

The SERIES 32B, 16B, 8B, & 4B Temperature/Process Loop 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.

4B

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
- · Environmental chambers
- · Hot plates/melt pots
- · Medical equipment
- · Packaging equipment
- · Food service equipment

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

4B

SPECIFICATIONS

Dwyer. SERIES 32B, 16B, 8B, & 4B TEMPERATURE/PROCESS LOOP CONTROLLERS Universal Input, Dual Control Output, RS-485 Communication

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

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

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

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

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

Mini-Node™ RS-485 to USB c	onverter
Configuration software	
250 Ω precision resistor	
R/C snubber	
Weatherproof front mount enclosure	
Weatherproof internal mount enclosure with window	
	Configuration software 250 Ω precision resistor R/C snubber Weatherproof front mount encl

INPUT RANGES Input Types Range

K Type TC J Type TC

Т Туре ТС

E Type TC

W Type TC

R Type TC

S Type TC

B Type TC

L Type TC U Type TC

JPt 100 RTD

Pt 100 RTD

0 to 5 V

0 to 10 V

0 to 20 mA*

4 to 20 mA*

0 to 50 mV

ACCESSORIES Model Description

-328 to 2372°F (-200 to 1300°C)

-148 to 2192°F (-100 to 1200°C)

-328 to 2372°F (-200 to 1300°C)

212 to 3272°F (100 to 1800°C) -328 to 1562°F (-200 to 850°C)

-328 to 932°F (-200 to 500°C)

-328 to 1562°F (-200 to 850°C)

*Requires 250 Ω precision resistor across input terminals

-328 to 752°F (-200 to 400°C)

32 to 1112°F (0 to 600°C)

32 to 3092°F (0 to 1700°C)

32 to 3092°F (0 to 1700°C)

-4 to 752°F (-20 to 400°C)

-999 to 9999



MN-1



A-600

A-900

A-901