Dekati[®] eFilter™

- Standard gravimetric filter measurement
- Real-time PM accumulation on a filter
- Fully automated operation







Dekati[®] eFilter™

Dekati[®] eFilter[™] is completely new instrument that adds real-time PM detection into a standard gravimetric filter holder. The Dekati[®] eFilter[™] assembly is approximately the same size as a normal PM filter holder and it fits directly into all existing exhaust PM filter sampling systems including CVS tunnels. In addition to the standard gravimetric filter measurement, the Dekati[®] eFilter[™] gives a real-time signal throughout the filter sampling period which allows monitoring

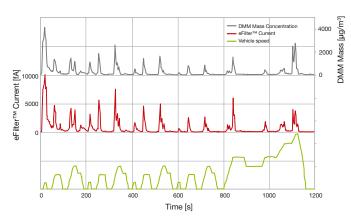


PM accumulation on the filter during different stages of the filter sampling. This real-time signal changes the standard filter holder into a sensitive, dynamic measurement instrument for modern routine emission measurements.

Dekati[®] eFilter[™] assembly is in one compact single unit with automated operation. The real-time detection module is battery operated and it includes a diffusion charger with electrical detection for sensitive real-time measurement. The real-time 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.

Features

- Standard gravimetric filter measurement that meets US EPA requirements
- Compatible with existing gravimetric PM measurement filter holders and sampling systems
- · Automated and sensitive real-time PM measurement
- Battery operated with internal pump for real-time PM measurement
- Fully automated operation; gravimetric filter flow automatically starts the real-time measurement
- Plug-and-play and maintenance free instrument
- Replaceable real-time detection module
- Can be used inside a 47 °C cabinet
- Touch screen user interface
- · Separate charging station with automatic flow calibration
- Data saved to a micro-SD memory card



eFilter™ and DMM measurement during a NEDC cycle.

Specifications

| Primary sample flow rate | 20–100 lpm |
|-----------------------------|--|
| Secondary sample flow rate | 0.5 lpm, automatically adjusted |
| Sensitivity | approx. 1 µg/m³ or 1000 #/cm³ for 70 nm particles |
| Save interval | 1 s |
| Operating conditions | 10-50 °C |
| Filter holder | US EPA 40 CFR Part 86 Subpart N |
| Data transfer | Micro-SD card, USB |
| Dimensions | H225 x W85 x L90 mm |
| Weight | 1.5 kg |
| Inlet/outlet | Swagelok [®] quick connectors, G1/2" thread |



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Dekati Ltd. is specialized in the design and manufacture of innovative fine particle measuring and sampling devices. Since its founding in 1994, Dekati has become the technological market leader in producing fine particle measurement instrumentation for various applications and thousands of customers. ●