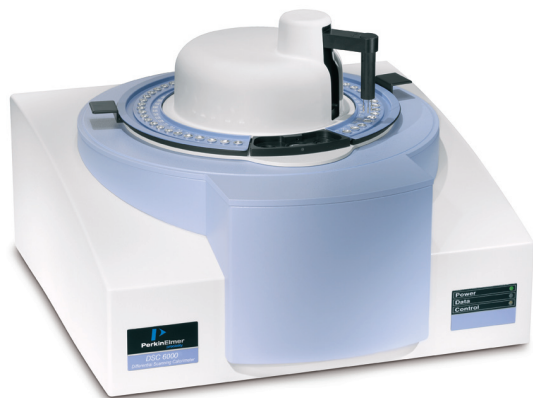


# Technical Specifications for the DSC 4000/6000 Differential Scanning Calorimeters



## 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 <sub>2</sub> ) Chiller or circulator Intracooler Portable cooling device

	DSC 4000	DSC 6000	Technical Description
<b>Hardware Features</b>			
Dual, digital mass flow-controller		Included	
Cooling accessory upgrades		User exchangeable (except Cryofill)	Minimal downtime and expense
Photocalorimetry	Not available	Optional	
<b>Calorimetric Performance</b>			
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	This is resolution of electronics
<b>Temperature Performance</b>			
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
<b>Regulatory</b>			
21 CFR Part 11 Compliance		Optional	
Qualification, verification and calibration services		Available	
<b>Site Requirements</b>			
Dimensions (HxWxD)		17x38x41 cm (6.7"x15"x16.5")	
Weight		12-16 kg (26-36 lb)	
Power requirements		100-240 Volt 50/60 Hz	

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