

ReliaSENS 18-12

- **Air pollution sensors:**
 - Gaseous pollutants (CO, CO₂, NO, NO₂, O₃, SO₂, H₂S, VOC)
 - Particulates (PM10)
 - EM fields
 - Radioactivity (α , β , γ)
 - Sound pollution option
- **Data access & connectivity:**
 - Real time data with 24/7 availability
 - Mobile app and Web interface
 - GPRS/3G/WiFi connectivity



FEATURES

Multimodal detection – High precision, high accuracy pre-calibrated sensors

Simple user interface – Web interface and mobile app

Compact and lightweight – Ideal for fixed (e.g. light poles) and mobile installations (e.g. construction sites)

Reliable – For uninterrupted service and reduced TCO

- **Traffic areas (highways, railways, airports, ports)**
- **Industrial areas (chemical, manufacturing, steel companies)**
- **Costruction sites**
- **Urban areas (schools, hospitals, residential zones)**

ReliaSENS 18-12 is a compact, easy to install environment monitor system that allows to collect and analyze air quality parameters, electromagnetic fields, ionizing radiation levels and (optionally) sound pollution.

ReliaSENS 18-12 is the ideal solution for private and public entities that need to get real time, 24/7 data, that scales from a single device to a large monitoring network.

Thanks to its Cloud technology, ReliaSENS 18-12 offers a simple interface to manage the device and access the data. It provides a user-friendly Web interface and mobile apps compatible with Android and iOS, to enable immediate fruition through PCs, tables and smartphones.

The Web GUI allows to set thresholds and automatic alerts (e.g. SMS, E-Mail, Twitter, etc.) Moreover, the system generates metrics such as hourly and daily averages of the sensors' data.

Data can be easily exported and integrated with existing IT systems to perform statistical analyses and to identify spatial and time patterns related to pollutant generation and propagation.

Features

Sensor Features



Gaseous pollutants	Range	Detection limits	Precision
CO (Carbon monoxide)	0-50 ppm	5 ppb	< 10 ppb
CO ₂ (Carbon dioxide)	0-5000 ppm	1 ppm	10-50 ppm (Zero - Full Scale)
NO (Nitrogen oxide)	0-20 ppm	3 ppb	< 5 ppb
NO ₂ (Nitrogen dioxide)	0-20 ppm	5 ppb	< 5 ppb
O ₃ (Ozone)	0-2 ppm	5 ppb	< 3 ppb
SO ₂ (Sulfur dioxide)	0-20 ppm	5 ppb	< 3 ppb
H ₂ S (Hydrogen sulfide)	0-25 ppm	10 ppb	< 4 ppb
VOC (Volatile Organic Compounds)	0-50 ppm	5 ppb	3%

VOC include: Benzene, Toluene, Xylene

PARTICULATE MATTER	Range: PM10 Precision: 10% Detection technology: light scattering
IONIZING RADIATIONS	α , β , γ counts (cumulative) Wide range: 10 Bq - 10 ⁶ Bq (10Bq = natural radiation background - sea level)
NON-IONIZING RADIATIONS	Low frequencies: 50 Hz - range: 1 to 400 μ T, resolution: 1 μ T High frequencies: 0.5 MHz - 8 GHz Response to typical bands: - 900 MHz: range: 0.01 to 10 V/m, resolution: 0.01 V/m - 1.8 GHz: range: 0.05 to 10 V/m, resolution: 0.05 V/m - 2.1 GHz: range: 1 to 10 V/m, resolution: 1 V/m - 2.4 GHz: range: 0.1 to 10 V/m, resolution: 0.1 V/m
SOUND	100Hz to 10.000Hz [Option]

Other Features

CONNECTIVITY OPTIONS	GPRS/3G WiFi (802.11b/g/n) 10/100/1000 Ethernet
GEOLOCATION	GPS
POWER	12-24 VDC, 4.5 W (suitable for battery and photovoltaic sources)
DIMENSIONS	180 x 360 x 150 mm (WxHxD)
OPERATING CONDITIONS	External Air Temperature: -20° to +50°C

Data Access & Console

MANAGEMENT INTERFACE	Web
APPLICATION GUI	Web Mobile App (Android, iOS)



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