Non-digital thermostat

Application

The thermostat provides on/off control for low voltage and line voltage valves, relays and fan motors.

Features

- 3-speed fan control
- Continuous or cycling fan operation (cycling fan operation requires additional relay or relays)
- Remote sensor capability
- Handles all supply voltages from 24 to 277 Vac at 50/60 Hz (fan and system voltage must be the same)

Theory of Operation

A variable resistance device called a thermistorsenses the room temperature and sends a resistance value to the thermostat. For example: in heat mode, it measures the temperature represented by the resistance value of the onboard thermistor (or remote thermistor if used). If the sensed temperature value drops 1F (0.6C) or more degrees below the set point the heating output will be powered. A valve or damper opens to heat the space. When the temperature reaches the set point the heating output will be turned off, closing the valve or damper. The thermostat maintains temperatures with a 1F (0.6C) degree differential.

Specifications

Inputs

- Power input: 24 to 277 Vac @ 50/60 Hz
- Power consumption: 0.88 watts at maximum
- Connections
  Power: up to 14 AWG wire
  Control: Up to 14 AWG wire

Outputs

- Electrical; Pilot duty, 10 VA at 24 Vac, 20 VA at 120-277 Vac
- Fan switch: Refer to Table 1

Control

- Operating differential: 1 °F (0.6 °C)
- Setpoint adjustment range: 50 to 90 °F

Enclosure

- Material: Rigid vinyl
- Finish: Cool gray

Environment

- **Temperature limits**
  Shipping and storage: -30 to 130 °F (-34 to 55 °C)
  Operating: 32 to 130 °F (0 to 55 °C)
- Shipping weight: 0.31 lbs. (140 g.)
- Location: NEMA type 1

Agency listings

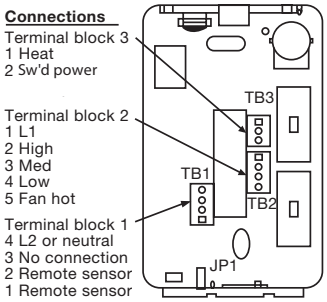
- CE: Compliant

Table 1: Fan switch current ratings (amps)[a]

Voltage	Inductive		Resistive amps	Pilot duty
	FLA	LRA		
24	N/A	N/A	N/A	24 VA
120	5.8	34.8	6.0	125 VA
240	2.9	17.4	5.0	125 VA
277	2.4	14.4	4.2	125 VA

[a] Fan and system must share the same voltage

Terminal description



Dimensional data

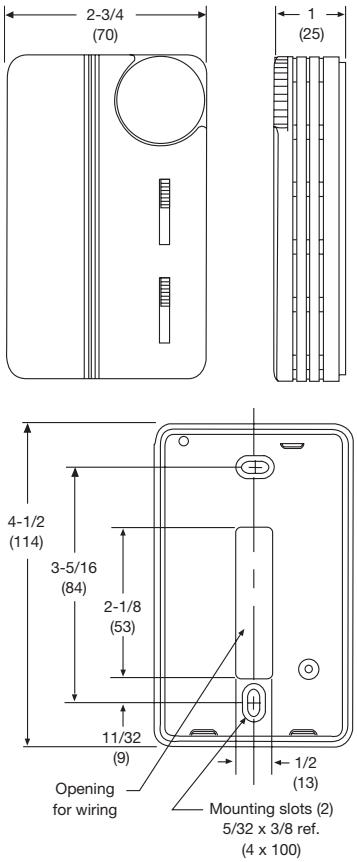


Table 2: Model chart

Model	Outputs	Changeover	Fan control	System switches
11100000182A	Single	N/A	High-medium-low	On-off

[a] Automatic changeover models have a 4 °F deadband between heating and cooling

Zehnder Rittling · 100 Rittling Blvd. · Buffalo, NY USA 14220
T 716-827-6510 · F 716-218-2805 · sales@zehnder-rittling.com · www.zehnder-rittling.com