



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<sub>2.5</sub> and PM<sub>10</sub> 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 life-time
- 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<sub>2.5</sub> and PM<sub>10</sub>, 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<sub>2.5</sub> and PM<sub>10</sub> in weatherproof cabinet for outdoor installation

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

## DATASHEET

Measuring principle	Optical light scattering at single particles		Reported data	PM <sub>1</sub> , PM <sub>2.5</sub> , PM <sub>4</sub> , PM <sub>10</sub> , TSP, C <sub>N</sub> , particle size distribution, ambient pressure, ambient temperature, rel. ambient humidity	
Measurement (number C <sub>N</sub> )	range	0–20.000 particles/cm <sup>3</sup>	Measurement (size)	range	0.18–18 µm (certified range, other measuring ranges on request)
Measurement (mass)	range	0–10,000 µg/m <sup>3</sup>	Measurement uncertainty	uncertainty	9.7 % for PM <sub>2.5</sub> , 7.5 % for PM <sub>10</sub> (expanded measurement uncertainty according to EN 16450, TÜV Report)
Volume flow		4.8 l/min $\hat{=}$ 0.3 m <sup>3</sup> /h $\pm$ 3% (24h), compliant 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
Housing		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 ...