Hydramotion XL7 Intrinsically Safe Process Viscometer
XL7-15x

The XL7 viscometer is available as a range of standard models, but can also be adapted to suit any special application - 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

The XL7 series represents a wide range of standard viscometers, covering nearly all applications. The standard Signal Processor supplied with the instrument is the VP550, but other Signal Processors are available. The VP550 can be mounted up to 1 km from the transducer and has digital and analog outputs for recording or remote monitoring. XL7 viscometers are frequently used as part of a feedback loop for plant or viscosity control. The Signal Processor can be hooked up to temperature sensors 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.
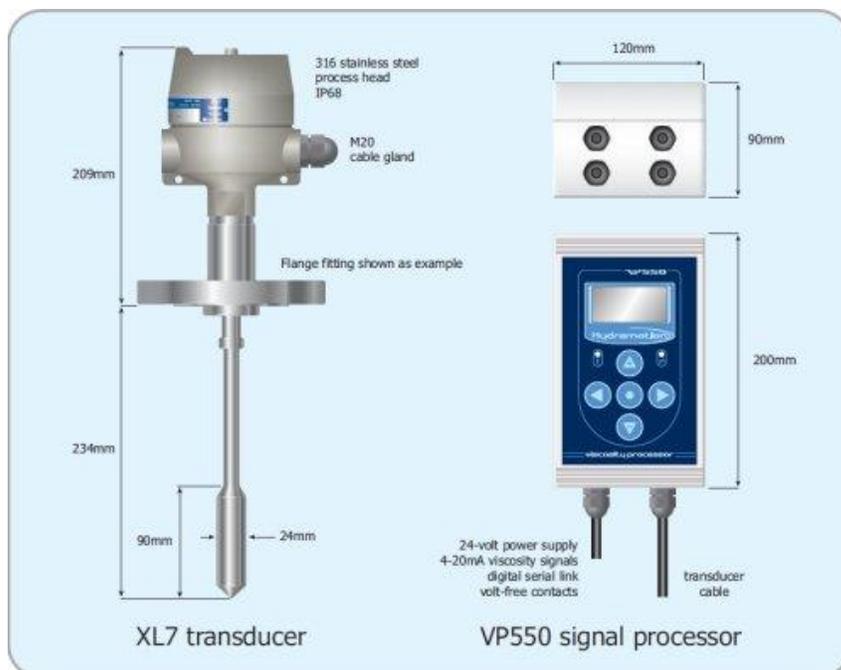
The XL7-15x is the Intrinsically Safe (IS) model, and along with a Zener barrier can be used in a hazardous environment. This IS model has Ga Ex ia IIC T4 - T6 certification and is suitable for Div1 Class1 Group A hazardous environments in North America. It meets the ATEX, CENELEC, and TIIS international standards. IS certification permits a simpler installation than flameproof. The EEx 'ia' certificate allows transducers to be operated even in the most hazardous Zone 0 environments.

All standard instruments are available as high temperature and/or high pressure 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

Transducer

Viscosity Accuracy: +/-1% of reading
Viscosity Repeatability: +/-0.3% of reading

Complete Viscosity Range: (Please select a range when ordering)
Model 150	0 to 1,000 cP
Model 151	0 to 5,000 cP
Model 152	0 to 10,000 cP
Model 153	0 to 100,000 cP
Model 154	0 to 1 M cP
Model 155	0 to 5 M cP

*Temperature Range (sensor):	-50°C to 150°C
*Maximum Pressure:	40 bar (600psi)
Process Connection:	To suit application
Overall Length:	443 mm
Weight:	4 kg + fitting
Materials:	316 Stainless Steel (other materials on request)
Environmental Rating:	IP68
Safety Certification:	Ga Ex ia IIC T4 - T6

Signal Processor

Processor Unit:	VP550
Display:	Multi-parameter display
Environmental Rating:	IP65
Power Supply:	24V DC @ 100 mA (including transducer)
Analog Output:	3 x 4-20 mA, fully configurable, representing viscosity, corrected viscosity or temperature
Digital Output:	RS 485 output Modbus serial link
Alarm Contacts:	2 x volt-free completely assignable
Analog Input:	External temperature 4-wire RTD or 4-20mA – user assignable 2 x 4-20mA input (density, pressure)

*Additional Options Available:
  - Extended Temperature, up to 450°C
  - Extended Pressure, up to 20,000 psi
  - Integral Tip-Mounted Temperature Sensor
  - High Polish Wetted Parts
  - PTFE-coated Wetted Parts
  - Hastelloy Wetted Parts
  - USB Output