

# FIDAS® 200 S



The Fidas® 200 S version is a 19" plug-in unit mounted in a splash-proof stainless steel control cabinet for outdoor use (temperature range -20 - 50 °C). A larger, air-conditioned control cabinet is available on request, allowing the installation of additional devices. Variants of the Fidas® 200 S are the basic Fidas® 200 and the Fidas® 200 E with a remote sensor (for easier integration into stations with existing roof feed-through).

## 工作原理

## 优势

- Explicitly approved for outdoor installation, highly flexible application ranges
- Type-approved and certified according to latest EN requirements (EN 15267)
- Continuous and simultaneous real-time measurement of multiple PM values
- Additional information on particle number concentration and particle size distribution
- Long service life
- Low maintenance
- External check of calibration on site possible
- Intuitive and easy to operate
- Reliable function, very high data availability (> 99 %)
- Permanent monitoring of status, among others online monitoring of calibration
- No radioactive material and no consumables
- Low energy consumption

## 标准和证书

VDI 4202-1, VDI 4203-3, EN 12341, EN 14907, EN 16450, EU-Äquivalenzleitfaden, EN 15267-1/-2, ISO 21501-1, LCSQA (2023)

## 技术数据

|                         |   |
|-------------------------|---|
| 测量原理                    | Optical light scattering at single particles, 90° sideways scattering   |
| 报告数据                    | 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 |
| 测量范围(数量浓度)              | 0–20.000 颗粒/cm <sup>3</sup>   |
| 测量范围(粒径)                | 0.178 - 17.8 μm (additional: 0.4 - 40 μm, 1-100 μm)   |
| 测量范围(质量)                | 0–10.000 μg/m <sup>3</sup>  |
| 测量不确定性                  | 9.7 % for PM <sub>2.5</sub> , 7.5 % for PM <sub>10</sub> (expanded measurement uncertainty according to EN 16450, 450, (see Qa1.de))  |
| 体积流量                    | 4.8 NI/min (25°C, 1013 hPa) < +/- 1% (MFC-controlled diaphragm pump)  |
| Size channels           | 64 (32/decade)  |
| Time resolution         | 1s - 24h variable adjustable  |
| 接口                      | USB, Ethernet (LAN), RS-232, Wi-Fi (Dongle), digital  |
| User interface          | Touchscreen, 800 • 480 pixel, 7" (17.78 cm)   |
| Protocols               | UIDEP, UDP, ASCII, MODBUS, Bayern-Hessen  |
| Data logger storage     | Capacity for 2 years continuous operation at 60 s storage interval  |
| Data acquisition        | Max. 256 raw data channels (32 size channels/decade)  |
| Light source            | Polychromatic LED   |
| 外壳                      | Steel cabinet   |
| Operating system        | Windows 10 IoT (LTSA)   |
| 电源                      | 115 – 230 V, 50/60 Hz   |
| Installation conditions | Operating temperature: 5 – +40 °C, operating humidity: 0 - 100% (non-condensing)  |
| Sampling head           | Sigma head (non-selective passive collector)  |
| Dimensions              | 1,810 • 660 • 470 mm (H • W • D) (including IADS)   |
| 重量                      | Control unit: 9.3 kg, sample head: 2.25 kg, sample tube: 4.5 kg   |
| Sampling system         | Drying of the aerosol by IADS (Intelligent Aerosol Drying System)   |
| Noise emission          | < 70 dB(A)  |
| Resolution              | 0.1 μg/m <sup>3</sup>   |
| Power consumption       | Normal operation: 60 W, max. 200 W  |
| Data Management         | Prepared for connection to the Palas Cloud MyAtmosphere ("MyAtmosphere-ready")  |
| Repeatability           | 3 %   |

## 应用领域

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



Mehr Informationen:  
<https://www.palas.de/zh/product/fidas200s>