BARTEC

BENKE Viscosity Process Analyzer VISC-4

Credible Solutions for the Oil and Gas Industry

Viscosity Process Analyzer

To remain competitive, today's refiners must employ all optimization and product control techniques available. The use of online physical property analyzers is one of the key features to reach those objectives because they measure important quality properties in the process directly. All fluids that fulfil the conditions of Newton's friction law are referred to as Newtonian fluids. Their viscosity is a material constant, which is only dependent on pressure and temperature. The viscosity for incompressible and Newtonian fluids can be derived from the so called Hagen-Poiseuille law. The fluid is assumed to flow under laminar conditions.

- The only ASTM compliant capillary type viscometer
- Kinematic viscosity directly and continuously measured
- Integral measurement of density
- Calculation of dynamic viscosity
- Unparalleled temperature stability of ± 0.02K
- Hagenbach correction not necessary
- No maintenance approach (no oil bath, no pump)
- Network and fieldbus communication

Application

The BARTEC BENKE Viscosity Process Analyzer VISC-4 continuously measures the kinematic viscosity of a product via the capillary method. Due to the outstanding performance and sample temperature stability of ± 0.02 K the VISC-4 is the best choice for highly accurate viscosity measurements e.g. lube oil production and fuel oil blending. This high level of accuracy results in cost reduction while improving product quality. The VISC-4 is suitable to handle samples with a viscosity of up to 1000 cSt at measurement temperatures of up to 100 °C.

Special Features

Direct and continuous measurement of kinematic viscosity therefore direct comparison with laboratory results without any need for conversion

Integral measurement of the density therefore calculation and display of the dynamic viscosity

Minimized maintenance requirements due to temperature control and insulating system without oil bath/pumps

Compliance of the temperature stability (±0.02 K) as defined in standard ASTM D445

Necessity of Hagenbach correction is eliminated

Multi-stream capability

Automatic rinsing and draining option

Integrated failure diagnosis and self monitoring

No atmospheric drain required, backpressure at analyzer outlet permitted (depends on application)

Available communication interfaces:

- Modbus/RTU, Modbus/TCP (bidirectional)
- Remote access via Ethernet (VDSL or FOC is)

Validation report for quality assurance

Freely programmable digital and analog inputs

Norms and Standards

Compliant with:

- ASTM D445
- DIN EN ISO 3104
- IP 71

Make your decision for a strong partner!
Choose BARTEC also for:

- Fast Loop Systems
- Sample Conditioning Systems
- Validation Systems
- Recovery Systems
- Chillers
- Air Conditioning Systems/HVAC
- Pre Commissioned Analyzer Shelters/Turn-Key Solutions

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