BRAVE B-CONTINUOUS

Sensors for real-time online nanoparticle characterization

- Monitors particle size, number-based size distribution and concentration during production
- Detects ultra-low concentrations, aggregates and large-particle tails
- Provides results 24/7

ONLINE MONITORING OF NANOPARTICLE SIZE DISTRIBUTION AND CONCENTRATION

BRAVE B-Continuous integrates directly into your production plant and monitors your particles and nanoparticles continuously online during production.

You get:

- insight into sample behavior over time, e.g. from one second to several hours,
- insight into and control of your production processes,
- less wasted product,
- ensured product quality,
- data towards real-time release testing (RTRT),
- production line monitoring for predictive maintenance,
- in-depth knowledge of different particle populations, including ultra-low concentrations, oversized particles and anomalies.
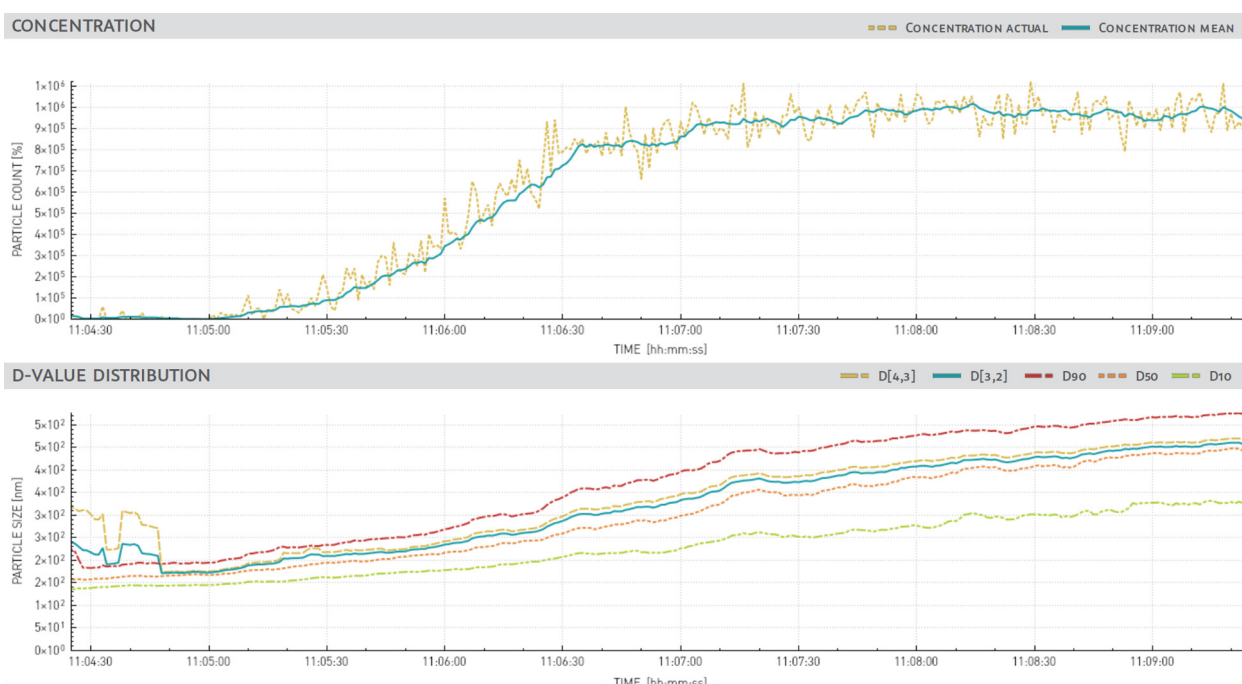

Figure 1: Example of D-value statistics and concentration over time

The B-Continuous online particle analyzer is for:

- precise detection of rarely occurring low-concentrated aggregates and oversized particles,
- early detection of production anomalies during high-pressure homogenization and bottom-up production processes,
- monitoring the performance of filtration and dilution systems in downstream processing,
- detecting contamination in production lines for predictive maintenance,
- monitoring and control of particle size during the production of biomass nanoparticles for use in cosmetics, material science and medicine

TECHNICAL HIGHLIGHTS

- Live visualization of sample behavior, results as D-values, number-based size distribution, particle size and particle concentration

- Statistically valid results with single-particle accuracy, representative of the overall particle population

- Flexible data transfer to your LIMS or SPC software

- Scans and categorizes up to 3000 particles per minute*

- Seamless integration into production processes

*sample-dependent

Specifications

Particle sizing range	50 nm to 50 μm*
Concentration range	min. 10^6 particles/ml (optimal: $\leq 10^{10}$ particles/ml)
Minimum required bypass flow	5 μl/min (optimal: 0.7 ml/min)
For nanosuspensions, nanoemulsions and colloidal formulations (liquid continuous phase; solid or liquid dispersed phase)	
Sizing data continuously updated every 5 seconds (delay due to bypass: 4 to 20 seconds)*	

*sample-dependent

Manufactured by BRAVE Analytics, distributed in the UK and Ireland by **analytik**.