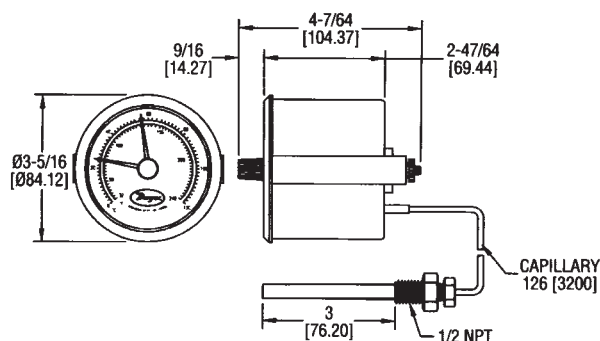




Series RRT Remote Reading Thermometer

Specifications - Installation and Operating Instructions



The Series RRT Remote Reading Thermometer is a liquid actuated temperature controller with SPDT snap switch output. A change in the temperature triggers a change in the volume of the liquid-filled system. A Bourdon tube converts the volume change into a rotary movement of the indicating pointer. The rotation of the indicating temperature pointer operates the double pole single throw snap switch as it passes the set point needle. The switch set point is fully adjustable across the entire temperature range.

Series RRT Model Numbers

Model Number	Temperature Ranges (Dual Scale)
RRT2120U	-40 to 120°F (-40 to 50°C)
RRT2250U	32 to 248°F (0 to 120°C)

MECHANICAL INSTALLATION

The Series RRT Remote Reading Thermometer can be mounted in any position. Select a clean, dry location, free from vibrations and extreme temperatures. Do not directly expose the unit to corrosive media.

The unit includes a U-clamp mounting bracket to make panel mounting simple and easy. Cut a 3-7/32" (82 mm) diameter hole in the panel. Remove the U-clamp prior to inserting into panel. Insert the unit into the panel cutout from the front. Place the U-clamp bracket on the back of the unit and secure into place by finger tightening the knurled nuts. NOTE: if panel thickness exceeds 13/64" (5mm), the U-clamp bracket must be shortened accordingly.

The probe should be mounted so the bulb is fully immersed in the media and where the temperature of the media will be evenly distributed.

Temperature effects along the capillary are compensated for with a bi-metallic element. The capillary should not be located close to sources of hot or cold. Care should be taken with arranging the capillary. A sharp bend or break in the capillary can cause the unit to fail. Minimum bending radius is 13/64" (5 mm).

SPECIFICATIONS

Dial Size: 3-1/4" (80 mm)

Accuracy: ±2% of full scale.

Thermal Effect (Includes Span and Zero): ±1.5% of span per 100°F (55°C) nominal.

Ambient Operating Temperature: -4 to 158°F (-20 to 70°C).

Max. Over Temperature Protection: ±15% of full scale.

Switch Type, Rating: SPDT, 5A @ 250 VAC, non-inductive.

Mounting: U-clamp panel mount, 3-7/32" (82 mm) cutout.

Process Connection: 1/2" male NPT.

Electrical Connection: Three 1/4" male quick connects.

Capillary Length: 10.5 feet (3.2 meters)

Bulb Length: 3.0" (76 mm).

Wetted Parts: Brass

Weight: 0.77 lbs. (350 g).

ELECTRICAL CONNECTIONS

CAUTION: Do not exceed the specified electrical ratings shown on the unit. Permanent damage, not covered by the warranty, will result. Connections for the double pole single throw output are made via three male quick connects. The quick connect terminals are numerically labeled 1, 2, and 3. Quick connect 1 is the common terminal. For NC (normally closed) operation, make switch connections using terminals 1 and 2. For NO (normally open) operation, use terminals 1 and 3.

OPERATION

The switch setpoint is fully adjustable across the entire range of the unit. The unit is equipped with internal stops at the minimum and maximum values of a specified range. Adjust the setpoint by rotating the black knob on the front of the dial case to the desired temperature setting.

MAINTENANCE

Upon final installation of The Series RRT Remote Reading Thermometer, no routine maintenance is required. A periodic check of system calibration is recommended. The Series RRT is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.