



## Typical application fields

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

## INSTANT VISCOSITY MEASUREMENT AND CONTINUOUS CONTROL

The Sofraser **8004** electronic cabinet processes the amplitude variations from the MIVI **viscometer** in order to deliver a linear viscosity response. It includes a digital display, a control loop, as well as analog and digital outputs.

- **Sequential product contribution:** ensures the sequential solvent contribution to maintain constant ink or other products' viscosity
- **Regulation:** all or nothing, all or little or nothing, PID control loops
- **Data processing and regulation module:** flush-type (1/8 DIN format)
- **Calibration:** factory programmed, 20 possible segments
- **Status display:** programmable threshold and hysteresis

Whatever your industry, we understand and develop solutions for many applications. For a personalized approach, contact us at:  
[instruments@sofraser.com](mailto:instruments@sofraser.com)



## 8004 Viscosity display and Controller

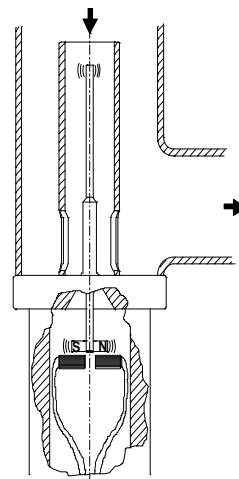
### Standard features and specifications

<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 analog output: 4 - 20 mA <math>\pm</math> 0.1%; Z max.: 750 <math>\Omega</math> or 0-5 or 10V, running &lt; 20mA</li> <li>• Two relay outputs: switching power up to 2A, 230 VAC, or 30 VDC</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° C / 32° C to 122° F</li> <li>• Process temperature: -20 °C to 100° C / -4° F to 212° F</li> <li>• Sensor thermal drift correction up to 100° C / 212° F</li> <li>• Watertightness: Front panel IPI, back panel IP20</li> <li>• To be installed in a safe area</li> </ul>
<b>Display</b>	<ul style="list-style-type: none"> <li>• Permanent 4 digits viscosity display</li> <li>• Permanent display 4 digits for set point or control output</li> <li>• 5 status leds (alarms, manual / auto mode, data transmission)</li> </ul>
<b>Dimensions &amp; characteristics</b>	<ul style="list-style-type: none"> <li>• Dimensions: 92 mm x 45 mm / 3 18/29" x 1 17/22"</li> <li>• Total depth: 120 mm / 4 23/32" inch</li> <li>• Weight: 280 g / 0,6 lb</li> <li>• Panel mounting (1/8 DIN format)</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 serial port: RS232 monopoint type (distance &lt; 30 m / 98,4 ft) or RS485 multipoint type: 32 devices (distance &lt; 1000 m / 3280 ft)</li> <li>• One analog output: 4 - 20 mA <math>\pm</math> 0.1 %; Z max.: 750 <math>\Omega</math> or 0 - 10V, running &lt; 20mA</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 program 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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