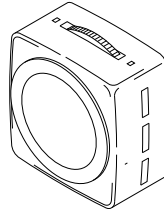
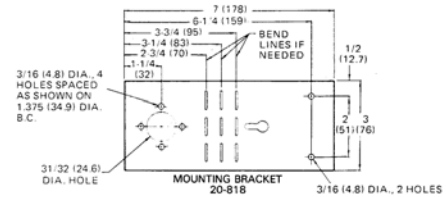


#### APPLICATION

The 2298 Series Unit Ventilator Thermostat has been designed for the proportional control of pneumatic devices and actuators in environmental control systems. These devices are designed primarily as return air controllers in induction units, fan coil units, and unit ventilators. The 2298 Series will also replace the obsolete 2264 Series Unit Ventilator Temperature Controllers. Set point adjustment is accomplished by means of a serrated "thumb wheel".



Connect the sensor to port "S" on the back of the controller with 1/4" O.D. tubing. All port connections on the controller and sensor are for 1/4" O.D. tubing.



#### SPECIFICATIONS

**Set point range:** 65 to 85°F (12.5 to 29 °C).

**Throttling range:** 4°F (2.2 °C) fixed.

**Adjustments:** External or concealed.

**Main air pressure:**

**2298-060,** See Model Chart.

**2298-061,** 20 psig (138 kPa) operating.

**2298-062,** 20 psig (138 kPa) operating.

**2298-063,** See Model Chart.

**Maximum air pressure:** 30 psig (207 kPa).

**Air consumption:**

**2298-060,** 29.4 scim @ 16 psig (8.0 mL/s @ 110.3 kPa); 45 scim @ 25 psig (12.3 mL/s @ 172.4 kPa).

**2298-061,** 29.4 scim (8.0 mL/s).

**2298-062,** 29.4 scim (8.0 mL/s).

**2298-063,** 29.4 scim @ 16 psig (8.0 mL/s @ 110.3 kPa); 45 scim @ 25 psig (12.3 mL/s @ 172.4 kPa).

**Calibration point:** Factory calibrated @ 9 psig (62 kPa) for 2298-061 and -062, 12 psig (82.7 kPa) for 2298-060 and -063.

**Caution:** This device should be installed by a qualified person with due regard for safety, as improper installation could result in a hazardous condition.

#### INSTALLATION INSTRUCTIONS

The mounting bracket, as shown below, should be fastened to a structural member within the end compartment of terminal units. The mounting bracket may be bent along the points noted above to allow the unit controller to be installed beneath an access door or to fit the application in the terminal unit.

Secure the controller to the mounting bracket by pressing the "mounting ears" on the back of the controller through the rectangular slot in the bracket. The sensor should be mounted in a place which will provide an indication of the temperature being controlled.

**Note:** The sensor MUST be mounted in the horizontal position with the bimetal "up" and the connection down. Maximum distance between the controller and sensor should not exceed 200 feet.

#### Installation

- Tools (not provided):
  - Appropriate screwdriver for mounting the thermostat
  - 20-881 Thermostat calibration and cover screw wrench (or 1/16" and 1/4" hex wrenches).

#### Model Chart

Part Number	Replaces Model	Action	Description
2298-060	T460-301	RA @ 16 psig (110.3 kPa) DA @ 25 psig (172.4 kPa)	Includes 1/4" by 3/16" barbed couplings, 20-693 tubing, standard mounting plate and screws.
2298-061	T461-301	Direct	
2298-062	T462-301	Reverse	
2298-063	T463-301	RA @ 25 psig (172.4 kPa) DA @ 16 psig (110.3 kPa)	

#### Accessories

Part Number	Replaces Model	Description
<b>Accessories</b>		
20-660	6-441	Cover screw
20-707	10-53	Metal thermostat guard
20-715	10-62	Clear thermostat guard
21-876	10-76	Opaque thermostat guard
21-928		Gray plastic cover, blank dial
21-933		Gray plastic cover, °F/°C dial
<b>Calibration</b>		
20-881	N2-4	Calibration wrench
22-138	MCS-GA	Branch tap gauge adaptor
900-002		Thermostat calibration kit
<b>Installation</b>		
10-82-SS		Outlet box mounting plate, stainless steel
20-850	10-82	Outlet box mounting plate, black
20-642		Mounting ring
21-473		Snap-in drywall mounting
22-021		Universal drywall mounting kit
22-022	N5-95	Competitor replacement mounting kit
22-024		Standard mounting kit

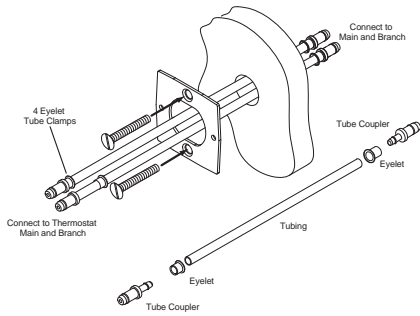


Figure-1

1. Assemble the eyelets and two tube couplers to tubing.
2. Connect the assembly by inserting the tube couplers into existing tubing in the wall (Figure-1). Note which connection is Main and which connection is Branch.
3. Pull tubing through center hole in mounting plate and screw mounting plate to wall with flat head screws. Cut tubing and insert two couplers. The Main and Branch tubing is connected into the corresponding ports on the thermostat.
4. Affix thermostat to mounting ring with round head screws, taking care not to kink the tubing.

