microscale continuously closed cup flash point analyzer

Koehler
INSTRUMENT COMPANY, INC.

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Adjust the temperature of the oven in the test room to which is at least 18°C lower than the expected flash point. Inject the sample into the sample cup and ensure the temperature of the sample and the sample cup are at least 18°C lower than the expected flash point. Cool the sample and the cup, if necessary. Then form a not sealed closed test chamber by raising the sample cup towards the oven.

After closing the test chamber, the temperature difference between the sample and oven is no more than 1°C. After every ignition, get proper amount of air into the test chamber for the next ignition with oxygen. The pressure in the not sealed closed test chamber should be ambient atmospheric pressure, except the short period of air introduction and when the temperature achieves flash point. The pressure increase comes after the discharge of arc, so every time after arc discharges the chamber's atmospheric pressure is higher than ambient atmospheric pressure. And when the pressure increase exceeds the specified limit, record the temperature as flash point which has not been corrected.

applications

The instrument is widely used in the flash point measurement of petroleum products,transformer oil, turbine oil, paint, perfumes, wood preservative oil, aromatic oil, animal and vegetable oil, pesticide emulsifier, high viscosity materials, plasticizers and other substances. In addition, Pensky-Martens closed cup method and rapid equilibrium closed cup method are feasible on this instrument by changing parameters. The correlation between these methods is excellent.

key features

Fully Automatic

- Automatic determination of flash points
- Automatic corrections for ambient atmospheric pressure

Small Sample Size

- Required amount of sample for test is 1mL or 2mL
- Less sample demand, lower test cost and less pollution

High Performance

- Continuously closed cup operation with high safety and no open flame
- Built-in refrigeration module with high efficiency

Industrial Touch Screen User Interface

- 7-inch Color Touch Screen is built-in
- Built-in standard test methods which can be correlated to other closed cup methods
- Real-time display of temperature and pressure curves

USB & Network Connections

- RS232 interface for connection to Thermal Printer
- USB interface for connection with mouse or storage device
- Internet (Ethernet) Line

test method

ASTM D6450 This test method covers the determination of the flash point of fuel oils, lube oils, solvents, and other liquids by a continuously closed cup tester. The measurement is made on a test specimen of 1 mL. This test method utilizes a closed but unsealed cup with air injected into the test chamber and is suitable for testing samples with a flash point from 10 °C to 250 °C.

ASTM D7094 This test method covers the determination of the flash point of fuels including diesel/biodiesel blends, lube oils, solvents, and other liquids by a continuously closed cup tester utilizing a specimen size of 2 mL, cup size of 7 mL, with a heating rate of 2.5 °C per minute. This test method utilizes a closed but unsealed cup with air injected into the test chamber and is suitable for testing samples with a flash point from 35 °C to 225 °C.

specifications

Conforms to the specifications of: ASTM D6450, ASTM D7094
Excellent Correlation to: ASTM D93, ASTM D3828, EN ISO 3679/3680, ISO2719, SH/T 0768, SN/T 3077.1, SN/T 3077.2, DL/T 1354, GB/T 261, GB/T 21615, GB/T 5208, GB/T 21790

Temperature range: -30~420°(below 0°C external cryogenic recirculating tank is needed)
Heating rate: 2.5±0.3°C/min,5.5±0.5°C/min, can be customized from 0.5°C/min to12°C/min
Accuracy of temperature reading: ±0.1°C
Pressure range: 0kPa~200kPa
Sample volume: 1ml or 2ml
Ignition method: high voltage electronic ignition
Stirring rate: can be customized from50rpm to 300rpm
Interfaces: USB, RS 232, Ethernet
Power Supply: 100-240VAC,50/60Hz, 300W

dimensions W x D x H, in. (cm)

8.9x12.2x16.3 (22.5x31x41.5)

Net Weight: 26.5 lb (12kg)

ordering information

catalog no.	description
K24880	Microscale Continuously Closed Cup Flash Point Analyzer

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