



the unique Hydramotion Viscolite 700

- **Fast, accurate & robust**
- **World's only truly portable viscosity meter**
- **Solid 316 stainless steel construction**

A immerse...



B ...read...



C ...wipe



The solid stainless-steel sensor is simply immersed into the fluid to obtain an immediate viscosity measurement. There is no limit on vessel size or fluid volume, so long as most of the probe is covered. Simply wipe clean after use.

Digital Precision in an Instant

Measurements are shown instantly on a digital display. The lightweight readout unit and probe, combined with long battery life, make the Hydramotion Viscolite hand-held viscometer well suited to long duty in the factory or laboratory or on the move.

Accurate and Tough

The Viscolite is amazingly robust - able to withstand the most heavy-handed use without sacrificing outstanding accuracy and sensitivity. You can even stir the fluid with it! Furthermore, the absence of any moving parts, seals or bearings means maintenance is virtually eliminated.

All Viscolites are factory calibrated in a ISO9001 laboratory and come complete with their own carrying case, User Manual, and Calibration Certificate. A standard feature is **integral temperature measurement** for automatic temperature correction of viscosity.



Making waves in sensor technology

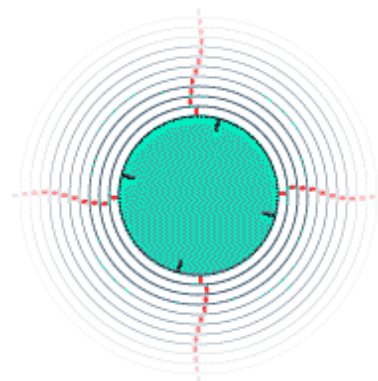
The Viscolite viscometer is in a class of instruments called *vibrational* or *resonant* viscometers. Vibrational viscometers work by creating waves — but it turns out that the type of wave is very important. Not just any wave will do.

Viscosity is a *shear* measurement. It can only be truly assessed under shear conditions, so we use *shear waves*. There are many other types of vibrational waves but these are avoided as they can behave unpredictably in process environments.

To the naked eye, nothing moves. The solid stainless steel sensor is submerged in the fluid and made to move back and forth microscopically at a high frequency. This is called “resonance”. As the surface of the sensor shears through the liquid, energy is lost to the fluid because of its viscosity.

The dissipated energy is accurately measured by microprocessor-controlled electronics and then equated back to viscosity. Higher viscosity causes a greater loss of energy and hence a higher reading.

The harnessing of the wave dissipation principle with solid engineering design gives Hydramotion viscometers a rare combination of incredible sensitivity and toughness.



Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

Model VL7-100B-d21 Portable Viscometer



Transducer

Viscosity Accuracy:	1% of reading or ± 0.1 cP
Viscosity Repeatability:	0.5% of reading or ± 0.1 cP
Complete Viscosity Range:	0 to 10,000 cP
Minimum Sample Volume:	100 ml
Min. Immersion Depth, Viscosity only:	115 mm (4.53 in)
Min. Immersion Depth w/Temperature:	145 mm (5.71 in)
Overall Length:	303 mm (11.93 in) standard
Temperature Range:	-20°C to 120°C (-4°F to 248°F)
Weight:	700 g (1.54 lb)
Wetted Parts:	316 Stainless Steel
Enclosure:	Acetal (Delrin®)
Environmental Rating:	IP65
Safety Certification:	Safe Area

Signal Processor

Processor:	HP550
Weight:	500 g (1.10 lb)
Environmental rating:	IP65
Power Supply:	4 x AA alkaline cells
Temperature:	Temperature measurement and viscosity correction to standard temperature

Accessories:	Carrying case, user manual, calibration certificate
Option:	Hastelloy C-22 wetted parts

Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

Model VL7-100B-d15 Small-Sample Portable Viscometer



Transducer

Viscosity Accuracy:	1% of reading or ± 0.1 cP
Viscosity Repeatability:	0.5% of reading or ± 0.1 cP
Complete Viscosity Range:	0 to 5,000 cP
Minimum Sample Volume:	10 ml
Min. Immersion Depth, Viscosity only:	35 mm (1.38 in)
Min. Immersion Depth w/Temperature:	62 mm (2.44 in)
Overall Length:	213.5 mm (8.41 in)
Temperature Range:	-20°C to 120°C (-4°F to 248°F)
Weight:	500 g (1.10 lb)
Wetted parts:	316 Stainless Steel
Enclosure:	Acetal (Delrin®)
Environmental Rating:	IP65
Safety Certification:	Safe Area

