

## THERMOSET- KV PRELIMINARY BROCHURE

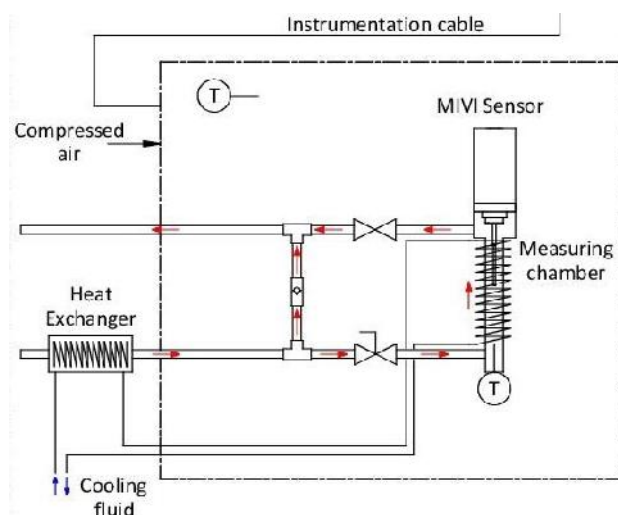


### DESCRIPTION

The ThermoSet-KV (Kinematic Viscosity) is an online analyzer designed to continuously measure kinematic viscosity at reference temperature. The measurement principle is based on the vibration at resonance frequency technology developed by Sofraser in 1981. The active part of the measurement is a vibrating rod driven by constant electrical power. The amplitude of the vibration varies according to dynamic viscosity and the frequency varies according to density.

The analyzer uses a flow-cell in which the product flows along the sensor described above. Using the combined dynamic viscosity and density measurement, the electronic panel calculates real time kinematic viscosity of the product

By adjusting coolant temperature of the flow-cell, the end-user can select the reference temperature.



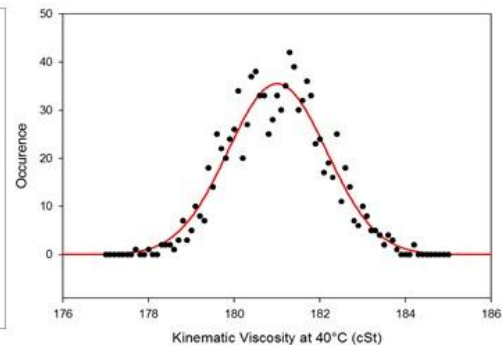
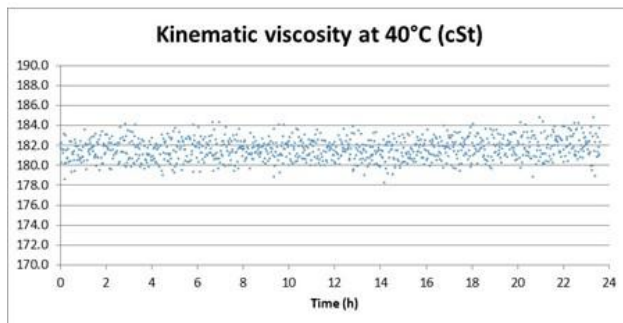
*Schematic diagram of the ThermoSet-KV*

## SPECIFICATIONS<sup>1</sup>

- Measuring Range
  - o Viscosity : 0-500 cSt
  - o Density : 0.6 -1.6 g/cc
- Precision : 1% of measurement at operating point (between 50% and 100% of Full Scale)
- Operating conditions:
  - o Maximum Temperature : 200°C/390°F (higher temperature available on request)
  - o Reference Temperature : Between 40°C and 135°C/100°F and 275°F
  - o Maximum Pressure : 16 bars/230 psi
- Utilities
  - o Power Supply : 110 or 240 VAC, single phase, 50-60Hz
  - o Electrical consumption below 100W
  - o Compressed Air : 7 bar/100 psi, 0.5 m<sup>3</sup>/h / 0.3 SCFM
  - o Chilled Water (must be supplied by customer, temperature application dependent)
- NEC Class 1 Div 2 and ATEX II 2 G Ex IIB or II 3 G Ex IIB

## RESULTS ON SELECTED PRODUCT

Below are the results on a viscosity standard rated at 182.6 cSt at 40°C.



**Kinematic Viscosity at 40°C (cSt)**

<i>Reference value</i>	182.6
<i>Measured Value</i>	181.55
<i>Standard Deviation (%)</i>	0.6%

<sup>1</sup> Subject to minor change with final brochure