wall mount Programmable Temperature Controller

Single zone Ramp & Soak Controller offers large LED display with programmable alarms

MULTIPLE CONTROL MODES

- *On/Off, PID, Heat/Cool*
- *10-Segment Ramp & Soak Profile*
- *5 Programmable Ramp & Soak Profiles*
- *Programmable Control Parameters*
- *Manual Setpoint Entry & Program Hold*

MULTIPLE I/O CHOICES

- *Thermocouple, RTD & Thermistor Temp Inputs*
- *Current, Voltage & Millivolt Process Inputs*
- *Scaling for Voltage, Current & Millivolt Signals*
- *Four Programmable Process Alarms (optional)*
- *Relay or Solid State Outputs (optional)*
- *Built-in Buzzer to Sound Alarm (optional)*
- *Two Programmable Timers (optional)*

HIGH VISIBILITY DISPLAY

- *Large 7-Segment LED Display (0.8")*
- *Ease of Viewing from Distance*
- *Better Visibility than Typical Panel-Mount Units*
- *Multiple Display Modes*
- *Sealed Lockable Enclosure with Clear Plastic Front*
- *Protection from Dust & Moisture*

wPTC 100 Series

Only **$345** Base Unit

DESCRIPTION

Housed in a wall-mount, water-tight plastic enclosure, wPTC is a flexible temperature controller which offers the ease of an ON/OFF controller as well as the precision of a full blown PID controller. For those jobs that do not require the complexity of a PID control, the unit can be programmed to work as a simple ON/OFF controller. For processes that require close temperature conformity, the unit can be run under full PID control. Selectable heat or cool mode allows the unit to be used for either heating (direct acting) or cooling (reverse acting).

The unit has the capability of accepting five different ramp and soak programs, each one with up to ten segments. Separate

pass-codes are required for selecting or entering a program. This keeps the operators from making any inadvertent changes. Manual hold feature allows for an indefinite hold any where along the ramp/soak profile. Also offered is a manual set-point entry mode for a quick 'ramp to set-point' function. This eliminates entering a complete ramp/soak program.

Maximum and minimum temperature readings are constantly tracked and can be helpful in fine tuning PID parameters, quality control or monitoring unattended processes e.g. overnight. Four process alarms (optional) are also featured, which are programmable over the entire range of selected input type. They can be configured as latching or non-latching, normally open or normally closed. Also provided are two timers (optional) that work independently or in conjunction with process limits e.g. turning on a fan ten minutes after limit 1 temperature is reached. The time function keeps track of process run time.

KAIF DIGITAL
...We Put you in Control!

For further information, contact:
Tel. No: (480) 607-3100 (ext 201)
Fax No: (480) 607-3101
www.kaifdigital.com

wPTC also functions as a rate monitor, indicating instantaneous as well as average rate of temperature change. Programmable time base allows the rate to be displayed in per second, minute, hour or any other interval. Also, the unit can be programmed for a rate alarm. This allows control of a process if a predetermined rate is exceeded or not achieved.

Additional features include a built-in buzzer which comes on whenever a limit is reached. Visual indication of relay output status is given by LEDs on the front panel. The unit has a power line filter designed in to provide trouble free operation in harsh industrial environment. A watch dog timer is embedded in wPTC.

TYPE	RANGE	ACCURACY
J	-200 to 1190C	+_1C+-1cnt
	-328 to 2174F	+-2F+-1cnt
K	-170 to 1370C	+-1C+-1cnt
	-274 to 2500F	+-2F+-1cnt
T	-160 to 400C	+-1C+-1cnt
	-256 to 752F	+-2F+-1cnt
E	-185 to 915C	+-1C+-1cnt
	-300 to 1675F	+-2F+-1cnt
R	0C to 1600C	+-3C+-1cnt
	32F to 2900F	+-6F+-1cnt
S	0 to 1600C	+-3C+-1cnt
	32 to 2900F	+-6F+-1cnt
B	470 to 1800C	+-3C+-1cnt
	900 to 3300F	+-6F+-1cnt
RTD-385	-200 to 800C	+-1C+-1cnt
	-328 to 1472F	+-2F+-1cnt
RTD-392	-100 to 450C	+-1C+-1cnt
	-148F to 842F	+-2F+-1cnt
Thermistor	-8.0 to 100.0C	+-0.5C+-1ct
	17.2 to 212.0F	+-1.0F+-1ct
Current	1 to 30000	.05%+-1cnt
Milli-volt	1 to 30000	.05%+-1cnt
Voltage	1 to 30000	.05%+-1cnt

SPECIFICATIONS

INPUT TYPE:
i) J,K,T,E,R,S,B, Thermistor, RTD ii) Voltage
iii) 4-20milliamp loop current iv) Milli-volt
CJC error: +/- 0.5 C (10C to 45c)
ACCURACY:
Resolution: 1C/F for T/C'S & rtd's.
0.1C/0.2F for Thermistor
Voltage = 0.05% FS Current = 0.05% FS
A/D CONVERSION
20,000 count A/D converter
Conversion rate: 7/Second (typical)
DISPLAY
Red 7-segment LED display, 0.8" (20mm) Ht
Display test: 8.8.8.8.8.8.8. on power up
POWER OPTION
120Vac (60 Hz) - Standard 220Vac (50 Hz) - Optional
15VDC @ 900ma (Optional)
SCALE: Programmable from 1 - 30000
OFFSET:
0 - 20.00 (current input) 0 - 10.000 (voltage input),
0 - 100.00 (milli-volt input)
RATE: 0 - 500 Seconds
PROP. BAND: 0 - 100% of span
RESET: 0.00 TO 50.00 repeats/ minute
ON/OFF DEADBAND: Programmable: 0-Fullscale
CONTROL OUTPUT:
5VDC drive @50ma max (internal 5vdc source).
SCALE/OFFSET (for voltage, current & milli-volt):
Scale programmable from 1 - 30000
Offset : 0 - 20.00 (current), 0 - 10.000 (voltage),
0 - 100.0 (milli-volt)
DECIMAL POINT: None, 10th, 100th,1000th
OUTPUT (optional):
1.Open collector - 4 open collector outputs, maximum sink capability of 50ma per output
2.Relays: Single pole single throw, 1 Amp @ 28Vdc or 0.5 Amp @ 120Vac resistive
Output termination: Euro-style plugable connector
RATE: Variable -- Displayed as rate of change/Time Base.
DIMENSIONS:
Case: 7.55" W x 6.29" H x 4.05" D
Ingress Protection: up to IP65 (DIN standard)

To find a model number, fill in blanks 1, 2, and 3 with appropriate selection. Refer to ordering example below:

wPTC /

1

BM = J, K, T & E Thermocouples
R = 'R' type Thermocouple
S = 'S' type Thermocouple
B = 'B' type Thermocouple
TH = Thermistor
RTD = RTD (.00385 &. .00392)
100mv= 0-100 Millivolt
1=4-20milliamp 2=0-50milliamp
3= 0-5 Volt DC 4=0-10Volt DC

2

5 = 120VAC
6 = 240VAC
7 = 15VDC

3

R = 4 Relays plus two Open Collector timer outputs
OC = 6 Solid State outputs (Open Collector)-- 4 alarms, 2 timers
BLANK = No output

Ordering Example: wPTC100/BM/5/R -- wall-mount Programmable Temperature Monitor with J,K,T or E Thermocouple input, Relay and timer option and 120vac Power.