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Find the *Perkin Elmer Pyris 6 DSC* at our website: ***Click HERE***

PRODUCT NOTE

www.perkinelmer.com/instruments

Pyris 6 Series of Thermal Analyzers

Differential Scanning Calorimeter
Thermogravimetric Analyzer



Big performance in a small package

For over 40 years PerkinElmer™ has offered the highest quality thermal analysis products, and is recognized as a worldwide leader and innovator of thermal analysis instrumentation. The Pyris™ 6 series of thermal analyzers continues that tradition with a new generation of heat-flux Differential Scanning Calorimetry (DSC) and top loading Thermogravimetric Analysis (TGA) systems.

Known for their excellent performance in adverse environments, the Pyris 6 DSC and TGA's robust design resists damage and contamination. The built-in gas controller enables precisely controlled gas switching. And our unique autosampler and carousel design improves productivity and ensures reproducible results. Combined with our powerful Pyris software engine, these easy-to-use DSC and TGA systems provide best in class performance at a price you ***can*** afford.

The Pyris 6 Series is ideal for the following industries

- Plastics & Polymers
- Semiconductors & Electronics
- Paints & Coatings
- Pharmaceutical
- Ceramics & Clay Soil
- Automotive
- Adhesives
- Fuel
- Medical Devices & Equipment
- Food

Key Features:

- A total automation package
- Tough, compact construction
- Built-in gas controller
- 45 position autosampler
- Pyris Player automation features
- Disc-type cell design DSC
- Top-loading design TGA

PerkinElmer™ instruments.

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The Pyris 6 DSC for high performance heat-flux differential scanning calorimetry

Though disc-type heat-flux DSCs are commonly used in routine analysis, many cannot stand up to the demands of the QA/QC lab. For example, the thin, sheet metal discs frequently used are fragile - easily damaged by oxygen or the decomposition of products.

We designed the Pyris 6 DSC to be both tough and reliable. The system utilizes a precision-machined disc of hardened nickel chromium to form a strong thermal link between the sample and the low-mass furnace. The faster heat-up and cool-down times of the low-mass furnace means that more samples can be run in a shorter period of time – an easy way to increase your lab's productivity.

Typical applications for the Pyris 6 DSC include

- Melting points/profiles
- Glass transition (softening point)
- Thermal history/processing conditions
- Crystallization temperature, rates, times
- Percent crystallinity
- Additives (OIT, plasticizers, etc.)
- Polymer blends
- Solder analysis
- Polymorphic transitions
- Specific heat/heat capacity
- Relative purity
- Degree of cure



Plus, the system is thermally responsive, able to equilibrate more rapidly than other heat-flux DSCs. Its calibrations are less affected by purge conditions and sample placement. Pyris software makes it easy to automate analyses and get results, even with less technically trained operators, so you can count on reliable results time after time. The result? A system that makes meeting ASTM and ISO requirements easy while improving the productivity of your lab.

Gas switching and flow rate are now under your control for both the Pyris 6 DSC and TGA

Many methods call for specific gas flow rates, while some call for a gas switchover in the middle of the analysis. The flow rate can affect the results of almost any DSC analysis. Yet in most DSC systems this critical parameter is left up to the operator to setup and maintain.

The built-in gas flow controller of the Pyris 6 both monitors and controls the purge flow rates. When a method is recalled for use, the purge rate is automatically adjusted to the appropriate flow as dictated by your application. If the specified rate cannot be achieved, a status window makes this error condition readily apparent.

The Pyris 6 built-in gas controller also allows switching between any two gases, such as programmed switching between inert and oxidizing (or reducing) gas types. This feature helps accelerate oxygen purge-out and sample cool-down, improving both reliability and the speed at which routine tests are conducted.

If gas flow control is important for DSC, it is even more important for TGA. The Pyris 6 TGA's built-in gas flow controller ensures that every method is run with proper purge gas flow rate. In addition, it allows you to program in a fast purge out for residual oxygen or an oxidizing furnace clean step at the end of the run, ensuring good laboratory practice.

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Pyris 6 TGA – a high performance, top loading system for thermogravimetric analysis

TGA has been used for years as a routine separation technique to determine volatiles content, and to separate the components of polymer and elastomer formulations. But its use in the QA/QC laboratory has been limited because instruments in the past were not designed to accommodate the needs of users or the demands of the operating environment.

Our high performance Pyris 6 TGA combines powerful software and advanced calculations with a rugged top-loading design to ensure reproducible results.

Typical applications for the Pyris 6 TGA include

Component analysis (weight %):

Solvent	Carbon black
Moisture	Evaluation of stabilizers
Polymer/resin	Loss on drying
Filler	Proximate analysis
Ash	Lubricating oil analysis
Glass	Oxidation studies

Top loading convenience and safety

The balance of the Pyris 6 TGA is located below the sample where it is completely protected from operator damage and sample contamination. During an analysis, residues from decomposed products are carried away from the balance and other sensitive electronics. Large samples can therefore be run without producing oily buildup.

