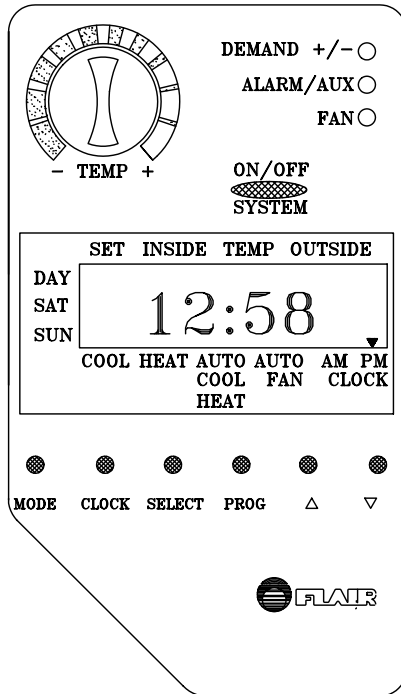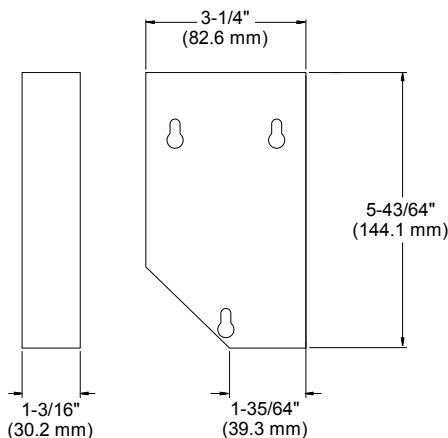# THERMOSTAT *series TP83*

For modulating control of heating and cooling fan coil systems.

BENEFITS & SPECIAL FEATURES

- Adjustable dead band prevents overlapping between heating and cooling modes.
- Floating point control for closer tolerance.
  4 daily programs for M-F, Sat. and Sun.
- Digital 12/24 hour real time clock.
- Ten year lithium battery for back up during power outages.
- Easy programming—Easy setting.
- Large, easy to read, LCD display.
- 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.
- Vacation mode—up to 365 days.
- Electronic temperature limiting and locking.
- Low and high limit temperature alarms can activate a dry contact to switch an external control.
- Automatic heating/cooling changeover.
- Three speed automatic fan control with manual override.
- Remote temperature sensor (optional).
- Return air temperature sensor (optional).
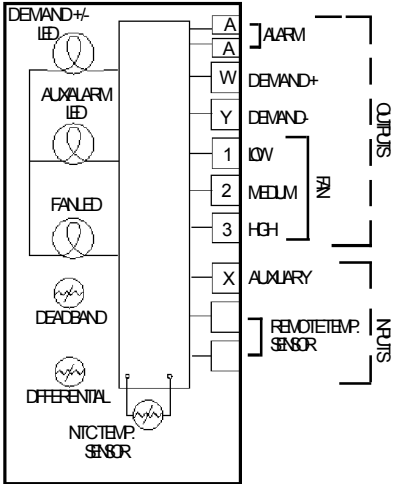- No sub-base required.
- Attractive modern design.

DIMENSIONS

SPECIFICATIONS

Operating Voltage:		24 vac (-15%, +10%, 50-60 Hz)
Temperature Range:		50° F - 90° F (10° C - 32° C)
Bandwidth:		0-2° F (0-1.1° C)
Dead Band:		1° - 4° F (.6° - 2.2° C)
Sensor System:		Negative Temperature Coefficient (NTC)
Standard:		internal
Optional:		remote temperature
Optional:		return air temperature
Optional:		outside air temperature
Switches:		
Push-button:		MODE/CLOCK/SELECT/PROG/UP/DOWN
Push-button:		SYSTEM: ON/OFF
Rotating:		set TEMPerature
Switched Outputs:		Triac/relay
Indicator LED's:		ALARM (Flashing Red) / AUX (Steady Red)
FAN:	Low	(Slow Flashing Yellow)
	Med	(Medium Flashing Yellow)
	High	(Fast Flashing Yellow)
Modulating circuit:		
	DEMAND +	(Steady Blue)
	Set Point	Off
	DEMAND -	(Flashing Blue)
Display:		LCD, 4 character, .5" (1.27 cm) height.
Security:		4 digit user selectable code
Dimensions:		$5^{43}/_{64}$ x $3^{1}/_{4}$ x $1^{3}/_{16}$ Inches (144.1 x 82.6 x 30.2 mm)

Model Number: TP831120
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
Weight:	.4 lbs. (880 g)

ACCESSORIES

Remote Temperature Sensor	TX101001
Return Air Temperature Sensor	TX101011
Outside Air Temperature Sensor	TX101021

Backplates may be used to cover large holes in walls or mount to utility boxes:
horizontal	TX201001
vertical	TX202001
square	TX203001

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

APPLICATIONS

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

REFERENCES

For More Information On:	See:
Remote Model	TQ83 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

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