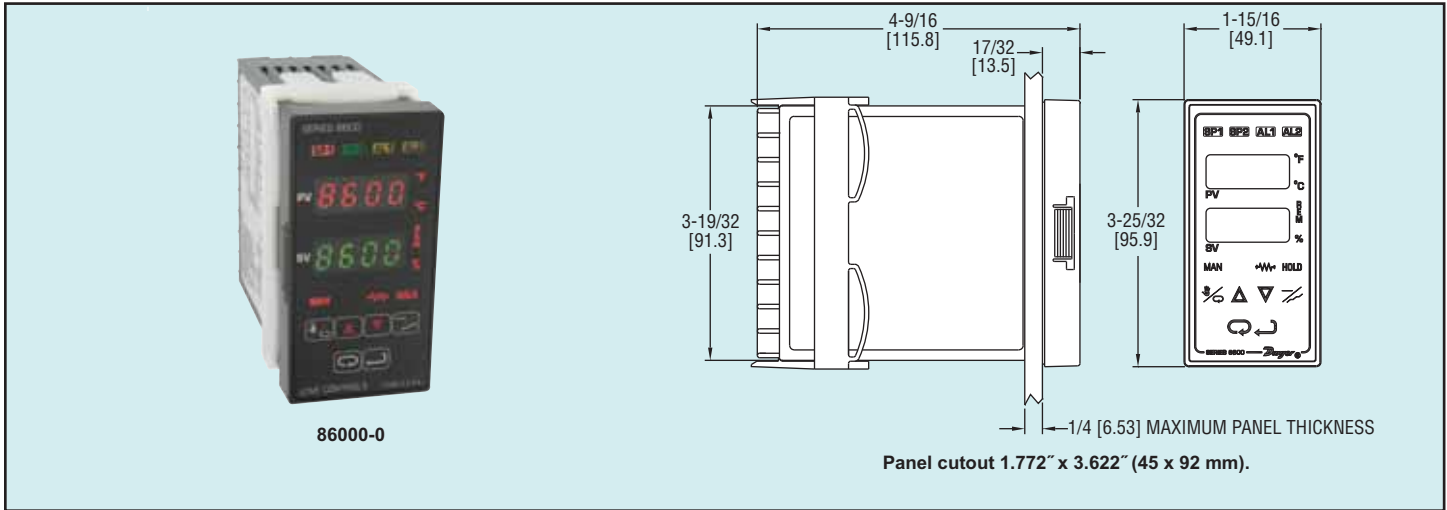




Series  
8600

# Temperature/Process Controller

1/8 DIN Self-Tune PID, Fuzzy Logic Software



**Series 8600 Temperature/Process Controllers** set a new standard for quality, ease-of-use and value. While a high level of standard features are included, many function setup items appear in the control menu only when the function is selected, so you don't have to wade through unnecessary items. Units feature a universal input for thermocouple types J, K, E, T, L, N, B, C, S, & R; RTDs – 100Ω Pt. NIST, 100Ω Pt. DIN, 120Ω Ni Industrial, 1000Ω Pt. DIN; differential input (-10 to +10 mV DC) and process input (0 to 20 mA DC, 0 to 10 VDC). A standard 24 volt isolated, regulated power supply is included to operate most standard 4-20 mA transmitters.

Standard features include Self-Tune, Fuzzy Logic, fully adjustable PID, Auto/Manual control with bumpless transfer and front panel activation key, percent output indication, peak and valley indication, loop break protection and indication. For process inputs, the display is fully programmable from -1999 to +9999 with selectable decimal point location. Most thermocouple and RTD inputs can show whole or tenth degree displays. The Series 8600 is available with single or dual setpoint outputs and can be programmed for on-off, PID or heat/cool or latching alarm. All outputs are isolated from the inputs. Outputs include 10 amp relay, 2.5 amp SSR and 0-20 mA DC (scalable). 15 VDC SSR drive is standard.

Model	Output A	Output B
86111-0	SSR	SSR
86120-0	15 VDC Pulsed	None
86133-0	Relay	Relay
86153-0	0-20 mA	Relay

## MORE STANDARD FEATURES

- NEMA 4X (IP 65) Front Panel Resists Dust & Moisture
- Four Password Protected Security Levels
- Front Panel Programmability
- 16 Segments of Ramp/Soak with Program End Control
- Operates on 100-240 VAC, 132-240 VDC

## SPECIFICATIONS

**Selectable Inputs:** Thermocouple, RTD, DC voltage or DC current.

### Input Impedance:

- Thermocouple: 3 megohms minimum.
- Voltage: 5000 ohms.
- Current: 10 ohms.
- RTD Current: 200μA maximum.

**Display:** Two 4 digit, 7 segment LED; 0.4" (10 mm) high — horizontal models; 0.3" (7.62 mm) high — vertical models.

**Accuracy:** ±0.25% of span, ±1 least significant digit.

**Supply Voltage:** 100 to 240 VAC nominal, +10%-15%, 50 to 400 Hz, single phase; 132 to 240 VDC, +10%-20%.

**Operating Temperature:** 14 to 131°F (-10 to 55°C).

### Control Output Ratings:

- SSR: 2.5 A at 240 VAC resistive at 77°F (25°C). De-rate to 1.25 A at 130°F (55°C).
- Relay: SPDT, 10 A at 240 VAC resistive, 1/2 hp at 120 VAC, 1/3 hp at 240 VAC.
- Alarm Relay: SPST, 3 A at 240 VAC resistive.
- Switched Voltage: 15 VDC at 20 mA.
- Proportional Current: 0-20 mA DC, scalable into 600 ohms maximum.

**Weight:** 13 oz (369 g).

**Agency Approvals:** CE, UL, cUL.

Temperature