

SOLMIN AIR

Configurable Environmental Monitoring Platform with A.I.

SOLUTION NAME:

The **SOLMIN AIR** is a configurable multi-parameter environmental monitoring system designed to adapt to the specific requirements of each industrial, mining, or institutional operation. Thanks to its modular architecture, it allows for the integration of gas sensors and environmental variables according to the client's needs, transmitting data in real time to cloud platforms.

With IP65 protection and power backup, the device ensures continuous operation in harsh environments such as underground mines, tunnels, chemical plants, factories, indoor pools, and confined spaces.

TECHNICAL SPECIFICATIONS (configurable)

Temperature: -40°C to $+85^{\circ}\text{C}$ (accuracy $\pm 0.3^{\circ}\text{C}$).

Relative Humidity: 0–100%RH (accuracy $\pm 2\%$).

Gas Sensors (configurable):

CO_2

CO

CH_4 (Metano)

H_2S

O_2

NH_3

SO_2

NO_x

Cl_2 (Cloro gaseoso)

$\text{C}_2\text{H}_4\text{O}$

Detection range: Typically 0–10,000 ppm (depending on the gas).

Resolution: Up to 0.01 ppm in critical gases.

Communication: LoRaWAN, Wi-Fi, 4G/LTE (optional), or Industrial Ethernet.

Power: 110/120 VAC with a 10,000 mAh backup battery.

Battery life: Up to 12 hours without external power or up to 30 days in backup mode.

Data format: CSV export / REST API / MQTT.

APPLICATIONS:

- Mining: control of explosive and toxic atmospheres.
- Chemical and Industrial Plants: occupational safety and environmental control.
- Civil Engineering and Tunnels: prevention of hazardous gas accumulation.
- Indoor Swimming Pools and Gyms: control of chlorine gas and environmental comfort.
- Hospitals and Laboratories: air control in critical rooms.

KEY BENEFITS:

- Customized configuration: sensors based on the environment and risk type.
- 24/7 security: real-time data transmission with local and cloud backup. Audible alarm on the device itself (internal speaker).
- Predictive prevention: early warnings via email, SMS, or WhatsApp.
- Regulatory compliance: OHSAS, ISO, and industrial SCADA systems.
- Flexible integration: compatible with REST/MQTT APIs. Compatible with industrial SCADA and IoT systems.

Calibration certificate issued by an accredited laboratory according to international standard ISO/IEC 17025.



SOLMIN TECH

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EXPERTS IN:

- VIBRATION AND STABILITY MONITORING
- SOLMIN AIR AIR MONITORING
- SMART ANCHORS

