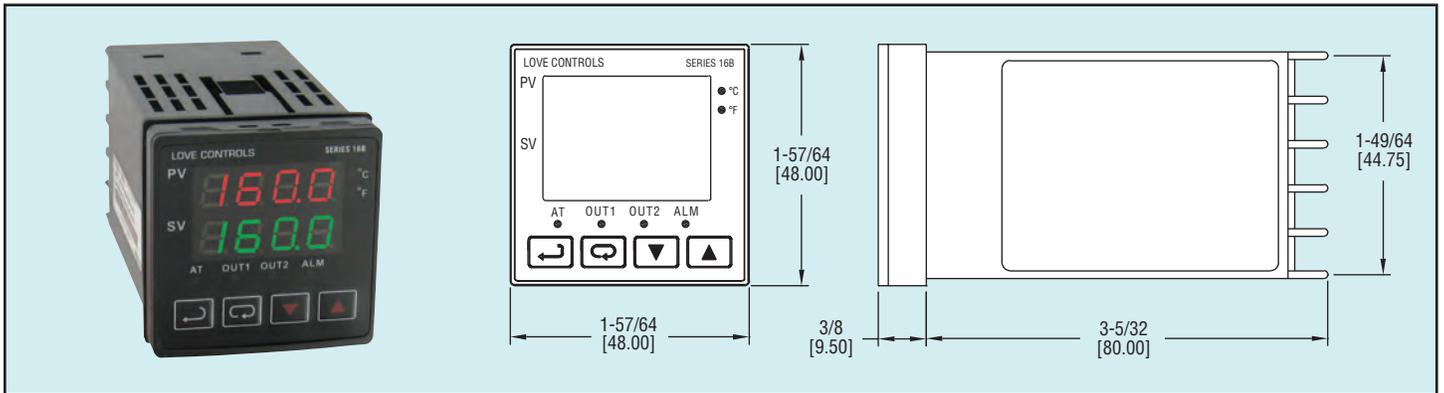




Series  
16B

# 1/16 DIN Temperature/Process Controller

Dual Control Output, RS-485 Communication, Universal Inputs



Monitor and control temperature or process applications with precision using the Series 16B controllers. The units offer two separate outputs for dual loop control in direct or reverse acting. Select relay, voltage, or current output combined with a second relay output.

The Series 16B provides dual LED displays for local indication of process value and setpoint value. Output status, engineering scale, auto tuning and alarm status is also indicated on the front panel.

Control methods include ON/OFF, PID, self-tune and manual tune. PID control is supported with 64 ramp/soak control actions. Two additional alarm outputs are standard on the Series 16B. The alarm outputs can be quickly configured by using the thirteen built-in alarm functions.

The controller easily communicates with other external devices such as PC's and PLC's for data search and system integration using the built-in RS-485 interface. Up to 247 communication addresses are available with transmission speeds of 2400 to 38,400 bps. The Series 16B also features universal input, selectable °F/°C, selectable resolution and security functions.

## SPECIFICATIONS

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

**Display:** Two 4-digit, 7 segment .25" H (6.35 mm) LED's. PV: red; SV: 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: SPST, 5A @ 250 VAC resistive;

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

Current: 4 to 20 mA.

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

**Weight:** 4 oz (114 g).

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

**Front Panel Rating:** IP56.

Model	Output 1	Output 2
16B-23	Voltage Pulse	Relay
16B-33	Relay	Relay
16B-53	Current	Relay

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

## ACCESSORIES

**SCD-SW**, Configuration Software

**A-277**, 250 Ω Precision Resistor

**MN-1**, Mini-Node™ USB/RS-485 converter

**A-600**, R/C snubber

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

TEMPERATURE

Temperature/Process  
Controllers