Thermoset MIVI 9630

Correlated with ASTM D445

Typical 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

With innovative functionalities and electronics, **Sofraser's Thermoset MIVI 9630** brings the most efficient technology to viscosity measurement at reference temperature. Utilizing the acclaimed advancements of our MIVI viscosity sensor, the **Thermoset MIVI 9630** 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 MIVI 9630 maintains strict manufacturing specifications.
- **Deliver optimal production efficiency:** With one simple installation in permanent process operation, the Thermoset MIVI 9630 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 MIVI 9630 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.

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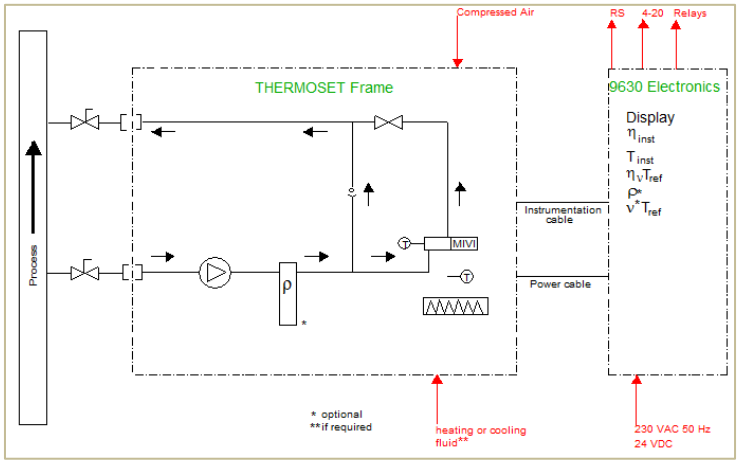
Thermoset MIVI 9630

Features and specifications	
Measuring range	• 1-100 cP, 10-1000 cP, 100-10 000 cP at reference temperature
Repeatability	• +/- 1 % of Full Scale Range
Response time	• 2 to 10 min (according to input sample and reference temperatures)
Outputs	• Digital display for viscosity, temperature, density (option) • 0/4-20 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: • To be placed in a safe are • IP65
Process connections	• Standard flanges DN 10 PN 16 (other on request)
Required inputs	• 230 VAC, single phase, 50-60 Hz, 400 W • 24 VDC, 10 W • Compressed air: 7 bar, 0.5 m^3/h • Heating or cooling fluid (when required)
Size and weight (standard)	• 110 kg approx. • H : 780 mm - W : 920 mm - D : 420 mm approx.
Options	• 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

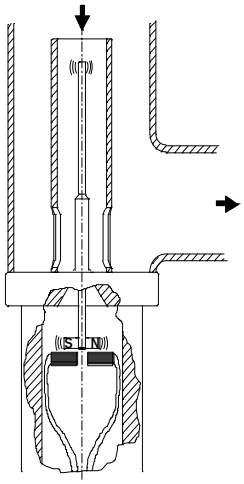


Sofraser Thermoset MIVI 9630 operating principle scheme

In 1981, Sofraser invented and patented the world's first vibrating-type viscometer at resonance frequency and remains unsurpassed regarding process reliability and accuracy.

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

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



Quality System AFAQ ISO 9001 VERSION 2000

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