

NLB-CO2+RH+T-5-MRF | Combined battery powered CO₂/RH/T MRF sensor

The NLB-CO2+RH+T-5-MRF is a wireless room sensor and is intended for continuous monitoring of indoor air quality and for effective control of ventilation (HVAC) systems according to the current air quality. The sensor monitors the concentration of carbon dioxide (CO₂), relative humidity (RH) and air temperature (T). It is used in households, offices, schoolrooms, shopping centers, restaurants, fitness centers, commercial buildings, etc. for efficient control of ventilation systems.

- › Monitors CO₂, RH and T
- › Wireless communication with a receiver
- › Battery powered
- › Easy installation
- › Maintenance during operation is not required
- › Long battery lifetime

Description

The measuring of CO₂ is based on an optical principle (NDIR) using advanced optical chamber. Built-in auto-calibration function ensures excellent long term stability and accuracy.

Measurement of the relative humidity is based on the principle of capacitive polymer sensor.

Individual quantities (CO₂, RH, T) are available on the receiver either via RS485 serial interface with Modbus communication or via two analog outputs (CO₂ and RH).

The sensor efficiently controls ventilation systems, based on current room air quality.

Low battery power is indicated by a built in LED indicator.

Explanation of abbreviations and technical terms can be found on our website in the [Glossary](#) section.



Technical data

Parameter	Value	Unit
Power supply - 2xAA	1,5	V
Battery life	24 ¹⁾	months
CO ₂ measuring range	400 – 2000/5000 ²⁾	ppm
CO ₂ accuracy	± 35 ppm ± 5 % of reading	
RH measuring range	0 – 100 %	RH
RH accuracy 0 – 90 %	± 5 %	RH
RH accuracy 90 – 100 %	± 6 %	RH
T measuring range	0 – 50	°C
T accuracy	± 0,45	°C
Working humidity non condensing	0 – 95 %	RH
Working temperature	0 to +50	°C
Storage temperature	-20 to +60	°C
Expected lifetime	min. 10	years
Ingress protection	IP20	
Dimensions	90x80x31	mm
Adjustable broadcasting period	1 to 35	minutes

¹⁾ Applies to a minimum broadcasting period of 5 minutes with original batteries.
²⁾ Range up to 5000 ppm CO₂ is available only via serial interface.

