

TEMPERATURE/PROCESS LOOP CONTROLLERS Universal Input, Dual Control Output, RS-485 Communication



32B



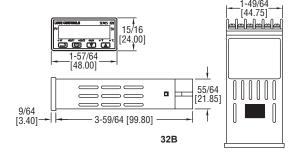
16B

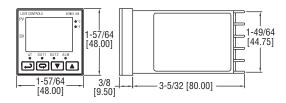


8B

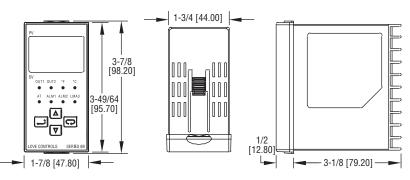


4B

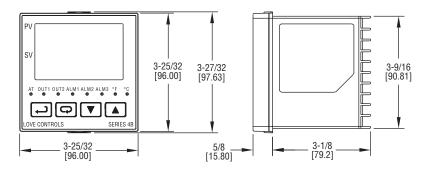




16B



8B



4B

The SERIES 32B, 16B, 8B, & 4B Temperature/Process controllers offer advanced control features for the most demanding temperature or process applications. Offered in 4 standard DIN cutout housing sizes, these controllers are designed with dual, 4 digit LED displays for local indication of the process value, setpoint, and output conditions.

FEATURES/BENEFITS

- · Universal input accepts process transmitters, RTD's or thermocouple signals
- · On/off, PID, or manual output control
- · RS-485 standard on all models
- · Stage control program for up to 64 ramp/soak actions

APPLICATIONS

- · Oven, boiler, or chiller control
- · Hot plates/melt pots
- · Packaging equipment
- · Environmental chambers
- · Medical equipment
- · Food service equipment

SPECIFICATIONS

Inputs: Thermocouple, RTD, DC voltages or DC current. Display: Two 4 digit, 7 segment LED's. PV: Red, SV: Green.

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

Power Requirements: 100 to 240 VAC, 50/60 Hz; Optional 24 VDC.

Power Consumption: 5 VA max.

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

Memory Backup: Nonvolatile memory.

Control Output Ratings: Relay: SPST, 3 A @ 250 VAC resistive for 32B; SPST, 5 A @ 250 VAC resistive for 16B; SPDT, 5 A @ 250 VAC resistive for 8B and 4B; Voltage pulse: 14 VDC (max. 40 mA); Current: 4 to 20 mA; Linear voltage: 0 to 10 V.

Communication: RS-485 Modbus® ASCII/RTU communication protocol.

Weight: 32B and 16B: 4 oz (114 g); 8B and 4B: 15 oz (425 g).

Front Panel Rating: IP56. Agency Approvals: CE, cULus



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| MODEL CHART - 32B | | | | |
|-------------------|----------------|---------------|----------|---------|
| Model | Supply Power | Output 1 | Output 2 | Price |
| 32B-23 | 100 to 240 VAC | Voltage pulse | Relay | \$89.00 |
| 32B-23-LV | 24 VDC | Voltage pulse | Relay | 99.00 |
| 32B-33 | 100 to 240 VAC | Relay | Relay | 89.00 |
| 32B-33-LV | 24 VDC | Relay | Relay | 99.00 |
| 32B-53 | 100 to 240 VAC | Current | Relay | 89.00 |
| 32B-53-LV | 24 VDC | Current | Relay | 99.00 |

| MODEL CHART - 16B | | | | |
|-------------------|----------------|----------------|----------|---------|
| Model | Supply Power | Output 1 | Output 2 | Price |
| 16B-23 | 100 to 240 VAC | Voltage pulse | Relay | \$99.00 |
| 16B-23-LV | 24 VDC | Voltage pulse | Relay | 109.00 |
| 16B-33 | 100 to 240 VAC | Relay | Relay | 99.00 |
| 16B-33-LV | 24 VDC | Relay | Relay | 109.00 |
| 16B-53 | 100 to 240 VAC | Current | Relay | 99.00 |
| 16B-53-LV | 24 VDC | Current | Relay | 109.00 |
| 16B-63 | 100 to 240 VAC | Linear voltage | Relay | 99.00 |
| 16B-63-LV | 24 VDC | Linear voltage | Relay | 109.00 |