The water-cooled furnace design reduces temperature gradients while providing responsive temperature control and rapid cool-down. Loading of samples onto the autosampler tray is simple and easy.

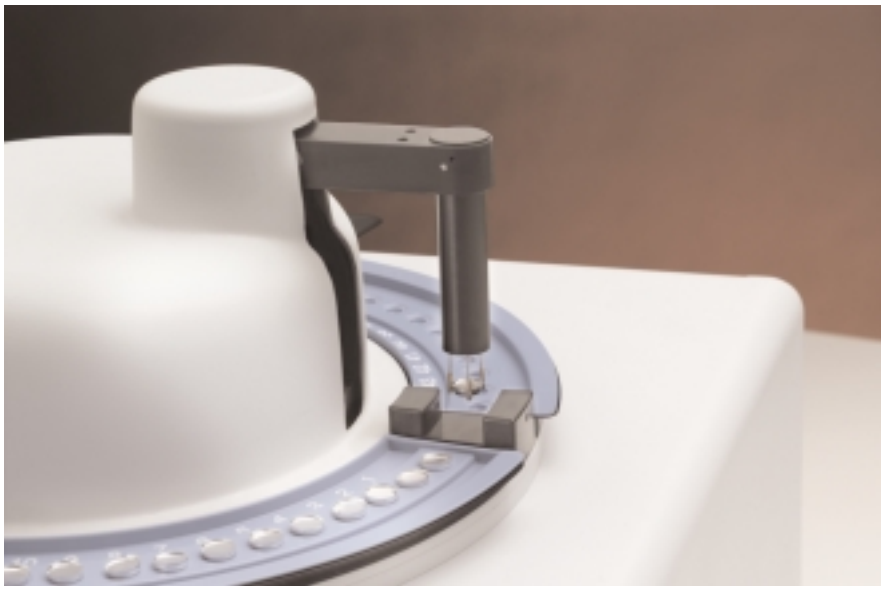


A reliable autosampler for both the DSC and TGA for more reproducible results

The unique split-carousel design of our autosampler allows you to prepare up to 45 samples. Placing a sample into the carousel tray is much easier and faster than loading it directly into the instrument. By using a patented bimetallic element to actuate the fingers, the pan gripper of the autosampler is both delicate and robust. It precisely places your sample in the detector area, providing better reproducibly than even a skilled operator.

The system's software proactively monitors the temperature of the low-mass furnace and automatically loads the next sample as soon as the furnace is ready. Simply create a PlayList in Pyris Player, a standard module of the Pyris operating system, for continuous analyses.

The Pyris 6 autosampler and software do more than increase sample throughput and run your system continuously. They make running thermal analyses faster and easier for operators of all levels of experience, while providing you with the accurate and reproducible results you need.



Samples can be added to the 'active' carousel at your convenience.

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Ordering Information

Pyris 6 DSC Lab Systems:

N537-0428	Pyris 6 DSC Intracooler-Ready Lab System 100-230V
N537-0078	Pyris 6 DSC Intracooler-Ready + Autosampler Lab System 100-230V
N537-0079	Pyris 6 DSC + Autosampler + Intracooler 6P Lab System 115V
N537-0080	Pyris 6 DSC + Autosampler + Intracooler 6P Lab System 230V
N520-3120	AS6 Autosampler for the Pyris 6 DSC
N520-3131	Chiller 115V for operation from -5°C to 450°C
N520-3132	Chiller 230V for operation from -5°C to 450°C
N537-4098	Intracooler 6P 115V for operation from -70°C to 450°C
N537-4099	Intracooler 6P 230V for operation from -70°C to 450°C
N520-0032	Pyris 6 DSC Subambient Kit with Dewar for operation from -120°C to 200°C
N520-0033	Pyris 6 DSC Subambient Kit without Dewar for operation from -120°C to 200°C
B013-9005	Universal Crimper Press
C655-0000	AD-6 Autobalance

Pyris 6 TGA Lab Systems:

N537-0074	Pyris 6 TGA Lab System 100-230V
N537-0075	Pyris 6 TGA with Autosampler Lab System 100-230V
N537-0076	Pyris 6 TGA with Autosampler and Chiller Lab System 115V
N537-0077	Pyris 6 TGA with Autosampler and Chiller Lab System 230V
N520-3121	AS6 Autosampler for the Pyris 6 TGA
N520-3131	Chiller 115V for operation from 20°C to 1000°C
N520-3132	Chiller 230V for operation from 20°C to 1000°C

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