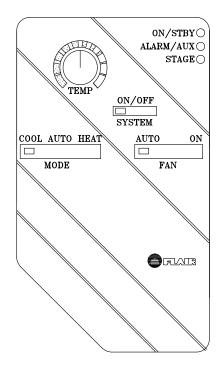


ELECTRONIC HEAT PUMP

THERMOSTAT series TE31

For central (main) or zoned control of heating and cooling heat pump systems.



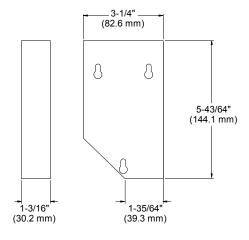
BENEFITS & SPECIAL FEATURES

- 4 minute time delay for compressor protection.
- No batteries required.
- Remote temperature sensor (optional).
- Return air temperature sensor (optional).
- Automatic heating/cooling changeover.
- Manual on/off override.
- Electronic temperature limiting and locking.
- Low and high limit temperature alarms can activate a dry contact to switch an external control.
- Continuous (on) or intermittent (auto) fan control.
- System status indicators.
- Available in up to 3 stages of heating, 2 stages of cooling heat pump control.

APPLICATIONS

- Central (main) heating or cooling.
- Zone heating or cooling.
- Residential (Single or multi-family, Apartments, Condominiums, Co-ops).
- Commercial (Stores, Restaurants, Offices).
- Industrial
- Institutional (Hospitals, Hotels, Motels).

DIMENSIONS



SPECIFICATIONS

 Operating Voltage:
 24 vac (-15%, +10%, 50-60 Hz)

 Temperature Range:
 50°F - 90°F (10°C - 32°C)

Temperature Differential:

Heating: approximately $\pm 0.8^{\circ}F$ (.4°C) Cooling: approximately $\pm 0.8^{\circ}F$ (.4°C) Between stages: $2^{\circ}F$ (1.1°C)

Dead Band: 4°F (2.2° C)
Sensor System: Negative Temperature Coefficient (NTC)

Standard: internal Optional: remote temperature Optional: return air temperature Compressor Protection: 4 minute time delay

 Switches:
 Slide:
 SYSTEM: ON/OFF

 Slide:
 FAN: AUTO/ON

 Slide:
 MODE: COOL/AUTO/HEAT

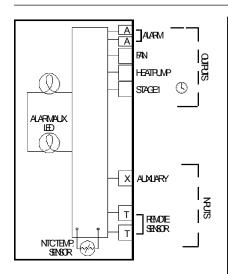
 Rotating:
 Set TEMPerature

Indicator LED's: ON (Steady Green) / STBY (Flashing Green)
ALARM (Flashing Red) / AUX (Steady Red)

Staging (orange): Stage One (Off); Stage Two (On); Stage Three (Flashing) Security: Electronic temperature limiting and locking Dimensions: $5^{43}_{64} \times 3^{1}_{4} \times 1^{3}_{16}$ Inches (144.1 x 82.6 x 30.2 mm)

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MODEL NUMBERS AND DESCRIPTIONS FOR VARIOUS APPLICATIONS

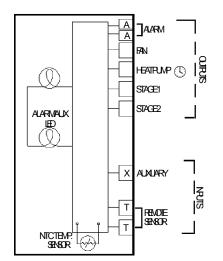


Model Number: TE311120

Description: 1 stage heat, 1 stage cool

Switching Current at 24 VAC:

Heat Pump: 1 Amp
Stage 1: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



Model Number: TE312120

Description: 2 stage heat, 1 stage cool

Switching Current at 24 VAC:

 Heat Pump:
 1 Amp

 Stage 1:
 1 Amp

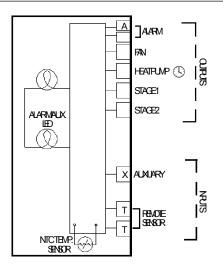
 Stage 2:
 1 Amp

 Fan:
 1 Amp

 Alarm:
 1 Amp

 Auxiliary:
 1 Amp

Weight: .4 lbs. (880 g)

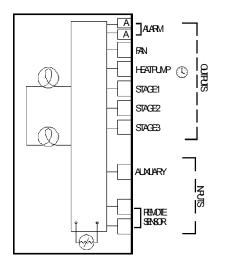


Model Number: TE312220

Description: 2 stage heat, 2 stage cool

Switching Current at 24 VAC:

Heat Pump: 1 Amp
Stage 1: 1 Amp
Stage 2: 1 Amp
Stage 3: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)

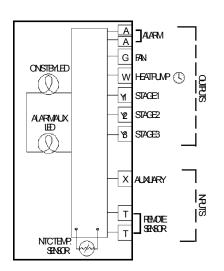


Model Number: TE313120

Description: 3 stage heat, 1 stage cool

Switching Current at 24 VAC:

Heat Pump: 1 Amp
Stage 1: 1 Amp
Stage 2: 1 Amp
Stage 3: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



Model Number: TE313220

Description: 3 stage heat, 2 stage cool

Switching Current at 24 VAC:

Heat Pump: 1 Amp Stage 1: 1 Amp 1 Amp Stage 2: 1 Amp Stage 3: Fan: 1 Amp 1 Amp Alarm: Auxiliary: 1 Amp Weight: .4 lbs. (880 g)

ACCESSORIES

Remote Temperature Sensor TX101001
Return Air Temperature Sensor TX101011

REFERENCES

For More Information On: See:

Remote Model TF31 data sheet

Wiring, jumper,

potentiometer settings

and applications Instruction sheet

Other thermostats This section

Zone Actuators Star Actuator section

Zone Valves Star Valve section

Wiring Panels Control Panels section

Warranty & pricing Pricing & Terms section

section

Backplates Accessories sheet

Indicates this output is protected by a 4 minute time delay.



Flair pursues a policy of constant improvement. For this reason, all specifications are subject to change without notice.