

OY1210 LoRaWAN CO2 meter

LoRaWAN sensor that measures **temperature, humidity and carbon dioxide**, with an incredible **maintenance free lifetime of 5 years at a 20-minute reporting interval**. Easy to use, configurable over the air and stylish in design to fit into indoor spaces. Supports adaptive reporting functionality to detect rapid changes in CO₂ levels.

Typical use cases:

Indoor climate control

HVAC energy savings

School buildings, office spaces, living spaces



OY1210 LoRaWAN CO₂ meter

Technical specification

Operating principle

Non-dispersive infrared (NDIR) Yes
 Sample method Diffusion

Accuracy and range

Temperature accuracy ± 0,2 °C (conditions 0 °C to +50 °C)
 Temperature range -20 °C to +60 °C
 Humidity accuracy ± 2% (conditions 10-90% RH)
 Humidity range 0% to 100% non-condensing
 Measurement range CO₂ 400 – 5000 ppm
 Accuracy CO₂ ±30ppm ±3% of reading
 RMS noise CO₂ 0.7ppm @ 400ppm
 1.4ppm @2000ppm (filtered)

Accuracy of ±0,1 °C and ± 1,5% humidity available upon request

Connectivity

Network LoRaWAN
 Frequency bands 868 MHz
 Provisioning Over the air & personalization

Size

Size 111 x 77 x 26 mm
 Weight 136g

Security

Algorithms AES-128
 Hardware Cryptographic co-processor
 Features Secure boot
 Secure firmware upgrade

Hardware based ultra secure key storage

Battery life

Battery life length >5 years (at 20 minute intervals, SF12)
 Battery type 2x Lithium-thionyl 3.6V (replaceable)
 Capacity 3.6Ah

Configuration

Measurement intervals 1 minute, configurable over the air
 Transmission intervals 20 minutes, configurable over the air
 Adaptive reporting Extra transmission for CO₂ level changes >100ppm

Unique App EUI available upon request

Enclosure

IP30

Certifications

RoHS compliant
 CE
 LoRaWAN