

# LoRa SENSORS

## SONDEK

NODO IoT

### SCO2

- ✓ Modular carbon dioxide (CO<sub>2</sub>) probe. CO<sub>2</sub>+Temp+Humid+Pressure
- ✓ LoRa® Technology
- ✓ Low power consumption
- ✓ High tolerance to interference
- ✓ High reception sensitivity (-136dBm)
- ✓ Long range (up to 20 km maximum)

### APPLICATION ENVIRONMENTS



RESIDENTIAL BUILDINGS



HOTELS AND RESORTS



HOSPITALS AND HEALTHCARE SECTOR



FACTORIES AND INDUSTRIAL WAREHOUSES,



SUPERMARKETS



AGRICULTURE



PUBLIC SPACES



EKSELANS BY ITS



SCO2

## SONDEK

NODO IoT

Professional Sensor System for Residential, Industrial, and Tourist Environments.

**SONDEK** allows for the creation of a technological infrastructure within a building, regardless of its intended purpose, to monitor various environmental and consumption parameters with the aim of improving habitability, energy efficiency, and the well-being of the environment.

**SONDEK** system is composed of various detectors designed to capture and measure a wide range of environmental parameters: carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxygen (O<sub>2</sub>), temperature, humidity, and atmospheric pressure. Its main function is to collect precise information on these variables and transmit them in real-time using LoRa® technology to different modular nodes (MPDs), which in turn communicate with a central gateway (HDR - IoT Node). It is this **IoT Node** that securely stores all environmental factors for data analysis, allowing for the identification of patterns and the implementation of preventive or corrective measures, even automatically.

**SONDEK** sensors are designed for easy installation and offer advantages such as automatic linking with the modular node and a self-configuration procedure for measurement transmission cycles. The IoT Node (HDR) stores data locally in real-time, with the option of communication with a cloud system. Additionally, it provides access to city infrastructures (Smart Cities) that have implemented building metadata analysis.



## TECHNICAL TABLE

REFERENCIA		SCO2
Código		421003
Measurements		CO2
		Temperature
		Humidity
		Atmospheric pressure
Type of measurement		Photoacoustic detection and PASens® and CMOSens® technology
		Semiconductor
		Capacitive type
		MEMS
Connections		M12-6PIN
Measuring range	ppm	400 ~ 2000
	°C	-40 ~ 80
	%	0% ~ 100%
	hPa	500 ~ 1200
Type of material		Inox