

# TEMPERATURE LOOP CONTROLLERS

Universal Temperature Input, Single Control Output, RS-485 Communication



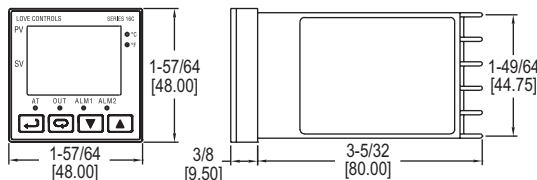
16C



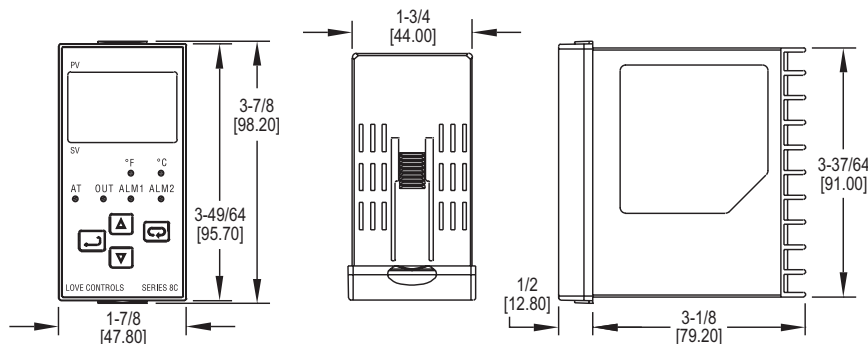
8C



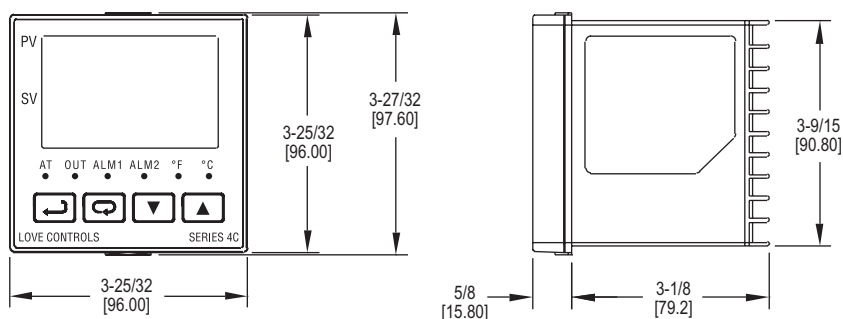
4C



16C



8C



4C

The **SERIES 16C, 8C, & 4C** Temperature Loop Controllers offer advanced control features for the most demanding temperature or process applications. Offered in 3 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 RTD or thermocouple sensors
- On/Off, PID, or manual output control
- RS-485 standard on all models

## APPLICATIONS

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

MODEL CHART	
Model	Output
16C-2	Voltage pulse
16C-3	Relay
16C-5	Current

MODEL CHART	
Model	Output
8C-2	Voltage pulse
8C-3	Relay
8C-5	Current

MODEL CHART	
Model	Output
4C-2	Voltage pulse
4C-3	Relay
4C-5	Current

## ACCESSORIES

Model	Description
MN-1	Mini-Node™ RS-485 to USB converter
SCD-SW	Configuration software
A-600	R/C snubber

## SPECIFICATIONS

**Inputs:** Thermocouple or RTD.  
**Display:** Two 4 digit, 7 segment LED's. PV: Red, SV: Green.  
**Accuracy:**  $\pm 0.25\%$  of span,  $\pm 1$  least significant digit.  
**Power Requirements:** 100 to 240 VAC, 50/60 Hz.  
**Power Consumption:** 5 VA max.  
**Operating Temperature:** 32 to 122°F (0 to 50°C).  
**Memory Backup:** Nonvolatile memory.  
**Control Output Ratings:** Relay: SPST, 5 A @ 250 VAC resistive for 16C; SPDT, 5 A @ 250 VAC resistive for 8C and 4C; Voltage Pulse: 14 VDC (max. 40 mA); Current: 4 to 20 mA.  
**Communication:** RS-485 Modbus® ASCII communication protocol.  
**Weight:** 4 oz (114g) for 16C, 15 oz (425g) for 8C and 4C.  
**Front Panel Rating:** IP56.  
**Agency Approvals:** CE, cULus.

INPUT RANGES	
Input Types	Range
K Type TC	-328 to 2372°F (-200 to 1300°C)
K Type TC	-328 to 932°F (-200 to 500°C)
J Type TC	-148 to 2192°F (-100 to 1200°C)
J Type TC	-4 to 752°F (-20 to 400°C)
T Type TC	-328 to 752°F (-200 to 400°C)
T Type TC	4 to 752°F (-20 to 400°C)
E Type TC	32 to 1112°F (0 to 600°C)
N 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 932°F (-200 to 500°C)
U Type TC	-328 to 1472°F (-200 to 800°C)
Pt 100 RTD	-328 to 1112°F (-200 to 600°C)
Pt 100 RTD	-4 to 932°F (-20 to 500°C)
Pt 100 RTD	32 to 212°F (0 to 100°C)