



The Fidas® 200 S version is a 19" plug-in unit mounted in a splash-proof stainless steel control cabinet for outdoor use (temperature range -20 - 50 °C). A larger, air-conditioned control cabinet is available on request, allowing the installation of additional devices. Variants of the Fidas® 200 S are the basic Fidas® 200 and the Fidas® 200 E with a remote sensor (for easier integration into stations with existing roof feed-through).

BENEFITS

- Explicitly approved for outdoor installation, highly flexible application ranges
- 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

APPLICATIONS

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

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

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 (number C _N)	range	0–20.000 particles/cm ³	Measurement (size)	range	0.18–18 µm (certified range, other measuring ranges on request)
Measurement (mass)	range	0–10,000 µg/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 $\hat{=}$ 0.3 m ³ /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
Gehäuse		Weatherproof outdoor housing (IP 65)	Operating system		Windows 10 IoT Enterprise
Power supply		115 – 230 V, 50/60 Hz	Installation conditions		-20 – +50 °C (weatherproof)

additional parameter on our website ...

NORMS AND CERTIFICATES

VDI 4202-1, VDI 4203-3, EN 12341, EN 14907, EN 16450, EU-Äquivalenzleitfaden, EN 15267-1/-2, ISO 21501-1