

TGA-3603

Thermogravimetric Analyzer



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

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►► Product Introduction

Thermogravimetric analysis (TG, TGA) is to observe the change of sample quality with temperature or time in the process of heating, constant temperature or cooling, the purpose is to study the thermal stability and composition of materials.

It is widely used in research and development, process optimization and quality monitoring various fields such as plastics, rubber, coatings, pharmaceuticals, catalysts, inorganic materials, metal materials and composite materials. Measure and study the following characteristics of materials: thermal stability, decomposition process, adsorption and desorption, oxidation and reduction, quantitative analysis of components, effects of additives and fillers, moisture and volatiles, reaction kinetics

►► Main Features

- The balance comes with internal calibration function, which has better accuracy and repeatability.
- The imported alloy sensor is more resistant to corrosion and oxidation, and the sensor has high sensitivity.
- The heating of the furnace body is made of precious metal alloy wire, which reduces interference and is more resistant to high temperatures.
- Complete atmosphere control system, software settings are automatically switched, and data is directly recorded in the database.
- Using Cortex-M3 core ARM controller, the calculation processing speed is faster, and the temperature control is more accurate.
- Using USB two-way communication, fully realize intelligent operation.
- Using 7-inch 24bit color full-color LCD touch screen, real-time display of instrument status and data.
- It adopts top-opening structure, which is easy to operate. It is difficult to move the furnace body up and place the sample, and it is easy to damage the sample rod.
- Automatically generate and print test reports. The software has built-in test records, data processing and report formats, and automatically issues test reports

►► Technical Parameters

Temperature Range	Room temperature~1550°C
Temperature Accuracy	$\leq \pm 2^{\circ}\text{C}$ or better
Temperature Precision	$\leq \pm 1^{\circ}\text{C}$ or better
Temperature Resolution	0.01°C
Temperature Fluctuation	$\pm 0.1^{\circ}\text{C}$
Heating rate	0.1~250°C/min
Cooling Time	≤ 30 min from 1100°C to 50°C
Temperature control method	heating, constant temperature
Weighing accuracy	0.02 % or better
Weighing Precision	0.003 % or better
Balance Sensitivity/ Resolution	1µg or better
Baseline Drift	Baseline drift $\leq 25\mu\text{g}$
Measuring range of balance	0.01mg~2g
Resolution	0.01mg
Constant temperature time	0~300min arbitrarily set
Display mode	characters large-screen LCD display
Atmosphere	inert, oxidizing, reducing, static, dynamic
Crucibles	Reusable 60µl alumina crucibles 30 pcs
Balance protection	Thermostated. to minimize environment influence. Rapidly cool the furnace as well as protective inert gas to protect the balance from undesired decompositions gases product.
Inert furnace design	System come with inert furnace design and allow wide choice of gases like N ₂ , Argon, oxygen, Air etc, to maintain atmosphere over entire temp.range.
Mass Flow controller	System allow automatic switch over of gases within the run
TGA curve reproducibility	Better than $\pm 10\mu\text{g}$ over the whole temp. range.
Atmosphere device	built-in gas flow meter, including two-way gas switching and flow rate control
Software	Intelligent software can automatically record TG curve for data processing and print experimental reports
Data interface	standard USB interface, special software (free software upgrades from time to time)
Power supply	AC220V 50Hz

Regulatory compliances



Corporate Social Responsibility

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1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

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