

AQ GUARD SMART 1200



AQ Guard Smart 1200 is a compact and cloud-enabled air quality measurement device. The system is designed for the requirements of outdoor air measurement in the smart city environment to improve granularity while maintaining high comparability to official measurements for environmental monitoring and health protection. The simultaneous measurement of pollutant gases makes the device perfect for measuring in environmentally sensitive areas, especially where they are already common or required by law.

BENEFITS

- Technology based on the certified Fidas® 200 series (EN 16450 and MCERTS)
- Simultaneous measurement of PM₁, PM_{2.5}, PM₄, PM₁₀, C_N with high temporal resolution
- Additional SO₂, CO, NO₂, O₃, TVOC, CO₂
- Easy and fast installation
- Data visualization via cloud MyAtmosphere
- Communication via GPRS / 3G / 4G / Ethernet / Wi-Fi, optional: LoRaWAN
- GPS integrated
- Extendable with weather station / solar protection

APPLICATIONS

- Urban air quality monitoring
- Smart city projects
- Open pit mining and landfills
- Formation and dispersion studies
- Construction sites
- Immission monitoring of industrial plants
- Measurement of dust emissions from road and rail traffic as well as ports
- Risk areas (natural and anthropogenic)

DATASHEET

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| 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, SO ₂ , CO, NO ₂ , O ₃ , TVOC, CO ₂ |
| Measurement (number C _N) | range 0 – 20,000 particles/cm ³ | Measurement (size) | range 0.175 – 20 µm |
| Measurement (mass) | range 0 – 100 mg/m ³ (depending on the composition of the aerosol) | Measurement uncertainty | < 15 % for PM _{2.5} , < 20 % for PM ₁₀ (expanded measurement uncertainty according to EN 16450, corrected – MCERTS) |
| Size channels | 64 (32/decade) | Time resolution | 1 min, moving average 1 min |
| Interfaces | USB, Ethernet (LAN), Wi-Fi, 3G/4G via Modem, optional: LoRaWAN | Protocols | ASCII, MODBUS, UDP |
| Light source | Long term stable LED | Power supply | Supplied power supply: 12 V |
| Power consumption | Standard operation: 1.2 A (1.7 A with additional heating) | Installation conditions | -20 – +50 °C |
| Response time | < 3 s (gas sensor) | Dimensions | 530 • 270 • 208 mm (H • W • D) |
| Weight | Approx. 6 kg | Special features | Heated inlet, mast / tripod mount |
| Resolution | 0.01 ppm (gas sensor) | Data Management | Prepared for connection to the Palas®Cloud MyAtmosphere ("MyAtmosphere-ready"); internet access and separate registration required. MyAtmosphere terms and conditions of use apply. |

additional parameter on our website ...