



OilLab 6560 - Golleo Abel + Pensky Martens



Abel

EN 924
EN 13736
IP 170
IP 491
IP 492
ISO 1516
ISO 3679
ISO 13736

Subject

Flash point on petroleum products having a flash point between -18°C and 71°C (kerosene and solvents). Suitable for flash point detection on different substances and waste materials, solvents...

Pensky Martens

ASTM D93 procedures A, B, C
DIN EN 22719
IP 34
ISO 2719

Subject

Flash Point on petroleum products, gas oils, fuel oils, lubricants, biodiesel. Suitable for flash point detection on different substances, waste materials, solvents...

Measuring Abel Principle

The sample is warmed up according to the methods. When the sample reaches the selected test temperature, the shutter is opened and the ignition system introduces itself automatically. If the flash point is reached, the detection is done by an ionisation detector. If not, the shutter closes again and the sample continues to warm up until the next test temperature.

Measuring Pensky Martens Principle

The sample is heated and stirred at specified rates, using one of three defined procedures (A, B, or C). An ignition source is directed into the test cup at regular intervals with simultaneous interruption of the stirring, until a flash is detected.

Measuring Abel Devices

- Measurement of the Flash Point detected by an ionisation detector
- Testing unit equipped with two ignition systems
- Electrical system or flame exposure device

Measuring Pensky Devices

- Sample temperature: PT100 sensor completely made in stainless steel resistant to corrosion and shock resistant
- Bath temperature: PT100 sensor

Measuring Parameters

- Temperatures: in °C / °F
- Measuring range: 0°C ... +420°C
- Resolution: 0.01 °C
- Accuracy: ± 0.1 °C
- Repeatability / Reproducibility: as per standards methods or better

Pressure sensor

- Built-in sensor with automatic correction of results to a barometric pressure of 101.3 kPa automatically performed by the software at the end of analysis

Detection system

- A single multi-detector combines the ionization detector and the thermal detector

Double ignition system

- Gas
- Electrical ignitor

Test Cup

- The cup is made of brass provided with high temperature resistant handle
- Sample level mark

Heating

- Electrical heater
- Equipped with over temperature cut-out.
- Electrical heating with heating rates as per procedures A, B, C

Stirrer

- An electric motor drives the stirring of the product
- Stirring speed as per selected procedures A, B, C

Shutter

- Automatic mechanism opening the shutter conform to the methods

Cooling system

- Built-in forced air fan (Pensky Martens ASTM D93)
- Liquid refrigerant controlled by internal solenoid valve (Abel)

Safety Devices

- Automatic diagnostic in case of breakage of the sample temperature probe and thermal sensors
- Automatic fire detection system
- Overheating protection with auto shut off during the test
- Gas valve for closing the gas supply (max 30 mBar), at the end of the test

Fire Extinguisher

- Automatic fire detection and extinguisher system



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Software Features

- All analytical parameters recorded
- Customizable analysis parameters and methods
- Customizable results report
- Printable graphs and results

The software includes:

Analysis Menu

- Automatic execution of the analysis in accordance to the selected procedure (Standard method as per ASTM / IP / ISO / EN / DIN... norms of reference as well as customized procedures)
- Automatic handling of samples with unknown flash point
- Display in real time of all the analysis parameters and status
- Fields for introduction of operator and product name
- Expected flash point temperature programmable
- Audible alarm and displayed messages at the end of the analysis and in case of errors and/or malfunctions
- Configuration menu with up to 20 preset samples and expected flash point
- Automatic barometric correction of results

Diagnostic Menu

- Direct access to all analog, digital, inputs and outputs
- Selectable value displaying:
°C / Volt

Calibration Menu

- Automatic calibration of each temperature probe
- Up to 100 calibration points (standard with 5 and dynamic with up to 100 points)
- Programmable calibration frequency with selectable validity period and notice/lock-down at expiration date
- Last calibration date referred to each single probe displayed and relevant data printable
- Display of calibration diagram

Data Utilities

- Archive viewer for files recall
- All analysis stored in Excel* compatible format
- LIMS compatible

Integrated Touch Screen Panel PC

- TFT/LCD 8.4"
- Resolution 1024 x 768, 16.2 M colours
- 2 x USB ports for connection to an external printer
- 1 x ethernet port for LAN and LIMS network
- Storage capacity for more than 65'000 analysis

Electrical Supply

- 220V ± 15% / 50 to 60 Hz
- 115V ± 15% / 60 Hz

Cord Cable

- 3 conductors flexible cable with schuko plug

Ambient Temperature

- Max 35°C
- H.R. 80%

Dimensions

- width 37 cm
- depth 52 cm
- height 32 cm

Weight

- 34 Kg

Spare Parts for Abel

- LAB-650/05-13: heater
- LAB-650/05-16: PT100 bath
- LAB-650/06-11: cooling valve
- LAB-650/06-12: insulated tube for connection to external cryostat
- LAB-650/06-21: gas valve
- LAB-650/07-01: electrical ignitor
- LAB-650/07-03: micro switch
- LAB-650/07-04: handle
- LAB-650/07-05: gas ignitor
- LAB-650/08-12: PT100 product
- LAB-650/08-13: detection / ionisation cable
- LAB-650/09-04: gas reducer
- LAB-650/09-05: calibrated brass crucible
- LAB-650/09-06: calibrated brass crucible complete with movement
- LAB-650/09-07: cover cup movement only
- LAB-650/10-04: PCB fuses, box of 10
- LAB-650/10-05: main electronic board
- LAB-650/11-01: silicon tubing, 1 meter
- LAB-650/11-02: stirrer / flexible
- LAB-650/12-01: voltage transformer for ignitor
- LAB-650/20-01: support PT100 Teflon

Accessories / Spare Parts for Pensky Martens

- LAB-6000/05-23: heater collar
- LAB-6000/06-21: gas valve
- LAB-6000/07-01: electrical ignitor
- LAB-6000/07-03: micro switch
- LAB-6000/07-04: handle
- LAB-6000/07-05: gas ignitor
- LAB-6000/08-12: PT100 product
- LAB-6000/08-13: detection / ionisation cable
- LAB-6000/08-14: PT100 Bath
- LAB-6000/09-04: gas reducer
- LAB-6000/09-05: calibrated brass crucible
- LAB-6000/10-04: PCB fuses, box of 10
- LAB-6000/11-02: stirrer belt
- LAB-6000-118: fire extinguisher system

Calibration Tools

- OilLab 80: calibration decade box – PT100 simulator
- OilLab 91: set of connectors and cables for OilLab 6000