

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 PM2.5 and PM10 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
- Light source: LED with high stability and a 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%)
- Two 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
- No radioactive material
- No consumables
- Low energy consumption

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® 200E

EN 16450 approved fine dust aerosol spectrometer for simultaneous measurement of PM2.5 and PM10, featuring a separate sensor for existing roof glands
<https://www.palas.de/product/fidas200e>



Fidas® 200S

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>

Datasheet

Measuring principle		Optical light scattering at single particles	Reported data		PM1, PM2.5, PM4, PM10, TSP, CN, particle size distribution, ambient pressure, ambient temperature, rel. ambient humidity
Measurement (number CN)	range	0 – 20,000 particles/cm3	Measurement (size)	range	0.18 – 18 µm (certified range, other measuring ranges on request)
Measurement (mass)	range	0 – 10,000 µg/m3	Measurement tainty	uncer-	9.7 % for PM2.5, 7.5 % for PM10 (expanded measurement uncertainty according to EN 16450, TÜV Report)
Volume flow		4.8l/min ±0.3m3 /h±3% (24h), compliant with EN 16450	Size channels		64 (32/decade)
Time resolution		1s–24h	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	Installationconditions		+5–+40°C

Office Location

Kingfisher Business Park
London Road
Stroud
Gloucestershire
GL5 2BY

Registered in England No. 01726773