

# Temperature and Process AutoTuning PID Controllers

**Dual display of process and setpoint value, Control and Limit Alarm relays plus Ramp-to-Setpoint control**  
One-touch autotuning for quick setup and precise control

## Features:

- Dual 4-digit LED displays of process and setpoint values
- User friendly menus and tactile keypad for easy programming
- Includes Limit Alarm relay(s) with 8 programmable modes and adjustable deadband provides for dual control (heat and cool)
- Countdown timer for setting delay of alarm relay activation
- Single stage Ramp Soak and Auto/manual control modes
- Model 48VTR is UL, CSA and CE approved
- Complete with mounting brackets and screw terminals



Specifications		
Inputs	Type K	-58 to 2498 °F (-50 to 1370 °C)
	Type J	-58 to 1830 °F (-50 to 1000 °C)
	Type B	32 to 3272 °F ( 0 to 1800 °C)
	Type T	-454 to 752 °F (-270 to 400 °C)
	Type E	-58 to 1382 °F (-50 to 750 °C)
	Type R/Type S	32 to 3182 °F ( 0 to 1750 °C)
	Type N	-58 to 2372 °F (-50 to 1300 °C)
	PT100Ω RTD	-392 to 932 °F (-200 to 500 °C)
	DC current/DC voltage	4-20mA DC, Load <3 ohms/1-5 VDC
Output Relay	5 Amps@ 110V, SPDT (resistive load)	
DC Voltage	24 VDC (pulsed) (drive for SSR)	
DC Current	4-20mA resistive. Impedance 600W or less	
Alarm Relay	48VTR 5 Amp @ 110V, SPST (resistive load) 96VTR	
Accuracy	± 0.2% FS + 1 digit	
Temp. stability	5µV / °C	
Sampling Time	0.25 Seconds	
Display	4 digit; Red LED (Process) Green LED (Setpoint)	
LED Status	Control/Alarm, Manual mode, Autotune	
Control Modes	Proportional Band: 0.0 to 100.0% (Autotuneable)	
Integral Time	0 to 3000 seconds (Autotuneable)	
Derivative Time	0 to 3000 seconds (Autotuneable)	
Cycle time	1 to 100 seconds	
Anti-Reset	Inhibit integral action outside proportional band	
Manual Reset	0 to 100% of proportional band	
Hysteresis	0.0 to 25.5% of full scale	
Front Panel	Lexan, Drip/Dust proof (IEC IP55 Standard)	
Power Supply	85 to 260 VAC, 50/60 Hz (6 watt)	
Operating Temp	14 to 122 °F (-10 to 50°C)	
Panel cutout	48VTR	1.77 x 1.77" (45 x 45mm)
	96VTR	3.58 x 3.58" (91 x 91mm), 4" deep

## Ordering Information:

Complete part number below with your desired input and output

**48VTR**□□ .....1/16 DIN PID Ramp to Setpoint Controller

**96VTR**□□ .....1/4 DIN PID Ramp to Setpoint Controller

1 Thermocouple inputs (User selectable J,K,T,B,E,R,S,N)

1 5A at 110VAC Relay control output

3 4-20mA control output

## Accessories

**404216** .....1/16 DIN NEMA-4X Cover

