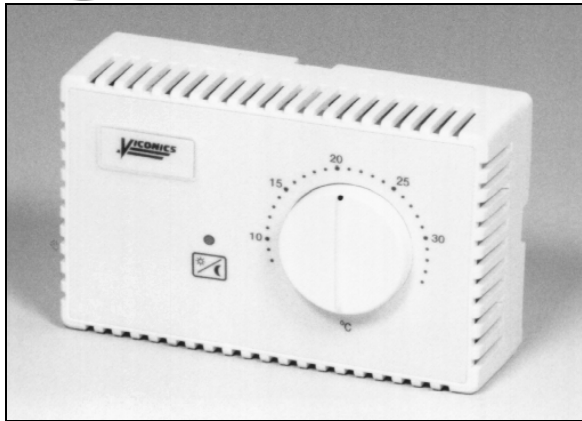




Micro-STAT®

T110  
T160



**ELECTRONIC THERMOSTAT:**

- ONE STAGE
- POWER LIMIT
- COOLING VOLTAGE OUTPUT
- DAY-NIGHT MODE ( T160 ONLY )

The model T110 and T160 are part of Viconics' Micro-Stat Series low voltage RHVAC room temperature and humidity controls line.

**APPLICATIONS**

- Room control of temperature
- Proportional room electric heating control
- Proportional room hot water heating control
- Proportional room cold water cooling control
- Air conditioning control

**ADVANCED DESIGN AND PI CONTROL**

Advanced microcomputer electronics and PI control algorithms provides precise temperature control and eliminates wasted heating energy caused by the typical On-Off cycling in conventional thermostats. As a result the room occupant is able to reduce the setpoint or desired temperature to the lowest comfortable setting. The result is energy savings ranges from 5% to 10%.

**DAY-NIGHT MODE**

A night mode, initiated by a remote timer or computer contact, provides energy savings during unoccupied periods of up to 10 %, without sacrificing comfort in occupied rooms. A flashing LED indicator warns an person in an occupied room that the thermostat is in Night mode. The occupant may override this condition locally for 4 hours by pressing the switch on the thermostat.

**POWER LIMIT INPUT**

The Power Limit Input feature provides additional energy savings by reducing the building PEAK DEMAND during mild conditions in the temperature recovery phase from night setback mode via a common 0 to 10 VDC signal from an outdoor temperature sensor or from an energy management system.

**REPROGRAMMABLE**

Each thermostat is computer calibrated and factory programmed to the ordered specification. However, over 10 control parameters ( such as heating/cooling mode, proportional band, night set-back etc. ) may be changed in the field with programming tool without having to remove the thermostat cover. The C263 also doubles as a diagnostic tool and indicates the status of all the inputs and outputs to each stat, and will reduce troubleshooting time by quickly identifying the specific problem.

**CONTROL OUTPUTS FOR ALL APPLICATIONS**

The thermostats are available with various outputs to drive:

- Relays
- Contactors
- Solenoids
- Valves
- Motors
- SSR's
- SCR Power Controllers

**SENSORS**

Each thermostat can be either room or duct mounted with local or remote sensors, and can be selected by an internal jumper.

**COVERS**

The thermostats are available with 4 covers options in either °C and °F. Thermostat cover plugs in to base for easy wiring and service. The base fits onto a standard electrical box. The User adjustable front models feature internally selectable minimum and maximum setpoint knob stops.

**COOLING SIGNAL**

A 0 to 10 VDC cooling voltage output can be wired to other thermostats and used as a signal to a voltage relay to initiate cooling demand.

**SPECIFICATIONS**

- Operating Conditions: 0 °C to 50 °C ( 32 °F to 122 °F )  
0% to 95% R.H. non-condensing
- Sensor: Local 47 K NTC thermistor
- Resolution: ± 0.1 °C ( ± 0.2 °F )
- Control accuracy: ± 0.2 °C ( ± 0.4 °F ) for low ranges  
( calibrated ) ± 0.9 °C ( ± 1.8 °F ) for high ranges
- Ranges: 10 °C to 32 °C ( 50 °F to 90 °F )  
-18 °C to 82 °C ( 0 °F to 180 °F )
- Outputs: Isolated Triac: 30 Vac at ½ A max.  
0 to 10 Vdc into 2KΩ resistance min.  
0 / 5 Vdc at 20 mA max. for both outputs.
- Power: 24 Vac -15%, +10% 50/60 Hz; 2 VA

**ORDER CODE** \_\_\_\_\_

T110 - AB - CD - EF ( without day-night mode )

T160 - AB - CD - EF ( with day-night mode )

