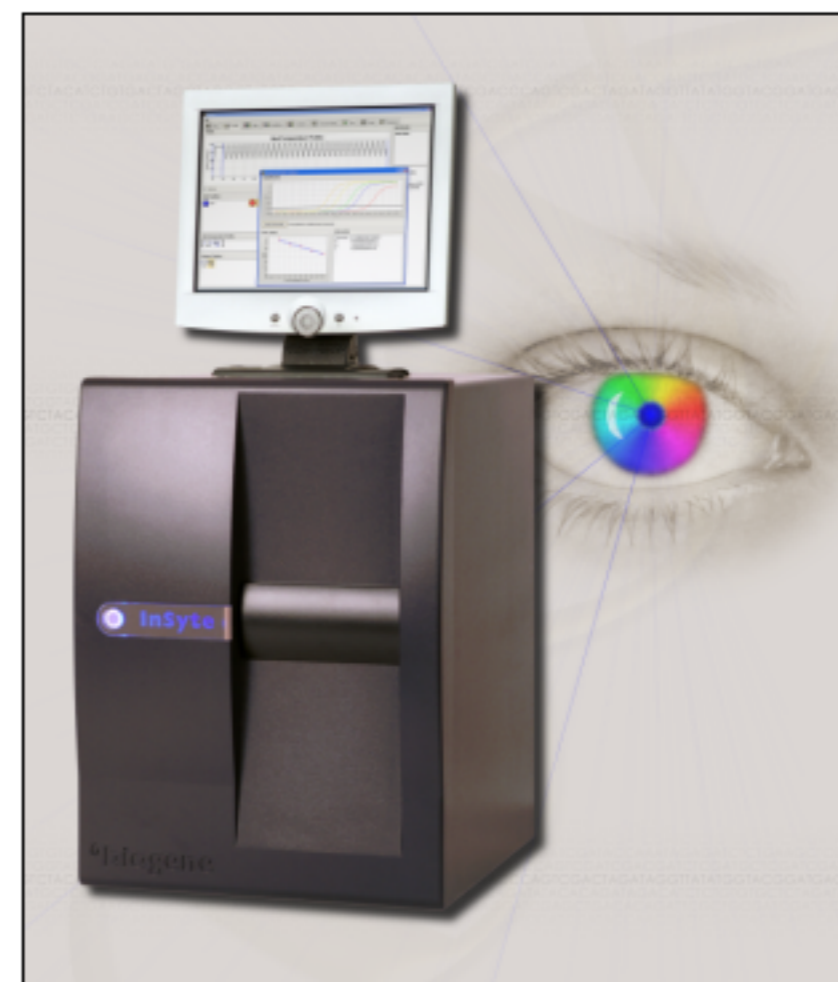


# InSyte<sup>®</sup> – Technical Specifications

<b>Reaction Vessel</b>	<ul style="list-style-type: none"> <li>• UBS compliant 96mtp format with sealing caps (8 well strip format)</li> <li>• Composite tube comprising virgin polypropylene liner with integrated heating polymer</li> </ul>
<b>Vessel Volume Range</b>	<ul style="list-style-type: none"> <li>• Up to 50 microlitres</li> </ul>
<b>Thermal Specifications</b>	<ul style="list-style-type: none"> <li>• Average Ramp Rate of 15°C per second</li> </ul>
<b>Resolution</b>	<ul style="list-style-type: none"> <li>• 0.01 °C</li> <li>• Individual and independent thermal control of each mtp well position</li> <li>• Temperature measurement provided by a non-contact infrared temperature sensor</li> </ul>
<b>Temperature Range</b>	<ul style="list-style-type: none"> <li>• Ambient to 100°C</li> </ul>
<b>Power Requirement</b>	<ul style="list-style-type: none"> <li>• 110V / 60Hz or 230V / 50Hz</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>• 1000w</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• Width 44cm</li> <li>• Depth 46cm</li> <li>• Height 60cm</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>• 45Kg</li> </ul>
<b>Computer</b>	<ul style="list-style-type: none"> <li>• Integrated computer running Windows XP</li> </ul>
<b>Data Storage</b>	<ul style="list-style-type: none"> <li>• Compact and removable flash memory storage device</li> </ul>
<b>Optical System</b>	
<b>Excitation</b>	<ul style="list-style-type: none"> <li>• Solid-state Blue Laser (473nm)</li> </ul>
<b>Detection</b>	<ul style="list-style-type: none"> <li>• Multichannel PMT (spectrum collection range 520-720nm)</li> <li>• PMT operating in photon counting mode</li> </ul>
<b>Scan Rate</b>	<ul style="list-style-type: none"> <li>• Complete plate scanned 3 times per second</li> </ul>
<b>Compatibility</b>	<ul style="list-style-type: none"> <li>• Optimised for use with all standard chemistries and dyes/dye sets currently available</li> </ul>
<b>Warranty</b>	<ul style="list-style-type: none"> <li>• 12 months parts &amp; labour</li> <li>• Specific extended warranty available on request</li> </ul>

# InSyte<sup>®</sup>


.....REAL-TIME Nucleic Acid Detection/Analysis System





Exquisite thermal and optical control for perfect Real Time Detection and Quantitation of Nucleic Acids

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 **Genetic  
Discovery  
Technology**

.....Innovative Thermal Control and Detection Systems

## InSyte<sup>®</sup> – The Concept!

Patented Electrically Conducting Polymer (ECP) Technology 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).

ECP Technology 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.

InSyte uses leading edge technology to ensure that the thermal performance is matched by fast, sensitive optics. A compact, high lifetime (10,000 hour) solid-state laser provides an intense, well-collimated pure light source at 473 nm (compatible with all standard chemistries, dyes and dye sets). A multichannel PMT collects all emitted wavelengths between 520 and 720 nm-the system is not constrained by use of filter sets to detect fixed bands of emitted fluorescence. This allows the user to 'see the full picture'! High scan rates (full plate read every 3 seconds) provide good data sets for use in subsequent analysis.

## InSyte<sup>®</sup> – The Benefits!

### ULTRA-RAPID THERMAL CYCLING!

Unique 'Electrically Conducting Polymer' (ECP) technology facilitates:

- DIRECT heating to a specially designed tube to allow rapid thermal equilibration of reaction mix. 30 cycle amplification in as little as 20 minutes. Average Ramp rates of up to 15 degrees C per second.
- TRULY Independent temperature control of each tube of the 96-MTP. Choose to run completely different temperature profiles in each tube!
- FAST SENSITIVE, photon-counting optics.
- COMPREHENSIVE DATA LOGGING/ANALYSES: Embedded Graphical Control System enables user-friendly empirical set up and complete logging/analyses of data.

## InSyte<sup>®</sup> – The Software!

InSyte 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. Comprehensive reports can be generated. All functions for quantitation and melting point analyses are included.

