

FIDAS® SMART 100



Particulate matter analyzer for simultaneous measurement of PM_{2.5} (EN 16450, MCERTS) and PM₁₀ (MCERTS) incl. PM₁, PM₄, TSP, CO₂, TVOC. Estimation of the carbon-based PM fraction (PM_{x-CE})

BENEFITS

- Technology based on the type approved Fidas® 200 series (EN16450 and MCERTS); simultaneous measurement of C_n, PM₁, PM_{2.5}, PM₄, PM₁₀
- Computation of air quality index based on measurements of particulates, CO₂, and VOC
- High accuracy due to advanced algorithms
- Long term stable due to self calibration for measurement of flow rate, particulates, and gaseous pollutants
- 2 years operation without calibration; re-calibration with NIST traced test powder possible on site
- Operates on AC or DC

APPLICATIONS

- Industry:
 - Production processes
 - Bulk material handling (mixing, discharge, storage, packaging etc.)
 - Fenceline Monitoring
- Construction sites: Roads, railroads, demolition sites
- Buildings: Schools, kindergartens, hospitals, hotels, offices, public service buildings
- Residential buildings near construction sites or other polluted areas

MODEL VARIATIONS



Fidas® Smart 100 E

Fine dust measuring device for existing roof openings for measuring PM_{2.5} (EN 16450 certified) and other parameters such as PM₁, PM₄, PM₁₀, TSP, CO₂, TVOC including source indication

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

DATASHEET

Measuring principle	Optical light scattering of 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, CO ₂ , TVOC, Air Quality Index, source indication (depending on configuration)
Measurement range (number C _N)	0 – 20,000 particles/cm ³
Measurement range (size)	0.175 – 20 μm
Measurement range (mass)	0 – 20,000 μg/m ³
Measurement uncertainty	R2 > 0.98 for PM _{2,5} and R2 > 0.94 for PM ₁₀ versus EN 16450-certified Fidas [®] 200 (15 min average, each)
Size channels	64 (32/decade)
Volume flow	1.0 l/min $\hat{=}$ 0.06 m ³ /h
Data acquisition	Digital, 22 MHz processor, 256 raw data channels
Light source	Long term stable LED
Power consumption	Normal operation: 15 W, max. 60 W
User interface	Touchscreen 800 • 480 pixel, 5" (12.7 cm)
Weight	3.9 kg
Operating system	Windows 10 IoT Enterprise
Data logger storage	10 GB

weitere Parameter auf der Webseite ...



Mehr Informationen:
<https://www.palas.de/product/fidas-smart100>