Measuring Instruments for Analyzing Beer Products
Lovis 2000 M/ME, DMA 35, DMA 4100 M and DMA 4500 M

The Lovis 2000 M is an automatic rolling ball viscometer which uses the Höppler principle. It accurately measures the dynamic viscosity according to MEBAK/EBC and is therefore an excellent instrument for rapid quality control checks during the brewing process. The Lovis 2000 ME viscometer module can be directly attached to an Anton Paar Generation M density meter, resulting in an integrated measuring system.

The robust portable density meter DMA 35 replaces spindles in the brewhouse and fermentation cellar. It automatically compensates for the temperature and prevents errors made when reading off results.

DMA 4100/4500 M is the standard measuring instrument for density, specific gravity and concentration. Due to its high accuracy and speed, DMA 4100/4500 M is used successfully worldwide in all kinds of laboratories.
Carbo CO₂ Transducers and Transmitters

Carbo transducers and transmitters measure the CO₂ content fast and with highest accuracy, without influence from other gases. Carbo transducers and transmitters are available for installation in a by-pass or direct installation in the main line. There are no membranes prone to drift which negatively influence the measuring accuracy. For beers with very high content of other gases (e.g. nitrogen) the new Carbo 2100 MVE has been developed.

CarboQC

CarboQC is ideally suited for the quality control of beverages in bottles and cans as well as in tanks and production lines. This portable instrument determines the CO₂ content quickly using the patented Multiple Volume Expansion Method (AT 409673, GB 2373584, US 6,874,351, CH 696086, DE 10213076 Patent pending) without the influence of other dissolved gases. CarboQC is independent of changes in air pressure.

More information >>
Packaged Beverage Analyzer for Beer (PBA-B Generation M)

The modular measuring system PBA-B Generation M determines the original extract, alcohol, extract, CO₂ content, and other important quality parameters for beer and beer mixtures. Sample is taken directly out of the package, and the quick and accurate analysis requires no sample preparation.

PBA-B Generation M is a combination of a DMA 4500 M or DMA 5000 M density meter, an Alcolyzer Beer ME measuring module, a CarboQC ME measuring module and a PFD Filling Device. For full automation the Xsample 510 Package Sampler is available.

Options:
The system is also available with an optional color measurement kit. The color value is determined through absorption measurement.
A pH module can be added for the determination of the sample’s pH value. You can also extend the measuring system with the HazeQC ME turbidity meter (according to MEBAK and EBC) and/or with the Option O₂ for CarboQC ME for the determination of dissolved oxygen.

More information >>
Alcolyzer Beer Analyzing System

This fully automatic measuring system determines the alcohol, extract and original extract content, density, EBC color index, turbidity and pH value in one measuring cycle.

The heart of the system is the Alcolyzer Beer ME measuring module that is based on a patented near infrared spectroscopic measuring principle (AT 406711; US 6,690,015) for direct determination of the alcohol content of beer and beer mixtures. Other beverage constituents have no influence on the measurement result. The instrument delivers accurate and reliable values even during fermentation.

The traceable adjustment of the alcohol measurement is very simply performed with water and a water/alcohol mixture.
Inline analysis for all beer types

With the inline Cobrix 5 beverage analyzer it is now possible to continuously measure alcohol, carbon dioxide, original extract and additional parameters inline, directly in the production line with a single analysis system. Cobrix 5 provides instant and highly accurate results, while requiring minimum supervision and maintenance.

Inline installation for direct measurement
Cobrix 5 measures the beer and beer mixtures directly in the production line. It is therefore suitable for hygienic production. Using a cut-off adapter, the sensors can be serviced on the filled line, even during production.
The Extract Monitor is used for highly accurate extract measurement at the lauter tun, the brewing kettle and after the wort cooler.

Several systems guarantee precise and drift-free extract measurement, even under difficult conditions: The SPRN 4115 2T sound velocity sensor can be installed easily directly in pipe or tank.

The DPRN 427S density sensor plus mPDS 5 evaluation unit is used for extremely accurate measurements of cold wort.

The Extract Monitor is simple to clean. Normal CIP routines are sufficient.
Online sound velocity measurement with the SPRn 4115 2T transducer guarantees exact determination of the original extract in the beer production line after fermentation (filter and filler, beer mixing). The measuring method used is simple and precise. The resulting increase in efficiency ensures a consistent beer quality.

More information >>
The Beer Monitor uses the density and sound velocity method to precisely determine the real extract, original extract and alcohol content. The concentration values of the main components - alcohol/water and extract/water – are determined exactly.

Influences arising from changing temperature, pressure and degree of fermentation are compensated. Variations in the dissolved CO₂ content can be measured and compensated using an inline CO₂ transducer.

The Beer Monitor can also be used to measure non-alcoholic beers and beer mixtures.
Davis 5 software for analyzing, recording and storing data during production

Davis 5 enables continuous recording of process data and production problems are detected immediately. Davis 5 provides fast and straightforward statistical evaluation for optimizing production and plant performance. It is easy to operate, with self-explanatory menus. The mPDS 5 evaluation unit is connected to Davis 5 by using a standard Ethernet cable.

Remote access via Ethernet

Real-time data can be shown simultaneously on several PCs throughout the plant. This means you can check the values, change the configuration or stop the line from any location within your company network. You can easily scroll back to review earlier production performance as Davis 5 provides unlimited access to recorded data.
LIMS Bridge

The LIMS Bridge software connects your Laboratory Information Management System (LIMS) to Anton Paar’s Generation M instruments. LIMS Bridge can be used to send remote measurement commands from the LIMS to the instrument and to forward result files from the instrument to the LIMS. This is either possible by simple file exchange or by using the advanced DLL interface.

LIMS Bridge is a useful tool for collecting all the data generated by e.g. a PBA-B system in which up to 7 parameters are determined simultaneously for each sample. With LIMS Bridge, all these beer parameters are available in one data set. The instrument is connected to the local network, PC or printer using either the Ethernet or RS-232 interface.
Our Service to You

A tradition of high quality service

We have been a strong and reliable partner for customers in industry and research for over 80 years. With over 70,000 measuring systems in operation around the globe, Anton Paar is the world leader in the field of density measurement.

To provide the best possible support for our customers we offer the following services:

A good start

- Installation and training on-site by experts
- Development of customer-specific measuring procedures

Whatever you require

- Density standards with DKD certificate
- Maintenance contracts

Always up-to-date

- Customer-specific seminars
- Regular publication of application notes describing the successful use of Anton Paar technology for measuring applications

After-sales service

- Measuring instruments from Anton Paar are supported by a worldwide service network: Subsidiaries and sales partners have a comprehensive range of spare parts in storage. Experienced service technicians are available for technical advice and troubleshooting.