

homeothermic systems

Homeothermic Monitoring Systems



- User interface with:
 - Large graphical display
 - Menu driven user interface
 - Rotary encoder and push buttons to make temperature selection clear and easy as well as providing easy access to the menus and settings
- Set temperature displayed continually on screen
- Two modes now available:
 - Homeothermic control or
 - Stand alone digital thermometer
- Audible & visual alarms user set for minimum and maximum points
- Animal body temperature control at its simplest- feedback loop maintains animal's temperature
- Versatile – offered in three sizes – for adult mice, rats, cats, dogs or similar sized animals
- Centigrade or Fahrenheit selection set by menu option
- Displays actual body temperature on Control Unit
- New digital circuitry provides wide linear temperature response between 0° and 99.9°C (32° to 211.8°F)

Large Display

The system has a large vacuum fluorescent display so you can easily see the temperature selected.

Simple and Easy

Place the animal on the blanket for procedures and recoveries. For more exacting body temperature wrap the animal tightly in the heating blanket, using tape if necessary. Insert the temperature-sensing probe rectally, and set the required temperature by means of the control on the front panel. Should the animal's core temperature fall, power is automatically increased to the blanket; conversely, power will automatically reduce if the animal's temperature rises. During this process the animal's temperature is continuously displayed on the front panel display.

This homeothermic blanket system consists of three parts: a probe, a control unit, and a blanket. An operating table version is also available.

The flexible probe is a precision thermistor encapsulated in a bead of epoxy resin at the top of a flexible hollow plastic tube. The 1.7 mm diameter probe is 100 mm (4 in) long and has a 2 m (6 ft) long cable with plug for attachment to the control unit. It is suitable for a wide range of laboratory animals from adult mice to large dogs.

The output of the temperature sensing probe is used by the control unit to proportionally control the DC supply to the blanket. This method of control alleviates the interference problems associated with that of non-proportional control, such as switching contacts, thus enabling the system to be used in conjunction with high-gain recording systems.

The control temperature is adjusted using the rotary encoder and can be set between 20° and 50°C (68° and 122°F). The control temperature is continually shown in the main display alongside the actual temperature.

The blanket consists of a highly flexible insulated heating element, which can be folded without risking internal damage. It is electrically floating, with respect to ground however, one end of the heating element can be grounded by a switch on the front panel of the control unit. The system operates satisfactorily whether or not the blanket is grounded. Special circuitry eliminates electrical noise thus permitting sensitive recordings.

Blankets are available in three sizes and each comes with a 2 m (6 ft) cable to attach to the control unit:

- Small Blanket: Measures 15 x 20 cm (6 x 8 in) and is suitable for rodents
- Medium Blanket: Measures 45 x 70 cm (18 x 27 in) and is suitable for rabbits and cats
- Large Blanket: Measures 60 x 90 cm (24 x 36 in) and is suitable for dogs

Each system is supplied complete with control unit, flexible temperature probe, blanket and plastic cover for the blanket. The operating table version is supplied with the Rodent Operating Table instead of a blanket. See page D8 for complete details on the table.

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Blanket Size	115 VAC, 60 Hz	230 VAC, 50 Hz
Small	PY2 50-7220-F	PY2 50-7221-F
Medium	PY2 50-7222-F	PY2 50-7223-F
Large	PY2 50-7224-F	PY2 50-7225-F

Order # Product

PY2 50-7217	Flexible Probe Only, 1.7 mm OD
PY2 50-7214	Small Blanket Only, 15 x 20 cm (6 x 8 in)
PY2 50-7215	Medium Blanket Only, 45 x 70 cm (18 x 27 in)
PY2 50-7216	Large Blanket Only, 60 x 90 cm (24 x 36 in)
PY2 50-7178	Spare Plastic Cover for Small Blanket
PY2 50-7194	Spare Plastic Cover for Medium Blanket
PY2 50-7210	Spare Plastic Cover for Large Blanket
PY2 50-7212	Control Unit Only, 115 VAC
PY2 50-7213	Control Unit Only, 230 VAC

Citations

L Devey, M F W Festing¹ and S J Wigmore: Effect of temperature control upon a mouse model of partial hepatic ischaemia/reperfusion injury. *LABORATORY ANIMAL*, 2008; 42, 12-18.