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# **PROGRAMMABLE FULLY-AUTOMATED CLEVELAND OPEN-CUP FLASH & FIRE POINT ANALYZER AZA1290**

The AZA Lab Programmable Fully-Automated Cleveland Open-Cup Flash & Fire Point Analyzer AZA1290 is a high-precision petroleum testing instrument designed for fully automated determination of flash and fire points of petroleum products, lubricants, oils, bituminous materials, and combustible liquids in accordance with ASTM D92 and ISO 2592 standards. Engineered for modern petroleum laboratories, the AZA1290 combines intelligent automation, advanced safety systems, precision temperature control, and comprehensive data management to deliver highly repeatable and operator-independent test results.



## **TEST METHODS**

- ASTM D92
- ISO 2592

## **SAFETY FEATURES**

- Automatic flame extinguishing system
- Over-temperature protection
- Emergency stop system
- Flame detection sensors
- Igniter fault monitoring
- Sensor malfunction interlocks
- Automatic test termination during abnormal conditions
- Exhaust and fume vent integration
- Power surge protection
- Automatic shutdown above safe flash point limits



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### **AUTOMATIC FLAME EXTINGUISHING SYSTEM**

The AZA1290 incorporates an intelligent automatic flame extinguishing mechanism that immediately seals the test cup and suppresses combustion if sustained fire conditions are detected.

This advanced protection system:

- Prevents uncontrolled flame propagation
- Enhances laboratory safety
- Minimizes operator intervention
- Automatically notifies users of emergency conditions
- Safely halts the testing cycle

### **ROBUST SAFETY INTERLOCKS**

The instrument continuously monitors critical operational parameters and automatically halts testing if abnormal conditions occur, including:

- Ignition system failure
- Sensor malfunction
- Improper igniter arm positioning
- Excessive temperature conditions
- Flash point limit exceedance
- Cooling or ventilation faults

These interlocks significantly reduce operational risk and improve long-term instrument reliability.

### **STANDARD SUPPLY**

- Main analyzer unit
- Cleveland Open-Cup test cup
- Integrated ignition assembly
- Temperature sensors
- Power cable
- USB communication interface



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**Technical Specifications**

<b>Parameter</b>	<b>Specification</b>
Model	AZA1290
Product Type	Fully Automated Cleveland Open-Cup Flash & Fire Point Analyzer
Test Methods	ASTM D92, ISO 2592
Flash Point Range	Ambient to 400 °C
Fire Point Detection	Automatic
Sample Cup Capacity	75 mL
Heating System	1000 W Coil Heater @ 230 VAC
Heating Rates	1–20 °C/min or rapid mode
Ignition Source	Automatic Electric Spark
Ignition Movement	Stepper Motor Driven Arm
Optional Ignition	Gas Ignition Optional
Flash Detection	Ionization Ring
Fire Detection	Optical Sensor
Sample Temperature Sensor	PT100 Class A, 0–400 °C



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### Technical Specifications

Parameter	Specification
Bath Temperature Sensor	PT100 Class A, 0–500 °C
Cooling System	Centrifugal Blower, 56.5 CFM
Cooling Power	35 W
Pressure Compensation Range	700–1100 hPa
User Interface	8.4-inch Touchscreen PC
Data Connectivity	USB, RS232, Ethernet/LAN
Internal Data Storage	Yes
LIMS Compatibility	Supported
Safety Systems	Flame detection, auto shutoff,
Power Supply	230 V AC, 50/60 Hz
Power Consumption	1500 W
Dimensions (W × D × H)	410 × 420 × 330 mm
Approximate Weight	16 kg
Operating Temperature	10–35 °C
Relative Humidity	≤ 80% at 35 °C