



The Grant-bio PHMT is a compact benchtop shaking incubator, ideal for all applications requiring heating and shaking in microcentrifuge tubes, within the temperature range of ambient + 5 to 100°C. Combining the mixing operation with the incubation phase produces multiple benefits: reaction process times are reduced; the operator's workload is reduced; the efficiency of many procedures, for example the transformation of bacterial cells, is increased.

PHMT provides ideal heat conditions for your samples. The ingenious block construction, combined with the powerful heating, produces very rapid heating for swift change of application, increased flexibility and increased throughput.

A choice of alternative blocks is available, to meet the needs of many standard laboratory procedures:

- 20 x 1.5/2.0ml microtubes
- 20 x 0.5ml plus 12 x 1.5/2.0ml microtubes



Comprising three instruments in one, the PHMT is highly versatile in application:

- microtube thermoshaker
- compact benchtop incubator, without shaking
- microtube shaker without temperature control, also suitable for coldroom operation

The Grant-bio PHMT microtube thermoshaker is compact, with a low profile and small footprint.

The quiet motor produces regulated and reproducible rotation throughout the speed range, with uniform amplitude throughout the shaking platform. Shaking may be configured for continuous or timed operation.

Accessories

One of the following interchangeable microtube blocks is required:

- PSC-20 for 20 x 1.5/2.0ml microtubes
- PSC-18 for 20 x 0.5ml plus 12 x 1.5/2.0ml microtubes



The PHMT is extremely easy to operate, with very straightforward set-up of temperature, speed and time, using the two line set-up and status display, which clearly indicates both set and actual values for each of the three parameters.

- variable speed, variable temperature microtube thermoshaker
- variable speed: 250 to 1400 rpm for gentle to vigorous mixing
- 2mm shaking orbit for effective mixing
- soft start
- temperature range: ambient + 5 to 100°C
- timed shaking operation: 1 minute to 96 hours with buzzer and automatic switch-off
- low voltage power supply enables safe cold room operation
- operating ambient temperature range 4°C to 45°C, for use in a cold room or incubator

Applications

Suitable for applications in many fields, including

- immunochemistry
- biochemistry – for enzyme analysis

Specification

			PHMT
temperature range	°C		amb + 5 to 100
stability	@37°C	°C	±0.1
uniformity	@37°C	°C	±0.1
shaking speed		rpm	250 to 1400
speed setting resolution		rpm	10
orbit		mm	2
timer			1 min to 96 hrs
time setting resolution		mins	1
heat-up rate	RT to 100°C	°C/min	> 6
overall dimensions	w/d/h	mm	205/230/130
ambient temperature range		°C	4 to 45
input voltage		V	12
input type			dc
input current		A	5

Grant

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Grant-bio products

- meet the requirements of IEC61010 parts 1 and 2
- bear the CE mark to indicate that they meet the requirements of the Low Voltage and EMC Directives

Grant Instruments (Cambridge) Ltd operates an approved Quality Management System which complies with the requirements of BS EN ISO 9001:2000 for the activities detailed in the scope of registration. Certificate No. FM 24301.

Repairs are normally carried out within three to five working days of arrival at our factory or receipt of authorisation to repair. Alternatively, spare parts and service manuals can be despatched within two working days. Most overseas distributors offer a rapid and effective after-sales service, with spare parts held in stock.

Grant-bio products are guaranteed for two years against faulty materials and workmanship. For repairs carried out under guarantee, no charge is made for labour or materials.

We are committed to a continuous programme of improvement and specifications may be changed without notice.