Extech PID Controllers

48VFL

- 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 · 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

Sifam Tinsley Dual Loop Controller

- Universal measuring inputs
- Binary input control
- Set point value: fixed value, programmed or from Input 3
- On/Off, PID, PID step-by-step control (valve control) or PID of heating-cooling type
- Soft start
- 8 types of alarms
- Timer function
- Measurement of heater current and heater burning control

RE92

SPECIFICATIONS

Inputs 1 & 2:	Universal RTD, T/C, DCV, DCmA
Thermocouple:	J, K, T, B, E, R, S, N
RTD:	Pt100, Pt500, Pt1000, Cu100, Ni100
DC Process:	0/4–20 mA or 0–5/10 VDC
Error:	V & mA: 0.2% ±1 digit RTD: 0.2% J, K, T, E, N: 0.3% R, S, B: 0.5% T/C Cold Junction: <2°C
Control Source:	Input 1, Input 2, sum or difference
Control Action:	Auto-tuning PID, On/Off, three-step heating/cooling, step-by-step
Alarms:	6 types with programmable hysteresis & latch
Logic Inputs:	Three voltageless binary
Display:	3.5" TFT color, 320x240 pixels
Relay Outputs:	Six Form A (2A@230VAC) standard
Transistor Outputs:	Two 0-5V optional (20mA max.) Replaces 2 relay outputs
Analog Outputs: (optional)	Two, 0-10V (1kΩ load min.) or 0/4 - 20mA (500Ω max.)
Digital Interface:	RS-485 Modbus RTU slave, 2.4-115.2 kbps
Power:	85 to 253 VDC/AC (40-440 Hz)
Operating Temperature:	0 to 50°C, <85% RH non-condensing
Protection:	IP65 front
Operating V to Earth:	Supply circuits and relays: 300V Inputs, interface & analog outputs: 50V
Dimensions:	96x96x100mm; 92.5x92.5 panel cutout

ORDERING INFORMATION

To Order—Insert Code for Each Letter to Select Catalog Number.
Order Example: RE92-1-2-0-1-1-00E

RE92 - [A] - [B] - [C] - [D] - [E] - 00E

A	Input 3 (for remote setpoint value)	
	0	None
	1	0-20 or 4-20 mA
	2	0-5 or 0-10 V
	3	Pot transmitter 100 or 1000 ohm
B	Output 1 & 2	
	1	2 relays
	2	2 binary (transistor) outputs 0-5V, isolated
C	Analog Outputs	
	0	None
	1	Two 0/4-20 mA or 0-10 V, isolated
D	Ethernet	
	0	None
	1	Ethernet Modbus TCP Slave
E	Transducer Supply	
	0	None
	1	24 VDC @ 30 mA