

PROHEAT Controls

HIGH ACCURACY, FLEXIBLE CONTROL, LOW COST!

Proheat's "8000" series redefines the standard for 1/8 DIN temperature controllers. Fast input scan rates (5 per second), 18 bit input resolution and 15 bit output resolution as well as fuzzy modified PID control provide not only the highest accuracy, but temperature control minimizing over/under shoot while maintaining fast process response.

The "8000" series can be configured with up to 3 control outputs (2 PID Fuzzy + alarm). A fourth output can be configured for RS232/485 Modbus or PV analog retransmission. The 8000 series can also be equipped with an isolated transmitter power supply when the second control output is not required.

Standard software functionality includes Fuzzy Logic + PID, soft start ramp, lock out protection, bumpless transfer, user defined menu operation, timer function and more. With isolated inputs/outputs, UL/cUL and CE approvals, the 8000 series is the clear choice for temperature control applications.

**NEWEST
TECHNOLOGY!**



8000 SERIES

8000 SERIES CONTROLLERS

- Fuzzy Logic PID Temperature Control
- Up to three Control outputs
- 5VDC & 14VDC SSR
- Variety of Alarm modes
- Transmitter Power Supply
- SEL Function to arrange user menu
- NEMA 4X/IP65 protection available
- FREE Data Acquisition Software--Multiview
- CFR21 Part 11 Features!

8000 SERIES SPECIFICATIONS

POWER

90-250VAC 50/60Hz
11-26VAC/VDC

INPUT

Thermocouple (T/C): Type J,K,T,E,B,R,S,N,L
RTD: PT 100 ohm RTD (DIN or JIS)
Range: Per table in order manual
Accuracy: Typically better than .25% of span
Cold Junction Compensation: 0.1 C/C ambient typical
Sensor Break: Protection mode configurable
Common Mode Rejection: 120dB
Sample Rate: 5 times per second

CONTROL

Proportional Band: 0.1-500 C (0.1-900 F)
Reset (Auto): 0-1000 seconds
Rate (Derivative): 0-360.0 seconds
Cycle Time: 0.1 to 90 seconds
Ramp Rate: 0-500 C (900 F)/minute or hour
Timer Dwell: 0-4553.6 minutes
On-Off: with adjustable hysteresis (0.1-90.0 F)
Control Action: Direct and reverse

INDICATION (4 DIGIT DISPLAY)

Process Display: .40" red
Setpoint Display: .31" green
Status Indicator: Out1, Out2, Alm, Man, C, F, AT

ENVIRONMENTAL AND PHYSICAL

Operating Temperature: -10 to 50 C
Storage Temperature: -40 to 60 C
Humidity: 0-90% RH (non-condensing)
Insulation: 20M ohms minimum (500VDC)
Dielectric Strength: 2000VAC, 50/60Hz for 1 minute
Shock Resistance: 200m/s² (20G)
Vibration: 10-55Hz, 10m/s² for 2 hours
Moldings: Flame retardant polycarbonate
IP Panel Rating: IP50 (IP65 optional)
Dimensions\Weight:
3.77" (H) x 1.88" (W) x 2.55" (D) - 7.4oz (210g)

1/8 DIN

8000 Series

1/8 DIN CONTROLLER

ORDERING INFORMATION

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POWER INPUT

- 0: 90-250VAC 50/60 HZ
- 1: 11-26VAC/VDC
- X: Special Order

SIGNAL INPUT

- 0: Thermocouple: J, K, T, E, B, R, S, N, L
RTD: PT100DIN & JIS
- X: Special Order

OUTPUT 1

- 0: None
- 1: Relay 2A/240VAC resistive (SPST)
- 2: SSR Drive 5VDC @ 30mA
- 3: 4-20/0-20mA linear, isolated, maximum load 500 ohms
- 4: 1-5/0-5VDC linear, isolated, minimum impedance 10K ohms
- 5: 0-10VDC linear, isolated minimum impedance 10K ohms
- 6: Triac 1A/240VAC
- C: SSR Drive 14VDC @ 40mA
- X: Special Order

OUTPUT 2 / ALARM 2

- 0: None
- 1: Relay 2A/240VAC resistive (SPST)
- 2: SSR Drive 5VDC @ 30mA
- 3: 4-20/0-20mA linear, isolated, maximum load 500 ohms
- 4: 1-5/0-5VDC linear, isolated, minimum impedance 10K ohms
- 5: 0-10VDC linear, isolated minimum impedance 10K ohms
- 6: Triac 1A/240VAC
- 7: 20VDC/25mA PS Isolated
- 8: 12VDC/40mA PS Isolated
- 9: 5VDC/80mA PS Isolated
- C: SSR Drive 14VDC @ 40mA
- X: Special Order

ALARM 1

- 0: None
- 1: Form C Relay 2A/240VAC resistive (SPDT)
- 9: 5VDC/80mA PS Isolated

COMMUNICATIONS

- 0: None
- 1: RS-485 Modbus RTU
- 2: RS-232 Modbus RTU
- 3: 0-20/4-20mA retransmission Isolated, max load 500 ohms
- 4: 0-5/1-5VDC retransmission Isolated, max load 10K ohms
- 5: 0-10VDC retransmission Isolated, max load 10K ohms
- X: Special Order

PROTECTIVE CLASS

- 0: IP50 Standard
- 1: IP65 (NEMA 4X)