

Extech PID Controller



- Dual 4-digit LED displays for process & setpoint values
- User-friendly menus and tactile keypad
- Fuzzy Logic PID offers intuitive control
- Manual mode overrides automatic control
- One-touch Auto Tuning for quick setup and precise control
- Single stage Ramp and Soak program with Ramp-to-Setpoint Limit
- Soft Start feature for smooth process start-up
- Accepts thermocouple and RTD inputs
- Select input type from display menu - no hardware change
- Two 'Latching' relays with 8 Alarm modes & advanced Timer modes

SPECIFICATIONS

Inputs	
Type K	-58 to 2498°F (-50 to 1370°C)
Type J	-58 to 1832°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, S	32 to 3182°F (0 to 1750°C)
Type N	-58 to 2372°F (-50 to 1300°C)
Type C	-58 to 3272°F (-50 to 1800°C)
Pt100 RTD (DIN)	-328 to 1652°F (-200 to 850°C)
Pt100 RTD (JIS)	-328 to 1202°F (-200 to 650°C)
Control/Alarm Relay	5 Amp @ 110V, SPST (resistive load)
DC Current Output	4-20mA (resistive); Impedance < 600 ohms
Accuracy	T/C: ±1.8°F (1°C); RTD: ±0.36°F (0.2°C)
Sampling Time	4 samples per second
LED Status	Alarm and Control output status
Control Modes	Fuzzy Logic enhanced three-term PID with Auto Tune <ul style="list-style-type: none"> • Proportional Band 0 to 300.0% • Integral time 0 to 3600 seconds • Derivative time 0 to 900 seconds • Hysteresis 0.0 to 200.0 or 0.0 to 2000 • Cycle time 1 to 100 seconds
Front Panel	Lexan, Drip/Dust proof, IP63
Power Supply	90 to 264 VAC; 50/60 Hz (< 5VA)

ORDERING INFORMATION

48VFL11	1/16 DIN Temperature PID Controller with one relay output
48VFL13	1/16 DIN Temperature PID Controller with 4-20mA output
96VFL11	1/4 DIN Temperature PID Controller with two relay outputs
96VFL13	1/4 DIN Temperature PID Controller with 4-20mA output

Extech Temperature and Process Autotuning PID Controller



- 1/16 DIN Size
- Dual Display of Process and Setpoint Value
- One-Touch Autotuning
- Single Stage Ramp Soak & Auto/Manual Control Modes
- Limit Alarm Relay with 8 Programmable Modes & Adjustable Deadband for Dual Control (Heat/Cool)

SPECIFICATIONS

Temperature Inputs:	J, K, T, B, E, R, S, N
RTD:	Pt 100
DC Process Inputs:	4-20 mA or 1-5 VDC
Accuracy:	0.2% FS (indicating and setpoint)
Control Action:	PID, ON/OFF
Hysteresis:	0.0 to 25.5% (for ON/OFF control)
Ramp Rate:	0 to 100°C/min
Limit Alarm Relay:	5A at 110V
Operating Temp:	14 to 122°F (-10 to 50°C)
Panel Cutout:	1/16 DIN: 1.77 x 1.77" (45 x 45 mm)
Power:	85 to 260 VAC 50/60 Hz
Depth Behind Panel:	4" (102 mm) including screw terminals

ORDERING INFORMATION

To Order—Insert Number Code for Each Letter to Select Catalog Number.
Order Example: 48VTR-1-3

A	B	C
A	Basic Unit	
48VTR	1/16 DIN Ramp to Setpoint Controller	
B	Input	
1	Thermocouple (J, K, T, B, E, R, S, N)	
R	RTD (Pt100)	
A	4-20 mADC	
V	1-5 VDC	
C	Output	
1	5A, 110 VAC Relay	
2	Pulsed 24 VDC, Control Output	
3	4-20 mADC, Control Output	

ORDERING INFORMATION—ACCESSORIES

404216	1/16 DIN NEMA-4X Cover
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