

CLF-SCHUTRON Thermoshaker TS-Series

The Thermoshaker TS Series is a space-saving, comfortable and cost-saving solution for shaking and temperature control of small samples in 0.2ml to 2.0ml microtubes or microtiterplates.

The Thermoshaker - compact and strong yet gentle with your samples

Linear shaking in three modes

- Single strokes for effective and short mixing
- Periodic short shaking for enhanced reactions
- Constant shaking for optimum solving action



The Thermoshaker - an effective mixing method by linear shaking

The **CLF-SCHUTRON** Thermoshaker is a modern instrument with an integrated heated aluminium block, which offers precise temperature control. The linear movement with three shaking modes - single strokes, periodic and constant shaking works efficiently in the ul-range and can be adjusted to fit many applications. The intensity of shaking is adjustable in all three modes from gentle movement to rigid shaking.

Single Strokes

There are many applications where constant shaking is not needed and sometimes even not very useful. Often only a strong or gentle short shake is sufficient to stop heavy molecules from settling. In the single stroke mode the tubes will be periodically and briskly shaken. The interval can be set from one second to one minute.

Periodical Shaking

This mode differs from single strokes as each shaking period takes about 3 seconds. The shaking period can be also set so that the sample gets shaken from every 5 seconds up to only once per hour. The intensity of shaking is also variable so that the shaking can be individually adjusted especially for sensitive samples during long-term reactions.

Constant shaking

Constant shaking is a useful "all-rounder", which is appropriate for strong short mixing but also for long term reactions where the sample should be only gently moved. The intensity of shaking can be set from gentle to vigorous. With the timer the shaking time can be set from one minute to 30 days.

Easy to use microprocessor controlled

The heart of the Thermoshaker is a modern microprocessor which was developed especially for long-term work and heavy use. All functions are microprocessor controlled a guarantee for precision and reproducibility of all parameters. The waterproof membrane control pad is ergonomically laid out and easy to use. Small control lamps show the set parameters, timer periods or the overtemperature limit. A large 2 line alphanumeric LCD display helps programming and shows all set and actual parameters and the actual temperature. Each function can be called with its own key to either overview set parameters or to program new values. After turning of the unit all set parameters are stored. After a power failure the unit will re-start automatically.

Easy to use every day

The Thermoshaker is useful wherever you need it in your lab. as a precise block thermostat, for quick mixing actions or as a shaker with or without temperature control. Taking normal safety measures it even can be used in a cold room. The housing has no sharp corners or edges and is easy and safe to be handled and carried around in the lab. and sturdy and designed for everyday lab use.

Practical heating block smart reduction inserts

The patented tube rack of the Thermoshaker means that there is no need for additional aluminium blocks if you use different tube sizes with your Thermoshaker. It takes only a moment and the block will take all sizes of tubes from 0.2ml, 0.5ml, 1.5ml to 2.0ml. The tube rack which can be taken off can take up to 24 x 1.5ml or 24 x 2.0ml and fits into the heating block. The tubes sit in precisely bored holes, as the heating block is drilled with a combined 1.5ml, 2.0ml hole system. The change from 1.5ml to 2.0ml tubes is achieved by simply turning the rack. Using 0.2ml or 0.5ml tubes, either all one size or mixed, the reduction inserts can be just slipped into the rack. The tubes are heated as precisely and constantly as the 1.5ml or 2.0ml tubes with direct contact. The stainless steel tube rack has insulated heat resistant plastic handles so that it can be easily handled at higher temperatures or for storage in the cold room. A heated lid option reduces condensation at higher temperatures and makes it unnecessary to use oil over the samples.

Easy Start press and go

The comfortable Easy Start function with up to three favourite protocols, with one temperature, shaking and timer parameters saves time in the everyday routine. For more complicated reactions a program with different steps and features like Delayed Start, Temperature Ramping and Cycling can be stored in the Thermoshakers memory. The timer function, which has an acoustic signal, can be used with the favourites, the program or at any time during normal use.

Specifications

range: ambient ... 100°C
Working temperature range: 0°C ... 100°C
Ambient temperatures: 4°C ... 40°C
Heating rates: from 200: 37°C Ca. 6 Minutes
Setting: digital, 0,1°C
Display 2 lines, alpha-numerical LCD
Temperature stability: ± 0,1°C
Temperature uniformity: ± 0,2°C
Overtemperature safety: fixed at 130°C
Shaking speed single strokes: 1 ... 60/M
Shaking speed periodic shaking: 1... 300/M
constant shaking : variable up to 720/M
Shaking intensity: variable 1 ... 100%
Timer: in 1 Min.-increments up to 30 days
Memory: 3 „Favourites” plus 1 program
Outside measurements: 236 x 224 x 156 (WxDxH)
Weight 5kg

Ordering information

There are two **Thermoshaker** models available Temperature

TS-MG for up to 24 x 0,2mL, 24 x 0,5mL or 1,5ml (also mixed) or 24 x 2,0mL tubes (for 0,2mL and 0,5mL reduction inserts are necessary)

TS-MP for 1 x 96 „V” microtiterplates

The tube rack for the TS-MG, power chord and an instruction Shaking speed manual are included.

Options

HL-25 Heated lid
RE-02 Reduction inserts for 0,2mL tubes (6 each)