

Since 1972

**SOFRASER**

Leader in Process Viscometry

## 7000 Viscosity Transmitter



### Typical application fields

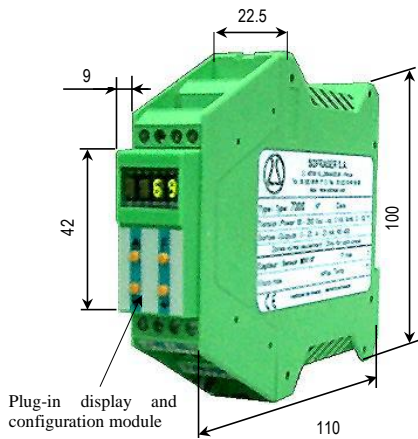
- **Food & beverage:** cheese, yeast, sauces
- **Printing:** inks, varnishes
- **Packaging:** cardboards, glues, inks
- **Coating:** paints, lacquers
- **Pharmaceuticals and cosmetics:** detergents, hygiene and care products

### INSTANT AND PERMANENT VISCOSITY AND TEMPERATURE MEASUREMENT

The Sofraser **7000V** electronic cabinet processes the amplitude variations from the MIVI **viscometer** in order to deliver a linear viscosity response (20 segment table). It includes a digital display, analog and digital outputs, and displays the process temperature.

- With **easy-to-handle electronics**, standardized outputs and adjusted calibration, the Sofraser **7000** transmitter is the reference for standard process applications
- **Easy connection to any data acquisition system or process controller** for precise reporting and control.
- **Easy mounting** on a standard DIN rail

*Whatever your industry, Sofraser understands and develop solutions for many applications. For a personalized approach, contact: [instruments@sofraser.com](mailto:instruments@sofraser.com)*



## 7000 Viscosity Transmitter

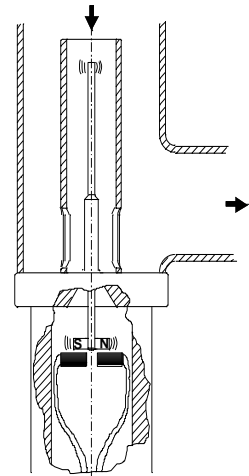
### Standard features and specifications

<b>Inputs</b>	<ul style="list-style-type: none"> <li>• Viscosity</li> <li>• Temperature (Pt100 probe)</li> </ul>
<b>Outputs</b>	<p>Independent and insulated outputs for viscosity and temperature:</p> <ul style="list-style-type: none"> <li>• One or two 4 - 20 mA <math>\pm</math> 0,1 %; Z max.: 750 <math>\Omega</math>; drift: 50 ppm/<math>^{\circ}</math>C</li> <li>• One RS 485, up to 32 sets to be connected; configuration required: maximum cable length 1000 m / 3280 ft, 1 twisted pair cable 1200 to 38400 baud, protocol MODBUS, slave code: RTU</li> </ul>
<b>Resolution</b>	<ul style="list-style-type: none"> <li>• 0,1 % of full scale range</li> </ul>
<b>Operating conditions</b>	<ul style="list-style-type: none"> <li>• Working temperature: 0 to 50<math>^{\circ}</math> C / 32<math>^{\circ}</math> F to 122<math>^{\circ}</math> F</li> <li>• Process temperature: -20<math>^{\circ}</math> C to 100<math>^{\circ}</math> C / -4<math>^{\circ}</math> F to 212<math>^{\circ}</math> F</li> <li>• Thermal drift sensor correction up to 100<math>^{\circ}</math> C / 210<math>^{\circ}</math> F</li> <li>• Watertightness: IP20</li> <li>• To be installed in a safe area with stable temperature</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• Dimensions: 100 mm x 22.5 mm / 3 9/10" x 22/25"</li> <li>• Total depth: 110 mm / 4 1/3"</li> <li>• Weight: 180g / 0,4 lb</li> </ul>
<b>Power input</b>	<ul style="list-style-type: none"> <li>• 85 to 265 VAC / DC</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• CE marked (European conformity)</li> </ul>
<b>Options</b>	<ul style="list-style-type: none"> <li>• One or two programming and display module(s): 4 digits displays for original settings modification (calibration, outputs, shifts, dynamic filtering...)</li> <li>• Insertion in an ATEX ex-proof box, for use in hazardous areas</li> <li>• Insertion in a watertight box (IP65)</li> </ul>
<b>Service options</b>	<ul style="list-style-type: none"> <li>• Calibration certificate with standard Newtonian products</li> <li>• Temperature correction: linearization of viscosity signal by mathematical model</li> <li>• Calibration table or curve plot from at least 6 certified viscosity standard oils, up to 1,000,000 cP</li> <li>• Calibration and calibration report at 1, 2, or 4 viscosity point(s) up to 300,000 cP</li> <li>• Programmed temperature compensation table or settings according to end-user provided "viscosity versus temperature" values</li> </ul>

In 1981, 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 a constant electrical power.

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



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