

T-3102 Heating-Cooling Deadband Thermostat

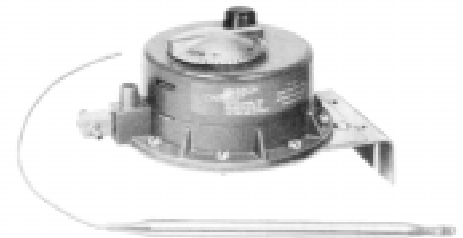
The T-3102 Heating-Cooling Deadband Thermostat is designed for use in terminal air conditioning units to modulate heating and cooling controlled devices in accordance with space temperature variations. An adjustable pressure regulator provides a deadband between heating and cooling modes which encourages energy conservation by eliminating heating and cooling overlap.

The thermostat movement is protected by a sturdy snap-on cover which allows easy access to the deadband and output pressure adjustments. The windows on the external set point knob display the separate heating and cooling set points.

Linear expansion or contraction in the liquid filled bulb element provides a direct proportional relationship between temperature and output pressure.

Mounting

The T-3102 can be mounted in any position on a relatively vibration-free surface. The mounting bracket can be repositioned to permit a wide variety of mounting arrangements (see dimension drawing). The supply line must be connected to the restricted branch of the 1/4 in. barbed tee fitting.

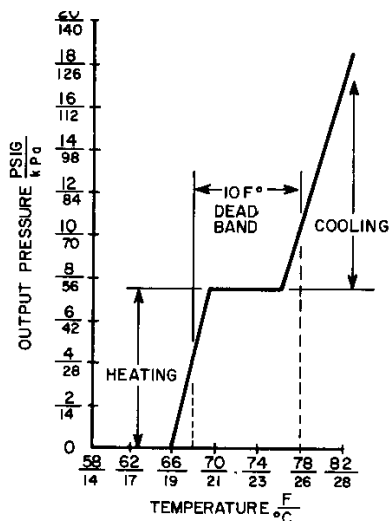
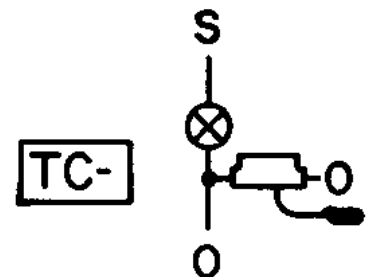


T-3102
Heating-Cooling Deadband Thermostat

Calibration

The T-3102 is factory tested and calibrated to the mid spring ranges of typical heating and cooling valves (see operational graph). Refer to *T-3102-A Technical Bulletin* for instructions on recalibrating the instrument for special applications.

