Fidas® 200

EN 16450 approved fine dust measurement device for simultaneous measurement of PM2.5 and PM10

Benefits

- Type-approved and certified according to latest EN requirements (EN 15267)
- Continuous and simultaneous real-time measurement of multiple PM values
- Additional information on particle number concentration and particle size distribution
- Adjustable time resolution from > 1 s to 24 h
- Light source: LED with high stability and long lifetime
- Long service life
- Low maintenance
- External check of calibration on site possible
- Intuitive and easy to operate
- Reliable function, very high data availability (> 99 %)
- 2 pumps in parallel operation for additional operational safety due to redundancy
- Permanent monitoring of status, among others online monitoring of calibration
- Remote monitoring, maintenance and control easily possible
- Cloud zone via Palas server for worldwide data retrieval
- No radioactive material

Applications

- Regulatory pollution control in monitoring networks
- Ambient air monitoring campaigns
- Long-term studies
- Emission source attribution
- Emission dispersion studies (e.g. fires, volcanoes)

Model Variations

Fine dust measurement device Fidas® 200 E

EN 16450 approved fine dust aerosol spectrometer for simultaneous measurement of PM2.5 and PM10, featuring a separate sensor for existing ceiling glands

https://www.palas.de/product/fidas200e

Fine dust measurement device Fidas® 200 S

EN 16450 approved fine dust aerosol spectrometer for simultaneous measurement of PM2.5 and PM10, in weatherproof cabinet for outdoor installation

https://www.palas.de/product/fidas200s

https://www.palas.de/product/fidas200

Version: September 3, 2020

Fidas® 200

Datasheet

Parameter	*Description*
Interfaces	USB, Ethernet, RS232/485, Wi-Fi
Measurement range (size)	0,18 – 100 µm (3 Messbereiche)
Size channels	64 (32/decade)
Measuring principle	Optical light-scattering
Measurement range (number C_N)	0 – 20,000 particles/cm^3
Volume flow	4.8 l/min $\triangleq$ 0.3 m^3/h
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Power consumption	approx. 200 W
User interface	Touch screen, 800 • 480 pixel, 7"
Housing	Table housing, optionally with mounting brackets for rack-mounting
Dimensions	450 • 320 • 180.5 mm (H • W • D), 19"
Weight	9.3 kg (control unit only)
Operating system	Windows
Data logger storage	4 GB
Software	PDAnalyze Fidas®
Aerosol conditioning	Thermal with IADS
Measurement range (mass)	0 – 10 000 µg/m^3
Reported data	PM_1, $PM_{2.5}$, PM_4, PM_{10}, TSP, C_N, Partikelgrößenverteilung, Druck, Temperatur, Feuchte
Installation conditions	+5 – +40 °C
Sampling head	Sigma-2
response time (sensor)	< 2s
Linearity	1,06 für $PM_{2.5}$ 1,03 für PM_{10} (gegen Gravimetrie nach EN16450, TÜV Report)
Accuracy	9,7 % für $PM_{2.5}$ 7,5 % für PM_{10} (erweiterte Messunsicherheit nach EN16450, TÜV Report)

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