

# FIDAS<sup>®</sup> SMART 100 E



Fine dust measuring device for existing roof openings for measuring PM<sub>2,5</sub> (EN 16450 certified) and other parameters such as PM<sub>1</sub>, PM<sub>4</sub>, PM<sub>10</sub>, TSP, CO<sub>2</sub>, TVOC including source indication

## BENEFITS

- Technology based on the type approved Fidas<sup>®</sup> 200 series (EN16450 and MCERTS); simultaneous measurement of C<sub>n</sub>, PM<sub>1</sub>, PM<sub>2,5</sub>, PM<sub>4</sub>, PM<sub>10</sub>
- Computation of air quality index based on measurements of particulates, CO<sub>2</sub>, 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
- Public transportation: Airports, train stations, tramway underground stations, cruise ships, passenger cabin, e.g. in tram, train

## DATASHEET

Measuring principle	Optical light scattering of single particles
Reported data	PM <sub>1</sub> , PM <sub>2,5</sub> , PM <sub>4</sub> , PM <sub>10</sub> , TSP, C <sub>N</sub> , particle size distribution, ambient pressure, ambient temperature, rel. ambient humidity, CO <sub>2</sub> , TVOC, Air Quality Index, source indication (depending on configuration)
Measurement range (number C <sub>N</sub> )	0 – 20,000 particles/cm <sup>3</sup>
Measurement range (size)	0.175 – 20 μm
Measurement range (mass)	0 – 20,000 μg/m <sup>3</sup>
Measurement uncertainty	R2 > 0.98 for PM <sub>2,5</sub> and R2 > 0.94 for PM <sub>10</sub> versus EN 16450-certified Fidas <sup>®</sup> 200 (15 min average, each)
Size channels	64 (32/decade)
Volume flow	1.0 l/min $\hat{=}$ 0.06 m <sup>3</sup> /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/fidasmart100e>