Shear Perfection

KROHNE

achieve more

VISCOLINE –
New Generation Rheometer for continuous in-line measurement of process viscosity

The VISCOLINE In-line Process Rheometer provides in-line, continuous measurement of fluid viscosity for process control and monitoring applications. It is ideal for use wherever viscosity measurement is required for process or quality control.

The innovative VISCOLINE is extremely adaptable and can be used for a variety of non-Newtonian applications, including emulsions, cosmetics, shampoos, ketchup, yogurt, sauces, cheese, paint, resins, oil, plaster and many, many more.

VISCOLINE

How it works

The fluid flows through a continuous pipe containing two low pressure drop static mixers. The sensor device measures the pressure drop at both static mixers by means of two differential pressure measurements: ΔP1 and ΔP2. Precise pipe flow rate measurement is obtained from the integrated KROHNE OPTIMASS 7000 straight tube Coriolis meter which is uniquely insensitive to fluid viscosity effects.

From the two pressure drop measurements and the flow rat reading, the fluid flow parameters are processed in the system, and the pipeline viscosity is determined. A temperature reading can be useful for thermal correction when a reference measurement is required. Such correction requires laboratory thermal characterization or dual measurement.

Flexible

One design for a variety of fluids:

- Sanitary
  - Beer, cheese, yogurt, sauces, soap, shampoo, creams, gels
- Industrial
  - Paints, coatings, resins, oils, asphalt, emulsions, plasters

No mechanical modification required in order to acquire accurate measurements of different fluids.

Simple & efficient

- All Stainless Steel construction
- No moving parts
- No in-situ calibration

Reliable

- Repeatability: 0.2 %
- Resolution: 0.1 cp
- Traceable NIST

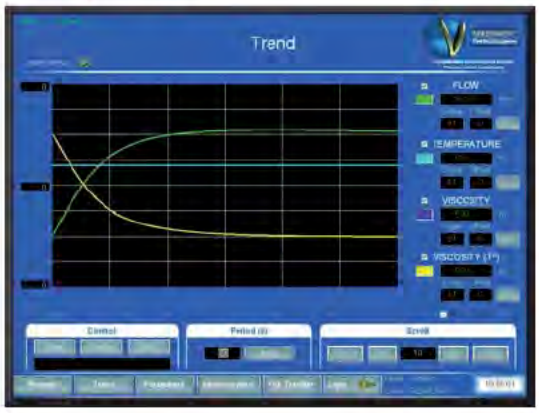
Innovative

Patented technology based on mixing principles applied to pipes. Bulk viscosity is measured on the whole flow which is re-homogenized by the action of the static mixers.

Highlights:

- Continuous in line viscosity measurement for process control and monitoring applications
- Ideal for non-Newtonian applications
- No moving parts – simple to install
- Analog outputs or digital communications
- 0.2 % repeatability, 0.1 cp resolution

Continuous trending of multiple variables – including viscosity.



Dynamic touchscreen display interface for simple operation.

An example of one of two in-line static mixers used.

Contact

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