



AutoFlash-170 (VER 3.0)

AUTOMATED ABEL FLASH POINT ANALYZER

(Peltier/Liquid Cooled)

Introduction : AutoFlash-170 is programmable fully automated micro controller based standalone Abel Flash Point Analyzer conforming to standard IP 170, ISO 13736 , IS 101 & IS 1448 (P:20). These test methods covers the determination of flash points of combustible liquids in the temperature range -30 to 70 deg C, extended range up to 110 deg C. Flash-point values can be used in shipping, storage, handling and safety regulations, as a classification property to define "flammable" and "combustible" materials. Precise definition of the classes is given in each particular regulation.

Features:

- ☐ Standalone model with inbuilt PC & display.
- ☐ Accurate determination of Flash Point.
- ☐ Easy operation: Select procedure, enter Expected Flash Point and click on start. Instrument follows the exact procedure and completion of the test cycle is signaled by beeps, with display & saving of result.
- ☐ Rapid heating procedure for high flash point.
- ☐ Search programmes enables a quick determination of fully unknown samples.
- ☐ Interchangeable gas or electric igniter source.
- ☐ Automatic barometric pressure correction.
- ☐ Interlocks for safe operation.

Ordering Information :

Standard Accessories:

AutoFlash-170 Abel Flash point
Analyzer with all standard accessories,
1 spare cup, 1 spare electric igniter

Optional accessories:

Certified Reference Material
-10 Deg C Refrigerated Circulator
-40 Deg C Refrigerated Circulator

Suggested Spares:

Electric Igniter	2 nos;	Flash Detector	1 no;	Temperature Sensor	1 no;
Fire Sensor	1 nos;	Sample Cup	1 no;	Bath Heater	1 no;

Technical Specifications

Model : *AutoFlash-170*

Methods: IP 170, ISO 13736, IS 101 & IS 1448 (P:20)
User defined, Unknown search, Rapid heating
User Interface : Windows based user friendly S/W with methods & results storing, Statistics for describing data, LIMS Compatible. Standalone with inbuilt PC & 8.4" coloured touch screen display. RS 232, LAN and USB Ports for Printer & other peripherals.

SYSTEM :

Heating: Long Lasting Cartridge Heater, automatic heat rate control from 0.5 to 3 Deg C
Cooling: Peltier Device (Flash Range +10 Deg C to +110 Deg C), (Air cooled @ +25 Deg C)
Refrigerated Circulator (Flash Range -30 Deg C to +110 Deg C)
Stirring: Stepper Motor controlled, Speed as per method or user defined from 0 to 100 rpm.
Ignition: S/W selectable Electric/gas igniter (for Gas Igniter require 50 mBar of propane/ Butane /LPG), Auto controlled movement of Igniter Mechanism and Auto Test interval from 0.5 to 5 Deg C, Precise Gas flow for Gas Igniter & Precise Electric Igniter brightness adjustment
Arm Movement: Automatic controlled swing arm. Permanently fixed Cup cover, stirrer, Sample temperature sensor, Flash detector, Fire detector and Igniter for easy operation

MEASUREMENTS :

Auto Calibration: Prior to Every run, auto temperature calibration will be performed without the use of any calibration device.
Sample Temperature: PT 100 Class A, SS sheath / Glass, Measuring Range -100 to 150 deg C, +/-0.1 Deg C
Bath Temperature: PT100 Class A, Disk Type, Measuring Range -100 to 200 deg C
Flash Point Detection: Auto detection by Thermocouple (-30 to 110 Deg C)
Fire Detection: Auto detection by UV Sensor
Barometric Pressure: Built in barometric pressure sensor, Range 500 to 1100 hpa

SAFETY INTERLOCKS :

Temperature sensor is found defective, high temperature cut off
Flash Detector is found defective, Flash at first test / Flash out of range.
Electric Igniter is blown off, Gas Igniter off.
Test stop at above expected FP as selected or max temp reached as per method.
Arm is not set in place.
Fire Safety:
Upon Detection of Fire, warning buzzer will beep, power will cut off and Activates Fire extinguisher (external Co2 / N2 gas supply required, 400 to 500 Kpa).

OPERATING REQUIREMENTS :

Power Supply: 230Volts 50 Hz 300 watts
Housing: W: 240 mm D: 450 mm H: 530mm Wt: 16 Kg
Ambient: Temp 10 to 35 deg C and Relative Humidity 80% at 35 deg C

Manufactured by :



Acute Instruments Pvt Ltd.

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