SOFRASER
Pioneering viscometry since 1972

DASTEC
30 años de soluciones para la industria

THERMOSET-CF

COMPLETE FIELD VERSION

Correlated with ASTM D445

SELECTED APPLICATIONS

Refining: crude oil, light to heavy fuels, bitumen
Lubricants, hydraulic fluids
Polymerization: lacquers, varnishes

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

AUTOMATIC ANALYZER, ON-LINE VISCOSITY MEASUREMENT AT REFERENCE TEMPERATURE

Utilizing the acclaimed advancements of our MIVI viscosity sensor and **9731** innovative electronics, **Sofraser's Thermoset-CF** brings the most efficient technology to viscosity measurement at reference temperature.

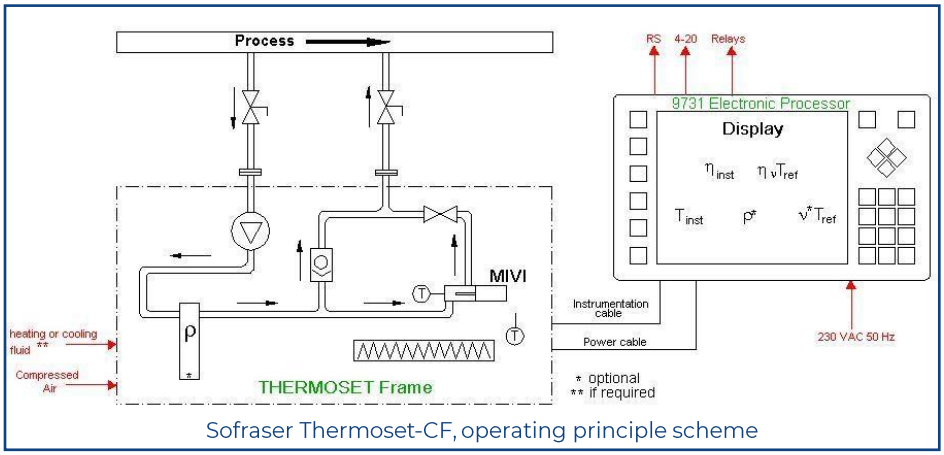
The **Thermoset-CF with integrated sampling system** draws the fluid from the process, takes it to the required temperature, measures the viscosity and re-injects the fluid to the main line. Viscosity measures are correlated to ASTM D445.

- **Guarantee product quality:** Thanks to the reliable and repeatable measures obtained in continuous by-pass operation from the main line, the Thermoset-CF maintains strict manufacturing specifications.
- **Deliver optimal production efficiency:** With one simple installation in permanent process operation, the Thermoset-CF has a small footprint, no annex installation, and outside installation is possible.
- **Increase profitability:** An integrated measuring chamber with no bath or oven guarantees insignificant cleaning or maintenance down-time. This asset provides tangible savings in both time and cost, while maximizing return on investment.
- **Technological versatility:** The Thermoset-CF processes myriad parameters. It is highly tolerant to input sample temperature and to particles' size. For extreme input temperatures, a conditioning module can heat or cool fluids before reaching reference temperature. ATEX built, it can be configured to calculate the viscosity index according to ASTM 2270-04, or to provide kinematic viscosity with density measurement.

THERMOSET-CF PROCESS ANALYZER

FEATURES AND SPECIFICATIONS

Measuring range	• Selectable up to 10 000 cP at reference temperature (higher on request)
Precision	• +/- 1% of reading (between 50% and 100% of full scale range)
Response time	• 2 to 10 min (according to input sample and reference temperatures)
Outputs	• Color and touch screen, display for viscosity, temperature, density (option) • 4-20 mA (viscosity, temperature, density) • RS 485 – RS 232 • Viscosity and temperature alarms and relays
Operating conditions	• Maximum inlet temperature: 190 °C • Reference temperature: according to the requirements from 40 to 150 °C • Maximum working pressure: 16 bar (higher on request) • Flow rate: 60 l/h – Internal volume: 0.15 l
Protection	Frame: • ATEX II 2 G Ex IIB or II 3 G Ex IIB (temperature classification depending on fluid temperature) • IP55 Processor: • IP66 – General purpose (to be placed in a safe area)
Process connections	• Standard flanges DN 10 PN 16 (other on request)
Required inputs	• 110 or 230 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)	Frame: H: 780 mm - W: 920 mm - D: 420 mm - 110 kg approx. Processor: H: 450 mm – W: 405 mm – D 263 mm – 11 kg approx.
Options and Accessories	• Density measurement / Kinematic viscosity measurement in cSt • Cleaning / Filtering module down to 100 microns • Conditioning module (sample cooler or heater) • Insertion of processor in ex-proof box • Specific request



Sofraser Thermoset-CF, operating principle scheme

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.

DASTEC

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