static pressure, MicroTech II unit controllers offer either VaneTrol™ fan tracking control or direct building pressure measurement and control.

Easy Integration Into Your Building Automation System Of Choice.

Communication Module Protocol Options

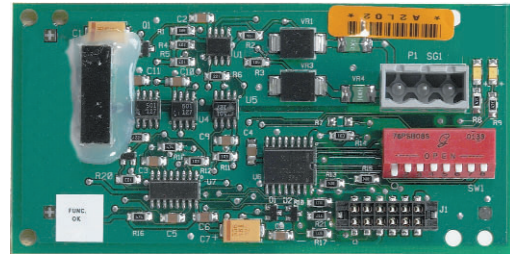
- BACnet MS/TP
- BACnet/IP
- LonTalk® DAC (FTT-10A)
Designed in accordance with LONMARK® Discharge Air Controller (DAC) Functional Profiles.
- LonTalk® SCC (FTT-10A)
Designed in accordance with LONMARK® Space Comfort Controller (SCC) Functional Profiles.

Comprehensive Data Available Regardless of Your Protocol Choice

The data available from your McQuay Rooftop and Self-Contained units with MicroTech II unit controllers provides clear operating status information and notifies your BAS of alarm conditions regardless of the protocol you select.

Typical Data Points (R=Read, W=Write)*

Cooling Capacity (R)
Heating Capacity (R)
Application Mode (R/W)
Occupancy (R)
Occupancy Mode (R/W)
Emergency Override Mode Flag (R/W)
Discharge Air Temperature (R)
Return Air Temperature (R)
Space Temperature (R)
Outdoor Air Temperature (R)
Discharge Fan Status (R)
Return Fan Status (2), (R)
Duct Static Pressure (R)
Duct Static Pressure Setpoint (R/W)
Discharge Fan Capacity (R)
Building Static Pressure (R)
Building Static Pressure Setpoint (2), (R/W)
Return Fan Capacity (2), (R)
Effective Cooling Enable Setpoint (R)
Occupied Cooling Setpoint (R/W)
Unoccupied Cooling Setpoint (R/W)
Effective Heating Enable Setpoint (R)
Occupied Heating Enable Setpoint (R/W)
Unoccupied Heating Enable Setpoint (R/W)
Effective Cooling Discharge Setpoint (R)
Discharge Air Cooling Setpoint (R/W)
Outdoor Air Damper Position (R)
Effective Min. Outdoor Damper Pos. Spt. (R)
Outdoor Airflow (2), (R)
Outdoor Air Damper Min. Position (R/W)
Min. Outdoor Airflow/Damper Pos. (R/W)
Effective Heating Discharge Setpoint (R)
Discharge Air Heating Setpoint (R/W)
Dehumidification Status (R)
Relative Humidity (R)
Dew Point Temperature (R)
Relative Humidity Setpoint (R/W)
Occupancy Scheduler Input (R/W)



Typical 2"x4" Communication Module – Each communication module may ship factory installed or be easily plugged into the MicroTech II main circuit board once a protocol selection has been made.

Typical Alarms*

Freeze Alarm
Smoke Alarm
Discharge Air Temp Sensor Failure
Entering Water Temp Sensor Failure (1)
Mixed Air Temp Sensor Failure (1)
Outdoor Air Temp Sensor Failure
Return Air Temp Sensor Failure
Space Temp Sensor Failure
Duct Pressure High Limit
High Return Air Temp
High Discharge Air Temp
Low Discharge Air Temp
Fan Failure
Heat Failure
Economizer/Outdoor Air Damper Stuck
Airflow Switch Alarm
Dirty Filter Alarm
Low Airflow Alarm
No Water Flow Alarm (1)
Water Regulating Valve Alarm (1)
Circuit High Pressure Alarm (per circuit)
Circuit Low Pressure/Frost Alarm (per circuit)
Compressor Motor Protection Alarm (per comp.)
Ckt. 1/Comp. Brd. 1 Clg. Enable
Ckt. 2/Comp. Brd. 2 Clg. Enable
Ckt. 1/Comp. Brd. 1 Comm. Failure
Ckt. 2/Comp. Brd. 2 Comm. Failure

(1) Self-Contained units only

(2) Rooftop units only

* Not all data points or alarms listed are available in all unit configurations depending upon unit options.



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