

Hydramotion ViscoJet VJ1-100 Stand-Alone Process Viscometer VJ1-10X-TS-d24

The ViscoJet 100 offers an intelligent sensing system for continuous on-line viscosity measurement in process control environments requiring high resolution and accuracy with excellent repeatability. Ready for use straight out of the box, the ViscoJet VJ1 is a high-performance stand-alone device that can be connected directly to a PLC or DCS for real-time viscosity monitoring and control. Storing all instrument-specific data on the sensor itself gives complete flexibility of installation while facilitating on-the-spot performance monitoring and optimization.

Viscosity can be measured for almost any Newtonian fluids whether they are moving or at rest. In addition, the ViscoJet is ideal for most non-Newtonian fluids because its high shear rate results in highly repeatable measurements that aren't affected by flow rate changes.

Unaffected by vibration or flow conditions, the ViscoJet is factory-calibrated to international standards traceable to NIST, which means that the device is shipped ready for immediate use with no need for field calibration.

The robust orientation-independent sensor has a solid construction with no moving parts, seals or bearings, so routine maintenance is not required even under difficult process conditions. An integral thermometer provides simultaneous measurement of fluid temperature, allowing calculation and real-time display of viscosity corrected to a reference temperature.

Operating on a 24V DC supply voltage, the ViscoJet provides two 4-20mA analog viscosity signals and a more comprehensive RS485 serial data link.

The optional PC-based ViscoLink software has a user-friendly interface showing live viscosity, current temperature and temperature-corrected viscosity and the data can be exported to Microsoft Excel for logging and analysis. ViscoLink provides instant access to a complete set of diagnostic parameters for instrument validation purposes, thereby minimizing the time, effort and cost involved in any regulatory assessment of calibration and condition.

Installed in minutes, the ViscoJet offers an immediate, reliable and durable solution to the challenges of real-time on-line viscosity measurement on any process line.

Features

- Stand-alone operation
- High sensitivity and repeatability
- Integral temperature sensor
- No moving parts--no maintenance
- Spigot mounting installation



Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

Hydramotion ViscoJet VJ1-100 Stand-Alone Process Viscometer VJ1-10X-TS-d24

Specifications

Viscosity Range:	0 to 1,000 cP
Measurement time:	1 second
Viscosity Accuracy:	1% of reading or ± 0.1 cP
Viscosity Repeatability:	0.3% of reading or ± 0.05 cP
*Temperature Range (sensor):	-50°C to 150°C standard
*Pressure Range:	up to 50 bar standard
Sensor bob diameter:	24 mm
Process Connection:	$\frac{3}{4}$ " or 1" BSPP/NPS, or 1 $\frac{1}{2}$ " cone seat compression fitting
Overall Length:	355 mm
Weight:	3 kg
Materials:	316 Stainless Steel standard (other materials available)
Surface finish:	N6 0.8 μ m Ra
Environmental Rating:	IP67
Safety Certification:	Safe Area only
Power Supply:	24V DC @ 80 mA
Display Units:	centipoise
Temperature:	Integral temperature sensor
Analog Output:	2 x 4-20 mA configurable, representing viscosity, referenced viscosity or temperature
Digital Data:	RS485 ModBus serial link
Software Configuration and Display:	ViscoLink data viewing and logging PC software

* Note: Other models with extended temperature and pressure ranges also available.

