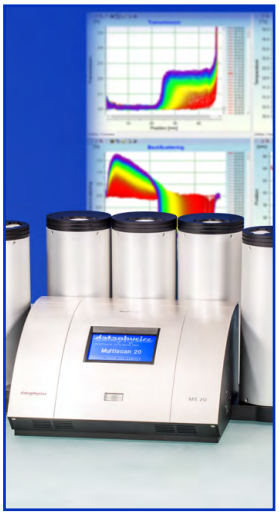
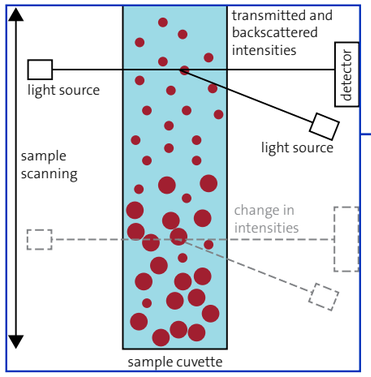
MultiScan MS 20

The measuring instrument for stability and ageing analysis



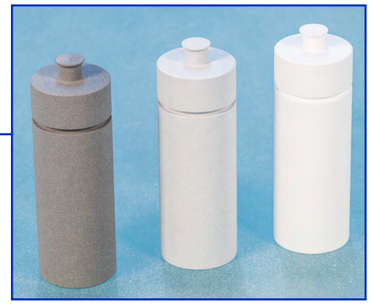
dataphysics



Measuring principle of the MS 20


Small sample container
SC 10 for scan tower


Standard sample container
SC 20 for scan tower


Reference body set RBS for scan tower

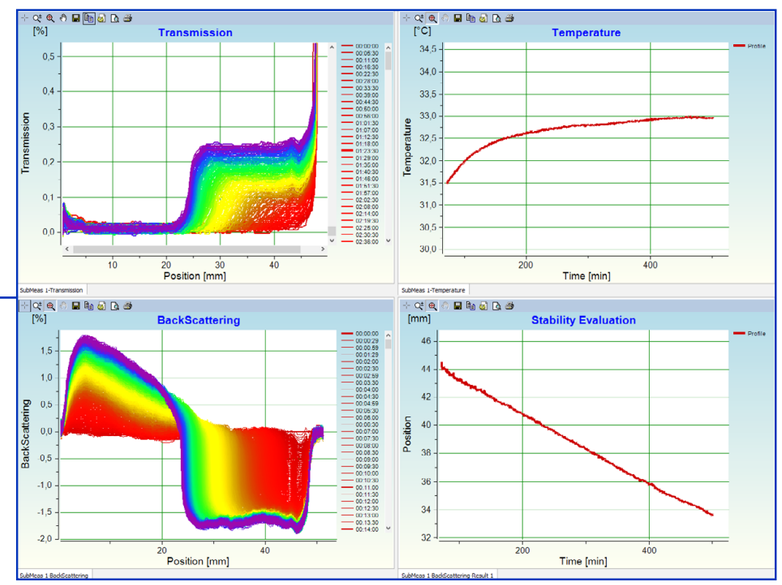
The MultiScan MS 20 is the measuring device for the automatic optical stability and aging analysis of a variety of multi-phase dispersions, in particular suspensions and emulsions, and the comprehensive characterization of time- and temperature-dependent destabilization mechanisms. Due to its modular design the MS 20 can be operated with up to six scan towers **ST**. The scan towers are independently controllable, which allows to perform several measurements simultaneously.

MS 20 with six scan towers ST-TEC


Scan tower ST-TEC

Main features of the MS 20:
- direct docking ports for five scan towers
- docking port for an additional external scan tower
- bar code scanner for an easy and specific sample registration and documentation
- integrated touch screen for basic operation and control of all connected scan towers
- **ST-TEC** scan tower with temperature control by an integrated electric resistance heater with connectors for liquid counter-cooling. This facilitates individual temperature setting on multiple scan towers.

Software for efficient work
The intuitive **MSC** control and evaluation software supports you in the use of the MS 20 by easily specifying measurement procedures and in collecting and evaluating data. The software is designed for the use under Microsoft Windows® and has the following main features:
- integrated software assistant accompanying the setup of measurements and the subsequent data analysis
- measurement templates and manual set-up of measurements for scanning samples in 7 different modes
- automatic long-term and temperature-controlled measurements as well as the resumption of non-continuous measurement processes
- graphical representation of data in absolute or relative view with individual filter options
- data overlay option for fast and easy comparison of different datasets
- various data analysis options for evaluating time- and temperature-dependent variations of samples as well as determination of sedimentation and creaming rates
- evaluation of mean free path, average diameter, volume concentration, density difference, solvent viscosity, or refractive index, for spherical particles and droplets
- calculation of the initial particle/droplet size distribution in dispersions from migration profiles
- editable database with physico-chemical parameters of various solids and liquids
- determination of the Separability Number according to ASTM Standard Test Method D7061
- conversion of transmission and backscattering values to turbidity units (FNU/FTU/NTU/EBC/TUF/FAU...)
- generation of barcode labels



MSC — stability analysis

dataphysics

Technical data

Scanned volume:	• 27 ml (SC 20) • 2.8 ml (SC 10)
inner diameter of sample container:	• 25 mm (SC 20) • 8 mm (SC 10)
Scan range along measuring chamber:	• 0...56.5 mm
Max. scan interval resolution:	• 5 µm
Max. scanning velocity:	• 12.5 mm/s
Light source and detection:	• LED emitting NIR radiation at a wavelength of 870 ± 30 nm (spectral half width 45 nm) • transmission (0° to light source) and backscattering (45° to light source)
Temperature range and measurement:	• 4...80 °C; 0.1 K resolution; 1/3 DIN IEC 751 (± 0.03 %), class B
Dimensions (L x W x H):	• 295 x 260 x 165 mm^3 (base unit MS 20) • 130 x 98 x 275 mm^3 (scan tower ST-TEC)
Weight:	• 6.8 kg (base unit MS 20) • 2.1 kg (scan tower ST-TEC)
Power supply:	• 100...240 VAC; 50...60 Hz; 300 W

Accessories (excerpt)

scan tower with electric resistance heater **ST-TEC** • standard sample container for scan tower **SC 20** • disposable standard sample container for scan tower **SC 20D** • sample container for oil stability reserve test according to ASTM D7061 in a scan tower **SC 15** • adaptor for sample container SC 15 **Adapt-SC 15** • small sample container for scan tower **SC 10** • disposable small sample container for scan tower **SC 10D** • adaptor for sample container SC 10 **Adapt-SC 10** • reference body set for scan tower **RBS**

For more information about a tailor made solution to your suspension and emulsion analysis requirements, please contact us. We will be pleased to provide a quotation, obligation free, for your instrument system.

DataPhysics Instruments GmbH • Raiffeisenstraße 34 • 70794 Filderstadt, Germany
phone +49 (0)711 770556-0 • fax +49 (0)711 770556-99
sales@dataphysics.de • www.dataphysics.de

Your sales partner:

شرکت مهارفن ابزار