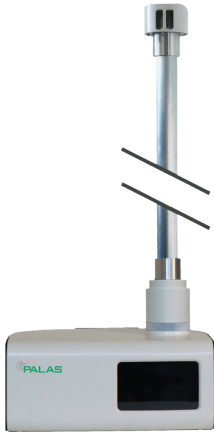


FIDAS® SMART 100 E



Due to its extended and TÜV-approved inlet, the Fidas® Smart 100 E is ideal for retrofitting in existing measurement containers - supplementary for individual fractions (PM_{2.5} or PM₁₀ only) or as a replacement for existing systems.

BENEFITS

- Extended inlet for installation in existing measuring containers
- Technology based on the certified Fidas® 200 series (EN16450 and MCERTS); simultaneous measurement of C_n, PM₁, PM_{2.5}, PM₄, PM₁₀
- High accuracy due to advanced algorithms
- Long-term stable: up to 2 years of operation without calibration possible.
- On-site calibration with test dust (NIST traceable) is possible
- Operation with AC or DC power source
- Long-life blower for sample airflow
- Regulated aerosol heating to avoid condensation

APPLICATIONS

- Regulatory environmental monitoring
- Construction sites
- Networks with roads, railways, and ports
- Smart City
- Occupational safety
- Industry

FEATURES

- Smallest and lightest EN 16450-certified device on the market
- On-site calibration and adjustment (particle size and volume flow)
- Installation and operation directly outdoors without air conditioning
- Data visualization via Palas Cloud ("MyAtmosphere-ready")
- Measurement data acquisition per second
- E-version also available with extendable sampling tube for installation in a measuring container

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 – 20,000 µg/m ³	Measurement uncertainty	uncertainty	9.0 % for PM _{2.5} , 9.7 % for PM ₁₀ (expanded measurement uncertainty according to EN 16450, TÜV Report)
Volume flow	1 l/min $\hat{=}$ 0.06 m ³ /h		Size channels	64 (32/decade)	
Time resolution	1 s – 24 h		Interfaces	USB, Ethernet (LAN), Wi-Fi, 4G (optional via LTE stick)	
User interface	Touchscreen 800 • 480 Pixel, 5" (12,7 cm)		Protocols	UDP, ASCII, Modbus	
Data logger storage	10 GB		Software	PDAnalyze	
Data acquisition	Digital, 22 MHz processor, 256 raw data channels		Light source	Long term stable LED	
Gehäuse	Polymer housing with weather protection and tripod/wall/pole mount option		Operating system	Windows 10 IoT Enterprise	
Power supply	115 – 230 V, 50/60 Hz		Power consumption	Normal operation: 15 W, max. 60 W	

additional parameter on our website ...

NORMS AND CERTIFICATES

ISO 21501-1