

INSTALLATION INSTRUCTIONS

TF 142 LOW LIMIT CONTROLS

MODELS: TF142-SOAP Automatic Reset.
TF142-SODP Manual Reset.

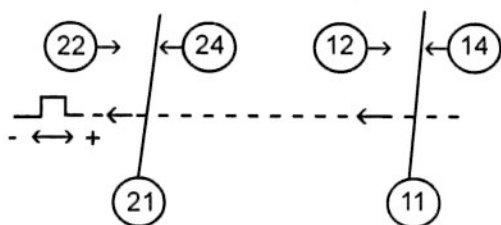
SETPOINT RANGE: 34-70°F (1-21°C).

DIFFERENTIAL: 4.5°F (2.5°C), Fixed.

SWITCH ACTION: DPDT, Snap Acting.

ELECTRICAL RATINGS: See Table I.

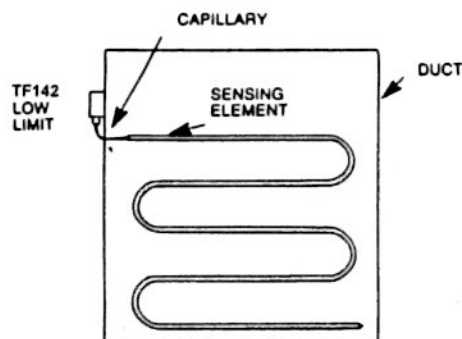
| TABLE I. Electrical Ratings | 120 vac | 240 vac |
|--------------------------------|--|---------|
| INDUCTIVE | | |
| F.L.A. | 14 | 12 |
| L.R.A. | 84 | 72 |
| Horsepower | 3/4 | 2 |
| PILOT DUTY | 720 va max @ 120 to 600 vac 144 va max @ 24 vac | |



SWITCH ACTION ON
DECREASE IN TEMPERATURE

MOUNTING

1. Controller can be mounted in any position. Avoid locations subject to excessive vibration.
2. On manual reset model, position control to permit convenient access to the reset button.
3. Use two mounting holes in rear of case for flush mounting to duct or other flat surface.
4. Install capillary element in horizontal serpentine pattern across duct on downstream side of the coil so it is exposed to areas where low temperatures will occur. Do not kink or apply excessive force to the capillary element.
5. Using clips provided with the controller, fasten capillary at sufficient points to prevent damage from air movement or vibration.



INSTALL CAPILLARY IN
HORIZONTAL PATTERN ONLY

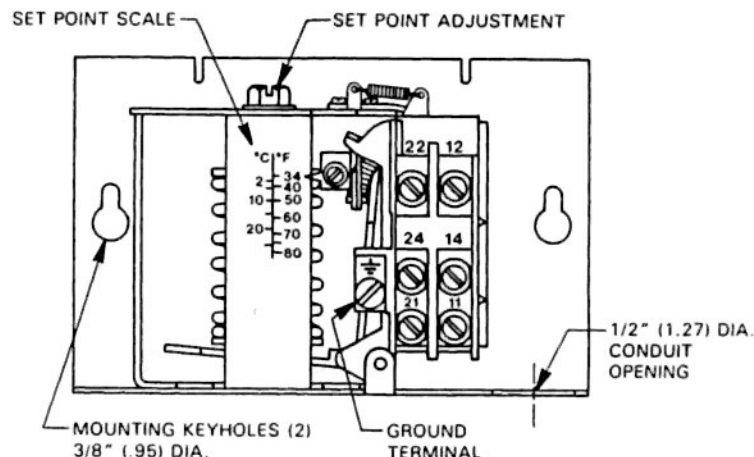
SENSING ELEMENT: Vapor-filled Copper Capillary, Tin-plated; 3/32" diameter

RESPONSE: To lowest temperature sensed by any one foot section of capillary element.

TEMPERATURE LIMITS:

-60° to +160°F (-51° to +71°C), Operating.

300°F (149°C) maximum at sensing element.



WIRING

1. All wiring should comply with national and local electrical codes.
2. An opening for installing a connector for 1/2" conduit is provided in the bottom of the controller case.
3. Recommended wire size is 14 AWG solid copper wire. Use screwdriver to loosen terminal screws. Strip wire ends 3/8" and insert under cup washers on the switch block. Securely retighten terminal screws.
4. For circuit testing, the DPDT switch can be manually operated by depressing the test lever located below and to the left of the controller spring.

SETPOINT ADJUSTMENT

1. The setpoint shown on the controller scaleplate is the temperature at which switch contacts 11-14 and 21-24 will OPEN on a fall in sensed temperature.
2. To change the setpoint, use a screwdriver or wrench to turn the range adjustment screw located at the top of the spring housing. Clockwise rotation decreases the controller setpoint. Counterclockwise rotation increases the setpoint.

MANUAL RESET MODELS

1. On a temperature fall to setpoint, switch contacts 11-14 and 21-24 open, and contacts 11-12 and 21-22 close.
2. The switch remains "locked" in this position until the controller is manually reset by depressing the reset button located in the top of the controller case.
3. The controller cannot be manually reset until the sensed temperature is at least 5°F (3°C) above setpoint.