

Flame Proof Series

FPC-3T

Temperature Controller
with Programmable Alarm



Features

- Jumper-less Selectable J/K Thermocouples & RTD Pt100 Inputs
- Programmable Input Signal Conditioning (Digital Filter & Zero Offset)
- Self Tune PID or On-Off Control
- Programmable Heat (Reverse) or Cool (Direct) Control Mode
- Relay or SSR Control Output
- Programmable Alarm with Relay or SSR Output



Specifications

Display	
Digital Readout	Upper Readout : 4 digits, 0.80" Bright Red LED, 7 Segment Lower Readout : 4 digits, 0.56" Bright Green LED, 7 Segment
Status Indicator	2 Red LED (3mm Round); OP-1 (Control) & OP-2 (Alarm) Status
Keys	
Type	4 Push Button Switches
Functions	PAGE, DOWN, UP, ENTER
Sensor Input	
Type (User Programmable)	Thermocouple : J, K RTD : Pt100 (3-Wire)
Corrections	<ul style="list-style-type: none"> • In-built Cold-Junction Compensation for Thermocouples • In-built Lead Resistance Compensation for RTD (Up to 22Ω in each lead)
Accuracy	± 0.25% of reading ± 1°C
Range & Resolution	J Type TC Range : 0 to +960°C Resolution : 1°C Fixed K Type TC Range : -200 to +1376°C Resolution : 1°C Fixed RTD Pt100 Range : -199 to +600°C Resolution : 0.1/1°C Selectable
ADC	16 Bit (±32,768 Counts), Sigma-Delta (ΣΔ)
Sampling Time	200mS (5 Samples per Second)
Input Resistance	> 1 MOhm
CMR	> 100dB at 50/60 Hz
Signal Conditioning	R-C Analog Filter with Programmable Digital Low-Pass Filter
Zero Offset	User Adjustable over Full Range

Alarms	
Numbers	1
Programmable Parameters	Type : Process Low, Process High, Deviation, Window Logic : Normal, Reverse Hysteresis : 1 to 999 Unit Counts Inhibit : No, Yes
Output (OP2)	Standard : Relay Change-over Contacts Optional : SSR Drive
Control	
Type	ON-OFF Or Self Tune PID
Mode	Heat only, Cool only
Control Parameters	• ON-OFF : Hysteresis • Self Tune PID : Proportional Band, Integral Time, Derivative Time, Cycle Time, Power Low, Power High, Overshoot Inhibit
Output (OP1)	Standard : Relay Change-over Contacts Optional : SSR Drive
Outputs	
Relay	Contact Type : Potential-free Change-over Contacts Contact Rating : 7A Resistive @ 120/250 VAC Contact Life : > 5,00,000 Operations at Rated Voltage / Current
SSR Drive	≅ 12 VDC @ 40 mA
Power Supply	
Type	Switch Mode (SMPS)
Line Voltage	85~264 VAC/VDC, 50/60Hz
Consumption	5VA Max
Physical	
Mounting	Flame Proof Enclosure Certified for Gas Group IIA, IIB
Overall Dimensions	400(H) X 182(W) X 175(D), mm
Terminals	5 Cable Glands with Inside Screw Type Terminations

Back Panel Terminations

