

INSTALLATION & SUBMITTAL DATA

mild temperature thermostat

gas-fired duct furnace/make-up air units

model series: “D”, “H”, “I”, & “O”

⚠ **WARNING**

1. Disconnect power supply before making wiring connections to prevent electrical shock and equipment damage.
2. All units must be wired strictly in accordance with wiring diagram furnished with the unit. Any wiring different from the wiring diagram could result in a hazard to persons and property.
3. All wiring must be done with a wiring material having a temperature rating of at least 105°C.

IMPORTANT

The use of this manual is specifically intended for a qualified installation and service agency. All installation and service of these units must be performed by a qualified installation and service agency. Modine manuals may contain excerpts from component supplier literature adapted for Modine products. Any accompanying component supplier literature is for general information.

Application

The mild temperature duct thermostat is shipped loose (for the standard duct furnace) for field installation in the inlet air stream so that it senses outdoor air temperature. The purpose of the mild temperature thermostat is to cut power to the gas controls during mild weather so that the unit does not cycle in an attempt to maintain a very low air temperature rise. The mild temperature thermostat is usually field set at approximately 60°F or 5°-10°F below the duct or room thermostat.

Component

A19AAF-12
 Switch Action: Single Pole, Double Throw
 Range: 25 to 225°F
 Differential: Fixed at 3-1/2°F
 Bulb Size: 3/8 inches x 3 inches long
 Capillary Length: 10 feet
 Range Adjustor: Screwdriver Slot
 Maximum Bulb Temperature: 275°F
 Enclosure: NEMA 1 rated

Switch Ratings (SPDT relay contacts):

- Normally Open and Normally Closed Contact:
 6.0 A @ 120V, 3.0 A @ 240V
 125VA pilot duty at 24-277VAC

Installation

Select a location in the inlet air stream where the temperature element senses the average outdoor air temperature and is free in air circulation. Hold the temperature elements in the air stream with either a field supplier duct sensor holder or a bulb mounting clip. The control must be located in an area suitable for a NEMA 1 enclosure. The control is normally mounted to a surface through holes in back of the case.

Do not dent or deform the sensitive bulb of the control. A dent or deformation will change the calibration and cause the control to cycle at a temperature lower than the dial setting. When the bulb mounting clip is used to mount the bulb in the air stream, be sure the sheet metal screw does not pierce the tubing.

Wiring

Installation of wiring must conform with local building codes, or in the absence of local codes, of the National Electric Code ANSI/NFPA 70 - Latest Edition. Unit must be electrically grounded in conformance to this code. In Canada, wiring must comply with CSA C22.1, Part 1, Electrical Code.

Use the terminal screws furnished with the control. Substitution of other screws may cause problems in making proper connections.

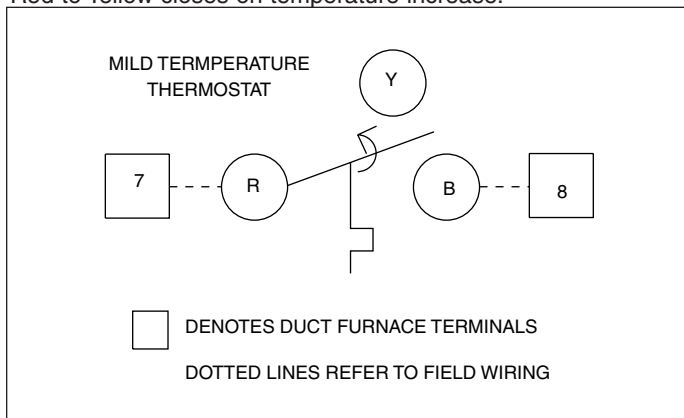
Wiring Diagram Selection

- For duct furnaces (non-factory supplied blower) refer to the following figures for wiring.
- For system units (factory supplied blower) refer to the job specific unit-wiring diagram provided with the unit.
- For deviations to these wiring diagrams or the job specific wiring diagrams: consult the factory.

Figure 1.1

Typical Duct Furnace Wiring

Red to Blue opens on temperature increase;
 Red to Yellow closes on temperature increase.



Adjustment

The control is supplied with an external range adjustment and screwdriver slot as shown in Figure 2.1. Dial settings indicate the cutout setting.

Figure 2.1
Dimensions of A19AAF-12
(All dimensions in inches)