Application and Drawing Identification

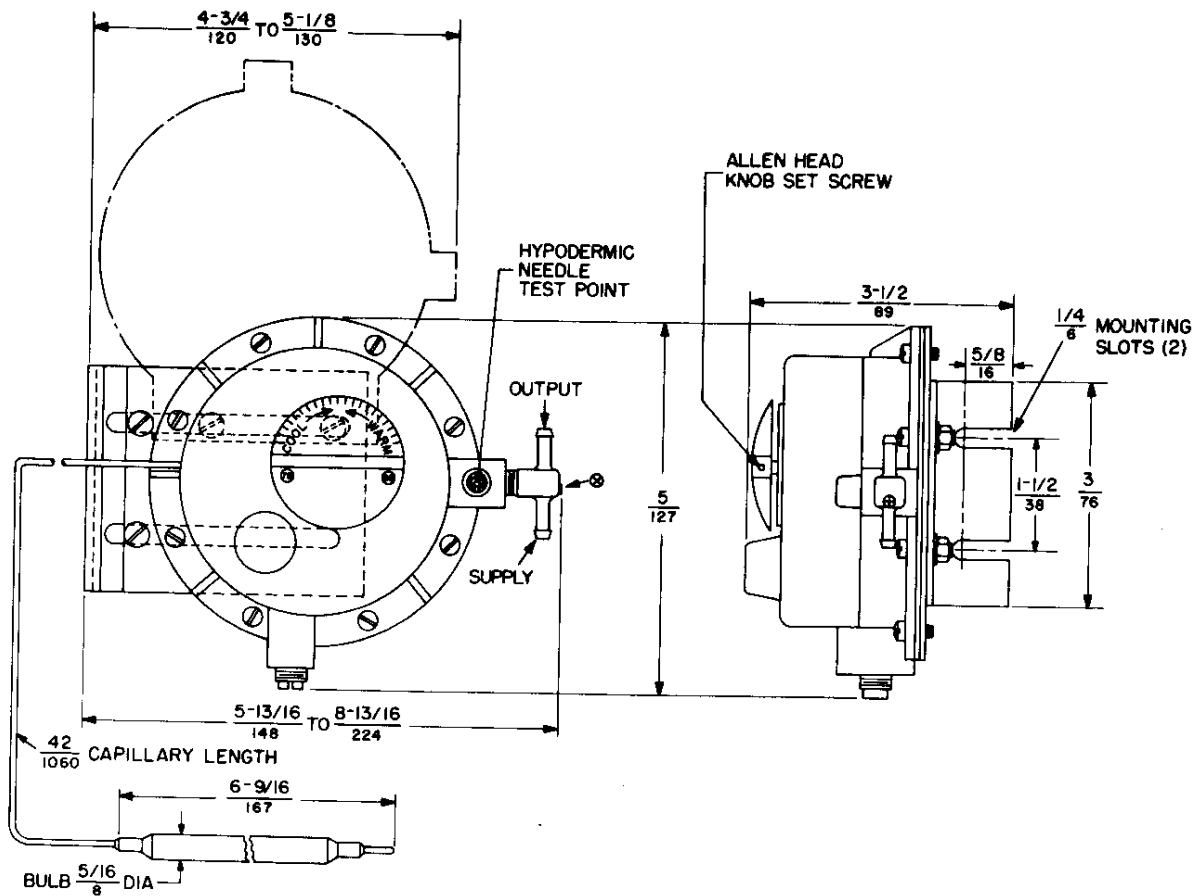


Operational Graph

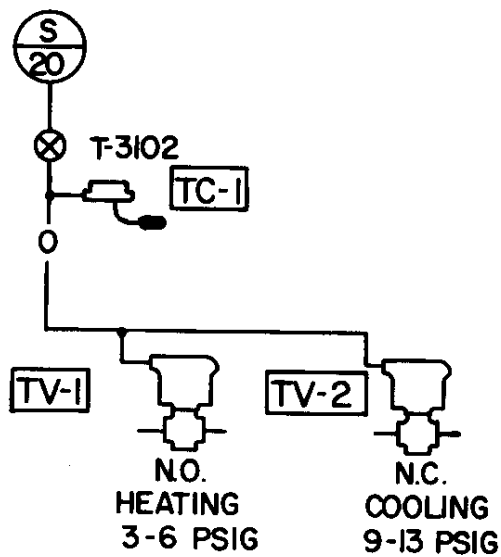
Specifications

Action	Proportional - Direct Acting	
Supply Pressure	13 to 25 PSIG (91 to 175 kPa) Nominal 20 PSIG (140 kPa)	
Element	Type	Remote Bulb with 42 in. (1.1 m) Capillary
	Range	60 to 150F (16 to 66°C)
Sensitivity	Heating	2-1/4 PSI/F° (27 kPa/C°)
	Cooling	3-1/4 PSI/F° (39 kPa/C°)
Deadband Pressure	Factory Set 7-1/2 PSI (53 kPa) Adjustable from 7 to 11 PSI (49 to 77 kPa)	
Heating Set Point	Factory Set 68F @ 4-1/2 PSIG Output (20°C @ 31 kPa) Adjustable from 60 to 77F (16 to 25°C)	
Cooling Set Point	Factory Set 78F @ 11 PSIG Output (26°C @ 77 kPa) Adjustable from 63 to 80F (17 to 27°C)	
Air Consumption and Output Flow Capacity	45 SCIM (12 mL/s)	
Air Connections	Barbed Restrictor Tee Fitting for 1/4 in. O.D. Poly tubing	
Ambient Temp Limits	Operating	40 to 120F (4 to 49°C)
	Storage	-20 to 150F (-29 to 66°C)

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.



T-3102 Dimensions $\frac{\text{in.}}{\text{mm}}$



Typical Application

CONTROLS

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