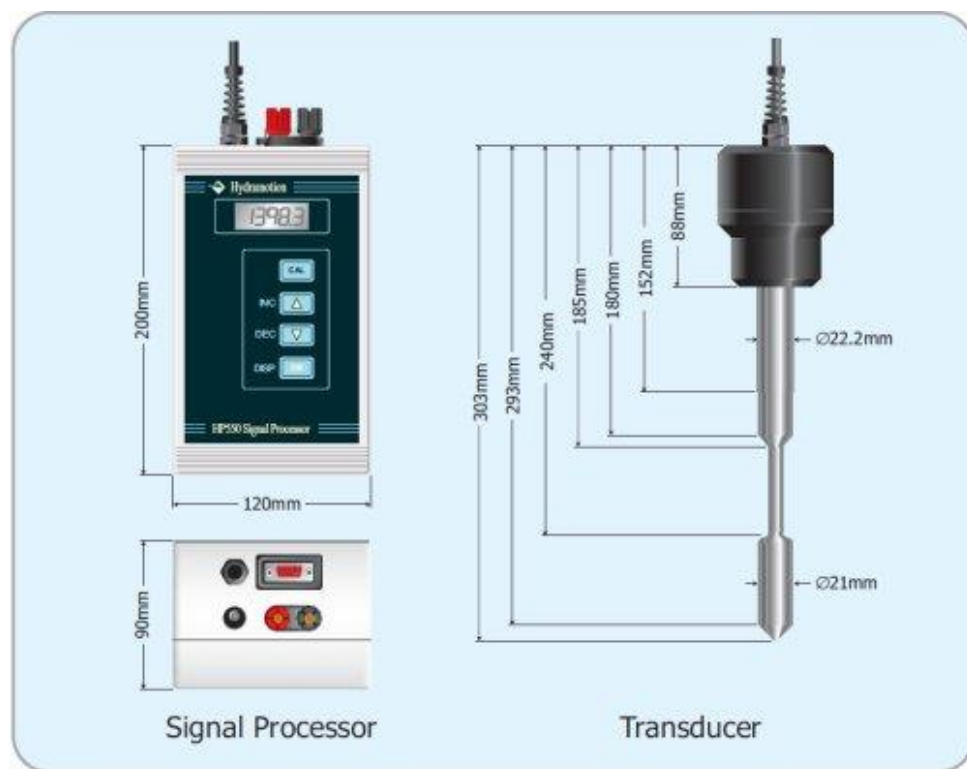
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Processor:	HP550
Weight:	500 g (1.10 lb)
Environmental rating:	IP65
Power Supply:	4 x AA alkaline cells
Temperature:	Temperature measurement and viscosity correction to standard temperature
Accessories:	Carrying case, user manual, calibration certificate
Option:	Hastelloy C-22 wetted parts

Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

Model VL7-100B-HP-d21 Lab Viscometer



Transducer

Viscosity Accuracy:	1% of reading or ± 0.1 cP
Viscosity Repeatability:	0.5% of reading or ± 0.1 cP
Complete Viscosity Range:	0 to 10,000 cP
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Temperature Range:	-20°C to 120°C (-4°F to 248°F)
Weight:	700 g (1.54 lb)
Wetted Parts:	316 Stainless Steel
Enclosure:	Acetal (Delrin®)
Environmental Rating:	IP65
Safety Certification:	Safe Area

Signal Processor

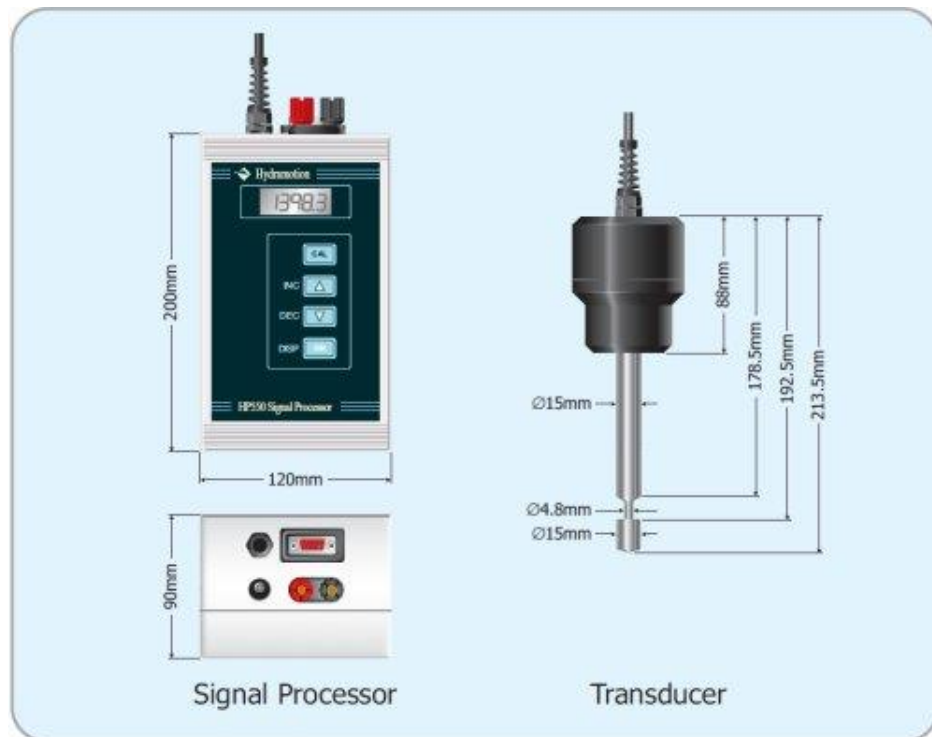
Processor unit:	HP550L
Weight:	500 g (1.10 lb)
Environmental rating:	IP65
Power Supply:	24 V DC external power adaptor required
Analog Output:	4-20 mA, fully configurable, representing either viscosity or referenced viscosity
Digital Output:	RS232 ModBus serial link
Temperature:	Temperature measurement and viscosity correction to standard temperature

Accessories:	User manual, calibration certificate
Option:	Hastelloy C-22 wetted parts

Nelson Systems

ADVANCED VISCOSITY SOLUTIONS

Model VL7-100B-HP-d15 Small-Sample Lab Viscometer



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