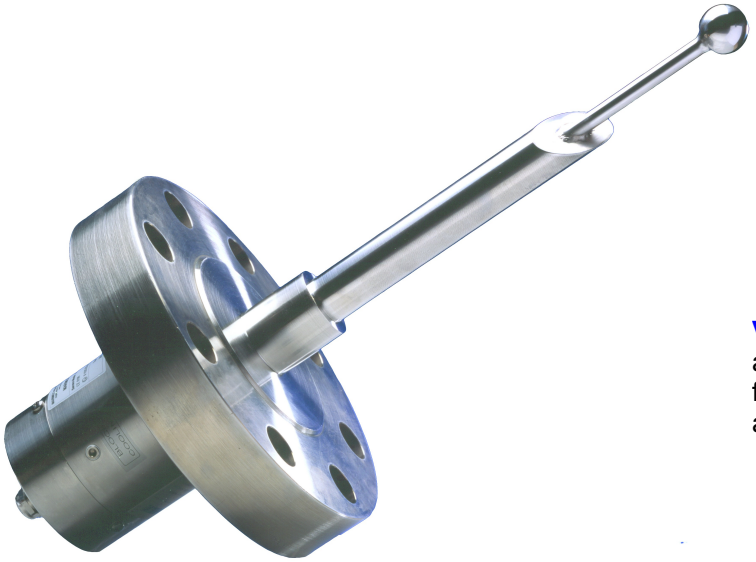
The sensor for every occasion:
VA-300



VA-300H-ST with flange 2.5“ 2500#
and special non-active-extension (NAE)
for operation in polymer melts
at 540°F and 1750 psi in hazardous area

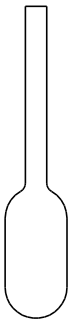
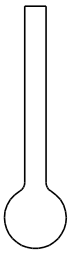
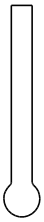
The ViscoScope **VA-300** sensor can be used for practically any application, in which constant monitoring of viscosity is required. The sensor measures the dynamic viscosity precisely, reliably and in real-time. Reproducible measurements are essential both for quality control assurance and for process optimisation with the corresponding documentation.

Manufacturing the sensors to order means they can be installed in the ideal position in the plant and modifications can be avoided or minimised. The completely welded design of the sensor probe ensures no moving parts are in contact with the fluid 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.

A variety of sensor probe types guarantee the optimal measurement in the specified viscosity range. And this is achieved both under normal conditions and under the toughest conditions such as high temperature and pressure in hazardous areas.

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-300L** large cylinder	**VA-300M** small cylinder	**VA-300H** sphere	**VA-300X** mini sphere
Viscosity range in mPa·s x gr/cm^3	0.1 – 2,500	1 – 25,000	10 – 250,000	100 – 2,500,000
Probe size	ø 1.25 x 7.5“ ø 32 x 187 mm	ø 1.25 x 6.5“ ø 32 x 165 mm	ø 1.25 x 5“ ø 32 x 127 mm	ø 0.75 x 4.5“ ø 19 x 114 mm
Material	316L and 316Ti (option: Hastelloy C22, Duplex 2205, teflon coating)			
Protection	IP65			
Process temperature (Pt100 is integrated into viscosity probe)	LT from -40°F to 270°F / -40°C to 130°C ST from -40°F to 570°F / -40°C to 300°C HT from -40°F to 840°F / -40°C to 450°C ST and HT with air cooling, dependend on installation			
Process connection Flange	Standard ANSI 3“ 300# or DN80 PN40 others on request			
Pressure	Vacuum up to 6,500 psi / 450 bar			
Installation	Installation in any orientation in reactor, vessel, pipe, flow-through cell			
Resonance frequency Shear rate	~ 550 Hz ~ 3450 sec^{-1}	~ 580 Hz ~ 3650 sec^{-1}	~ 600 Hz ~ 3800 sec^{-1}	~ 635 Hz ~ 4000 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 33 feet / sec. or 10 m / sec., dependend on installation			
Reproducibility of reading	± 0,3% or ± 1 Digit	± 0,3% or ± 1 Digit	± 0,5%	± 0,5%
Accuracy of reading	± 1% or ± 1 Digit	± 1% or ± 1 Digit	± 1%	± 1%
option: hazardous area	ATEX $\langle\varepsilon_x\rangle$ II 1/2 G EEx ia IIC T3 – T6			
option: non-active-extension (NAE)	Eliminates no-flow areas in a pipe connection on a reactor, in a T-piece or flow-through cell. Can also be used to bridge gaps in open channel applications. Sizes on request.			

Subject to change without notice.

Sometimes process technology, applications or local conditions demand the design of the special instrument. The VA-300S (special) sensor is intended for precisely these applications. If it is technically possible, it can be accomplished with this instrument.

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