FIDAS® 200 E

The Fidas® 200 E version shown here consists of a 19″ plug-in unit and a remote sensor (connection length 3 m, other sizes on request) for use in air-conditioned monitoring stations (temperature range 5 - 40 °C). The remote sensor, flanged to the lower end of the aerosol sampling tube, greatly simplifies installation in stations with an existing roof penetration. Variants of the Fidas® 200 E are the basic Fidas® 200 and the Fidas® 200 S (with stainless steel weatherproof housing) designed for outdoor installation.

BENEFITS

- Type-approved and certified according to latest EN requirements (EN 15267)
- High flexibility for installation due to separation of sensor unit and control unit
- Continuous and simultaneous real-time measurement of multiple PM values
- Additional information on particle number concentration and particle size distribution
- Light source: LED with high stability and long lifetime
- Long service life
- Low maintenance
- External check of calibration on site possible
- Intuitive and easy to operate
- Reliable function, very high data availability (> 99 %)
- 2 pumps in parallel operation for additional operational safety due to redundancy
- Permanent monitoring of status, among others online monitoring of calibration
- Remote monitoring, maintenance and control easily possible
- No radioactive material
- No consumables

CASE STUDIES

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

DATASHEET

Measurement range (number C_N)	0 – 20,000 particles/cm^3
Size channels	64 (32/decade)
Measurement range (size)	0.18 – 18 μm (certified range, other measuring ranges on request)
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 range (mass)	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 ± 3% (24h), complient with EN 16450
Time resolution	1 s – 24 h
Data acquisition	Digital, 20 MHz processor, 256 raw data channels
Light source	Long term stable LED
User interface	Touchscreen, 800 • 480 pixel, 7″ (17.78 cm)
Housing	Table housing, optional: with mounting brackets for rack-mounting (control unit)
Weight	Control unit: 9.3 kg, sample head: 2.25 kg, sample tube: 4.5 kg
Operating system	Windows 10 IoT Enterprise
	additional parameter on our website …

Further information:
https://www.palas.de/product/fidas200e

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