| MODEL CHART - 8B | | | | |
|------------------|----------------|----------------|----------|----------|
| Model | Supply Power | Output 1 | Output 2 | Price |
| 8B-23 | 100 to 240 VAC | Voltage pulse | Relay | \$109.00 |
| 8B-23-LV | 24 VDC | Voltage pulse | Relay | 109.00 |
| 8B-33 | 100 to 240 VAC | Relay | Relay | 109.00 |
| 8B-33-LV | 24 VDC | Relay | Relay | 109.00 |
| 8B-53 | 100 to 240 VAC | Current | Relay | 109.00 |
| 8B-53-LV | 24 VDC | Current | Relay | 109.00 |
| 8B-63 | 100 to 240 VAC | Linear voltage | Relay | 109.00 |
| 8B-63-LV | 24 VDC | Linear voltage | Relay | 109.00 |

| MODEL CHART - 4B | | | | |
|------------------|----------------|----------------|----------|----------|
| Model | Supply Power | Output 1 | Output 2 | Price |
| 4B-23 | 100 to 240 VAC | Voltage pulse | Relay | \$129.00 |
| 4B-23-LV | 24 VDC | Voltage pulse | Relay | 129.00 |
| 4B-33 | 100 to 240 VAC | Relay | Relay | 129.00 |
| 4B-33-LV | 24 VDC | Relay | Relay | 129.00 |
| 4B-53 | 100 to 240 VAC | Current | Relay | 129.00 |
| 4B-53-LV | 24 VDC | Current | Relay | 129.00 |
| 4B-63 | 100 to 240 VAC | Linear voltage | Relay | 129.00 |
| 4B-63-LV | 24 VDC | Linear voltage | Relay | 129.00 |
| 4B-33-986/U | 120 VAC | Relay | Relay | 629.00 |

Application Note:

When using a relay output to operate a contactor or solenoid an R/C snubber should be installed across the coil to prevent damage to the controller relays.



4B-33-986/U Benchtop Controller

| INPUT RANGES | | | |
|---------------|--|--|--|
| Input Types | Range | | |
| K Type TC | -328 to 2372°F (-200 to 1300°C) | | |
| J Type TC | -148 to 2192°F (-100 to 1200°C) | | |
| T Type TC | -328 to 752°F (-200 to 400°C) | | |
| E Type TC | 32 to 1112°F (0 to 600°C) | | |
| W Type TC | -328 to 2372°F (-200 to 1300°C) | | |
| R Type TC | 32 to 3092°F (0 to 1700°C) | | |
| S Type TC | 32 to 3092°F (0 to 1700°C) | | |
| B Type TC | 212 to 3272°F (100 to 1800°C) | | |
| L Type TC | -328 to 1562°F (-200 to 850°C) | | |
| U Type TC | -328 to 932°F (-200 to 500°C) | | |
| JPt 100 RTD | -4 to 752°F (-20 to 400°C) | | |
| Pt 100 RTD | -328 to 1562°F (-200 to 850°C) | | |
| 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 | | |
| 0 to 50 mV | -999 to 9999 | | |
| *Requires 250 | *Requires 250 Ω precision resistor across input terminals | | |

| ACCESSORIES | | |
|---|---|--------------------|
| Model | Description | Price |
| MN-1 | Mini-Node™ RS-485 to USB Converter | \$77.50 |
| SCD-SW | Configuration software | 35.00 _N |
| A-277 | 250 Ω precision resistor | 7.00 _N |
| A-600 | R/C snubber | 18.50 |
| A-900 | Weatherproof front mount enclosure | 120.00 |
| A-901 | Weatherproof internal mount enclosure with window | 226.00 |
| Items are net priced and are not subject to any discount. | | |











