

## HW-2002D High-Speed Automatic Ignition Furnace Infrared Carbon and Sulphur Analyser



### ➤ Purpose:

This instrument represents a pioneering new generation of high-tech carbon-sulphur analysers developed domestically. It is suitable for determining the mass fractions of both carbon and sulphur elements in steel, low-to-medium alloy steel, stainless steel, and other materials. Employing high-frequency arc ignition to heat and combust samples, the instrument utilises infrared absorption spectroscopy to measure the mass fractions of carbon and sulphur. It delivers excellent detection precision alongside high stability and reliability.

### ➤ Key features:

- 1、 Features low-noise, high-sensitivity, and high-stability imported infrared detectors ;
- 2、 Modular linear power supply, featuring high overall reliability and an aesthetically pleasing design;
- 3、 Dual Carbon Pool and Dual Sulphur Pool Upgrade Function;
- 4、 The electronic balance automatically connects to the computer for non-quantitative sample weighing;

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- 5、 Fully Chinese-language interface, straightforward to operate and easy to master;
- 6、 The software offers comprehensive functionality, providing over forty features including file help, system monitoring, channel selection, statistical analysis, result calibration, breakpoint correction, and system diagnostics;
- 7、 Dynamically display all data and carbon-sulphur release curves during the analysis process;
- 8、 Wide linear measurement range, with the possibility of extension;
- 9、 Imported solenoid valves enhance the reliability of pneumatic systems;
- 10、 High-frequency plasma non-contact ignition with automatic tracking of combustion samples;
- 11、 Energy-saving, material-efficient, high-speed and accurate。

### ➤ **Principal Technical Specifications:**

- 1、 Measuring range: C: 0.001%—6.0000%(can be automatically extended to99.9%)  
S: 0.0005%—2.500%(can be automatically extended to99.9%)
- 2、 minimum reading: 0.00001
- 3、 Analytical error: Carbon content exceeds the requirements of GB/T 223.69—1997 standard  
Sulphur content exceeds the requirements of GB/T 223.68—1997 standard
- 4、 Analysis time: adjustable between 25 and 60 seconds, typically around 35 seconds.
- 5、 Electronic balance: Weighing range: 0—100g Reading accuracy: 0.001g (Can be fitted with a one-ten-thousandth precision balance)
- 6、 Operating environment: Indoor temperature: 10—30°C Relative humidity: Less than 75%
- 7、 Power supply: Requires proper earthing Voltage: AC 220V ±5% Frequency: 50Hz ±2%
- 8、 Channel configuration: 10 channels for carbon, 10 channels for sulphur (leading domestically)
- 9、 Sampling rate: 24 times per second A/D conversion frequency: 120Hz (Leading domestically)