

TstatProPlus

Precision air management at a glance

"Combining health and building sciences for healthier buildings"



Economizer Ready
Heating, Air Conditioning
& Smart Ventilation Solution

The TstatPro Plus is not just a thermostat, it is a dashboard and control panel into the operation of your HVAC System to assure energy savings and Title 24 compliance through integration with Economizer Controllers. Embedded controls and sensors provide standard temperature and humidity controls, but extends these to ventilation controls to work with Economizer Controllers and Powered Exhaust to assure the quality of your buildings fresh air while providing energy savings through smarter ventilation and temperature controls based on occupancy. Part of the XCSpec™ AQ Family of products the TstatProPlus integrates with standard HVAC DDC economizer controllers and powered exhausts. The AQ Thermostat provides a low-cost option for your customer to save money per square foot on the buildings total HVAC operating costs.

“TstatProPlus MERGES advanced controls for Economizers and Powered Exhaust to provide Smart Dynamic Ventilation Controls”

Automatically Monitor And Control Air Quality In Real Time To:

Reduce Energy Costs

Meet and Exceed Regulations

Monitor and control an Environment Remotely

Improve Handicap Access Through Pressure Control

Designed with Light Commercial Buildings in Mind

- *2 Stage Heat and Cool, Fan*
- *Cool/Heat cross over, heat pump*
- *Heat, Cool or Auto Changeover*
- *7 Day schedules with 2 or 4 Periods*
- *Partial or full tenant keypad lock out*

Economizer Ready for Additional Energy Savings

- *Economizer Alarm annunciation*
- *True Occupancy Out Relay hardwire wired output*

Partial or Full Soft Lock Out

Eliminate keyed lock boxes through a partial or complete soft lock out feature. Eliminates tenants changing any keys or limits the range that the temperature set points can be set up or down.

Space Pressure Measurement for Ventilation Assurance

When an AQ Outdoor or Extender is a part of the system, individual space pressure can be derived to assure that air in the space is flowing through the ventilation and filtration system. Space pressure can be used to detect if windows or doors are open to the outside while heating or cooling and automatically stop heating or cooling.

- *Space pressure measurements require Outside Air Pressure information from AQ Outside or AQ Extender.*



BUILDING CONTROL UPGRADES



Communicating Sensors

No Tubes. No Wires.
No fishing wires
through the wall.
No conduit to install.
Designed for easy retrofit!



Smart Controllers

No Panels. No Buttons
No complicated menus.
No up/down buttons
Lowering Unit Costs!



Mobile Apps

Smart Phone based Set
Up & Commissioning
Take the guess work out
of the installation

Easy Installation

The AQ Family of products are designed to make the installation and commissioning simple. AQ Product's communicate directly between units when in radio range. Alternatively the units can be attached to a standard 802.b/g/n Wi-Fi network to communicate data and control. Conversely, an AQ Bridge installed in the RTU can be used to communicate data and control information to and from units in the space using the thermostat power wires. All XCSpec™ products support Over-The-Wire communications.

Economizer Integration

Uniquely designed for integration with roof top based economizer controllers, the AQ Thermostat supports several key features to optimize your economizer operation and achieve greater energy savings. While these can be wired directly to the thermostat backplate, if the extra wires for alarm input, occupancy or 0-10V control are not available, the thermostat communicates this same information over the wire to an AQ Bridge. The AQ Bridge provides the wired outputs needed to integrate with an economizer controller.

Powered Exhaust (PE)

The AQ Thermostat is part of the AQ Family designed to work with powered exhausts. Making use of our tubeless pressure system, the AQ Thermostat provides in-space pressure information to drive a 0-10V output on the AQ Extender. Control is based on maintaining a building pressure set point commissioned by the installer. The AQ Extender is installed near the exhaust and can communicate with the thermostat over Wi-Fi or through the AQ Bridge.

