

Laboratory Viscometer

For Smallest Sample Volumes



- Small sample size: down to **0.5 ccm**
- 0.1 to 500,000 mPas (depending on sensor) automatic calculation of kinematic viscosity
- Extended measuring ranges available
- Accuracy: 1% typ (viscosities > 10 mPas)
- Temperature range: -55°C to +220°C
- Pressure range: up to 20 bar (300 psi)
- Integrated temperature measurement
- Short measuring time: 30 sec typ.
- No moving parts
- Very easy handling and cleaning
- Analogue and digital interfaces

This easy-to-use lab viscometer is outstandingly suitable for uncomplicated, fast and accurate measurements in the field as well as in the lab.

The core of this patented measuring system is an oscillating quartz (56 kHz pure shear wave torsional transducer) which is dampened by the viscous properties of the sample. The temperature is measured by a Pt100 sensor.

The small volume sample containers allow measurements with sample volumes down to **0.5 ccm**. The two-part container can be placed on a heating plate and has two lateral entries for external temperature probes (3 and 6 mm). The container is two-parted for easy handling and cleaning. The 1.0 ccm container can be screwed leak-proof to the measuring head for immersion in a water bath.

The viscometer directly displays the measured values (dynamic viscosity, temperature) and calculated values (kinematic viscosity) in stand-alone operation mode. Furthermore, it can be controlled by a PC with the included control software.

The optionally available special double jacket heating/cooling device can be connected to any circulating thermostat. The thermostats supplied by F5 Technologie have a PID controller especially parametrized for this application and are controlled by the PC software automated measurements with temperature ramps etc.

As this viscometer is also available as process viscometer (also ex-proof and with integrated PI controller), the same measurement principle can be used for process control as well.

The sensor has no moving parts and is very easy to clean and handle. The oscillating sensor has a self-cleaning effect.

Applications:

- Viscosity measurements in the laboratory for research, development and quality control

Options/Accessories:

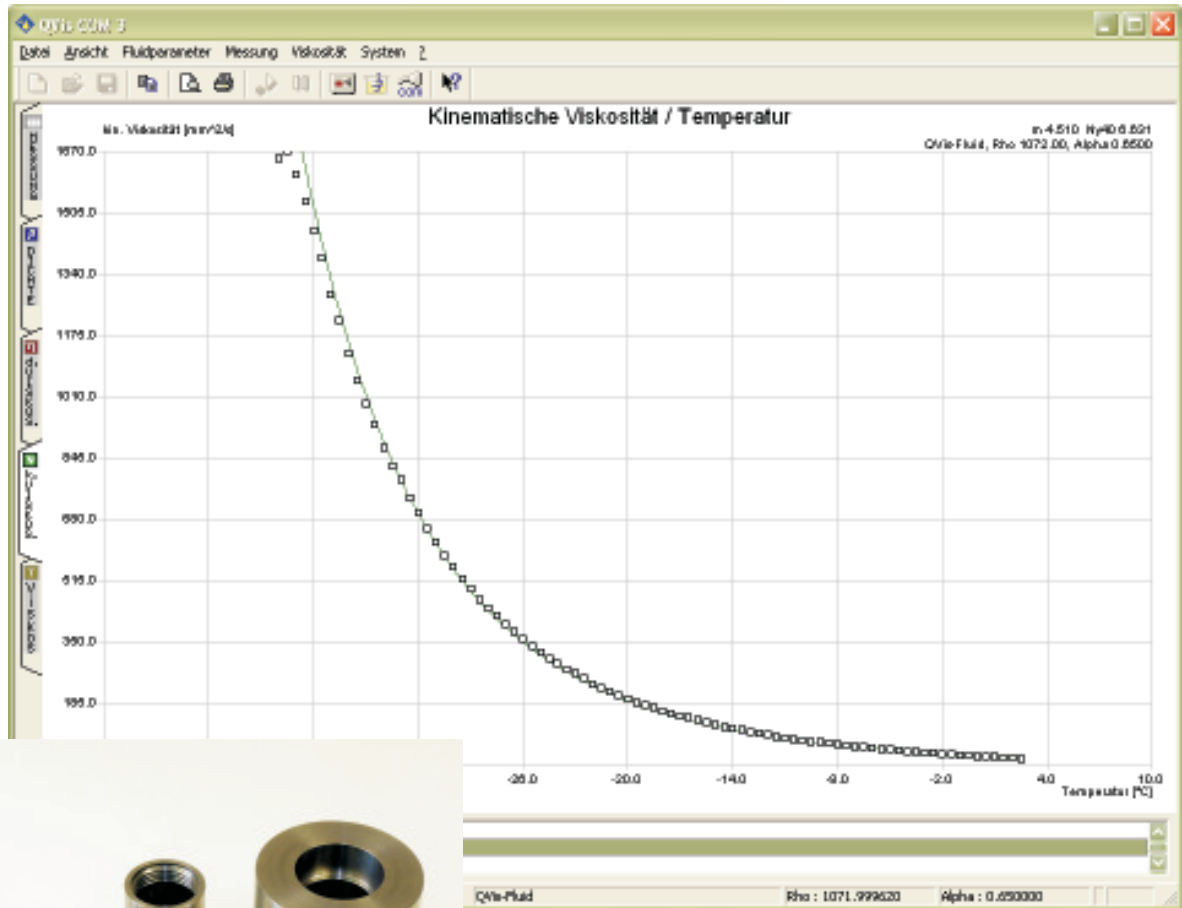
- Accu pack for field use
- Heating plates for fully software integrated temperature control
- Double jacket heating/cooling device to be connected to any circulating thermostat
- Computer controlled circulating thermostats with optimized temperature control



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Sample containers for sample volumes of 1.0 ccm (left) and 0.5 ccm (right).

*Kinematic viscosity
Brake fluid, -40°C to +4 °C*

Technical Data:

Measuring range:	0.1 to 500,000 mPas (dependent on measuring head) kinematic viscosity is calculated automatically
Accuracy:	1% typ (viscosities > 10 mPas)
Temperature range:	-55 °C to +220 °C (depends on thermostat) integrated temperature sensor, Pt100
Pressure range:	up to 20 bar (standard, more available on request)
Measuring period:	30 sec. typ.
Software:	Thermostat and viscometer control, data storage and visualisation, Win 9x/NT/2k/XP/7
Display:	LC Display
Interfaces:	RS232, 0..10V/4..20 mA (viscosity)
Power supply:	100-240 VAC, 50/60 Hz



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