FIDAS® 200

The Fidas® 200 System particulate matter monitor was explicitly developed for environmental regulatory monitoring. It is the market leader for continuous and simultaneous monitoring of ambient $PM_{2.5}$ and PM_{10} in European countries and countries close to Europe. At the same time, the Fidas® 200 system is the most service-friendly, continuously measuring device. The officially recognized possibility to validate the system on-site is unique.

The Fidas® 200 version is a 19″ plug-in unit for air-conditioned monitoring stations (temperature range 5 - 40 °C). Variants are the Fidas® 200 E with remote sensor (for easier integration into stations with existing roof penetration) and the Fidas® 200 S designed for outdoor installation (with stainless steel weatherproof housing), whereby this does not require full air conditioning, but can only be operated with an auxiliary heater ...

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
- Long service life
- Low maintenance
- External check of calibration on site possible
- Intuitive and easy to operate
- Reliable function, very high data availability (> 99 %)
- Permanent monitoring of status, among others online monitoring of calibration
- No radioactive material and no consumables
- Low energy consumption

FEATURES

- On-site calibration and adjustment (particle size and volume flow)
- Light source: LED with high stability and a long lifetime
- Two pumps in parallel operation for additional operational safety due to redundancy

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

Fidas® 200 E

EN 16450 approved fine dust aerosol spectrometer for simultaneous measurement of $PM_{2.5}$ and PM_{10}, featuring a separate sensor for existing roof glands

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

Fidas® 200 S

EN 16450 approved fine dust aerosol spectrometer for simultaneous measurement of $PM_{2.5}$ and PM_{10} in weatherproof cabinet for outdoor installation

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

DATASHEET

Measuring principle	Optical light scattering at single particles	Reported data	PM_1, $PM_{2.5}$, PM_4, PM_{10}, TSP, C_N, particle size distribution, ambient pressure, ambient temperature, rel. ambient humidity
Measurement range (number C_N)	0–20.000 particles/cm^3	Measurement range (size)	0.18–18 μm (certified range, other measuring ranges on request)
Measurement range (mass)	0–10,000 $\mu g/m^3$	Measurement uncertainty	9.7 % for $PM_{2.5}$, 7.5 % for PM_{10} (expanded measurement uncertainty according to EN 16450, TÜV Report)
Volume flow	4.8 l/min $\triangleq$ 0.3 m^3/h ± 3% (24h), complient with EN 16450	Size channels	64 (32/decade)
Time resolution	1 s–24 h	Interfaces	USB, Ethernet (LAN), RS-232, Wi-Fi
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)	Protocols	UIDEP, UDP, ASCII, MODBUS, Bayern-Hessen
Data logger storage	Capacity for 2 years continuous operation at 60 s storage interval	Software	PDAnalyze
Data acquisition	Digital, 20 MHz processor, 256 raw data channels	Light source	Long term stable LED
Gehäuse	Table housing, optional: with mounting brackets for rack-mounting	Operating system	Windows 10 IoT Enterprise
Power supply	115 – 230 V, 50/60 Hz	Installation conditions	+5–+40 °C

additional parameter on our website …