

OptoSense AS

Sensor for Demand Controlled Ventilation (CO₂ and temp.)

Demand Controlled Ventilation with CO₂ measurement boosts energy efficiency in both new and refurbished buildings. The major savings are achieved in buildings with high standards for indoor climate and with large variations or low predictability in occupation.

The sensors from OptoSense yield a higher accuracy and better long term stability, resulting in excellent Indoor Air Quality with the lowest energy and operational costs.



Accuracy
Long term stability
No maintenance
Easy to install

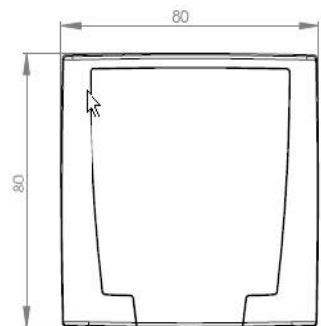
Product Nr.	Product Navn	Description
1-5-000001-01	OS IAQ Sensor VS	CO2 and temperature sensor, 0-10 V outputs, without display
1-5-000002-01	OS IAQ Sensor VD	CO2 and temperature sensor, 0-10 V outputs, with display
1-5-000003-01	OS IAQ Sensor CS	CO2 and temperature sensor, 4-20 mA outputs, without display
1-5-000004-01	OS IAQ Sensor CD	CO2 and temperature sensor, 4-20 mA outputs, with display
1-5-000006-01	OS IAQ Sensor VD	CO2 0-10V output, passive temperature (NTC-20), without display
1-5-000005-01	OS IAQ Sensor Duct Kit	Duct mounting Kit for use with all the above sensors

Better accuracy results in even lower energy bill Sensors from **OptoSense** react quickly and precisely so that a VAV system can provide an optimum indoor climate with less than 10% excess ventilation. This may lead to additional annual savings comparable to the cost of the sensor.

Independent of occupational pattern Sensors from **OptoSense** provide absolute and independent measurements throughout the lifetime, without any special set-ups or calibration routines. The sensors will measure correctly even if the building is in continuous use (365/24/7).

With a completely maintenance free solution Sensors from **OptoSense** continuously compares CO₂ measurements towards a fixed and balanced reference that compensates for any changes throughout the sensor life span. This means that **OptoSense** provides a completely maintenance free solution.

And simple installation Two steps: attach cables in back and go live by plugging in front with electronics. No special knowledge or skills required. The sensor will measure correctly from first minute without configuration or calibration that may introduce errors. The design is neutral and compact.



Key data	
Accuracy	CO ₂ < 30ppm(600–1200ppm), <50ppm(0-2000ppm) Temp. < 0,5 °C (10-40 °C)
Stability	< 4 ppm p.a.
Range	Standard: 0 – 2000 ppm og 0 – 50 °C
Power	AC: 20 - 30 V. DC: 16 to 38 V. Typical 500 mW
Life time	15 years without calibration or other maintenance

About OptoSense AS and the HoloChip technology

OptoSense is a Norwegian company that develops and sells micro-optical sensors for detection and measurement of various gases.

The unique and patented **HoloChip** technology bridge the gap between filter based sensors and spectrometers, providing accurate and stable measurements from a simple and cost-effective unit.

The current products measure Indoor Air Quality to ensure an excellent environment with minimum energy usage. The technology has also been demonstrated for industrial and medical applications.

