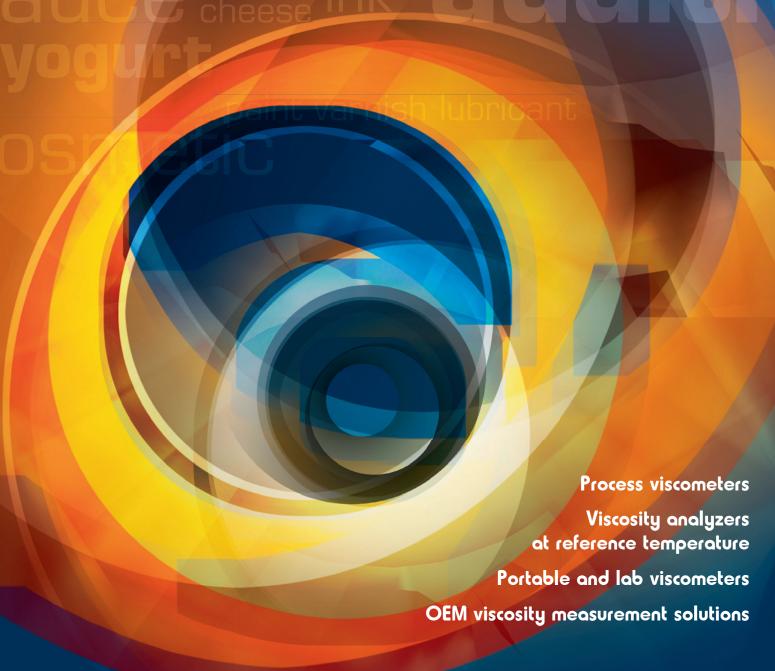
## Since 1972 Since 1972 Since 1972 FRASER Leader in Process Viscometry **Expertise and innovation** in viscosity measurement and control



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#### Sofraser MIVI sensor

#### Process viscometer with high performance and flexibility



The Sofraser MIVI sensor is the ideal process instrument for inline or on reactor, instant, and permanent viscosity measurement.

This established device has excellent capabilities in any fluid, diverse applications, and in various positions.

Via simple mounting plus paired and matched electronics, the Sofraser MIVI sensor suits all of your requirements.

- High repeatability
- Configuration for high temperature and high pressure working conditions
- Approved design for explosive areas and sanitary processes
- Simple installation, no maintenance and non-wearing parts
- Varied mounting configurations and positions allow optimal fluid measure

#### **Specifications** Viscosity From 0.1-10 mPa.s to 1000-1 000 000 mPa.s Measuring range High sensitivity 0.01-10 mPa.s ±0.1% of full scale range Repeatability **Conditions** From -30°C to 300°C Operating temperature Working pressure 60 bar, option up to 500 bar, more on request **Material** 316L stainless steel Special alloy: Hastelloy, 316Ti, Duplex, etc. Protective coatings: Diamond-Like (ADLC), PTFE, Enamel, etc. Hazardous areas ATEX, FM, JIS, KGS approved Safety & Hygiene Sanitary design according to 3A **Degree of protection** Temperature probe Internal or external

## Sofraser electronic range Viscosity and temperature processors



Sofraser has the world's largest transmitter and processor range, covering from simple data acquisition needs to complex viscosity and temperature requests. Equipped with numerous outputs possibilities, the processors can offer multi-sensor capabilities.

- Easy to use electronics and simple mounting
- Constant display of the viscosity and temperature, real time control
- Effortless connection to any data acquisition system or process controller, up to 12 current outputs







 Multi-sensor option and programmable parameters up to 8 products





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#### Sofraser Thermoset MIVI

#### Powerful online viscosity analyzer at reference temperature

The Sofraser Thermoset MIVI combines the established MIVI sensor with technological viscosity measurement at reference temperature.

By drawing fluid from the process and taking it to user reference temperature, it allows a perfect viscosity measurement in correlation with ASTM D-445. Its design provides a permanent measure without a bath or oven, and absolutely no clogging.

- Reliable and repeatable measure
- Permanent process operation in one installation
- Integrated measuring chamber: very few maintenance and easy installation
- ATEX design, optional density measurement, viscosity index calculation

#### **Specifications**

#### **Viscosity**

Measuring range 1-100 cP, 10-1000 cP, 100-10 000 cP at reference temperature cSt on request with incorporated densimeter

Repeatability ±1% of full scale range

#### **Conditions**

Product inlet temperature 190°C max. - Higher on request

Reference temperature From 40°C to 150°C, according to the requirements

Working pressure 16 bar – Higher on request Safety Hazardous areas ATEX



## Sofraser PIVI range Portable and lab viscometers



The Sofraser PIVI range answers the most accurate viscosity requirements in a compact and easy to use system for applications ranging from quality control to goods delivery control.

The Sofraser PIVI viscometers integrate a digital display and internal memory of 16 measures in order to optimize the polyvalence of your process controls.

- Accurate and reliable in every context
- Small sample volume
- Easy to clean and use from one application to another
- No wearing parts, low maintenance
- Compact, simple and robust

#### **Specifications**

#### Viscosity

Measuring range From 0.1-100 mPa.s to 10-10 000 mPa.s

Repeatability ±0.5% of full scale range

#### **C**onditions

Sample temperature Up to 200°C

Material 316L stainless steel

Degree of protection IP 67
Weight From 0.9 kg



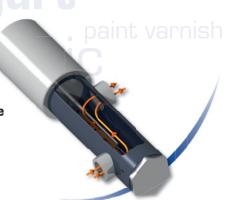
### **OEM** viscosity measurement solutions

**Designed for process** machinery

For quantity markets, Sofraser designs process viscometer features and creates specific developments to match requirements.

Through the machinery and optimization of fluid quality, our goal is to increase both manufacturers' and customers' profitability.

- Unprecedented versatility
- Robust, reliable, and maintenance-free
- Easy-to-handle and install





#### **Expertise and innovation**

in viscosity measurement and control

Sofraser invented and patented **the world's first vibrating 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.



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Quality System





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