A	Output no. 1 ( controlled device )	Type
1	Relay, thermal relay, two position motor	Isolated Triac
2	Normally open thermal valve	Isolated Triac
3	Normally close thermal valve	Isolated Triac
4	"SSR" with 24 Vac input	Isolated Triac
5	"SSR" with 3-32 Vdc input	Pulsed 0/5 Vdc

B	Output no. 2
0	Not available

C	Output control mode	
1	Heating, reverse acting, ( RA )	* Standard
2	Cooling, direct acting, ( DA )	

D	Main control sensor location	
1	Room, inside thermostat, or ( duct return air** )	* Standard
2	Duct supply air**	

\*\* Order with: S60 or S70 sensor

E	Setpoint adjustment	
1	User adjustable	* Standard
2	Blind cover	

F	Scale	
1	10 °C to 32 °C	* Standard
2	50 °F to 90 °F	
3	-18 °C to 82 °C	Δ
4	0 °F to 180 °F	Δ

Example: T160 - 50 - 11 - 12  
 One "SSR" 3-32 Volts output.  
 Main sensor located inside the room.  
 Adjustable setpoint. Scale 50 °F to 90 °F.  
 The output no. 3 is a higher demand cooling signal.

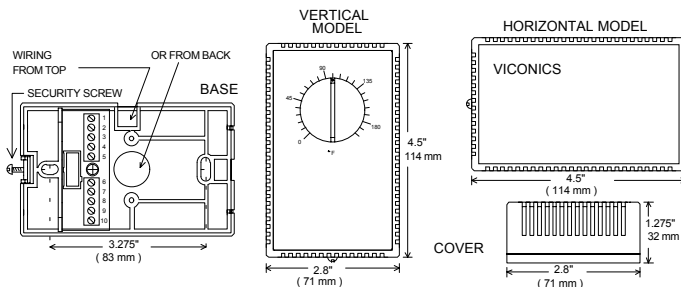
Δ Note: These models have a vertical cover.

Note: Order remote sensor separately.

**WIRING** \_\_\_\_\_

For complete technical information on wiring, commissioning and servicing, please refer to the T110 / T160 service manual.

**DIMENSIONS** \_\_\_\_\_

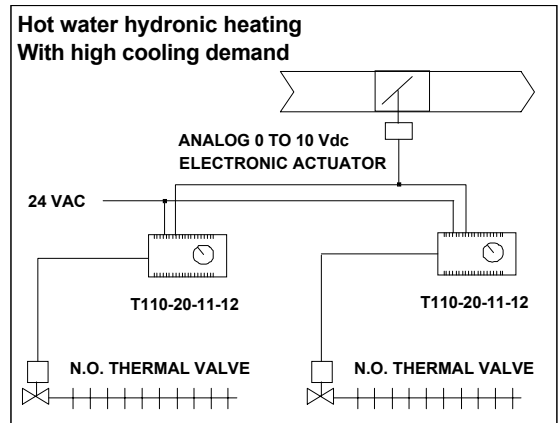


Specifications and equipment are subject to change without prior notice.

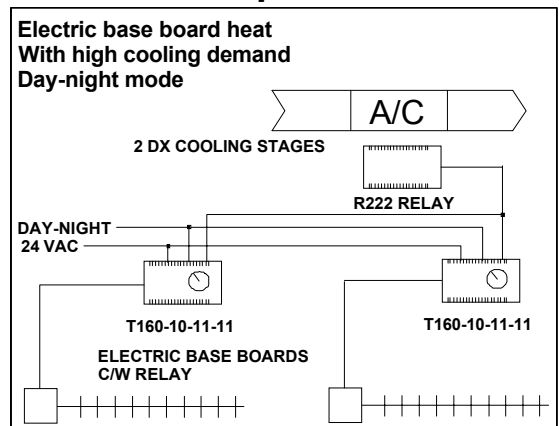
**APPLICATION EXAMPLES** \_\_\_\_\_

**COVERS ALL YOUR THERMOSTATS NEEDS...**

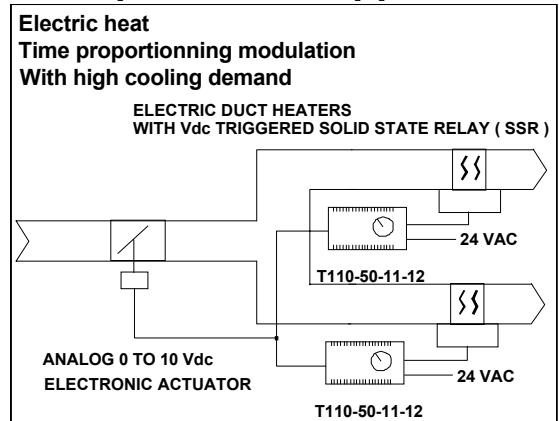
**From simple...**



**To more complicated...**



**To sophisticated applications !**



**Represented by:**