Incubating Cooling Thermal Shakers

Thermal Shakers are designed for applications that require consistent and precise high-speed shaking with temp. control to 100°C. With heating & shaking capabilities, our shakers use interchangeable blocks to accommodate tubes & microplates. Intuitive LCD touchscreen allows the user to save & track progress of 5 user-defined programs, each with 5 individual steps. Enhanced electronics provide dependable temp. settings across the operating range.

- Program Control for Five, 5-Step Programs
- Enhanced Electronics Provide Accurate Temperatures Across the Range
- Store and Transfer Data Easily with the Multi-Functional USB

Incubating Cooling Thermal Shakers

- 4.3" color LCD touch screen display provides an intuitive interface
- Rapid heating, cooling and high speed shaking ability
- Internal memory stores five separate 5-step programs, unlimited with USB

The OHAUS Thermal Shakers and Cooling Thermal Shakers are designed for applications that require consistent and precise results. With heating, cooling and shaking capabilities. These shakers use interchangeable blocks to accommodate a wide variety of tubes and microplates. The easy-to-use, 4.3", color, LCD touch screen allows the user to save and visibly track progress through the live status bar for five user defined programs, each with five individual steps. The unit's enhanced electronics and dual temperature sensors provide accurate, dependable temperature settings across the operating range.

Operating Features:

Low Profile Design: The low profile design minimizes the unit's footprint on the bench.
LCD Touch Screen: Enables faster setting of temperature, speed, and time which can all be viewed at once. Display features on-screen help topics with operational tips available in six languages. Touch screen is compatible with rubber gloves used in labs. USB port can transfer information to a flash drive for data logging, program storage and software updates.
Program Control: Program control capabilities allow user programmable operation for automated use and memory. Storage for five separate 5-step programs, or unlimited number of programs with the use of the USB.
Temperature ramp rate: Adjustable temperature ramp rate feature separately defines the heating and cooling rate in increments of 0.5°C/min.
Single Point Calibration Mode: For maximum temperature accuracy, the single point calibration procedure allows the user to calibrate up to 6 different user defined temperatures.
Pulse Mode Feature: The unit is equipped with a pulse mode feature for quick vortex applications.

Safety Features:

Cool Touch Housing: Constructed from a high-quality, heat and chemical resistant polymer. The unit's housing remains cool to the touch throughout normal operating temperatures.
Maximum Temperature Limiting Function: Ensures the temperature will not exceed preset limits, allowing the user control of temperature sensitive samples.
Hot Top Indicator: A hot top warning light will illuminate when the temperature reaches 40°C, and will remain lit until the unit is sufficiently cooled.
Audible Alarm: In timed mode, an alarm will sound when the time reaches zero or set-point temperature is reached. Additionally, the heat function will automatically shut off if the unit recognizes an internal issue.

Operating Conditions:

Unit can operate in conditions from 5 to 35°C, maximum 80% relative humidity, non-condensing.

Description	Model	Item Number
Thermal Shaker	ISTHBLHTS	30392005
Cooling Thermal Shaker	ISTHBLCTS	30391998

Applications:

Cell cultures, DNA, RNA, and protein studies.

Ordering Information

Unit includes a detachable, 3-wire cord and plug . Unit is also supplied with a 1.5 mL block, clear rack, and cover.

Specifications	
Temperature Range Thermal Shaker Cooling Thermal Shaker	 4°C above ambient to 100°C 17°C below ambient to 100°C
Temperature Accuracy Thermal Shaker Cooling Thermal Shaker	 ± 1°C between 20°C and 45°C ± 2°C above 45°C ± 0.5°C between 20°C and 45°C ± 2°C below 20°C and above 45°C
Speed Range	300 to 3000 rpm
Speed Accuracy	± 2%
Timer	1 minute to 99 hours, 59 minutes
Orbit	3 mm
Cooling Rate	above ambient 2-3°C/min below ambient 0.5-1.0°C/min
Heating Rate	5°C/min
Overall Dimensions (L × W × H)	26 × 24.8 × 13.2 cm
Ship Weight	5.4 kg

Incubating Cooling Thermal Shakers Modular Blocks

Microplate Block

Sample Type	Well Size	Well Depth	Dimensions (L × W × H)	Item Number
Microplate Thermal Block with Lid	10.7 × 7.1 × 0.25 cm	2.30 cm	11.9 × 16.3 × 7.6 cm	30400126

Sample Type	Well Diameter	Well Depth	Dimensions (L × W × H)	Item Number
384 Well Plate Thermal Block with Lid	0.40 cm	0.81 cm	11.9 × 16.3 × 7.6 cm	30400127
0.2 mL PCR Plate Thermal Block with Lid	0.64 cm	1.27 cm	11.9 × 16.3 × 7.6 cm	30400128

Tube Blocks

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L × W × H)	Item Number
0.5 mL Microtubes*	30	0.79 cm	2.46 cm	10.2 × 14.2 × 4.6 cm	30400129
1.5 mL Microtubes*	24	1.11 cm	3.53 cm	10.2 × 14.2 × 5.3 cm	30400130
2.0 mL Microtubes*	24	1.15 cm	3.53 cm	10.2 × 14.2 × 5.3 cm	30400131
5-7 mL Tubes	24	1.20 cm	3.61 cm	10.2 × 14.2 × 5.6 cm	30400132

* Supplied with clear rack and cover

Racks and Covers

Description	Item Number
Rack For 30 X 0.5 mL Tube Block	30400250
Rack For 24X1.5 / 24X2.0 mL Tube Blocks	30400251
Cover For 0.5mL/1.5mL/2.0mL Tube Blocks	30400252

Cryo Tube Block

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L × W × H)	Item Number
2.0 mL Cryo Tubes	24	1.26 cm	3.6 cm	10.2 × 14.2 × 5.6 cm	30400133

Conical Tube Blocks

Sample Type	No. of Wells	Well Diameter	Well Depth	Dimensions (L × W × H)	Item Number
5 mL Eppendorf Tube Block	9	1.68 cm	4.9 cm	10.4 × 14.5 × 7.1 cm	30400134
15 mL Conical Tubes	9	1.73 cm	10.44 cm	10.7 × 14.7 × 12.7 cm	30400135
50 mL Conical Tubes	4	3.0 cm	10.09 cm	10.2 × 14.5 × 12.2 cm	30400136