

Animal Temperature Controller



- *PID control for maximum temperature stability*
- *Low noise DC heater*
- *Flexible pad or rigid plate option*
- *Dual temperature sensor inputs*
- *Audible alarm protects the pad/element from overheating*

ATC1000 is a low noise heating system for maintaining animal body temperature during experimental procedures. The DC heater is extremely quiet in terms of electromagnetic radiation. This is essential in electrophysiological recordings which are very sensitive to electromagnetic interference.

The controller uses proportional, integral, and derivative (PID) technology in adjusting the DC voltage output. Compared with switched on/off type controllers, PID controllers provide a much more precise and stable control of temperature. The PID approach is also more immune to the variation of the experimental conditions such as change in animal size and unexpected disturbances.

The controller has dual temperature sensing inputs. One input is used to monitor and control the animal temperature. The other is used to monitor the temperature sensor in the heating pad to prevent the localized hot spots under animal. The auto tuning feature of the fuzzy-logic PID controller is easy to use and the manual setting of parameters provides the extra control ability if need. The temperature resolution of the controller is 0.1 °C. A rectal temperature probe has a 6-ft ultra-flexible shield cable and an RTD sensor. It makes convenient and precise animal temperature measurement.

Two different types of heaters are offered, a metal heating plate and a flexible silicone heating pad. The heating plate is compatible with stereotaxic systems. Its rigid flat surface fits under the U frame. The plate has a built-in temperature sensor inside.

The flexible silicone heater is designed to provide the ability to fit different platform shapes and to wrap or cover the animal. It has no built-in sensor inside. All heaters are washable with water and detergent.

ATC1000 SPECIFICATIONS

RESOLUTION	0.1 °C
ACCURACY	±0.3 °C
SENSOR.....	RTD □ 2.0 mm x 25 mm
MAXIMUM DC OUTPUT.....	27 V, 1A
TEMPERATURE RANGE.....	Up to 45 °C
POWER.....	90-240 V, 50-60 Hz
DIMENSIONS.....	45 x 30 x 7 cm
WEIGHT.....	11 lb (5 kg)

ATC1000 Animal Temperature Controller
Including rectal probe and one heating plate (specify small or medium)

OPTIONAL ACCESSORIES

ATC	Animal Temperature Controller with rectal probe
502195	Small Heating Plate with built-in RTD sensor, 10 x 15 cm
502196	Medium Heating Plate with built-in RTD sensor, 15 x 25 cm
502197	Rectal Temperature Probe