### CALIBRATION

If recalibration should become necessary, install a test gauge in the branch line and move the Setpoint Adjustment to the measured ambient temperature, using the Internal Setpoint Indicator.

### 2298-060 and 2298-063 (See Figure-2):

1. Set main air pressure to 16 psig (110 kPa), and turn Calibration Screw (1), using N-2-4 (1/16" hexhead wrench), until the test gauge indicates 12 psig (82.7 kPa). Clockwise rotation increases the branch pressure.
2. Raise main air pressure to 25 psig (172.4 kPa) and turn Calibration Screw (2) until the test gauge indicates 12 psig (82.7 kPa). Counterclockwise rotation increases the branch pressure.

If it is necessary to adjust the switchover point:

- a. Set main air pressure to 21 psig (144.8 kPa) and move Setpoint Adjustment completely clockwise for 2298-060 or completely counterclockwise for 2298-063.
- b. Adjust Switchover Calibration Screw to where branch pressure just drops to 0 psig (0 kPa).

**Caution:** Do not force the calibration screws. If action is not obtained when screw is turned, check for proper direction of rotation. The bimetal in the sensor may be raised or lowered to test action.

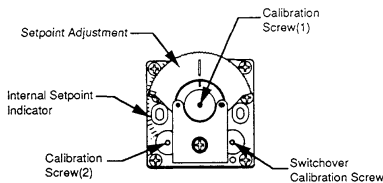


Figure-2 2298-060 & 2298-063 Adjustment & Calibration.

### 2298-061 and 2298-062 (See Figure-3):

1. Set main air pressure to 20 psig (137 kPa) and turn Calibration Screw until the test gauge indicates 9 psig (62 kPa). Clockwise rotation increase the branch pressure.

**Caution:** Do not force the calibration screws. If action is not obtained when screw is turned, check for proper direction of rotation. The bimetal in the sensor may be raised or lowered to test action.

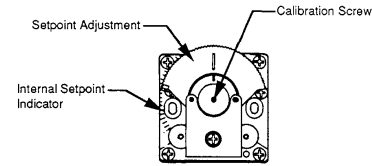
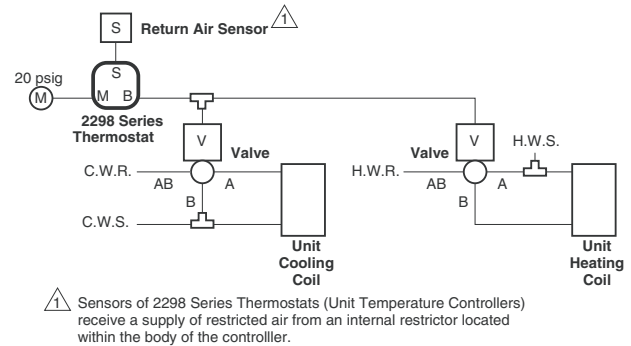
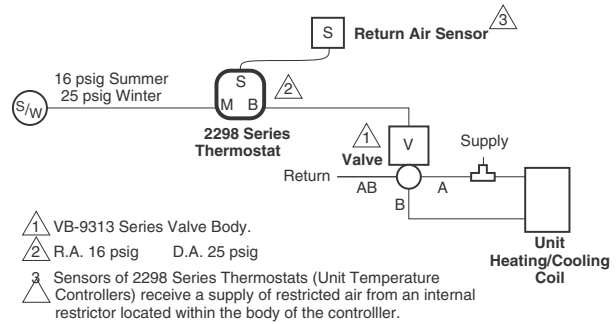
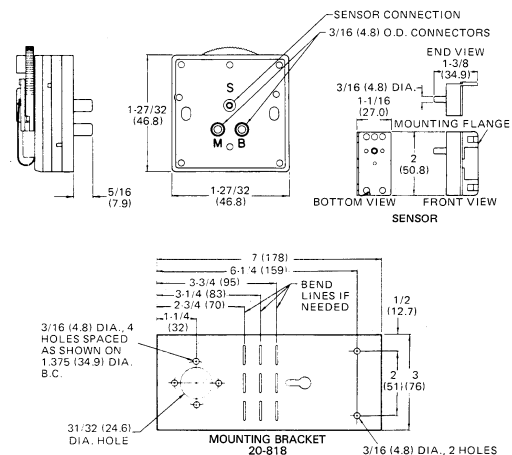


Figure-3 2298-061 & 2298-062 Adjustment & Calibration.

## TYPICAL APPLICATIONS



## MOUNTING DIMENSIONS



On October 1st, 2009, TAC became the Buildings business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes.