



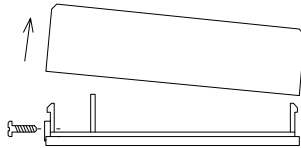
T216 T266

THERMOSTAT WITH:

- DAMPER MOTOR VOLTAGE OUTPUT, 0 TO 10 Vdc
- DAMPER POSITION MIN/MAX ADJUSTMENTS
- 2 MORE OUTPUTS
- REVERSING OF DAMPER
- DAY-NIGHT MODE (T266 ONLY)

TO OPEN THERMOSTAT COVER

- Remove security screw on left side of thermostat cover.
- Open up by pulling on the left side of thermostat.



THERMOSTAT INSTALLATION

A) Location:

- 1- Shouldn't be installed on outside wall.
- 2- Must be installed away from any heat source.
- 3- Shouldn't be affected by direct sun radiation.
- 4- Nothing must restrain vertical air circulation to the thermostat.

B) Installation:

- 1- Pull out cables 6" out of the wall.
- 2- Wall surface must be flat and clean.
- 3- Separate the thermostat and the base by pulling cover on the left side (same as the security screw.)
- 4- Insert cable in the central hole of the base.
- 5- Align the base and mark the location of the two mounting holes on the wall.
- 6- Install shields in the wall.
- 7- Insert screws in mounting holes on each side of the base.
DO NOT OVERTIGHTEN!
- 8- Open the cable protection 1 1/4 inch more or less.
- 9- Strip each wire 1/4 inch.
- 10- Insert each wire according to wiring diagram.
- 11- Reinstall the cover (right side first).
- 12- Install security screw.

SETPOINT ADJUSTMENT KNOB LIMITATION

Note: To limit the rotation of setpoint knob, adjust setpoint to desired value, then insert stoppers in appropriate holes.

Horizontal model:

S1,S10 = No limitation
S3 à S8 = Setpoint limitations

Vertical model:

S7,S10 = No limitation
S1 TO S7, OR S12: SETPOINT LIMITATIONS

REMOTE SENSOR

It is possible to use a remote sensor (for duct or room application) by connecting it to pins no. 6 and 7. Inside sensor must be disconnected by removing jumper J4 inside the thermostat.

Characteristics of remote sensor 47 KΩ.

180.0 °F	82.2 °C	5.494 Kohm	0.553 Volts
170.0 °F	76.7 °C	6.585 Kohm	0.648 Volts
160.0 °F	71.1 °C	7.933 Kohm	0.761 Volts
150.0 °F	65.6 °C	9.610 Kohm	0.893 Volts
140.0 °F	60.0 °C	11.700 Kohm	1.047 Volts
130.0 °F	54.4 °C	14.342 Kohm	1.225 Volts
120.0 °F	48.9 °C	17.682 Kohm	1.429 Volts
110.0 °F	43.3 °C	21.940 Kohm	1.659 Volts
100.0 °F	37.8 °C	27.412 Kohm	1.914 Volts
90.0 °F	32.2 °C	34.483 Kohm	2.191 Volts
80.0 °F	26.7 °C	43.704 Kohm	2.486 Volts
70.0 °F	21.1 °C	55.834 Kohm	2.791 Volts
60.0 °F	15.6 °C	71.866 Kohm	3.096 Volts
50.0 °F	10.0 °C	93.340 Kohm	3.393 Volts
40.0 °F	4.4 °C	122.298 Kohm	3.673 Volts
30.0 °F	-1.1 °C	161.670 Kohm	3.927 Volts
20.0 °F	-6.7 °C	215.805 Kohm	4.150 Volts
10.0 °F	-12.2 °C	291.100 Kohm	4.341 Volts
0.0 °F	-17.8 °C	396.830 Kohm	4.499 Volts

NIGHT MODE

An external contact closing between terminals 6 and 8 activates night mode. A LED on the thermostat flashes continuously indicating night mode. By pressing the button on the thermostat, day mode is reactivated. The thermostat returns to night mode when pressing again the button, or automatically after a 4 hours delay.

Note: Terminals 6 and 8 can be connected together between thermostats.

DAMPER CHANGEOVER INPUT

A) MANUAL CHANGEOVER (Code G = 1 or 2): Output 3 operates generally as per selected mode on the order code (example: cooling, G = 1). When a contact closes between terminals 6 and 9, output 3 changes its action (Example: heating). Terminals 6 and 9 can be connected together between thermostats. Use a diode (Example: 1N4001) as indicated on the wiring diagram. Only one diode is needed for all thermostats connected together.

Note: Terminals 6 and 9 can be connected together between thermostats.

B) AUTOMATIC CHANGEOVER (Code G = 3): Use a remote sensor (S60 or S70) for each thermostat, upstream of the damper. This sensor can be calibrated (± 2.0 °C) at the thermostat if needed, using a small screwdriver on the right side of the thermostat. Indicated temperature increases when rotating the potentiometer clockwise.

When the supply temperature is below the setpoint, output 3 operates in cooling mode. When the supply temperature is above the cooling setpoint (setpoint + co), output 3 operates in heating mode.

C) AUTOMATIC CHANGEOVER WITH RECIRCULATION (Code G = 4): Damper operates as described above in B (automatic reversing), except that, when supply air temperature is between heating and cooling setpoint for a period more than 25 seconds, damper opens 100 %.

DAMPER 0 TO 10 VDC OUTPUT

Output no 3 (terminal no. 10) produces a DC voltage 0 to 10 volts generally used for damper control. Minimum value of damper or flow can be adjusted using the C263 programmer from 0 to 100 %. Adjust LL parameter to desired minimum position and HL to maximum desired position. LL and HL are preprogrammed at 0 (0 volt) and 100% (10 volts) at the factory. Adjusting LL and HL does not affect the effective proportional band. Example: LL=20%, HL=80%, Pb=0.9 °C. damper will modulate from 20 to 80 % on a 0.9 °C proportional band.

Parameter HF is used to adjust the maximum value of damper or flow. This parameter is active when damper is in cooling mode only. If adjusted to 0, the damper position will remain at minimum (LL) on a heating demand. If adjusted at a value higher than the LL value, the damper position will raise proportionally with the heating demand, up to this maximum value.

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)

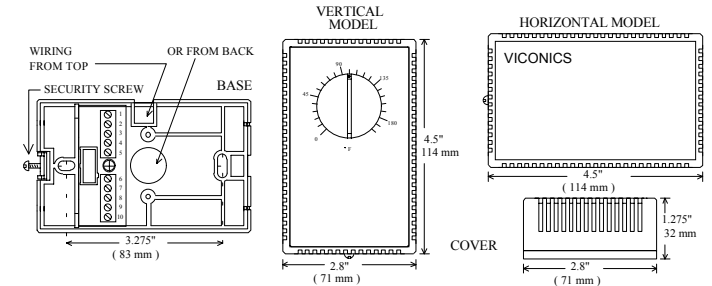
Control accuracy: ± 0.2 °C (± 0.4 °F) for low ranges
(calibrated) ± 0.9 °C (± 1.8 °F) for high ranges

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

DIMENSIONS



ORDER CODE

T216 - AB - CD - EF - GH (without day-night mode)
T266 - AB - CD - EF - GH (with day-night mode)

Example: T266 - 52 - 11 - 12 - 30
One "SSR" 3-32 volts heating output
and one normally open thermal valve heating output.
Main sensor located inside the room. Setpoint adjustable by user.
Scale 50 °F to 90 °F. The output no. 3 is for a 0-10 volts dc damper motor.
The damper changeover is automatic according to supply sensor temperature. Night setback is available.
Note: Order remote/changeover sensors separately.

A	Output no. 1 (controlled device)	Type
0	Not installed	
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
6	0 to 10 Vdc actuator, voltage relay or "SCR" *	0 to 10 Vdc

* If output #1 is ordered A=6, the change over input is not available

B	Output no. 2 (controlled device)	Type
0	Not installed	
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

C	Output no. 1 and 2 control mode	Type
1	Heating, reverse acting, (RA)	* Standard
2	Cooling, direct acting, (DA)	
3	Heating, RA (no. 1) and cooling, DA (no. 2)	
4	Cooling, DA (no. 1) and heating, RA (no. 2)	

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

** Order with S60 or S70 sensor

E	Setpoint adjustment	Type
1	User adjustable	* Standard
2	Blind cover	

F	Scale	Type
1	10 °C to 32 °C	* Standard
2	50 °F to 90 °F	

G	Output no. 3	Damper changeover input
1	Normally cooling, (DA)	Common dry contact for all thermostats
2	Normally heating, (RA)	Common dry contact for all thermostats
3	Automatic	Duct supply sensor **
4	Automatic with recirculation	Duct supply sensor **

** Order with S60 or S70 sensor

H	Future option	Type
0	Unused	* Standard

WIRING

NOTE: WITH THE PROPER CODES, TERMINALS 5, 6, 8 AND 9 CAN BE WIRED TOGETHER BETWEEN EACH THERMOSTAT IF POLARITY IS RESPECTED

Power supply 24 Vac -15% +10% 50/60 HZ 2 VA

POWER SUPPLY 24 Vac.



