



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 PM₁, PM_{2.5}, PM₁₀ 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
Interfaces	USB, Ethernet (LAN) by USB-adapter, Wi-Fi access point
Measurement range (size)	0.18 – 100 μm (2 measuring ranges)
Size channels	32/decade, 256 raw data channels
Measuring principle	Optical light scattering of single particles
Measurement range (number C_N)	0 - 20,000 particles/cm ³
Volume flow	1.4 l/min
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	LED
Power consumption	13 W
User interface	Touchscreen, 1,280 • 800 pixel, 8" (20.32 cm)
Housing	Synthetic housing
Dimensions	100 • 240 • 150 mm (H • W • D)
Weight	Approx. 2.1 kg (0.4 kg operating panel, 1.7 kg measuring unit)
Operating system	Windows 10
Data logger storage	Approx. 16 GB, extendable by micro-SD
Battery operation	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
Measurement range (mass)	0 – 100 mg/m ³ (depending on the composition of the aerosol)
Reported data	PM ₁ , PM _{2.5} , PM ₄ , PM ₁₀ , TSP, C _N , Particle-Size-Distribution
Installation conditions	0 – 40 °C

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