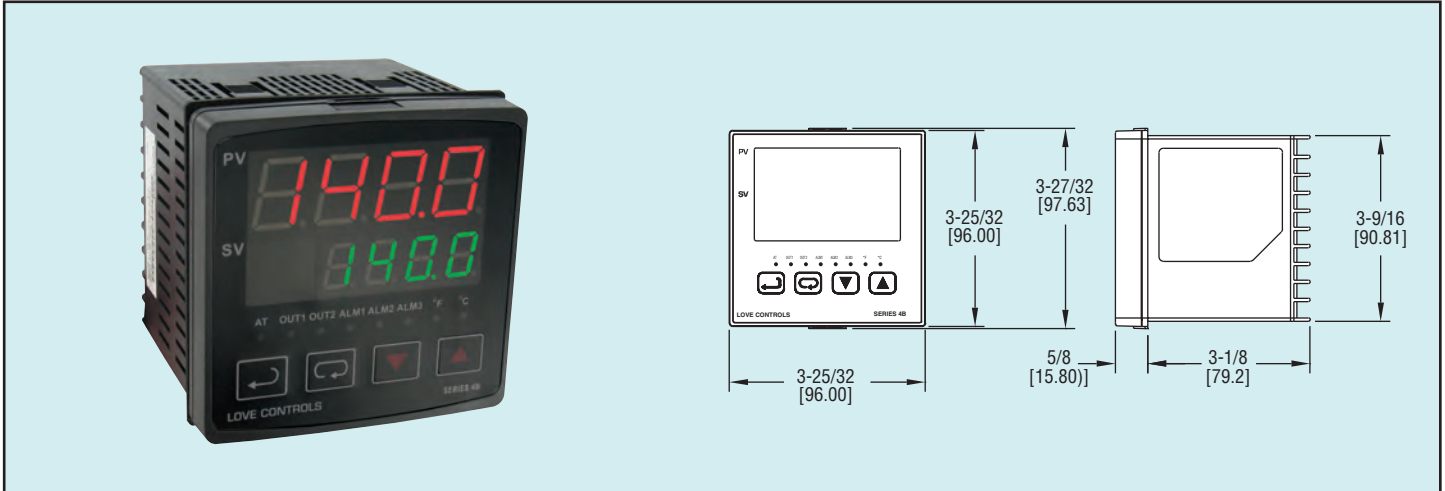




Series  
4B

# 1/4 DIN Temperature/Process Controller

Dual Control Output, RS-485 Communication, Auto-Tuning



The Series 4B 1/4 DIN Temperature/Process Controller is designed to accept thermocouple, RTD, current or voltage input and provide dual outputs for control. Available outputs include relay/relay, voltage pulse/relay, current/relay, or linear voltage/relay.

The units can be programmed for ON/OFF, PID, auto-tuning, or manual tuning control methods. The PID control is supported by 64 ramp/soak actions. The Series 4B also includes two additional alarm outputs. The second relay output can be reconfigured as a third alarm output. The alarm type can be selected from 13 different preprogrammed alarm functions. The controller features dual LED displays for local indication of process and setpoint values.

## SPECIFICATIONS

**Inputs:** Thermocouple, RTD, DC voltages or DC current.

**Display:** Two 4-digit, 7 segment. PV: 3/4" H (19 mm) red; SV: 1/2" H (12.7 mm) green.

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

**Supply Voltage:** 100 to 240 VAC, 50/60 Hz or 24 VDC (depending on model).

**Power Consumption:** 5 VA max.

**Operating Temperature:** 32 to 122°F (0 to 50°C).

**Memory Backup:** Nonvolatile memory.

### Control Output Ratings:

Relay: SPDT, 5A @ 250 VAC resistive;

Voltage pulse: 14V, 10% to -20% (max. 40 mA);

Current: 4 to 20 mA;

Linear voltage: 0 to 10V.

**Communication:** RS-485 Modbus® A-5-11/RTU communication protocol.

**Weight:** 15 oz (425 g).

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

**Front Panel Rating:** IP56.

| Input Types | Range                           |
|-------------|---------------------------------|
| Type K T/C  | -328 to 2372°F (-200 to 1300°C) |
| Type J T/C  | -148 to 2192°F (-100 to 1200°C) |
| Type T T/C  | -328 to 752°F (-200 to 400°C)   |
| Type E T/C  | 32 to 1112°F (0 to 600°C)       |
| Type W T/C  | -328 to 2372°F (-200 to 1300°C) |
| Type R T/C  | 32 to 3092°F (0 to 1700°C)      |
| Type S T/C  | 32 to 3092°F (0 to 1700°C)      |
| Type B T/C  | 212 to 3272°F (100 to 1800°C)   |
| Type L T/C  | -328 to 1562°F (-200 to 850°C)  |
| Type U T/C  | -328 to 932°F (-200 to 500°C)   |
| Pt 100 RTD  | -328 to 1112°F (-200 to 600°C)  |
| 0 to 50 mV  | -999 to 9999                    |
| 0 to 5 V    | -999 to 9999                    |
| 0 to 10 V   | -999 to 9999                    |
| 0 to 20 mA* | -999 to 9999                    |
| 4 to 20 mA* | -999 to 9999                    |

\*Requires 250 Ohm Precision Resistor.

| Model       | Output 1       | Output 2 |
|-------------|----------------|----------|
| 4B-23       | Voltage Pulse  | Relay    |
| 4B-33       | Relay          | Relay    |
| 4B-53       | Current        | Relay    |
| 4B-63       | Linear Voltage | Relay    |
| 4B-33-986/U | Relay          | Relay    |

Add -LV to end of model number for 24 VDC supply power.

## ACCESSORIES

SCD-SW, Configuration Software

A-277, 250 Ohm Precision Resistor

MN-1, Mini-Node™ USB/RS-485 converter

A-600, R/C snubber



Portable Housing Model 4B-33-986/U

TEMPERATURE

Temperature/Process  
Controllers