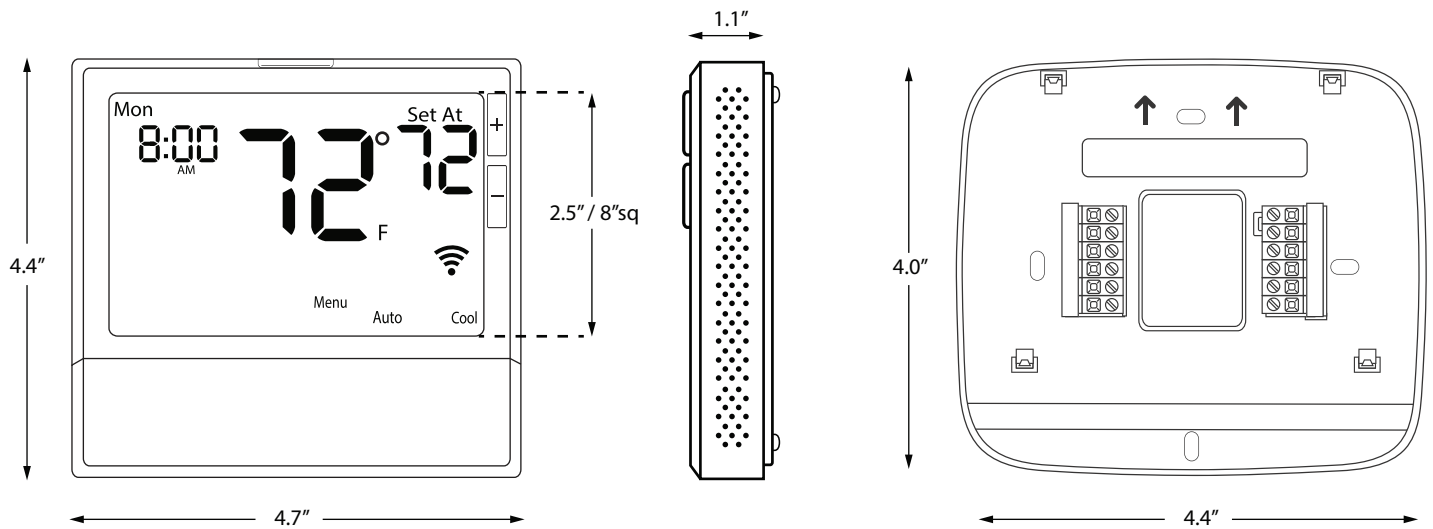
**** The AQ Thermostat is plug and play with
MicroMetl Powered Exhaust products.**

Multi-ZoneControls

Extend energy savings and air quality health in your buildings by adding additional zones. The AQ Thermostat extends the temperature, humidity, economizer, air quality and powered exhausts control by up to 3 additional zones. Based on receiving sensor information from ZONE units, the installer can apply a weight to any particular zone's input to prioritize that zone. ZONE units attach to the thermostat over Wi-Fi direct or through the buildings Wi-Fi network.

Transforming HVAC Controls for IoT

THERMOSTAT SPECIFICATIONS



Display Range of Temperature.....	41° F to 95° F (5° C to 35° C)
Control Temperature Range.....	44° F to 90° F (7° C to 32° C)
Load Rating.....	1 Amp per terminal, 1.5 amp maximum all terminals combined
Display Accuracy.....	+/- 1° F
Swing (cycle rate or differential).....	Heating and Cooling are adjustable from 0.2° F to 2.0° F
Power.....	18 - 30 VAC, NEC Class II, 50/60 Hz for common wire
Operating Ambient.....	32° F to 105° F (0° C to 41° C)
Operating Humidity.....	90% Non-condensing maximum
Dimensions of Thermostat.....	4.7" wide x 4.4" high x 1.1" wide

SPECIFIC THERMOSTAT OPERATIONS

- 7 day / 2 or 4 period programming
- Auto changeover
- 2 heat 2 cool
- Integrated room temperature and humidity sensor
- Full or partial front panel user lock out
- Wireless communication to add up to 3 zones for temperature/humidity, pressure or CO2

SPECIFIC FOR AIRFLOW MEASUREMENT

- Outside transmitter must be installed. Only one required per building
- Inside pressure at thermostat is compared to the outside transmitter pressure
- Thermostat derives differential pressure between inside building pressure and outside air pressure
- Option to display on the thermostat panel
- Automatically calibrates pressure sensors during unoccupied times

CLOUD PORTAL AVAILABLE FOR SITE SPECIFIC THERMOSTAT MANAGEMENT

FOR ECONOMIZER INTEGRATION

- O or B Relay can be reconfigured for occupancy out relay to economizer input
- Alarm out from economizer wired to backplate to annunciate on thermostat panel when active

