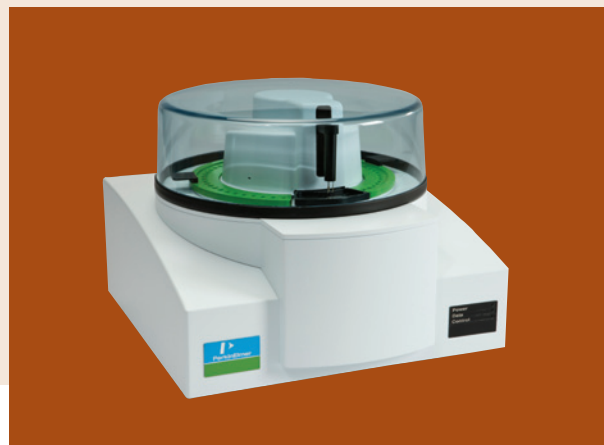


Technical Specifications for the DSC 4000/6000 Differential Scanning Calorimeters

Thermal Analysis



Introduction

At PerkinElmer, we're committed to the future of thermal analysis. We prove it with the introduction of our new line of single-furnace DSC solutions. Our DSC 4000 is a compact workhorse that performs like a champion. It's the ideal solution for a wide range of routine applications in the academic, polymer and pharmaceutical markets. Our DSC 6000 gives you all the advantages of the DSC 4000 plus Modulated Temperature DSC (MT-DSC) technology and additional accessories for new capabilities in product development and troubleshooting.

Technical Description and Specifications

	DSC 4000	DSC 6000
DSC Type	Single furnace	
Measurement principle	Heat flux	
Furnace material	Alumina coated aluminium	
Temperature sensors	Thermocouple based. Precisely-machined disc of Chromel alloy (90% Nickel / 10% Chromium)	
MT-DSC	Upgradeable	Included
Software	Includes Pyris™ software and Pyris player	Includes Pyris software, Pyris Player, Isothermal Kinetics, Scanning Kinetics, Specific Heat and Purity software packages
Cooling accessories	Chiller or circulator Intracooler Portable cooling device	Cryofill (liquid N ₂) Chiller or circulator Intracooler Portable cooling device

Hardware Features

Dual, digital mass flow-controller	Included	
Cooling accessory upgrades	User exchangeable (except Cryofill)	Minimal downtime and expense
Photocalorimetry	Not available	Optional

Calorimetric Performance

Dynamic range	±175 mW	±175 mW
Accuracy	±2%	±2%
Precision	±0.1%	±0.1%
Indium height/width (mW/°C)	8	Indium melting peak height/width at half-height. 1 mg Indium, 10 °C/min, nitrogen purge. No mathematical treatment to the data or correction applied.
Indium melting time (sec)	3.3	From the onset of the indium melting peak to the peak maximum
Digital resolution	0.02 µW	

Temperature Performance

Range	-100 °C to 450 °C	-180 °C to 450 °C
Accuracy	±0.1 °C	
Precision	±0.02 °C	
Data points/sec	10	
Controlled heating rates	0.1 to 100 °C/min	
Controlled cooling rates	0.1 to 100 °C/min	
Cooling times – intracooler (100 °C to 0 °C)	Under 4 minutes	For fast sample turnaround

Regulatory

21 CFR Part 11 Compliance	Optional
Qualification, verification and calibration services	Available

Site Requirements

Dimensions (HxWxD)	17 x 38 x 41 cm (6.7" x 15" x 16.5")
Weight	16.5 kg (36 lb), 19 kg with Autosampler (42 lb)
Power requirements	100-240 Volt 50/60 Hz