

ON/STBY ()

ON/OFF

SET INSIDE TEMP OUTSIDE

2:58

COOL HEAT AUTO AUTO AM PM COOL FAN CLOCK

HEAT

CLOCK SELECT PROG

DAY

SAT

SUN

MODE

STAGE ()

ON /OFF

HEAT COOL

ELECTRONIC PROGRAMMABLE

THERMOSTAT series TQ21

For central (main) or zoned control of heating and cooling systems. Available in single and multiple stage versions. Optional remote control capability.

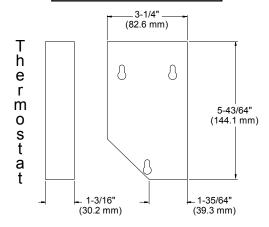
BENEFITS & SPECIAL FEATURES

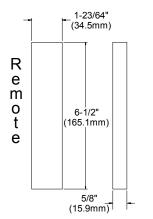
Same benefits as the TP21 with the addition of remote control:

- 4 daily programs for M-F, Sat. and Sun.
- Digital 12/24 hour real time clock.
- 4 minute automatic time delay for compressor protection (may be bypassed).
- Ten year lithium battery for back up during power outages.
- Temperature display—set point, inside and outside air in F° or C°.
- System status indicators.
- Learned response feature adjusts for changing climate.
- Manual on/off override.
- Temporary override with automatic resumption of program.
- Electronic program and temperature limiting and locking.
- Low and high limit temperature alarms can activate a dry contact to switch an external control.
- Remote temperature sensor (optional).
- Auto-changeover (heating/cooling).
- Continuous (on) or intermittent (auto) fan.
- Infra-red remote control internal receiver (standard).
- Infra-red remote control transmitter (optional).
- Infra-red remote control external receiver (optional)

DIMENSIONS

●FLAIR





SPECIFICATIONS

Operating Voltage: 24 vac (-15%, +10%, 50-60 Hz)
Temperature Range: 50°F - 90°F (10°C - 32°C)
Temperature Differential:

 $\begin{array}{ccc} & \text{Heating:} & \text{approximately } \pm 0.8^{\circ}\text{F } \text{ (.4}^{\circ}\text{ C)} \\ & \text{Cooling:} & \text{approximately } \pm 0.8^{\circ}\text{F } \text{ (.4}^{\circ}\text{ C)} \\ & \text{Between Stages:} & 2^{\circ}\text{ F } \text{ (.8}^{\circ}\text{ C)} \\ & \text{Dead Band:} & 4^{\circ}\text{F } \text{ (2.2}^{\circ}\text{ C)} \\ & \text{Sensor System:} & \text{Negative Temperature Coefficient (NTC)} \end{array}$

Sensor System:

Standard:
Optional
Optional:
Negative Temperature Coefficient (NTC)
internal
remote temperature
optional:
return air temperature

Optional: outside air temperature Compressor Protection: switched 4 minute time delay

Switches:

Push-button: MODE/CLOCK/SELECT/PROG/UP/DOWN Push-button: SYSTEM: ON/OFF

Rotating: set TEMPerature

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

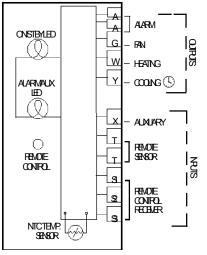
Staging (orange): Stage One (Off); Stage Two (On); Stage Three (Flashing)
Display: LCD, 4 character, .5" (1.27 cm) height.
Security: Electronic temperature limiting and locking.
Program locking.

Dimensions: Thermostat: $5^{43}_{64} \times 3^{1/4} \times 1^{3}_{16}$ Inches (144.1 x 82.6 x 30.2 mm) Remote: $6^{1/2} \times 1^{23}_{64} \times 5^{9}$ Inches (165.1 x 34.5 x 15.9 mm)

Remote: $6^{1/2} \times 1^{23/64} \times 5^{1/8}$ Inches (165.1 x 34.5 x 15.9 mm) Remote Control Transmitter (optional): 7-button infra-red Battery: (2) AAA

Range: 36' (10 meters)
Remote Control Receiver (optional): infra-red
Range: 36' (10 meters)

MODEL NUMBERS AND DESCRIPTIONS FOR VARIOUS APPLICATIONS

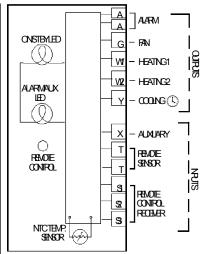


Model Number: TQ211120

Description: 1 stage heat, 1 stage cool,

Switching Current at 24 VAC:

Cooling: 1 Amp Heating 1 Amp Fan: 1 Amp Alarm: 1 Amp Auxiliary 1 Amp .4 lbs. (880 g) Weight:

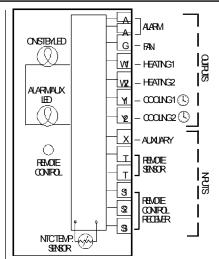


Model Number: TQ212120

Description: 2 stage heat, 1 stage cool,

Switching Current at 24 VAC: Cooling:

1 Amp Heating 1: Heating 2: 1 Amp 1 Amp 1 Amp Fan: Alarm: 1 Amp Auxiliary: 1 Amp Weight: .4 lbs. (880 g)

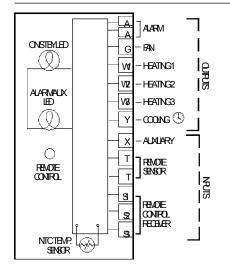


TQ212220 Model Number:

Description: 2 stage heat, 2 stage cool,

Switching Current at 24 VAC:

Cooling 1: Cooling 2: Heating 1: 1 Amp 1 Amp 1 Amp Heating 2: 1 Amp 1 Amp Fan: Alarm 1 Amp Auxiliary: 1 Amp Weight: .4 lbs. (880 g)

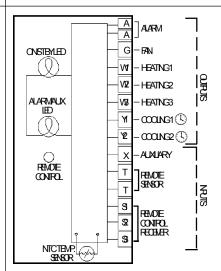


Model Number: TQ213120

3 stage heat, 1 stage cool, Description:

Switching Current at 24 VAC: Cooling:

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



Model Number: TQ213220

3 stage heat, 2 stage cool, Description:

Switching Current at 24 VAC: Cooling 1:

1 Amp Cooling 2: 1 Amp 1 Amp Heating 1: Heating 2: 1 Amp 1 Amp 1 Amp Heating 3: Fan: Alarm 1 Amp

Auxiliary: 1 Amp .4 lbs. (880 g) Weight:

ACCESSORIES

Remote Temperature Sensor TX101001 Return Air Temperature Sensor TX101011 Outside Air Temperature Sensor TX101021 TX502001 Remote Control Transmitter (Compatible with internal and external remote

control receivers.)

Remote Control Receiver (external) TX503001 (Up to 5 receivers may daisy chained to

thermostat and placed at remote locationsrelays signal from remote control transmitter to thermostat.)

Transformers:

40 VA TR140100 20 VA TR120100

Relay Transformers:

20 VA (2) SPST 120 VAC relay TR440200 20 VA (1) SPST 120 VAC relay TR440300

REFERENCES

For More Information On: See:

Non-Remote version TP21 data sheet

Wiring, jumper, potentiometer settings

and applications Instruction sheet

Other thermostats This section

Zone Actuators Star Actuator section

Star Valve section Zone Valves

Control Panels sect. Wiring Panels

Warranty & pricing Pricing & terms section



600 Old Willets Path • Hauppauge, New York 11788 • Tel: (516) 234-3600 • Fax: (516) 234-3610