

EGA 4000

Evolved Gas Analyzer



Thermal & Infrared Analysis

Introduction

At PerkinElmer, with over 75 years of Infrared and over 55 years of Thermal analysis experience, we have been responsible for many industry firsts and the EGA 4000 is no exception. The EGA 4000 is the first truly integrated TG-IR Evolved Gas Analysis system with a TGA balance inside a high performance research grade FT-IR. All controlled by a single software platform, the EGA 4000 makes TG-IR available to everyone.

Technical Description and Specifications

TGA balance type	Top-loading balance	Easier to use and more robust than other design types
Temperature range	Ambient to 800 °C	
Temperature calibration	Melting point	
Scanning rates	0.1 to 200 °C/min	
Scanning temperature accuracy	±3 °C	5 runs using melting point reference material
Scanning temperature precision	±2 °C	
Sample temperature precision	±1 °C	
Sample to program temperature correlation	±1 °C	Difference between the set temperature and the actual sample temperature
Scanning baseline dynamic drift	<35 µg	50 to 800 °C at 20 °C/min with empty sample pan

Balance digital resolution	0.2 µg	
Balance sensitivity	1 µg	
Balance accuracy	±0.05%	10 runs using 100 mg certified reference material
Balance precision	±0.03%	10 runs using 100 mg certified reference material
Balance capacity	1500 mg	Larger capacity than other design types
Sample pans	180 µl Ceramic 180 µl Platinum	Sample pan liners available
Cooling time	800 °C to 50 °C in under 15 mins	
Power requirements	100-240 Volts, 50/60Hz	
Atmosphere	Dynamic, including nitrogen, oxygen, and air	Inert furnace design allows a wide choice of gas types
Mass flow controller	Included. 2 sample purge connections. Programmable gas switching.	Monitors and changes purge gas flow rates and pressures and switches sample gases within a program. Sample purge from 0-200 mL/min
User control	Spectrum 10 software with Spectrum Timebase	Integrated TG-IR control and analysis in one platform.
Dimensions	40 x 33 x 31 cm (6.7 x 15 x 16.5 in)	Designed to fit in the PerkinElmer Spectrum 3 sample compartment
Weight	8 kg/17.6 lbs	
IR gas cell temperature range	Ambient to 280 °C	
IR cell volume	11.5 mLs	
Certificates/Compliance/ Quality Assurance	Developed under ISO 9001. Designed and tested to be in compliance with the legal requirements for laboratory analytical instruments.	