NPM 450

AUTOMATED FLASH POINT

BY PENKY-MARTENS CLOSED CUP TESTER

STANDARDS
ASTM D 93, IP 34, ISO 2719, NF M07019, DIN 51758, GBT 261, JIS K 2265-3   and related methods.

SCOPE
These test methods cover the determination of the flash point of petroleum products in the temperature range from 40 °C to 370 °C, and the determination of the flash point of biodiesel in the temperature range of 60 °C to 190 °C. Flash point is used in shipping and safety regulations to define flammable and combustible materials.

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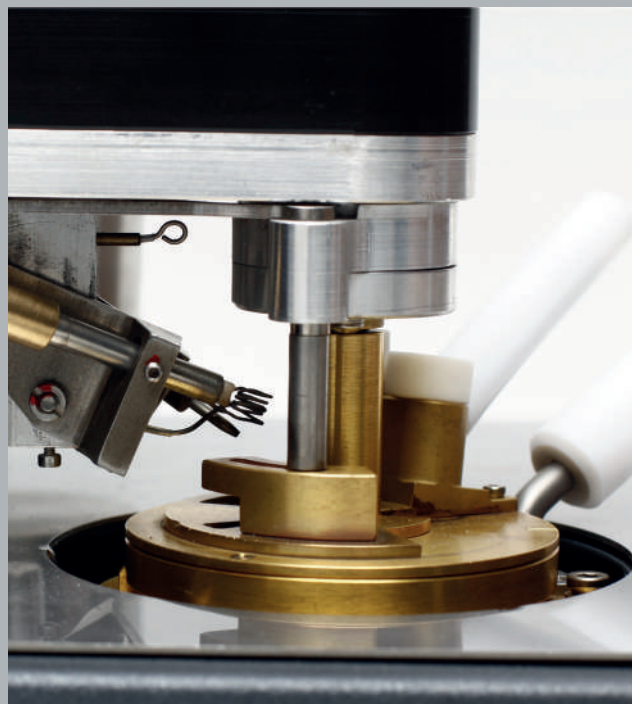
www.normalab.com

NORMALAB

NPM 450 is the 5th generation of automated flash point developed by Normalab. Normalab has been designing and manufacturing petroleum testing instruments and glassware since 1963.

NPM 450

« EFFICIENT AND COMPACT UNIT »

SPECIFICATIONS

- Small size
- Capacitive touch screean (6,4 inch HD)
- One hand easy operation
- Sample cup, probe, thermocouple holder stand
- Test temperature range: 0 to 410°C
- Unique combine ignition system (electric and gas)
- Standard methods: A, B, C
- Integrated barometric correction
- Flash point detection by thermocouple
- Automatic gas flame relighting
- User programmable methods
- Heavy sample preheating and automatic stirring start
- Fast heating and cooling

CONNECTION

- 4 USB ports
- 1 RS232C port or LIMS
- 2 LAN ports
- 1 VGA port

NPM 450

62.1 °C

Heating speed	
Sample Temp	
Stirring Speed	
DONE	

Settings
SAMPLE 001
Select Trend

Flash Point:	0.0 °C
Corrected FP.:	0.0 °C
Sample ID:	SAMPLE 001
Method:	Method A
Exp. Flash Point:	65.0 °C
Barometric Pressure:	992 mBar
Min. Heating Speed:	2.9 °C/min
Max. Heating Speed:	5.6 °C/min
Start time:	06/04/16 08:56:57 de.
Duration:	11 min, 14 sec
Operator Name:	ADMIN

Test details
SAMPLE 001
Select function
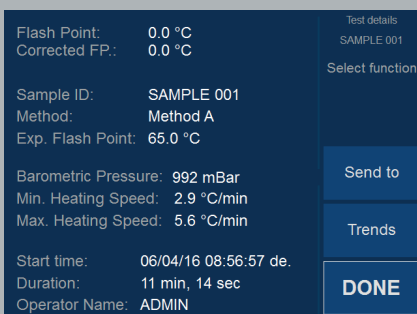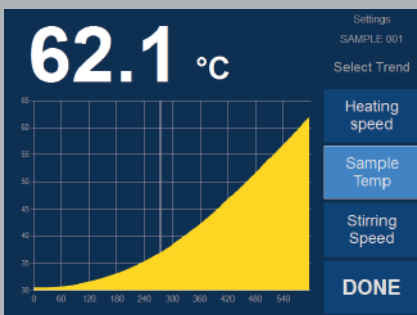
Send to

Trends

DONE

SAFETY FEATURES

- Illuminated extinguisher push button
- Gas flame detection
- Over-temperature protection
- Built in gas leak detector

SOFTWARE FEATURES

- One hand easy operation
- Windows 8 operating system
- Lifetime data storage - 16 GByte SSD
- Reporting: PDF, Email, LIMS, Excel, Word...
- Different access level settable (Operator - supervisor or Maintenance...)

EASY CONFIGURATION

Access from basic to advanced parameters made easy through the intuitive software and large screen.

- Data export through USB, LIMS, PDF or e-mails.
- User and password settings
- Data transfer to local printer
- Product files configuration

ACCESSORIES

Safety option
REF : 60410

For safety purpose, an Automatic N2 fire extinguisher option is available. This extinguishing system allows a fire to be switched off by smothering. The inert gas extinguishing system uses nitrogen. It acts on fire by reducing the oxygen content without risk for human health under normal conditions of use.

Its diffusion during emission is very fast and its density comparable to that of air (composed of 78% nitrogen) allows a durable maintenance of the extinction concentration, unlike extinguishing agents with a higher density than air.

Fully automated Pensky Martens Flash Point tester

60400

NPM 450 operable through integrated touchscreen and Windows 8 based software.

Scope of delivery:

The NPM 450 delivered ready to use with:

- Cup (P/N 60346)
- Cover (P/N 60447)
- Pt 100 probe (P/N 60453)
- Detection thermocouple cable (P/N 60448)
- Electric ignitor (P/N 60480)

Site requirements:

- Power supply: Ac 110/2400 V, 50/60 Hz - 4 A
- Dimension: (W) 260 x (D) 460 x (H) 185 mm
- Weight: 12 kg

Propane/Butane pressure: mini 20 to 40 mBar max

SUMMARY

Flash point range	0 to 410°C	**Gas connections**	Propane / Butane, Nitrogen
Heating rate	0 to 15°C/min	**Automatic switch off**	Integrated
Safety stop	0 to 30°C (above expected flash point)	**Hydrocarbon detection**	Integrated
		Overheating protection	Integrated 600°C
Ignition	Electric and gas	**Real time clock**	Integrated
Electric ignition	Regulated / monitored	**Fire detection**	Ionization
Stirring speeds	50 to 300 RPM (+/-3 RPM)	**Extinguisher push button**	Integrated & illuminated
Flash detection	Thermocouple	**Automatic fire extinguisher**	Integrated (nitrogen network or optional bottle)
Cooling	Integrated - Forced air		

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DISTRIBUTED BY

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