

## Product Overview

*Sophisticated Life Science Research Instrumentation*



**TSE Operating Tables**  
With homeothermic temperature control  
For laboratory animals

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

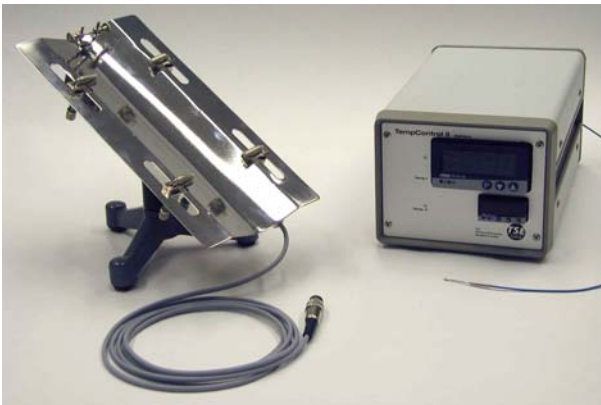
***Specifications subject to change without notice***

# TSE Operating Tables

## *With Homeothermic Temperature Control*

### General information

The TSE operating tables are heated operation surfaces for laboratory animals (rats, guinea pigs, etc.) whose temperature can be controlled via a rectal probe (homeothermic configuration).

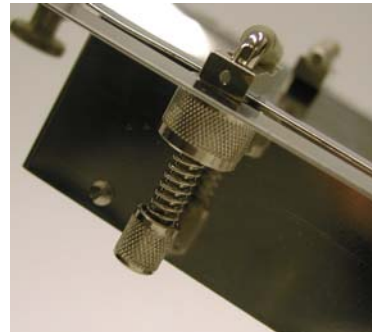


Example: Operating table for small laboratory animals

The complete system consists of the following components:

- the **table** with built-in **temperature sensor** and **heating mat**,
- a processor-controlled **heating regulator** (temperature control unit),
- a **rectal measuring probe** for measuring the body temperature of the animal, and
- the necessary connection cables.

The table for small laboratory animals features a stainless-steel table top mounted on a sturdy tripod base by means of a ball and socket joint allowing to swivel the table into any convenient position. The table comes equipped with quick-action clamps for fixing head and extremities. For larger animals the operating table has a level operating area with side-mounted rails for attaching elastic restraining straps.



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

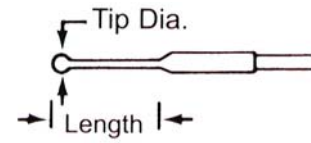
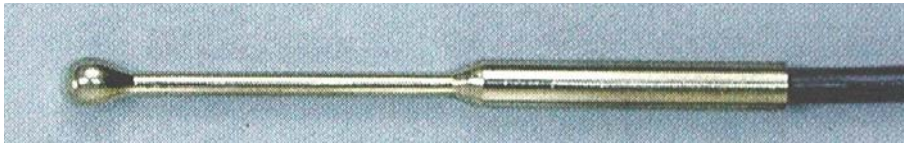
This temperature is continuously compared with the operator-defined SET body temperature (Temp 1). If the measured rectal temperature is below the desired temperature then the heating regulator causes the table surface to warm up quickly by heating the integrated heating mat. The electronically controlled heating ensures uniform heat distribution over the whole surface. When the SET value for the rectal temperature of the animal has been reached the heating is switched off.

The table top temperature is continuously measured by a sensor and shown on the second digital display of the control unit.

A safety circuit prevents the surface of the table from becoming hotter than an operator-defined

maximum surface temperature (Temp 2) in order to prevent the animal from being harmed.

The temperature stability is  $\pm 0.1^\circ\text{C}$ . The table 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
Table temperature range	30 - 50 °C
Hysteresis	0.2 °C
Surface	Stainless steel
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)

table temperature measured by table 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 **table sensor cable** connector (*right*): DIN socket (for 7-pole screw plug) "OP-TABLE"
4. the **rectal temperature probe** connector (*right*): "RET"



Rear panel

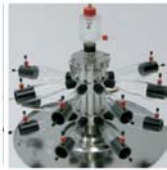






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■ *Inhalation*

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