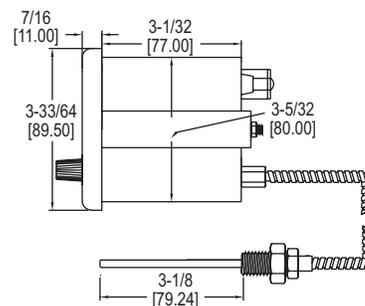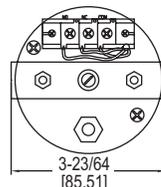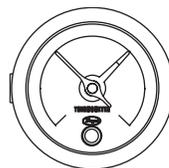# Series RRT3 Remote Reading Thermometer with Switch

Specifications - Installation and Operating Instructions

The **Series RRT3 Remote Reading Thermometer with Switch** combines an easy to read 3-1/4″ dual scale dial thermometer and a SPDT relay. Color coordinated pointers display the current process temperature and set point. In order to change the set point, a front adjustment knob controls the red set point pointer. The design of the internal mechanical switch movement prevents the set point pointer from sticking to the process indicating pointer. A 10.5 ft (3.2 m) stainless steel flex hose capillary prevents kinking and leaking of the measuring fluid when bending the capillary. For quick installation, electrical connections can be made to male quick connects or to the finger-safe screw terminals. Thermometer includes a u-clamp mounting bracket for panel mounting.

OPERATING INSTRUCTIONS

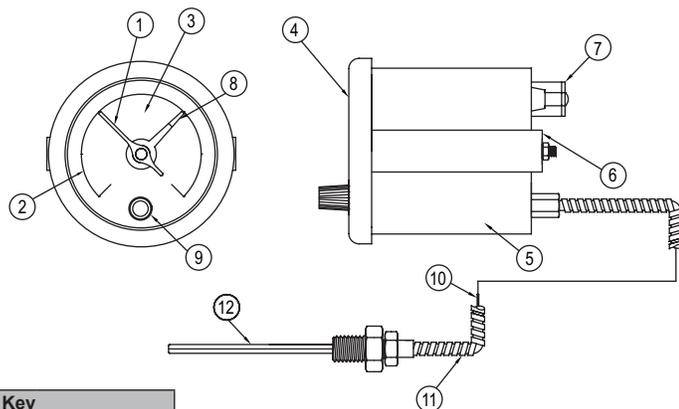| SPECIFICATIONS |
|---|
| **Wetted Materials:** 304 SS. |
| **Accuracy:** ±3% FS. |
| **Housing Material:** 304 SS. |
| **Temperature Limit:** -4 to 158°F (-20 to 70°C). |
| **Switch Type:** SPDT, 3 A @ 250 VAC, .2 A @ 250 VDC. |
| **Electrical Connections:** Normally open (NO), normally closed (NC), and common (COM). |
| **Process Connection:** 1/2″ (12.7 mm) male NPT. |
| **Dial Size:** 3-1/2″ (90 mm). |
| **Capillary Length:** 10.5′ (3.2 m). |
| **Bulb Length:** 3-1/8″ (79.24 mm). |
| **Weight:** 2 lb (900 g). |

Key	
1	Pointer
2	Scale plate
3	Glass disk
4	Cover
5	Case
6	Bracket
7	Terminal
8	Setting pointer
9	Setting knob
10	Capillary
11	Flexible tube
12	Thermobulb

Mechanical Installation

1. For mounting, select a clean, dry location, free from extreme temperatures.
2. Cut a 3-7/32″ (82 mm) diameter hole in the panel for the thermometer.
3. Prior to inserting the thermometer into the panel, remove the mounting bracket.
4. Insert the thermometer into the panel cutout from the front.
5. Place the U-bracket on the back of the thermometer (make sure the screws are aligned with the holes in the mounting bracket).
6. Secure the bracket into place by tightening the nuts until the bracket is tight against the panel.

NOTICE If panel thickness exceeds 13/64″ (5 mm), the bracket must be shortened accordingly.

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

NOTICE Since temperature effects along the capillary are compensated for, the capillary should not be located close to other temperature sources. Take care in arranging the steel capillary to avoid sharp bends that might kink internal capillary tube.
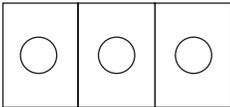
Electrical Connections

⚠ CAUTION Do not exceed the specified electrical ratings shown on the unit. Permanent damage, not covered by the warranty, will result.

1. Connections for the switch are made by three connections. The quick connect terminals are labeled N.O., N.C., and COM. N.O. is the normally open terminal, COM is the common terminal, and N.C. is the normally closed terminal.
2. For NC (normally closed) operation, make switch connections using terminals COM and N.C.
3. For NO (normally open) operation, make switch connections using terminals COM and N.O.

NO   NC   C

C : COMMON
NO : NORMAL OPEN
NC : NORMAL CLOSE

Set Point Operation

The switch set point 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 set point by rotating the black knob on the front of the dial case to the desired temperature setting.

MAINTENANCE/REPAIR

Upon final installation of the Series RRT3, no routine maintenance is required. The Series RRT3 is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN

Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.