# **CL-100**

## **Bipolar Temperature Controller**

## Optimized for the SC-20 In-line Solution Heater/Cooler





controllers

- Quiet operation
- Built-in protection for Peltier devices
- · Single control temperature adjustment
- Freeze alert
- External inputs for computer control

The CL-100 Temperature Controller is an automatic single channel controller capable of accurately maintaining a Peltier device between  $0^{\circ}$  and  $50^{\circ}$ C. The CL-100 will also maintain a resistive heater from ambient to  $+65^{\circ}$ C.

While the instrument has several uses, it is specifically designed to control the Warner SC-20 Dual In-line Solution Heater/Cooler. When coupled with the SC-20, the CL-100 provides efficient control of perfusion solution temperatures.

The unit is simple to use with a single control for temperature adjustment and a loop speed switch to optimize the response of the system. Power for the instrument is provided by an ultra low noise power supply making it suitable for use in sensitive electrophysiology applications.

Built-in circuitry limits the maximum temperature of the Peltier to prevent damage and a freeze alert indicates when the cold side of the Peltier reaches 0°C.

### **Specifications**

Specificati	OII2	
Max. Output Voltage		±15 V DC
Max. Output Current		2.4 A
Max. Output Power		36 W (8 Ω load)
Manual Voltage Range		0 to ±15 V
Temperature Range		0 to 50°C Peltier, ambient to +65°C resistive
Recorder Outp	uts:	
Control Temp Out		100 mV/°C
Monitor Temp Out		100 mV/°C
Inputs:		
Front Panel BNC		for external thermistor
Rear Panel BNC		for external set temperature
Rear Panel BNC		for external voltage set
Rear Panel		15 pin female "D"
Meter (3-1/2 dig	git LED display	y of):
Peltier S	et Temperatur	re 0 to 50°C maximum
Control T	emperature	
Monitor Temperature		
Output		Voltage, ±15 V maximum
Power Requirements		100-130/220-240 VAC, 50/60 Hz, 80 VA, user selectable
Enclosure Dimensions		8.9 x 20.0 x 25.4 cm (H x W x D)
Shipping weight		5.6 kg
Warranty		Two years, parts & labor
Order #	Model	Product
W4 64-0352	CL-100	Bipolar Temperature Controller
Accessories	and Repla	cement Parts
W4 64-0353	SC-20	Solution Heater/Cooler Two Line
W4 64-1430	SHM-828	Solution Heater Eight Line No Manifold
W4 64-1427	ACC-1	Adapter Cable for 8 pin Din Heaters
W4 64-0107	TA-29	Cable with Bead Thermistor for Heater Controllers