

Lightweight aerosol spectrometer integrated in a HO-RUS octocopter



Benefits

- Measurement at up to now inaccessible locations possible
- Continuous and simultaneous real-time measurement of multiple PM values in all three spatial dimensions
- Additional information based on particle number concentration and particle size distribution
- Light source: LED
- Up to 20 minutes measuring time during flight operation per battery charge
- Only 2 min per battery exchange
- 8-propellers-platform
- High operational safety due to redundant design of the flight robot
- Live transfer of all relevant flight data and control data
- Flight mode: manual control with stabilisation of position, automatic stabilisation of height, dynamic stabilisation of GPS position, automatic following of GPS routes, automatic taking off/landing
- Fidas® data analyzer software for individual analysis of your measurement data on an external PC
- 8-propellers-platform
- PDAalyze Fidas® software for individual analysis of your measurement data on an external PC
- Low maintenance
- External check of calibration on site possible

Applications

- Fine dust monitoring at inaccessible locations or diffuse sources (road, quarry, surface mining site)
- Indoor air quality studies in, e. g., factory halls
- Immission and emission monitoring
- RD projects for, e. g., determination of emission factors or for obtaining data for dispersion modelling



<https://www.palas.de/product/fidasfly200>

Datasheet

Parameter	Description
Interfaces	USB, Wi-Fi
Measurement range (size)	0.18 – 40 µm (2 measuring ranges)
Size channels	64 (32/decade)
Measuring principle	Optical light-scattering
Measurement range (number C_N)	0 – 20,000 particles/cm ³
Volume flow	1.4 l/min
Dimensions	10.5 • 37.5 • 17.5 cm (H • W • D, sensor only)
Weight	approx. 4 kg, tare weight: 1.9 kg
Data logger storage	4 GB
Measurement range (mass)	0 – 1,500 µg/m ³
Reported data	PM1, PM2,5, PM4, PM10, TSP, C _N , Partikelgrößenverteilung
flight time	approx. 20 min.

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