



AutoFlash-93

AUTOMATED PENSKY MARTENS FLASH POINT ANALYZER



AutoFlash-93 is programmable fully automated micro controller based standalone Pensky Martens Flash Point Analyzer conforming to standard ASTM D93 A, B & C.

Procedure A applicable to distillate fuels (diesel, kerosene, heating oils, turbine fuels), new lubricating oils and homogeneous petroleum liquids not included in the scope of procedure B.

Procedure B is applicable to residual fuel oils, cutback residual, used lubricating oils, mixture of petroleum liquids with solids, petroleum liquid that tend to form surface film under test conditions, or are petroleum liquids of such kinematic viscosity that they are not uniformly heated under the stirring and heating conditions of procedure A.

Procedure C is applicable to bio diesel for the determination of the flash point.

Features:

- ☐ Standalone model with inbuilt PC & touch screen 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.
- ☐ Rapid heating procedure for high flash point till selected temperature below expected 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-93 Pensky Martens Flash point Analyzer with all standard accessories and 1 spare sample cup , 1 spare electric igniter

Optional accessories:

Certified Reference Material, Low Flash Point , 250ml
Certified Reference Material, High Flash Point , 250ml

Technical Specifications

Model : *AutoFlash-93*

Methods: ASTM D93 A,B&C (ISO 2719, IP 34), IS1448 (P-21), User defined, Unknown search, Rapid heating

User Interface : Windows based user friendly S/W with methods, results & users storing Standalone with inbuilt PC & 8.4" touch screen display, with LIMS compatibility RS 232, LAN , Wi-Fi , Bluetooth and USB Ports for Printer & other peripherals.

SYSTEM :

Heating: Band type heater, 450 watt @ 230VAC
Heat rate as per method or defined by the user from 0.5 to 14 deg C/min

Cooling: Centrifugal Blower 56.5 CFM, 35 watt @ 230VAC

Stirring: Stepper Motor controlled
Speed as per method or user defined from 0 to 500 rpm.

Ignition: DC motor controlled movement
S/W selectable Electric/gas igniter & 0.5 to 5 deg C dipping interval
Precise Gas flow and 3 step Electric Igniter brightness adjustment
Auto ignition of Gas Igniter

Arm Movement: Automatic DC motor controlled swing arm
Permanently fixed Cup lid with stirrer, sample temperature sensor, Flash 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 , Range ambient to 410 deg C, Resolution 0.1 deg C.

Bath Temperature: PT100 Class A, Disk Type, Range 0 to 550 deg C, Resolution 0.1 deg C.

Flash Detection: Thermal detection by Thermocouple.

Ambient Pressure: Built in pressure sensor, Range 500 to 1100 hpa

SAFETY INTERLOCKS :

- Temperature sensors is found defective.
- Flash Detector is found defective.
- Electric Igniter is blown off / No Gas flame.
- Flash at first test / flash out of range.
- Test Stop at above expected FP as selected or at 420 deg C.
- High temperature cut off.
- Upon Detection of Fire by optical sensor, warning buzzer will beep and power will cut off and activate fire extinguisher (external Co2 / N2 gas supply required).
- Test cover is not set in place.

OPERATING REQUIREMENTS :

Power Supply: 230Volts 50 Hz 1000 watt
Housing: W: 410 mm D: 420 mm H: 330mm Wt: 16 Kg
Ambient: Temp 5 to 35 deg C and Relative Humidity 80% at 35 deg C



Manufactured by :

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