



EIE

**Automatic Abel Flash Point Tester
EIE-FP170-3P**

Automatic Abel Flash Point Tester



- ISO 13736, IP 170, GB/T 21789
- Pt100 platinum resistance temperature sensor
- One-Button Start. The tester can automatically perform the ignition, heating, stirring, detection, pressure correction at flash point, printing, and colling.
- An advanced 32-bit ARM processor, a high-precision platinum resistor, and 24-bit analog-to-digital converter.
- The first non-contact stirring method.
- Build-in the atmospheric pressure sensor.
- Built-in Peltier cooling system



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Introduction


The Automatic Abel Flash 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 flash point tester, guarantees the measurement accuracy, and minimized the adverse consequences caused by operator errors.

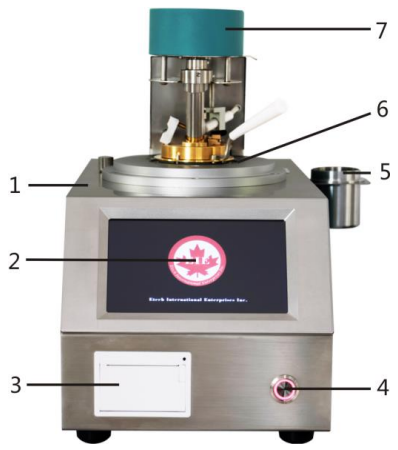
Under the specified testing conditions, the test flame will ignite the sample vapour and spread to the liquid's surface, where the lowest temperature can be achieved and corrected under the atmospheric press of 101.3 kPa. The flash point is a safety index and volatility index of flammable liquids, which is of great significance to its production, transportation, storage and use.

This tester applies to the closed cup flash point measurement of liquids specified in ISO 13736 and IP 170. Operated in strict accordance with the standard test procedures, it can fully meet the accuracy requirements. The tester can be widely used in petroleum, electric power, railway, aviation, water carriage, scientific research and other industries.

Technical Features

1. The tester is equipped with an advanced 32-bit ARM processor and is manufactured with cutting-edge and reasonable design concepts integrating light, mechanical and electrical parts.
2. Featuring a high-precision platinum resistor and 24-bit analog-to-digital converter, its measurement results are accurate and precise.
3. Integrating the atmospheric pressure sensor can measure the atmospheric pressure in real-time and automatically calculate and correct the flash point at 101.3kPa.
4. Pt100 platinum resistance temperature sensor is equipped.
5. By taking advantage of an advanced temperature control algorithm, the heating rate is stable, and the measurement results are repeatable.
6. Capable of measuring the flash point with One-Button Start, the tester can automatically perform the ignition, heating, stirring, detection, pressure correction at flash point, printing, and colling.
7. The ignitor flame is automatically detected and automatically ignited, which is safe and reliable.
8. It is equipped with a built-in thermal printer, of which the auto/manual print can be switched over. The measurement data can be exported to the LIMS system.
9. With built-in large-capacity memory, it can store 300 groups of historical data for data tracing in the future.
10. At the end of the measurement, the buzzer will beep for three minutes to remind the operator to deal with it in time.

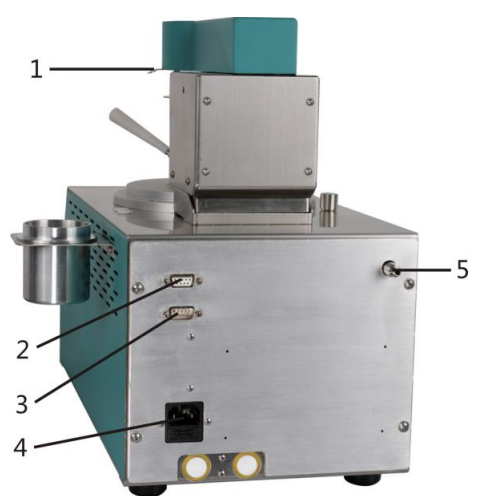
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1 Case 2 Touch screen 3 Micro printer 4 Power switch 5 Test cup cover holder
6 Heating bath 7 Rotatable detector head



1 Stirrer 2 Igniter 3 Test cup cover 4 Gas control valve 5 Test cup 6 Test cup cover pin
7 Shutter plate 8 Windshield 9 Test cup handle 10 Integrated temperature sensor



1 Rotatable detector handle 2 RS232 connector 3 Debug connector 4 Power socket
5 Gas connector

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SPECIFICATIONS

Standards	
ISO 13736, IP 170, GB/T 21789	
Technical Details	
Measurement range	-30 - 80°C
Sensor accuracy	0.1°C
Ignition method	Gas ignition and electronic ignition can be selected, and the flame diameter can be accurately controlled between 3.2 and 4.8 mm.
Flash fire detection method	Thermocouple detection
Data record	300 groups
User Management	Multi-level user management, different permissions can be set.
Cooling method	Built-in Peltier cooling system
Heating rate	0.2 - 6°C /min continuously adjustable
Ignition temperature interval	0.1 - 3°C continuously adjustable
Stirring rate	0 - 300 RPM continuously adjustable
Dimensions	475mm×230mm×380m (L x W x H)
Overall weight	16.5 KG
Operating Environment	
Operating temperature	5 - 35 °C
Storage temperature	-10 - 55 °C
Relative humidity	< 85%
Operating place	Indoor
Safety	
With external flame alarm interface	
When overheating, the instrument will automatically alarm and stop heating.	
Unknown sample pre-test function	
The flash fire alarm function occurs at the first ignition.	
The experiment is automatically terminated if the expected flash point setting range is exceeded.	