![PROTRONIX SENSE & EASY logo]

NLII-CO2+RH+T-5-SX | Combined CO_2/RH/T sensor with SIGFOX

Room sensor NLII-CO2 is used to continuously monitor air quality inside buildings and then control ventilation (HVAC) systems according to current levels of air internal air quality. The sensor measures concentration of carbon dioxide (CO_2), relative humidity (RH) and temperature (T). It can be effectively used in offices, classrooms, shopping centers, homes, restaurants, fitness centers, commercial buildings, etc.

〉 measures CO_2, RH and temperature
〉 2x analog voltage/current output
〉 SIGFOX wireless communication
〉 maintenance during operation is not required

The measuring of CO_2 is based on the principle of infrared radiation attenuation dependence on the CO_2 concentration in the air (NDIR). Built-in auto-calibration function ensures very good long term stability.
Measurement of the relative humidity is based on the principle of capacitive polymer sensor.
The sensor has built-in two separate analog outputs - one for the actual concentration of CO_2 and the other for the current relative humidity. Temperature output is available by Sigfox communication.
So the sensor efficiently manages ventilation and heat recovery units, based on current room air quality.
The current air quality can easily be determined by looking at the three LED indicators.
The *eco* level means good indoor air quality necessary to achieve a sense of well-being and at the same time optimal energy costs for heating, ventilation or air conditioning.
For detailed information on the communication protocol, use the document NLII-Sigfox-Communication.

Parameter	Value	Unit
Supply voltage range	12 – 35 12 – 24	V DC V AC
Average consumption	0,5	W
CO_2 measuring range	400 – 5000	ppm
CO_2 accuracy	± 35 ppm ±5 % of reading	
CO_2 startup	max 1	min
CO_2 step response	(90 %) 80	s
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	± 0,4	°C
Output [1]	0-10 V / 0-20 mA / 4-20 mA	
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	110x158x31	mm

[1] It is possible to select the desired type of analog output by a jumper.
Minimum achievable output value corresponds to minimum value of the measuring range.

Explanation of abbreviations and technical terms can be found on our website in the Glossary section.