

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.

Cooling device: Appropriate cooling technology.

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

Calibration: Standards: Indium, Tin, Zinc, Silver, Aluminum, and Calibration weight

►► 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 | 0.2~250°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 | 0.2µg 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

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



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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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