

Hydramotion XL5 Process Viscometer

The XL5 viscometer is available as a range of standard models, but can also be adapted to suit many special applications - all with the same features and benefits:

Features

- High sensitivity over wide range
- Simple tank or pipeline installation
- High accuracy and repeatability
- No moving parts -- no maintenance
- Digital and analog outputs
- Integral temperature sensor

The XL5 uses the same reliable technology as the XL7 but is designed for smaller reactor vessels and pipes, where a compact, lightweight device is more suitable. A lighter touch also helps with low fluid volumes and smaller scale applications.



Viscosity can be measured for almost any Newtonian fluids whether they are moving or at rest. In addition, the XL5 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.

All instruments are supplied with a signal processor, the most common being the VP550. The signal processor can be mounted up to 1 km from the transducer and has digital and analog outputs for recording or remote monitoring. XL5 viscometers are frequently used as part of a feedback loop for plant or viscosity control. An internal temperature sensor is standard and connects to the signal processor to automatically calculate viscosity corrected to a specific reference temperature.

Every viscometer is factory calibrated in an ISO 9001 laboratory to national traceable standards. Each device delivers high accuracy and long duty with simple installation, no maintenance and unbeatably low cost of ownership.

All standard instruments are available as intrinsically safe and/or hygienic models and come with the process connection of your choice. There is no special pipe work or calibration required. Simply fit to the line, connect the power and you are ready to go.

Specifications

Performance	Range	From 0 – 1cP to 0 – 10 ⁹ cP over 10 models
	Measurement Time	1 second
	Accuracy	1% of reading or +/- 1 digit
	Repeatability	0.3% of reading or +/- 1 digit
Temperature	Standard Range	-50 °C to 100 °C
Pressure	Standard Range	To process fitting
	Extended Range	To order for extreme pressure *
Process connection	Standard fitting	All types of process fitting
	Special fitting	Non-standard process connection to order *
Electrical connection	Cable Length	As required – not affected by cable length up to 1000m
	Connector	Binder 4-way

Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

	Power	VP Processor powered
Safety certification	Hazardous Area	All instruments available for Ex Hazardous Area, explosive atmospheres Ga Ex ia IIC T1...T6
Construction	All welded, crevice-free	
Weight	1.2 kg + fitting	
Materials	Head	SS316 (EN 1.4401) and SS316L (EN 1.4404)
	Fitting	As required
	Sensor	SS316 (EN 1.4401) and SS316L (EN 1.4404) as standard
	Sensor Options	Alloy C22 (EN 1.0402) Alloy C276 (EN 2.4819) S32750 Duplex Steel (EN 1.4410)
	Special Materials:	Non-standard materials to order *
Surface finish	Standard	N5 0.4 µm Ra
	Finish Options	Fluoropolymer Electropolished Electroplated
	Special Finish	Non-standard finish options and coatings to order *
Ingress protection	Standard	IP67
Software	ViscoLink data viewing and logging PC software	
* Special ops	Custom variations to instrument specification and dimensions routinely provided	

