



EIE

Jet Fuel Smoke Point Tester

EIE-SP-03

# Jet Fuel Smoke Point Tester



- ASTM D1322, ISO 3014, GB 382
- One-Button start
- "Machine Vision" technology adopted
- Automatic ignition system
- Automatic atmospheric pressure adjustment
- Improving the measurement accuracy, repeatability, reproducibility, and making the data more realistic and reliable.



EIE

Jet Fuel Smoke Point Tester

EIE-SP-03

## Introduction

The Jet Fuel Smoke Point Tester, developed by Canada Etech International Enterprises Inc. (EIE), uses the most advanced international design concepts and test methods in the world, which improves the automation degree of the smoke point tester, guarantees the measurement accuracy, and minimizes the adverse consequences caused by operator errors.

The instrument adopts the "Machine Vision" technology at the forefront of the international measurement and control field, which realizes the automatic measurement of the coal-fired smoke point, and opens up a new field of "Machine Vision" technology application.

Press the [Start Measurement] button on the touch screen, and the instrument will automatically ignite the wick, automatically adjust the flame height to 10mm, burn for 5 minutes, automatically adjust the wick height until the soot is displayed, the wick height is lowered to the smokeless point, and the flame shape is similar. The smokeless flame's height is automatically captured, judged, measured, and recorded in the flame profile described in the standard, repeated three times, and the measurement is completed with an audible prompt.





EIE

Jet Fuel Smoke Point Tester

EIE-SP-03

## Technical Features

1. This instrument adopts a high-speed microcomputer and independently developed software to realize image acquisition, recognition and calculation processing. Realize automatic control with high precision and strong real-time performance.
2. It adopts an industrial high-fidelity high-speed camera to realize video image acquisition and transmission.
3. It uses a high-precision barometer to measure the atmospheric pressure in real-time, automatically participate in the smoke point correction calculation without manual input (optional automatic input, manual input). Realize One-Button start, without manual intervention, automatically complete the smoke point measurement process and print the measurement results.
4. The precise flame height adjustment system is adopted to automatically adjust the flame size, with an adjustment accuracy of 0.01mm, stable operation, and good repeatability.
5. Adopt 8.4-inch TFT high-definition colour touch LCD screen to display the flame status in real-time.
6. Specially developed the prompt voice function of the main operation steps, real-time broadcast, novel and intuitive, promptly remind the operator, avoid operation errors, and improve the measurement success rate.
7. An automatic ignition device is adopted to achieve automatic ignition of the wick without manual operation, which is safe and reliable.
8. Adopt Gigabit LAN (optional WiFi) and RS232 serial interface, which can be connected to the LIMS system, and the data can be uploaded in real-time with high speed and reliability to realize laboratory information management.
9. Built-in micro thermal printer, for convenience, prints at the end of the measurement. Realize fast data viewing and data paper storage, memorizing for future reference, and worry-free traceability.



EIE

Jet Fuel Smoke Point Tester

EIE-SP-03

Automatically test smoke point;  
One-Button start



Using industrial camera, machine vision technology, automatically identify smoke point and flame height. High precision and good repeatability



User-friendly interface; Simple operation



Sametime pre-extraction treatment of the wick to ensure repeatability, reproducibility. Reduce the toxicity of the wick extraction solvent to the operator





**EIE**

Jet Fuel Smoke Point Tester

**EIE-SP-03**

## SPECIFICATIONS

Standards	
ASTM D1322, ISO 3014, GB 382	
Technical Details	
Precision (Flame height)	±0.1mm
Resolution	0.01mm
Atmospheric pressure	Automatic detection, resolution is ±0.01KPa
Measurement time	< 10 min
Result storage	2000 groups (can be extended according to demand)
Network mode	Ethernet RJ45 (optional WiFi)
Repeatability (r)	Average 0.6 and reach to 0.3 depending on the measuring value
Reproducibility (R)	Average 0.9 and reach to 0.7 depending on the measuring value
Flame height	0 - 50 mm
Printout	Built-in micro printer (optional USB printer output)
Data output	USB × 3, Ethernet × 1, RS232 × 1
Voltage	115 - 230V 50/60 Hz
Total power	< 300W
Operating Environment	
Ambient temperature	15 - 35 °C
Storage temperature	-10 - 55 °C
Relative humidity	< 75%
Operating place	Indoor, no significant air flow
Product Size	
Dimensions (mm)	308 x 305 x 432 (length x width x height) mm
Weight	15KG