

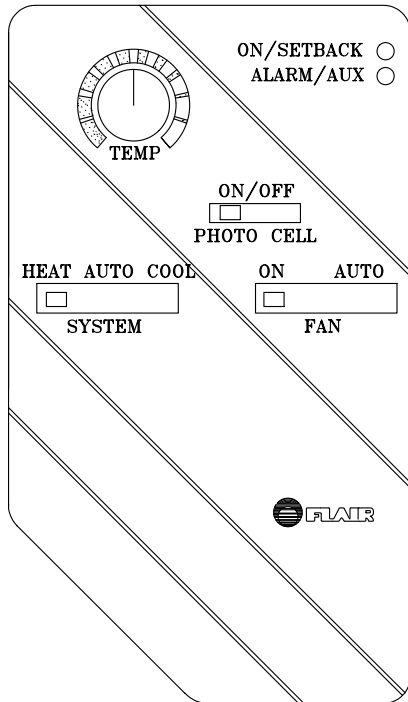
LIGHT SENSING

THERMOSTAT series TL21

For central (main) or zoned control of heating and cooling systems. Determines occupancy based on light sensing. Available in single- and multi-stage versions with automatic changeover.

BENEFITS & SPECIAL FEATURES

- 4 minute time delay for compressor protection (may be bypassed).
- Remote temperature sensor (optional).
- Return air temperature sensor (optional).
- Automatic heating/cooling changeover.
- 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 single and up to 5 stages of heating/cooling control.
- Variable set back (setup) control.
- Light sensing sensitivity adjustment.
- Simpler and less expensive than clocks, programmers and energy management systems.

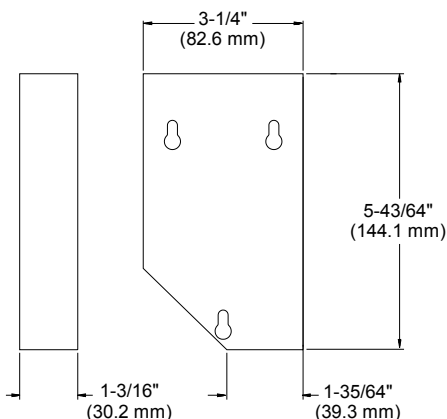


APPLICATIONS

- 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).

Where automatic setback (heating) or setup (cooling) based on occupancy is desired.

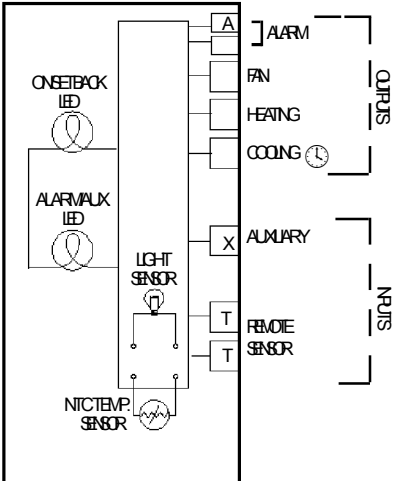
DIMENSIONS



SPECIFICATIONS

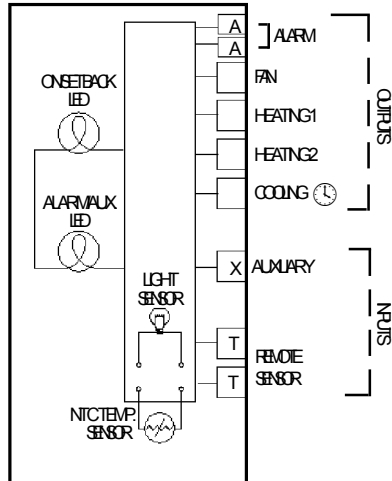
Operating Voltage:	24 vac (-15%, +10%, 50-60 Hz)
Temperature Range:	50° F - 90° F (10° C - 32° C)
Light Level Range:	.3 - .5 foot/candles
Dim:	35 - 50 foot/candles
Bright:	
Temperature Differential:	
Heating:	approximately ±0.8° F (.4° C)
Cooling:	approximately ±0.8° F (.4° C)
Between stages:	2° F (1.1° C)
Dead Band:	4° F (2.2° C)
Sensor System:	Negative Temperature Coefficient (NTC)
Standard:	internal
Optional:	remote
Compressor Protection:	switched 4 minute time delay
Switches:	
Slide:	SYSTEM: HEAT/AUTO/COOL
Slide:	FAN: ON/AUTO
Slide:	PHOTOCELL: ON/OFF
Rotating:	Set TEMPERATURE
Indicator LED's:	ON (Steady Green) / SETBACK (Flashing Green)
	ALARM (Flashing Red) / AUX (Steady Red)
Security:	Electronic temperature limiting and locking
Dimensions:	5 ⁴³ / ₆₄ x 3 ¹ / ₄ x 1 ³ / ₁₆ Inches (144.1 x 82.6 x 30.2 mm)

