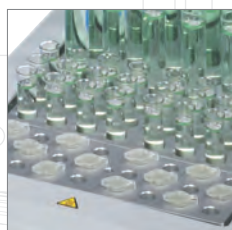


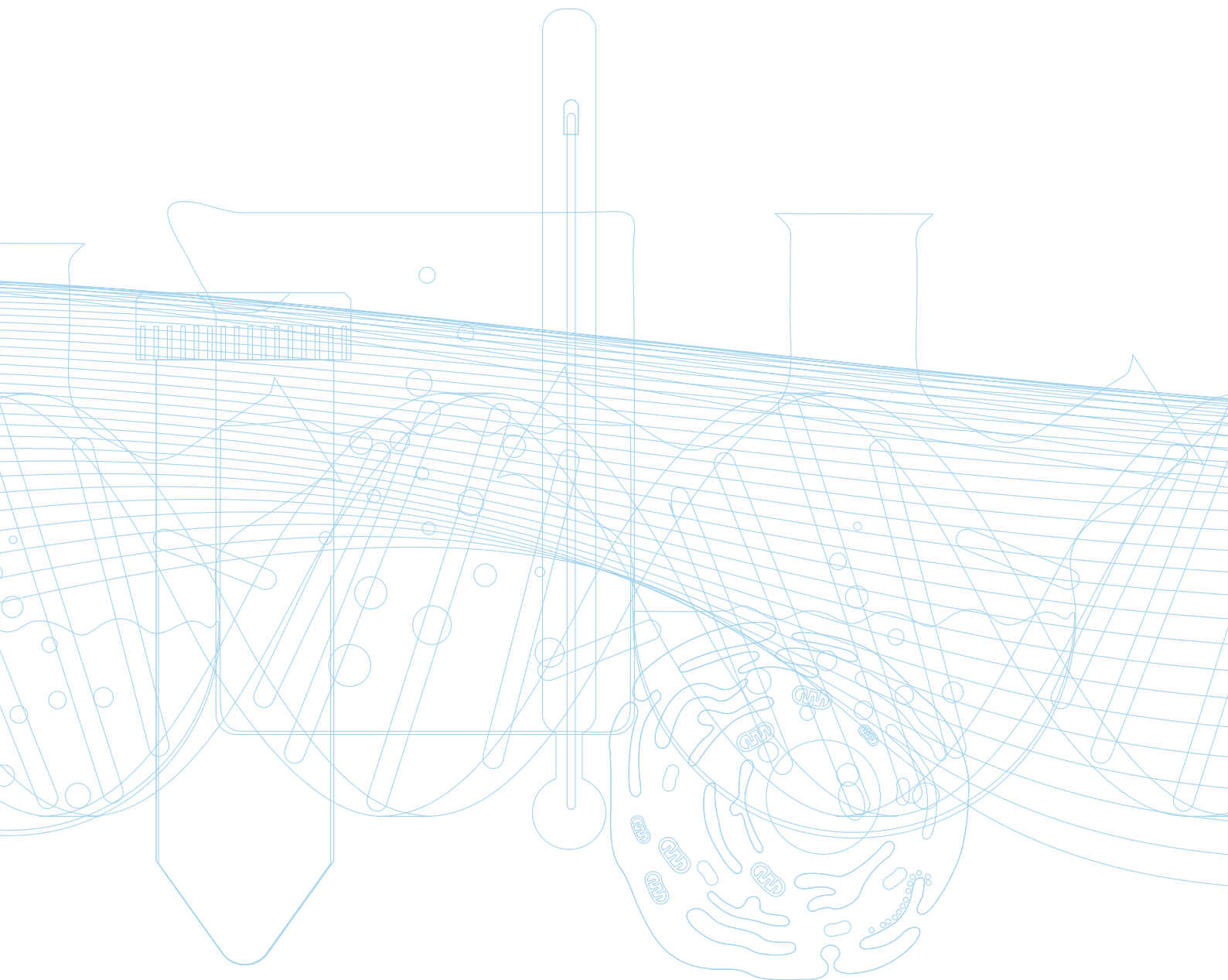
Scientific Equipment

Catalogue

Precision temperature control, sample preparation and life sciences products for the world's laboratories



3 Thermoshakers





Thermoshakers

A range of compact, efficient and highly versatile thermoshakers, with excellent temperature uniformity, ideal for applications requiring heating and shaking in microplates and microtubes and suitable for use in cold rooms and incubators (operating temperature range 4 to 40°C).

By combining the mixing operation with the incubation phase, reaction process times and operator workload are reduced and efficiency of many procedures is increased, resulting in a higher throughput.