Day night mode T266 only

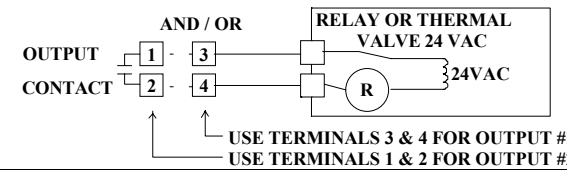
DAY NIGHT MODE



Output #1 code A= 1, 2, 3 & 4 Triacs

Output #2 code B= 1, 2, 3 & 4 Triacs

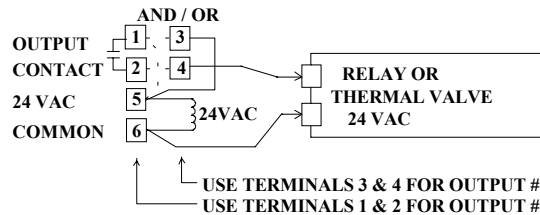
OUTPUT #1 AND/OR #2 USING RELAY WITH ISOLATED TRANSFORMER



Output #1 code A= 1, 2, 3 & 4 Triacs

Output #2 code B= 1, 2, 3 & 4 Triacs

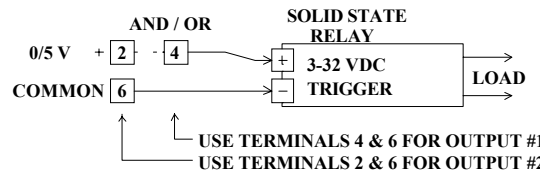
OUTPUT #1 AND/OR #2 USING SAME TRANSFORMER TO OUTPUT



Output #1 code A= 5 Pulsed 0/5 Vdc

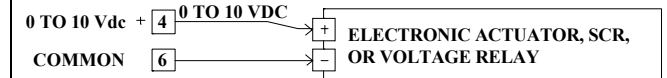
Output #2 code B= 5 Pulsed 0/5 Vdc

OUTPUT #1 AND/OR #2 USING PULSED 0/5 Vdc



Output #1 code A=6 Analog 0 to 10 Vdc

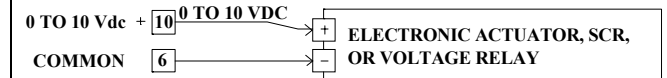
OUTPUT #1 USING 0 TO 10 Vdc



NOTE: IF OUTPUT #1 IS 0 TO 10 Vdc (CODE A=6) CHANGE OVER IS NOT AVAILABLE

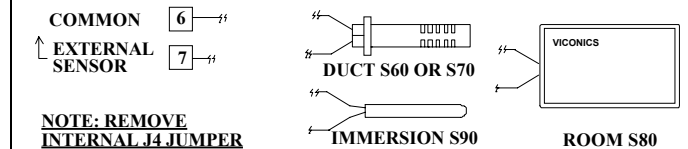
Output #3 Analog 0 to 10 Vdc

OUTPUT #3 USING 0 TO 10 Vdc



Remote main temperature control sensor Room or return control code D= 1, Supply control code D=2

REMOTE MAIN CONTROL SENSOR

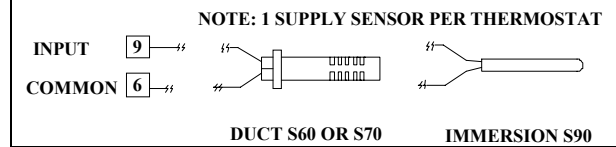


Auto change over input.

1 supply sensor per thermostat
Automatic code G= 3

Automatic with recirculation code G= 4

AUTO CHANGE OVER INPUT WIRING: SUPPLY SENSOR



Change over input. 1 dry contact for all thermostat using the same transformer
Normally cooling code G= 1
Normally heating code G= 2

CHANGE OVER INPUT WIRING: CHANGE OVER THERMOSTAT

