

Fidas® 100

Real-time dust monitor for indoor air quality measurements and work place exposure assessments



The Fidas® 100 monitors are specifically designed for workplace exposure and indoor air quality measurements and provide continuous and simultaneous measurements of PM₁, PM_{2.5}, respirable fraction (PM₄), thoracic fraction (PM₁₀), inhalable fraction (TSP), the particle number as well as - if desired - the particle size distribution in 32 size classes per decade in the particle size range of 0.18 – 18 µm*.

All Fidas® systems use the proven measurement technology of optical light scattering and are equipped with a white light LED source with stable output and long lifetime.

All systems include a filter holder for the insertion of an absolute filter (ø 47 or 50 mm). This enables the user to perform a gravimetric correlation on-site, or to perform a subsequent analysis of the composition of the aerosol.

For emission measurements in exhaust air ducts, the Fidas® 100 can be outfitted with an isokinetic sampling probe.

It operates with a volume flow of 5 l/min.

The Fidas® 100 is equipped with additional sensors for the measurement of ambient conditions such as temperature, air pressure and relative humidity.

Palas® offers remote maintenance and data access online via www.palas.de/user.

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(*) Other fractions can be implemented upon request.
The size range can also be changed to 0.4 – 40 µm or 2 – 100 µm.

The technical specifications in this sheet are for information only.
Technical modifications reserved. Revision: V0030312

Particular advantages:

- Continuous real-time measurement of PM values (simultaneously)
- Additional information through particle number concentration
- Time resolution adjustable from > 1 s up to 24 h
- Light source: LED with high stability and long lifetime
- Long durability
- Low-maintenance, check of calibration possible on site
- Intuitive and easy handling
- Reliable function
- No radioactive material
- No consumables
- Reduces your operating costs!

Application examples:

- Indoor air quality studies
- Workplace exposure measurements
- Exhaust air control
- Source apportionment

Technical parameters:

- Measuring principle: optical light scattering
- Reported data (simultaneous): PM₁, PM_{2.5}, PM₄, PM₁₀, TSP, number
- Size channels (optional): 64
- Measurement range (particle size): 0.18 – 18 µm
- Measurement range (number): 1 – 20,000 particle/cm³
- Measurement range (mass): 0 – 1,500 µg/m³
- Time resolution: 1 s – 24 h (or on demand)
- Aerosol flow: 5 l/min (0.3 m³/h)
- Working temperature: 0 to +35°C
- Power supply: 115/230 V; 50/60 Hz
- Dimensions: 18.5 x 45 x 32 cm
- Weight: 9.3 kg (20.5 lbs)
- Interface: Touch display 800 x 480 pixels
- Data logger (inclusive): 4 GB Compact Flash
- Network: LAN, WLAN, optional GPRS/UMTS modem

Accessories:

- Isokinetic sampling probe
- Carrying case

Palas® is continuously setting standards in aerosol technology with more than 50 patents filed since 1983. Our innovations result in superior quality and durability of the products that lead to unique technical and economic advantages for our customers.

This is why Palas® established itself as a market leader in aerosol generation, aerosol dilution and aerosol particle measurement world-wide.