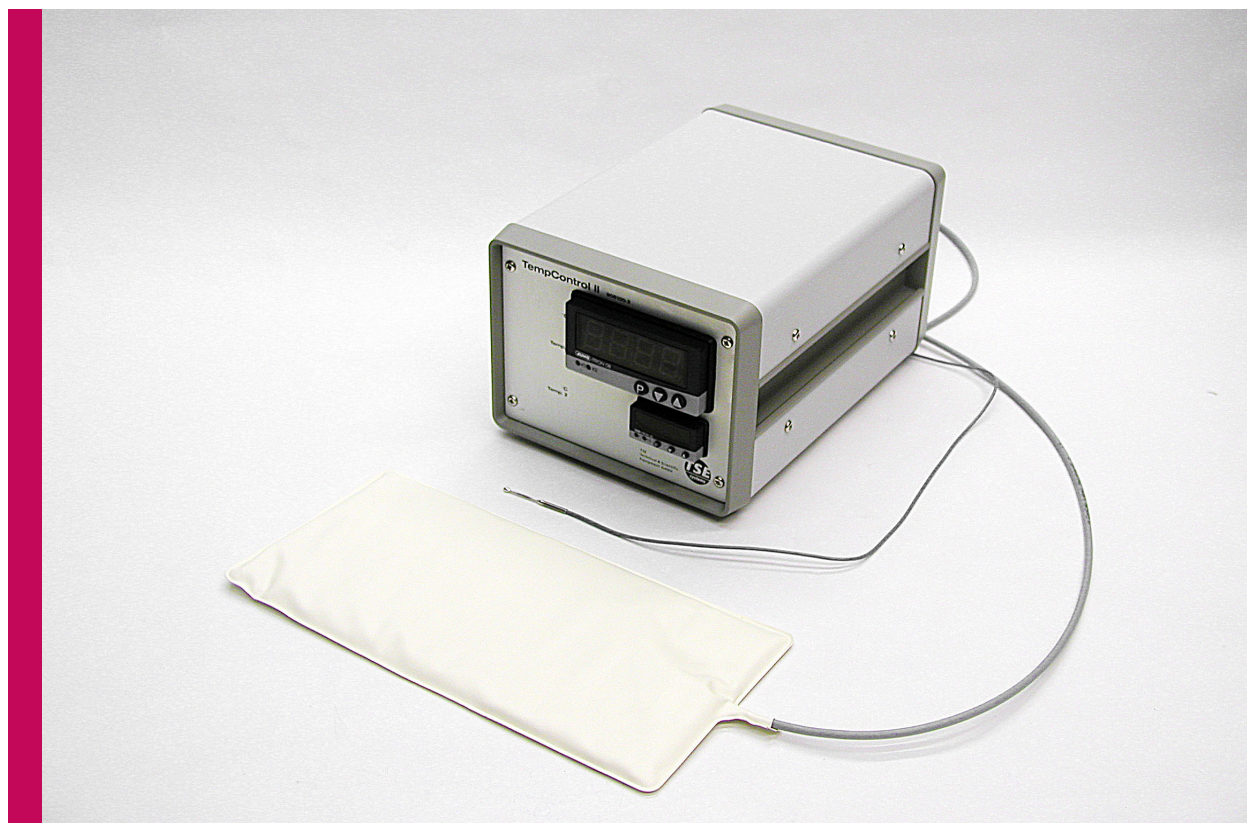


## Product Overview

*Sophisticated Life Science Research Instrumentation*



# **TSE Homeothermic Blanket**

**For laboratory animals**

[www.TSE-Systems.com](http://www.TSE-Systems.com) ■

*Specifications subject to change without notice*

# TSE Homeothermic Blanket

**General information**

The TSE Homeothermic Blanket is a heated operation surface for laboratory animals (rats, guinea pigs, etc.) whose temperature can be controlled.



Example: Homeothermic blanket for small laboratory animals

The complete system consists of the following components:

- the **blanket** (different sizes available, e.g. for rats 150x250mm) with built-in **temperature sensor**,
- a processor-controlled **heating regulator**,

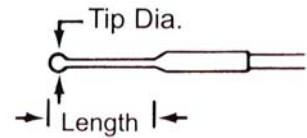
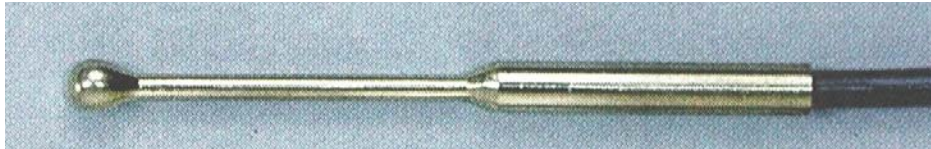
- a **rectal measuring probe** for measuring the body temperature of the animal, and
- the necessary connection cables.

The rectal temperature is continuously measured by the rectal probe and shown on one of the displays of the heating regulator.

This temperature is continuously compared with the operator-defined set body temperature. If the measured rectal temperature is below the desired temperature then the heating regulator causes the blanket to warm up. When the set value for the internal body temperature of the animal has been reached the heating is switched off.

A safety circuit also prevents the surface of the blanket from becoming hotter than an operator-defined maximum temperature in order to prevent the animal from being harmed.

The temperature stability is  $\pm 0.1^{\circ}\text{C}$ . The blanket is therefore particularly suitable for long-term applications.



The rectal probe is made from stainless steel and is available in different sizes:

Type	Shaft length	Shaft diameter	Tip diameter
Large, e.g. Rat	25.4 mm	1.5 mm	3.2 mm
Small	19.1 mm	0.7 mm	1.7 mm

Rectal probe temperature range	30 – 50° C
Blanket temperature range	30 – 50° C
Hysteresis	0.1° C
Blanket surface	PVC
Safety Class	I
Power supply	230 or 115 VAC <i>Please specify when ordering</i>

## Operating elements heating regulator



Front Panel

### Temperature displays

These displays always refer to the mode selected:

#### Temp.1 (large display)

*body* temperature measured by rectal probe

1. *actual* temperature which is being measured by the sensor ("P"=Parameter)
2. *SET* temperature to be maintained ("SP"=Set Parameter).

#### Temp.2 (small display)

*blanket* temperature measured by blanket sensor

1. *actual* temperature which is being measured by the sensor ("P"=Parameter)
2. *MAX* temperature not to be exceeded ("SP"=Set Parameter).

### LEDs

The left *LED K1* indicates active heating control. *LED K2* is not in use here.

### Keys

#### P

Activates the temperature setting mode

The two arrow keys can be used to alter the SET/MAX temperature:

#### Arrow down

Decreases the SET/MAX temperature

#### Arrow up

Increases the SET/MAX temperature

The following elements are located on the **rear panel** of the heating regulator:

1. the **mains cable connector** (*left*)
2. the **ON/OFF switch** (*left*)
3. the **blanket sensor cable** connector (*right*): round DIN socket (for screw plug)
4. the square-shaped **rectal temperature probe** connector (*right*)

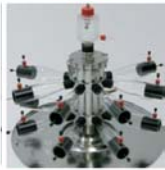


Rear Panel









■ *Inhalation*

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