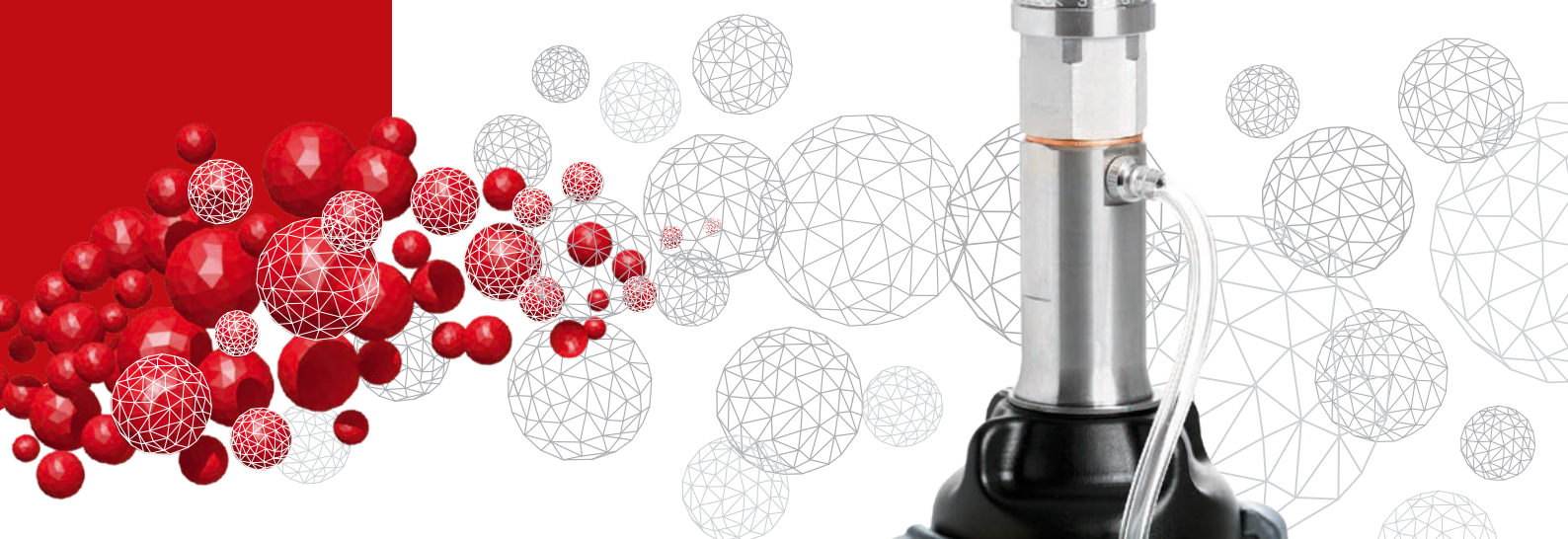


Dekati[®] eFilter[™]

- ▶ Standard gravimetric filter measurement combined with real-time PM, PN and LDSA measurement
- ▶ Fully automated operation



Excellence in Particle Measurements

Dekati® eFilter™

The Dekati® eFilter™ is a unique instrument that combines a standard gravimetric filter holder and sensitive real-time PM detection in one compact instrument. The Dekati® eFilter™ assembly includes a standard gravimetric filter holder that is used to determine gravimetric mass of particles in the sample. In addition to this standard gravimetric filter measurement, the Dekati® eFilter™ gives a real-time signal throughout the filter sampling period which allows monitoring of changes in the particle concentration during different stages of the filter sampling. The real-time measurement is made in a miniature diffusion charger – electrometer module and the resulting current signal can easily be converted to mass or number of concentration in the eFilter™ software. Since the eFilter™ already includes the standard gravimetric filter holder, it is easy to compare the real-time signal to the gravimetric mass in different conditions.

eFilter™ docking station with automatic flow calibration



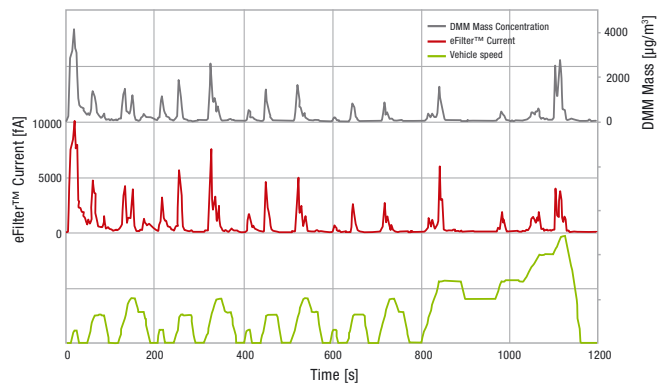
The complete Dekati® eFilter™ unit is one compact, single, assembly with automated operation. The real-time detection module is battery operated and the PM detection starts automatically when standard filter sampling is started, requiring no actions from the operator. A separate pump is used in the real-time detection module to make sure the gravimetric filter sampling is not affected by the real-time measurement. eFilter™ accessories include sampling pumps and filters for the gravimetric measurements, sampling inlets for environmental monitoring and a wide range of sample conditioning instruments for emission measurements.

Features

- Standard gravimetric filter measurement that meets US EPA requirements
- Real-time mass, number and LDSA concentration values in real-time
- Compatible with existing gravimetric PM measurement filter holders and sampling systems
- Battery operated with internal pump for the real-time measurement
- Fully automated operation: gravimetric filter flow automatically starts the real-time measurement
- Replaceable real-time detection module
- Touch screen user interface
- Separate, optional docking station with automatic flow calibration

Applications

- Environmental air quality monitoring
- Occupational health and safety measurements
- Engine exhaust measurements
- Combustion process monitoring



eFilter™ and DMM measurement during an NEDC cycle

Specifications

Primary sample flow rate (gravimetric measurement)	10–100 lpm
Secondary sample flow rate (real-time measurement)	0.5 lpm, automatically adjusted
Sensitivity	approx. 1 µg/m ³ or 1000 #/cm ³ for 70 nm particles
Saving interval	1 s
Operating conditions	10-50 °C, up to 400 °C when combined with Dekati® Sample Conditioning Instruments
Minimum particle size	Adjustable 4-15 nm (5 - 60 V trap) Nominal 5 nm (10 V trap)
Maximum particle size	3 µm (for real-time measurement)
Data transfer	Micro-SD card, USB
Dimensions	H 225 x W 85 x L 90 mm
Weight	1.5 kg
Inlet/outlet	G1/2" thread, Swagelok® quick connectors or 12 mm tube connectors provided

For more information, please contact: sales@dekati.com



► **Dekati Ltd.** is a world leader in designing and manufacturing innovative fine particle measurement solutions. We have over 25 years of experience in providing measurement instruments and complete measurement solutions to a wide variety of environments and sample conditions. All Dekati® Products are developed and manufactured in Finland and are available with up to five-year warranty.

