

## 9610 Viscosity and Temperature Processors

**9611 Multi-sensor Processor (serial output)**

**9612 Multi-sensor Processor (4 analogical outputs)**

**9613 Multi-sensor Processor (12 analogical outputs)**



### Typical application fields

- **Printing & Packaging:** inks, varnishes, cardboard glues, adhesives
- **Coating:** paints, lacquers
- **Chemistry:** polymers, detergents, surfactants
- **Cosmetics:** creams, gels
- **Oil & Gas:** fuels, lubricants

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### POWERFUL MULTI-SENSOR VISCOSITY & TEMPERATURE PROCESSORS

The **Sofraser 9610 electronic processor family** receives signals from up to 6 Numeric MIVI sensors while accurately displaying a fluid's viscosity and temperature. When several viscosity measures are needed within a reduced area, the 9610 processor range is the ideal solution.

- **One interface & easy-to-handle electronics:** With one 9610, information from up to 6 sensors is easily processed. For batch control, this is an economic and ideal solution.
- **Improved process management:** With numerous analogical and numerical outputs, the **9612 and 9613 processors** are customized to specific process control needs; alarm values can be set to handle simple control management.
- **Secure access:** The 9610 configuration and parameters are password-secured according to authority level.
- **Instantaneous viscosity & temperature display:** In addition to precise viscosity and temperature values, the 9610 offers visual confirmation via bars or graphs.
- **User-friendly menu:** 24 front panel keys provide intuitive use and facilitate the simple switch from one Numeric MIVI sensor to another.



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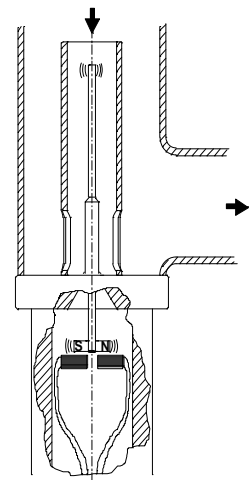
### Standard Features and Specifications

<b>Inputs</b>	<ul style="list-style-type: none"> <li>1 x RS485 input (master) for up to 6 Numeric MIVI (viscosity/temperature) – Maximum cable length: 1200 m</li> <li>Densimeter input (9612)</li> </ul>
<b>Outputs</b>	<ul style="list-style-type: none"> <li>0/4 - 20 mA outputs: independent and insulated for viscosity and temperature: <math>\pm 0,1\%</math> ; Zmin = 1K <math>\Omega</math>, Zmax.: 500<math>\Omega</math></li> <li><b>9611</b>: no 0/4 - 20 mA output</li> <li><b>9612</b>: 4 x 0/4 - 20 mA outputs</li> <li><b>9613</b>: 12 x 0/4 - 20 mA outputs</li> <li>RS232 Modbus</li> <li>Canbus protocol</li> </ul>
<b>Screen &amp; Display</b>	<ul style="list-style-type: none"> <li>Effective screen dimensions: 128 x 64 pixels</li> <li>Keyboard 24 keys</li> <li>Display of instantaneous values, bars or graphs</li> <li>Relays status display (9612 and 9613 only)</li> <li>Output status display (9612 and 9613 only)</li> </ul>
<b>Operating conditions</b>	<ul style="list-style-type: none"> <li>Working temperature: 0 to 45 °C</li> <li>Front panel IP65 / Back panel IP20</li> </ul>
<b>Dimensions &amp; characteristics</b>	<ul style="list-style-type: none"> <li>Panel dimensions: 184 mm x 155 mm</li> <li>Total depth: 85 mm</li> <li>Weight: 9611: 515 g – 9612: 940 g – 9613: 1335 g</li> <li>Din rail for external modules (9613 only)</li> <li>Parameters backup: 7 years on battery</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>Configuration and parameters password-secured</li> </ul>
<b>Power supply</b>	<ul style="list-style-type: none"> <li>24 VDC (20.4 to 28.8 VDC) – 300 mA – 7.2W</li> </ul>
<b>Regulatory</b>	<ul style="list-style-type: none"> <li>CE marked (European conformity)</li> </ul>
<b>Options</b>	<ul style="list-style-type: none"> <li>1 x RS485 output Modbus / slave code: RTU</li> <li>Possibility of 1x 0-10V output instead of 1x 0/4 - 20 mA output</li> <li>Ex-proof box, for use in hazardous areas</li> <li>Watertight box (IP65)</li> </ul>

In 1981, Sofraser invented & 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



Quality System



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