



The low-cost sensor: VA-100



VA-100C-LT with 1.5" NPT-thread

VA-100B-LT with Varivent®-Fitting 50/40

The **VA-100** ViscoScope sensor has been developed for applications in the low to medium viscosity range, e.g. for mixing processes, paints and varnishes as well as food products. The sensor measures the dynamic viscosity precisely, reliably and in real-time. Reproducible measurements are essential both for quality control assurance and for process optimisation with the corresponding documentation.

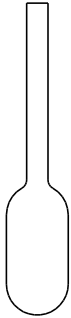
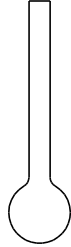
The completely welded design of the sensor probe ensures no moving parts are in contact with the liquid being measured. The low amplitude of the resonance frequency oscillation used by the sensor prevents material fatigue. As a result, the instrument requires virtually no maintenance.

Series production with NPT-thread and antiseptic fittings make it suitable for installations in all kinds of applications.

The two different sensor probe types cover a viscosity range up to 25,000 mPa·s.

You can find technical information regarding the sensors on the reverse side of this leaflet. We will be happy to advise you in selecting the correct instrument.

Overview of the various sensors

		
Sensor type	VA-100C Cylinder	VA-100B sphere
Viscosity range in mPa·s x gr/cm ³	0.1 – 2,500	10 – 25,000
Probe size	ø 1.25 x 5.7" ø 32 x 145 mm	ø 1.25 x 4.6" ø 32 x 117 mm
Material	316L and 316Ti (option: Hastelloy C22, Duplex 2205, teflon coating)	
Protection	IP65	
Process temperature (optional Pt100 is integrated into viscosity probe)	LT from -15°F to 270°F / -10°C to 130°C HT from -15°F to 480°F / -10°C to 250°C HT with air cooling	
Process connection	1,5" NPT-thread or Tri-Clover® 2" or Varivent® 50/40	
Pressure	Vacuum up to 950 psi / 64 bar, dependend on fitting	
Installation	Installation in any orientation in reactor, vessel, pipe, flow-through cell	
Resonance frequency Shear rate	~ 520 Hz ~ 3250 sec ⁻¹	~ 550 Hz ~ 3450 sec ⁻¹
Cable length Sensor - Transmitter	maximum 3,330 feet / 1,000 meters short cable length recommended for very low viscosities	
Speed of flow	up to 16 feet / sec. or 5 m / sec., dependend on installation	
Reproducibility of reading	± 0.3% or ± 1 Digit	± 0.3%
Accuracy of reading	± 1% or ± 1 Digit	± 1%
option: hazardous area	in planning	

Subject to change without notice.

Sometimes process technology, applications or local conditions demand the design of the special instrument.

The VA-100S (special) sensor is designed for these applications.