

SynChron™ – Technical Specifications

Reaction Vessel	<ul style="list-style-type: none"> SBS compliant 96mtp format with sealing caps (8 well strip format) Plastic tube
Vessel Volume Range	<ul style="list-style-type: none"> 10 - 50 microlitres
Thermal Specifications	<ul style="list-style-type: none"> Maximum Heating Rate of 50°C per second
Resolution	<ul style="list-style-type: none"> 0.1 °C Individual and independent thermal control of each mtp well position Temperature measurement provided by a non-contact infrared temperature sensor
Temperature Range	<ul style="list-style-type: none"> Ambient to 100°C
Power Requirement	<ul style="list-style-type: none"> 110V / 60Hz or 230V / 50Hz
Power	<ul style="list-style-type: none"> 1500w
Dimensions	<ul style="list-style-type: none"> Width 37cm Depth 53cm Height 43cm
Weight	<ul style="list-style-type: none"> 25Kg
Computer	<ul style="list-style-type: none"> Integrated computer system
Data Storage	<ul style="list-style-type: none"> Compact and removable flash memory storage device
Warranty	<ul style="list-style-type: none"> 12 months parts & labour Specific extended warranty available on request

SynChron™

.....ULTRA-RAPID Thermal Control System



Exquisite thermal control for ultra-rapid thermal cycling



.....excellence and innovation in molecular biology

SynChron™ – The Concept!

Patent pending Integrated Heating Technology (IHT) forms the basis of this system. It has long been recognised that intra-sample variations caused by thermal gradients within metal block or air-heating systems causes differences in the final product (quantity and quality).

IHT uses the concept of directly heating the vessel containing the reaction mix and in addition having a single, infrared temperature sensor for each vessel to ensure truly independent thermal control. Direct heating also has a significant effect on thermal transfer rates as does the 'capillary' design of the reaction vessel (allows for a high surface to volume ratio) both leading to Ultra Rapid thermal cycling.

High throughput, cleaner reaction products and the ability to run reactions with different thermal profiles are significant advantages of this technology e.g. running gradients for process optimisation, multiple different tests on the same sample in diagnostic applications where time to report results is critical and high throughput screening.

SynChron™ – The Benefits!

🔥 ULTRA-RAPID THERMAL CYCLING!

Unique 'Integrated Heating Technology' (IHT) facilitates:

- 🔥 DIRECT heating to a specially designed tube to allow rapid thermal equilibration of reaction mix. 35 cycle amplification in as little as 10 minutes. Maximum Heating Rate of up to 50°C per second.
- 🔥 TRULY Independent temperature control of each tube of the 96-MTP. Choose to run completely different temperature profiles in each tube!
- 🔥 COMPREHENSIVE DATA LOGGING/ANALYSES: Embedded Graphical Control System enables user-friendly empirical set up and complete logging/analyses of data.

SynChron™ – The Software!

SynChron uses an Embedded Graphical Control System to save valuable laboratory space and allows the user to easily set up new experiments or run from a database of stored profiles.