- Thermoshakers for microtubes
- Thermoshakers for microplates



PHMT-PSC-15/18 and 20 microtube thermoshaker



PHMP

thermoshakers for two and four microplates



PHMP-4

thermoshakers for two and four microplates





Thermoshaker PHMT for microtubes

Variable speed, variable temperature thermoshaker delivering excellent temperature uniformity over the block, with rapid and quiet heating. Combining three instruments in one for maximum versatility and efficiency:

- a microtube thermoshaker
- a compact benchtop incubator without shaking
- a microtube shaker operating at ambient + 5°C

- **Temperature range: ambient + 5 to 100°C**
- **Uniformity $\pm 0.1^\circ\text{C}^*$**
- **Shaking speed: 250 to 1400 rpm**
- **Continuous or timed operation, with alarm buzzer and automatic switch-off facility**
- **Capacity for up to 20 or up to 32 microtubes**

* 25 to 40°C

2-line LCD display clearly indicates both set and actual values for temperature, shaking speed and time

Easy programming via simple push buttons and display

PSC-18 microtube block can accommodate two different microtube sizes:

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

Choice of three models available:

- PHMT-PSC-15 (20 x 1.5 ml microtubes),
- PHMT-PSC-18 (20 x 0.5 ml plus 12 x 1.5 ml microtubes)
- PHMT-PSC-20 (20 x 2.0 ml microtubes)

PHMT-PSC-20 microtube thermoshaker fitted with PSC-20 microtube block

Convenient interchangeable block for 20 or 32 microtubes provides flexibility for an easy change in application

The powerful motor operates extremely smoothly, quietly and consistently. With 'soft' start function for delicate samples

Compact and sturdy, with a low profile and small footprint – fits neatly into the workspace and provides years of reliable service





Thermoshaker PHMP and PHMP-4 for microplates

Excellent temperature uniformity across the platform/microplate (due to the bi-directional heating system) combined with variable speed and variable temperature produces the ideal thermoshaker for microplate incubations.

Can be used with all types of standard depth 96- and 384-well microplates and offers three instruments in one for maximum versatility and efficiency:

- a microplate thermoshaker
- a compact benchtop incubator without shaking
- a microplate shaker operating at ambient + 5°C

- **Temperature range: ambient + 5 to 60°C**
- **Stability $\pm 0.1^\circ\text{C}$, uniformity $\pm 0.2^\circ\text{C}$ due to the bi-directional heating system (platform and lid)**
- **Shaking speed: 250 to 1200 rpm**
- **Rapid heat-up**
- **Continuous or timed operation, with alarm buzzer and automatic switch-off facility**
- **Choice of two models with capacity for two or four microplates**

The heated lid completely covers the heating platform to provide bi-directional heating and a controlled micro-environment. This produces excellent temperature stability and uniformity, whilst preventing condensation

Display of both set and actual temperature and shaking speed

Very easy to operate, with simple set-up of temperature, shaking speed and time via push buttons and the 2-line LCD status display

Soft start/stop protects samples



PHMP thermoshaker for two microplates

The **PHMP-4** has the same functionality as the PHMP but can accommodate four microplates








The powerful, reliable motor and sturdy construction combine to provide years of consistent operation

Suitable for applications in many fields including: immunochemistry, molecular diagnostics, ELISAs, molecular biology (for microbial cell cultivation and DNA analysis), cytochemistry (for *in situ* reactions), biochemistry (for enzyme and protein analysis) and molecular chemistry (for matrix analysis).

Thermoshakers » Models and specifications

Thermoshakers – models and specifications

● = option

	For microtubes			2-plate thermoshaker	4-plate thermoshaker
	PHMT-PSC15	PHMT-PSC18	PHMT-PSC20	PHMP	PHMP-4
					
	h: 130 mm d: 230 mm w: 205 mm	h: 130 mm d: 230 mm w: 205 mm	h: 130 mm d: 230 mm w: 205 mm	h: 125 mm d: 250 mm w: 265 mm	h: 140 mm d: 390 mm w: 380 mm
Temperature range	°C	ambient + 5 to 100	ambient + 5 to 100	ambient + 5 to 100	ambient + 5 to 60
Uniformity	°C	± 0.1†	± 0.1†	± 0.1†	± 0.2
Temperature display	2 line x 16 character LCD				
Heat up rate room temperature to 100°C	°C/min	> 6	> 6	> 6	–
Heat up time room temperature to 37°C	mins	–	–	–	15 to 20
Capacity	microtubes	20	32	20	–
Capacity	microplates	–	–	2	4
Shaking speed	rpm	250 to 1400	250 to 1400	250 to 1400	250 to 1200
Speed setting resolution	rpm	10			
Orbit	mm	2			
Timer, with automatic switch-off and alerting buzzer		1 min to 96 hours			
Timer resolution	mins	1			
Ambient temperature range	°C	4 to 40			
Input voltage	V dc	12			
Input current	A	5			
External power supply		●	●	●	●
Accessories					
PSC-15 additional interchangeable block for 20 x 1.5 ml microtubes		●	●	●	–
PSC-18 additional interchangeable block for 20 x 0.5 ml microtubes plus 12 x 1.5 ml microtubes		●	●	●	–
PSC-20 additional interchangeable block for 20 x 2.0 ml microtubes		●	●	●	–

* depending on choice of block

† 25 to 40°C



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.