

LoRa SENSORS

SONDEK

NODO IoT

MPD

- ✓ Modular node
- ✓ With temperature, humidity and atmospheric pressure sensor
- ✓ 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



MPD

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 (CO₂), carbon monoxide (CO), oxygen (O₂), 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

REFERENCE		MPD
Code		422000
Measurements		Temperature
		Humidity
		Atmospheric pressure
Type of measurement		Semiconductor
		Capacitive
		MEMS
Connection		M12-6PIN
Signal sensitivity (RSSI)	dBm	-17 ~ -136
Measuring range	°C	-40 ~ 60
	%	0% ~ 100%
	hPa	500 ~ 1200
Type of material		ABS
Voltage		Lithium-ion Battery 3.6V 8500mAh
Working voltage		Maximum current: 120mA Average current: 150uA (Sending cycle configuration 5m)