

# Modular Compact Rheometer MCR 501

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*The airbearing supported synchronous motor is a specific aspect of this Physica MCR rheometer series. Rapid, linear response, coupled with advanced control electronics results in an accurate speed and strain control. The instrument allows for a fast response for step tests and allows to perform strain-controlled oscillatory tests at the smallest torques.*



Together with the synchronous motor, a new very rigid air bearing is used. Inside the air bearing, a normal force transducer is located that detects the natural movement of the bearing due to applied normal forces.

The instrument uses a fully automatic tool recognition system that recognizes all measurements geometries as soon as they are connected to the rheometer.

Temperature control can be achieved by various manners, from Peltier control, over thermostated baths to ovens.

A very wide range of instrument tools is available. A very special device is an interfacial rheology system that uses a biconical geometry to measure the steady-state and transient interfacial viscosity of liquid-liquid or liquid-air interfaces.



Another interesting option is a Couette cell with Peltier temperature control (-20°C to 200°C).

The wide variety of geometries and measurement options makes this instrument suitable for a broad range of measurements. Next to a mere characterization of a sample (going from food applications, emulsions, synthetic polymers, ...), the instrument also offers the possibility of monitoring the transient first normal stress difference which is known to be a sensitive fingerprint of the morphology of a material.