



Battery powered, portable fine dust measurement device with detachable control panel, for outdoor, indoor and workplace measurements based on EN 481

## Benefits

- Continuous and simultaneous real-time measurement of PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>10</sub> and TSP-values
- Additional particle number concentration and particle size distribution
- Wide measuring range: 180 nm – 100 µm
- Adjustable time resolution from 1 s
- Direct comparison of different measurements
- Configuration of limit values possible
- High quality of measuring data through implementation of the sensor / evaluation algorithm of EN-certified Fidas® 200
- Additional expanded range of applications by possible separation of the measuring device and the Tablet-PC for control (communication via WLAN)
- Up to eight hours of measurement time in battery mode
- Ergonomic design and low weight
- Intuitive and simple operation
- Integrated camera for documentation of the measurement
- Export function for measured data
- Possibility to generate a measurement report as pdf in Fidas® Frog
- Remote monitoring and control via network integration easily possible

## Applications

- Fine dust monitoring at alternating locations or in movement
- Air quality monitoring indoors, at the workplace, or inside vehicles
- Use as an aerosol spectrometer in setups where space is limited

<https://www.palas.de/product/fidasfrog>

## Datasheet

Parameter	Description
<b>Interfaces</b>	USB, Ethernet by USB-adapter, WiFi access point
<b>Measurement range (size)</b>	0.18 – 100 $\mu\text{m}$ (2 measuring ranges)
<b>Size channels</b>	32/decade, 256 raw data channels
<b>Measuring principle</b>	Optical light scattering of single particles
<b>Measurement range (number <math>C_N</math>)</b>	0 – 20,000,000 particles/l
<b>Volume flow</b>	1.4 l/min
<b>Data acquisition</b>	Digital, 20 MHz processor, 256 raw data channels
<b>Light source</b>	LED
<b>Power consumption</b>	13 W
<b>User interface</b>	Touch screen, 1,280 • 800 pixel, 8"
<b>Housing</b>	Synthetic housing
<b>Dimensions</b>	100 • 240 • 150 mm (H • W • D)
<b>Weight</b>	approx. 2.1 kg (0.4 kg operating panel, 1.7 kg measuring unit)
<b>Operating system</b>	Windows 10
<b>Data logger storage</b>	approx. 16 GB, extendable by micro-SD
<b>Battery operation</b>	Li-ion batteries, non-removable Base unit: 77 Wh (14.8 V; 5,200mAh), 8 cells Tablet: 20 Wh (3.8 V; 5,200mAh), 2 cells
<b>Measurement range (mass)</b>	0 – 100 $\text{mg}/\text{m}^3$ (abhängig von der Aerosolzusammensetzung)
<b>Reported data</b>	PM1, PM2,5, PM4, PM10, TSP, $C_N$ , Partikelgrößenverteilung
<b>Installation conditions</b>	0 – 40 °C

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