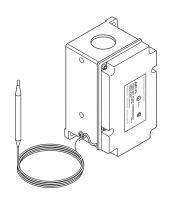
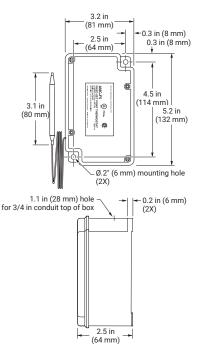


AMC-F5

Fixed Set-Point Freeze-Protection Thermostat for Nonhazardous Locations Installation Instructions





DESCRIPTION

The nVent RAYCHEM AMC-F5 thermostat is designed for controlling freeze protection heat-tracing circuits in ordinary areas. The thermostat has a fixed nonadjustable set point of 40°F (4.4°C) and can be used in an ambient-sensing mode (with capillary coiled) or a line-sensing mode, or it can be used to control a contactor coil.

ADDITIONAL MATERIALS REQUIRED

 Wire nuts, nVent RAYCHEM AT-180 aluminum tape (for line-sensing applications)

APPROVALS





SPECIFICATIONS

| Enclosure | Type 4X, UV-resistant thermoplastics |
|---------------------------|---|
| Entries | One 3/4 in. through hole |
| Set point | 40°F (4.4°C) nonadjustable |
| Sensor exposure limits | -30°F to 140°F (-34°C to 60°C) |
| Housing exposure limits | -30°F to 140°F (-34°C to 60°C) |
| Switch | SPST |
| Electrical rating | 22 A at 125/250/480 Vac |
| Accuracy | ±3°F (±1.7°C) |
| Deadband | 2°F to 12°F (1.1°C to 6.7°C) above actuation temperature |
| Set point repeatability | ±3°F (±1.7°C) |
| Sensor type | Fluid-filled (silicone) bulb and 2.5 ft (0.8 m) capillary |
| Sensor material | Tin-plated copper |
| Connection | Two 14 AWG (2 mm ²) pigtails, one ground screw |

This component is an electrical device. It must be installed correctly to ensure proper operation and to prevent shock or fire. Read these important warnings and carefully follow all the installation instructions.

Component approvals and performance are based on the use of specified parts only. Do not use substitute parts or vinyl electrical tape to make connections.

INSTALLING THE THERMOSTAT

- Verify that the thermostat is suitable for the area where it is to be installed.
- 2. Check the line voltage and the heat-tracing load to ensure that the thermostat ratings are not exceeded.
- 3. Mount the unit in a position that prevents condensation from draining into the enclosure from the connecting conduit, (see diagram above).

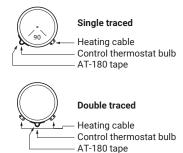
POSITIONING (AMBIENT)

4. Mount ambient-sensing units in the area exposed to the coldest temperature and most wind. Do not mount on the side of a warm building or in a location that is exposed to warm air currents or direct sunlight.

POSITIONING THE SENSOR BULB (LINE SENSING)

Position the bulb in the lower quadrant of the pipe as shown in the diagrams to the left. Place the bulb at least three feet from pipe supports, valves, or other heat sinks; protect the capillary from kinks or bends less than 1/2 inch in radius.

6. Tape the bulb firmly to the pipe with AT-180 aluminum tape, making sure there is no air space between the bulb and pipe. Do not overlap the bulb and heating cable with the same piece of AT-180 tape.



7. For metal-tank-wall sensing, use the nVent RAYCHEM BCK-35 bulb clamp (purchased separately from nVent) and install the clamp per the instructions provided. Make sure there is no air space between the tank wall and the bulb.

For installation on plastic tanks, contact nVent at (800) 545-6258.

WIRING

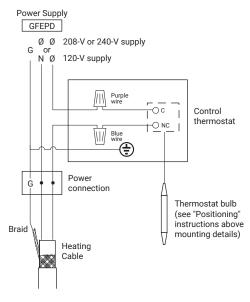


Figure 1. Heat-tracing control

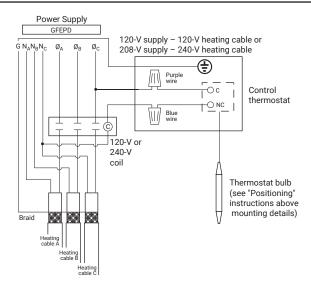


Figure 2. Contactor control

For switching heat-tracing loads greater than 22 A or switching multiple heat-tracing circuits.

North America

Tel +1.800.545.6258 Fax +1.800.527.5703 thermal.info@nvent.com

Europe, Middle East, Africa

Tel +32.16.213.511 Fax +32.16.213.604 thermal.info@nvent.com

Asia Pacific

Tel +86.21.2412.1688 Fax +86.21.5426.3167 cn.thermal.info@nvent.com

Latin America

Tel +1.713.868.4800 Fax +1.713.868.2333 thermal.info@nvent.com



nVent.com

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