Enviro Technology Services Ltd
part of CuraTerrae

Fidas® Smart 100

Fidas® Smart 100 is the most advanced compact measuring instrument for ambient air quality. It continuously and reliably analyzes airborne fine dust particles in the size range of 0.175 – 20 µm. The Fidas® Smart is approved by TÜV for PM2.5 and PM10 for official measurements. In addition to the fine dust fraction relevant for regulatory immission control, Fidas® Smart 100 simultaneously
calculates and stores PM1, PM4, total dust, particle number concentration, and their particle size distribution, including pressure, temperature, humidity, CO2, carbon-based PM fractions (PMx_CE) and TVOC (total volatile organic components).

Benefits

- Technology based on the certified Fidas® 200 series (EN16450 and MCERTS); simultaneous measurement of Cn, PM1, PM2.5, PM4, PM10
- High accuracy due to advanced algorithms
- Long-term stable due to self-calibration; up to 2 years of operation without calibration possible.
- On-site recalibration 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
- SmartCity
- Occupational safety

Model Variations

Fidas® Smart 100E

Fine dust measuring device for existing roof openings for measuring PM2.5 and PM10 (EN 16450 certified) and other parameters such as PM1, PM4, TSP

https://www.palas.de/product/fidasmart100e

https://www.palas.de/product/fidas-smart100

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, CO2, TVOC, Air Quali- ty Index, source indication (depending on configuration)
Measurement range (number CN)	0 – 20,000 particles/cm³	Measurement range (size)	0.18 – 18 µm (certified range, other measuring ranges on request)
Measurement range (mass)	0 – 20,000 µg/m³	Measurement uncertainty	9.0 % for PM2.5, 9.7 % for PM10 (expanded measurement uncertainty according to EN 16450, TÜV Report)
Volume flow	1 l/min ≙ 0.06 m³/h	Size channels	64 (32/decade)
Time resolution	1s–24h	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	10GB	Software	PDAnalyze
Data acquisition	Digital, 22 MHz processor, 256 raw data channels	Light source	Long term stable LED
Housing	Polymer housing with weather protection and pod/wall/pole mount option	Operating system	Windows 10 IoT Enterprise
Power supply	115 – 230 V, 50/60 Hz	Powerconsumption	Normaloperation:15W,max. 60W

additional parameter on our website . . .

Office Location
Kingfisher Business Park
London Road
Stroud
Gloucestershire
GL5 2BY

Registered in England No. 01726773