MODEL NUMBERS AND DESCRIPTIONS FOR VARIOUS APPLICATIONS



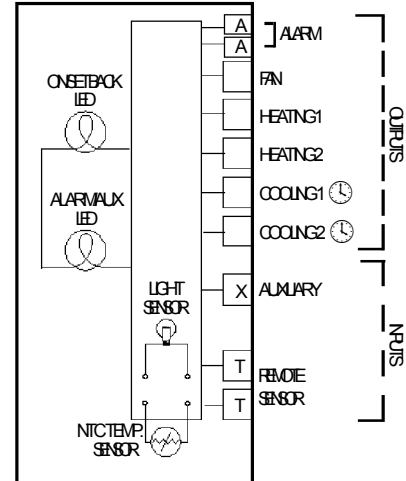
Model Number: TL211120
Description: 1 stage heat, 1 stage cool
Light sensing

Switching Current at 24 VAC:
Cooling: 1 Amp
Heating: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



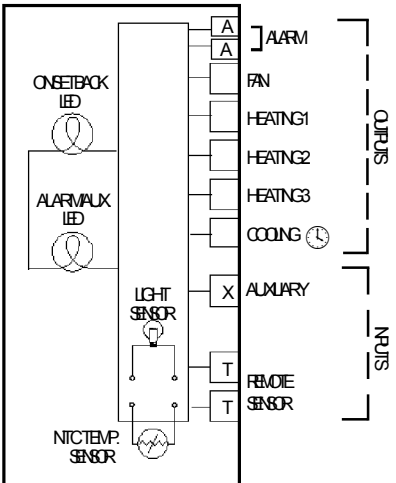
Model Number: TL212120
Description: 2 stage heat, 1 stage cool
Light sensing

Switching Current at 24 VAC:
Cooling: 1 Amp
Heating 1: 1 Amp
Heating 2: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



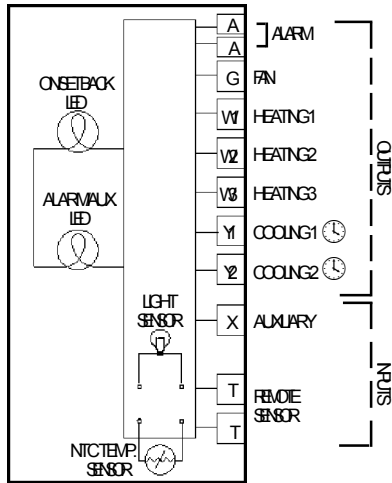
Model Number: TL212220
Description: 2 stage heat, 2 stage cool
Light sensing

Switching Current at 24 VAC:
Cooling 1: 1 Amp
Cooling 2: 1 Amp
Heating 1: 1 Amp
Heating 2: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



Model Number: TL213120
Description: 3 stage heat, 1 stage cool
Light sensing

Switching Current at 24 VAC:
Cooling 1: 1 Amp
Heating 1: 1 Amp
Heating 2: 1 Amp
Heating 3: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)



Model Number: TL213220
Description: 3 stage heat, 2 stage cool
Light sensing

Switching Current at 24 VAC:
Cooling 1: 1 Amp
Cooling 2: 1 Amp
Heating 1: 1 Amp
Heating 2: 1 Amp
Heating 3: 1 Amp
Fan: 1 Amp
Alarm: 1 Amp
Auxiliary: 1 Amp
Weight: .4 lbs. (880 g)

ACCESSORIES

Remote Temperature Sensor	TX101001
Return Air Temperature Sensor	TX101011
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

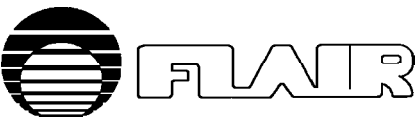
REFERENCES

For More Information On: See:

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
Backplates	Accessories sheet

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

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



FLAIR INTERNATIONAL CORPORATION

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