SOFRASER
Pioneering viscometry since 1972

THERMOSET
-KV

KINEMATIC VISCOSITY - VISCOSITY ANAYZER AT REFERENCE TEMPERATURE

Directly correlated with ASTM

SELECTED APPLICATIONS

Refining: light to heavy fuels, distillation bottoms, bitumen and asphalts
Lubricants, hydraulic fluids
Polymers: resins, high molecular weight additives

Whatever your industry, we understand and develop solutions for many applications. For a personalized approach, contact us at **instruments@sofraser.com**

AUTOMATED AND SIMPLE ANALYZER FOR ON-LINE VISCOSITY MEASUREMENT AT REFERENCE TEMPERATURE

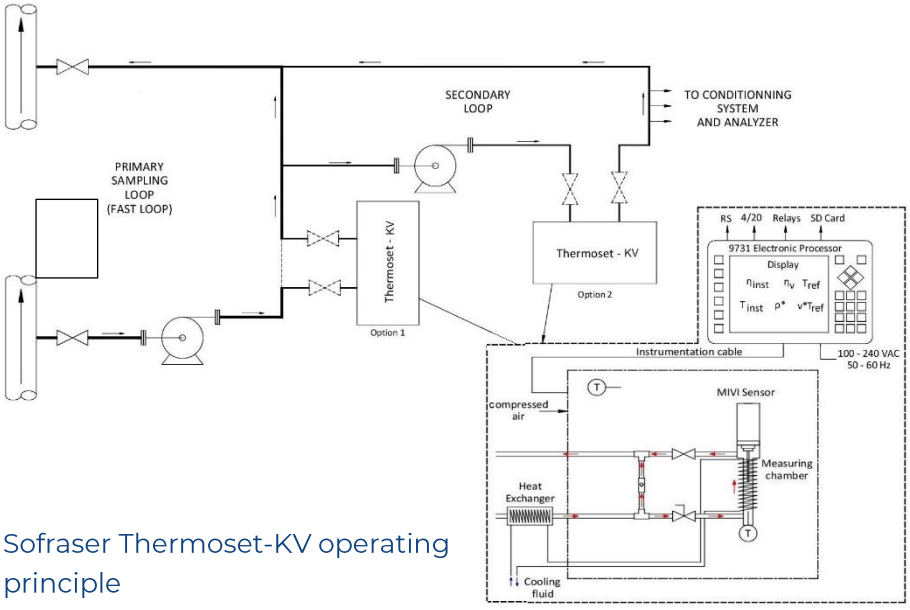
With innovative functionalities and **9731** electronics, the **Thermoset-KV** is the most convenient and effective technology for kinematic viscosity measurement at reference temperature. Using the acclaimed advancements of the MIVI viscosity sensor, the **Thermoset-KV** brings the fluid to the required temperature and measures its kinematic viscosity directly correlated to the ASTM D445 standard.

- **Guarantee product quality:** Thanks to reliable and repeatable measurements obtained continuously from the main process by-pass, the **Thermoset-KV** maintains strict manufacturing specifications.
- **Deliver optimal production efficiency:** With its simple installation in process operations, the **Thermoset-KV** has a small footprint, requires no side-systems and allows for outside installation.
- **Increase profitability:** An integrated bathless and ovenless flow-through cell guarantees minimal cleaning and maintenance related downtime. This asset provides tangible savings in both time and money while maximizing return on investment.
- **Technological versatility:** The **Thermoset-KV** processes myriads of parameters. It is highly tolerant to sample input temperature and is unaffected by the presence of particles, regardless of size. It is available for general purpose as well as classified areas. It can directly measure kinematic viscosity and thus calculate viscosity index as described in the ASTM 2270-04.

THERMOSET-KV– PROCESS ANALYZER

FEATURES AND SPECIFICATIONS

Measuring range	• Selectable up to 1000 cSt at reference temperature (higher on request)
Precision	• +/- 1% of reading (between 50% and 100% of full scale range)
Response time	• 2 to 5 min (depending on input sample temperature and reference temperature)
Outputs	• 5.7" LCD illuminated color touchscreen. Display of viscosity, temperature and density (option), 24 keys keypad & virtual keyboard • 4-20 mA (viscosity, temperature, density) • RS 485 – RS 232 • Viscosity and temperature alarms and relays
Operating conditions	• Maximum inlet temperature: 150 °C – 302°F (higher on request) • Reference temperature: from 40 to 135 °C – 100 to 275 °F (according to inlet temperature) • Maximum working pressure: 16 bar – 230 psi (higher on request)
Certification	Analyzer • ATEX: II 2 G Ex IIB or II 3 G Ex IIB (temperature classification depending on fluid temperature) • Class 1 Div 2 Processor • IP66 – General purpose (To be placed in a safe area
Process connections	• Standard Swagelok® tube fittings Ø12mm or ANSI flanges (to be specified)
Required inputs	• 110 or 240 VAC, single phase, 50-60 Hz, <100 W • Compressed air: 7 bar, 0.5 m3/h – 100 psi, 0.3 SCFM • Heating or cooling fluid (when required) • Product flow rate: 60 l/h – 0.25 gpm suggested
Size and weight (standard)	• Analyzer: • H: 600 mm – W: 600 mm – D: 250 mm – 60 kg approx. • H: 2' – W: 2' – D: 10" – 130 lbs approx. • Processor: • H: 400 mm – W: 300 mm – D 200 mm – 10 kg approx • H: 1'4" – W: 1' – D 8" – 22 lb approx.
Options and Accessories	• Specific data logging on SD card • Insertion of processor in an Ex-proof box • Installation skid



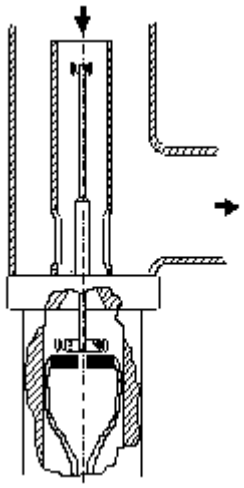
Sofraser Thermoset-KV operating principle

In 1981, Sofraser invented & patented the world's first vibrating viscometer at resonance frequency also called tuning-type.

The vibration amplitude varies according to the viscosity of the product in which the rod is immersed.

The active part of the sensor, a vibrating rod held in oscillation at resonance frequency, is driven by constant electrical power.

Sofraser remains unsurpassed regarding process reliability and accuracy.



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