



T021-M018 Mixed Air Controller

- ONE 0 TO 10 Vdc COOLING OUTPUT
- MINIMUM POSITION ADJUSTMENT



APPLICATIONS

The model M18 is part of Viconics' Micro-Stat Series low voltage RHVAC room temperature and humidity controls line.

- Economizer control
- Mixed air control

ADVANCED DESIGN AND PI CONTROL

Advanced microcomputer electronics and PI control algorithms provide precise temperature control.

DAMPER POSITION MINIMUM ADJUSTMENT

Minimum damper position is adjustable at the thermostat with an internal potentiometer.

SPECIFICATIONS

Operating Conditions: -40 °C to 50 °C (-40 °F to 122 °F)
0% to 95% R.H. non-condensing

Minimum position adjustment: 0 to 100 %

Sensor: Remote 4.7 K NTC thermistor Sensor model number: 022-0003

Resolution: ± 0.1 °C (± 0.2 °F)

Control accuracy (calibrated): ± 0.6 °C (± 1.0 °F)

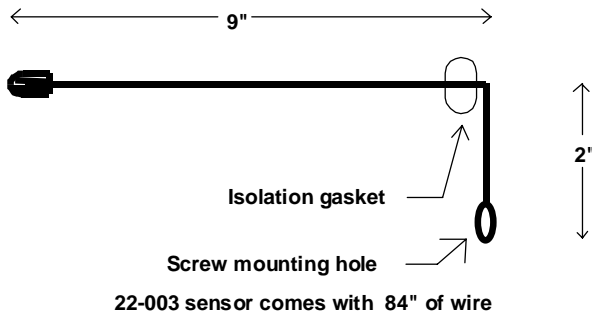
Range: 5 °C to 27 °C (40 °F to 80 °F)

Output: 0 to 10 Vdc into 2KΩ resistance min.

Power: 24 VAC -15%, +10% 50/60 Hz; 2 VA

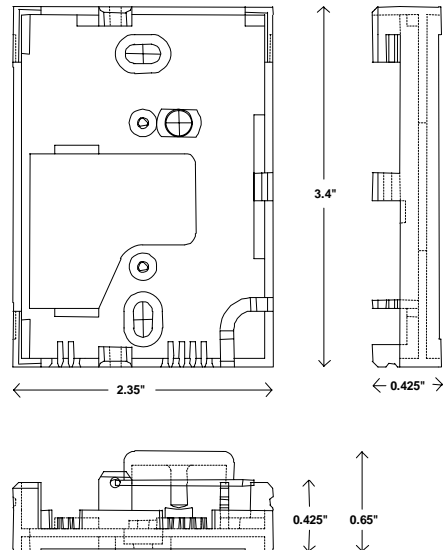
Specifications and equipment are subject to change without prior notice.

022-0003 REMOTE SENSOR (ORDER SEPARATELY)



Characteristics of 4.7 KΩ 22-003 remote sensor		
180.0 °F	82.2 °C	.549 Kohm
170.0 °F	76.7 °C	.658 Kohm
160.0 °F	71.1 °C	.793 Kohm
150.0 °F	65.6 °C	.961 Kohm
140.0 °F	60.0 °C	1.170 Kohm
130.0 °F	54.4 °C	1.434 Kohm
120.0 °F	48.9 °C	1.768 Kohm
110.0 °F	43.3 °C	2.194 Kohm
100.0 °F	37.8 °C	2.741 Kohm
90.0 °F	32.2 °C	3.448 Kohm
80.0 °F	26.7 °C	4.370 Kohm
70.0 °F	21.1 °C	5.583 Kohm
60.0 °F	15.6 °C	7.186 Kohm
50.0 °F	10.0 °C	9.334 Kohm
40.0 °F	4.4 °C	12.229 Kohm
30.0 °F	-1.1 °C	16.167 Kohm
20.0 °F	-6.7 °C	21.580 Kohm
10.0 °F	-12.2 °C	29.110 Kohm
0.0 °F	-17.8 °C	39.683 Kohm

DIMENSIONS



SEQUENCE OF OPERATION

When 24 Vac is applied to the thermostat, the minimum voltage output going to the actuator is 0 Vdc, or the value adjusted on the minimal position potentiometer.

When the dry contact closes on the supply sensor wire, the free cooling mode is activated.

The setpoint is adjusted on the thermostat, the range of the setpoint is: 5 °C to 27 °C (40 °F to 80 °F). The voltage output going to the actuator when the free cooling is activated is the highest value between the PI supply loop or the minimum position adjustment.

To close the damper two choices are available. Remove power to the thermostat and the control signal will drop to 0 Vdc, this will close the actuator electrically. Or remove the power to the thermostat and the actuator, this will close the actuator on its spring mechanism if it is equipped with one.

Sensor and thermostat are made to be operated at temperature as low as -40 °C (-40 °F).

WIRING

