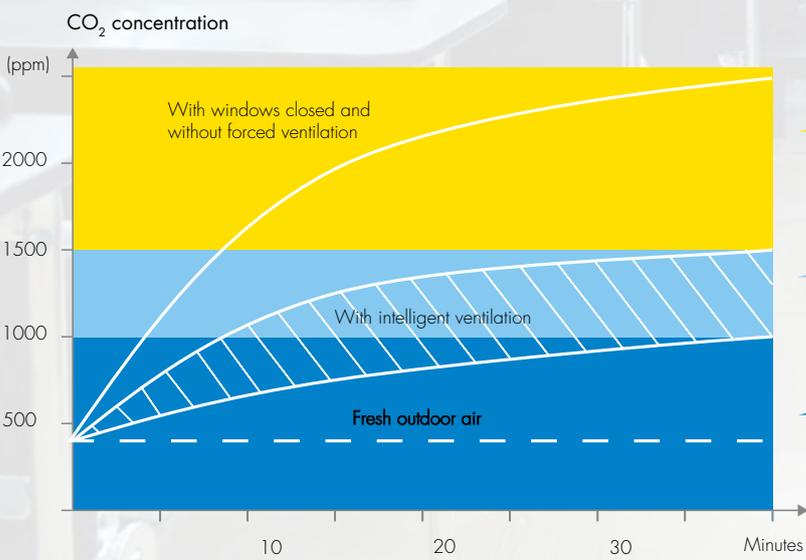




Indoor air quality

Save energy by improving indoor air quality
with innovative CO₂ sensors



Effect on people



Increase in CO₂ concentration in a classroom with 25 pupils

Oxygen gives me energy. Thanks to **SAUTER**, I'm always at my best.

Breathing space

Whether you want to work or just feel comfortable, a pleasant indoor climate is essential. That's why you should invest in an advanced room air management system. Temperature, humidity and air pressure are not the only factors – the quality of the air is crucial. SAUTER's pioneering technology provides demand-led ventilation to optimise air quality and save energy at the same time.

The perfect climate for your business

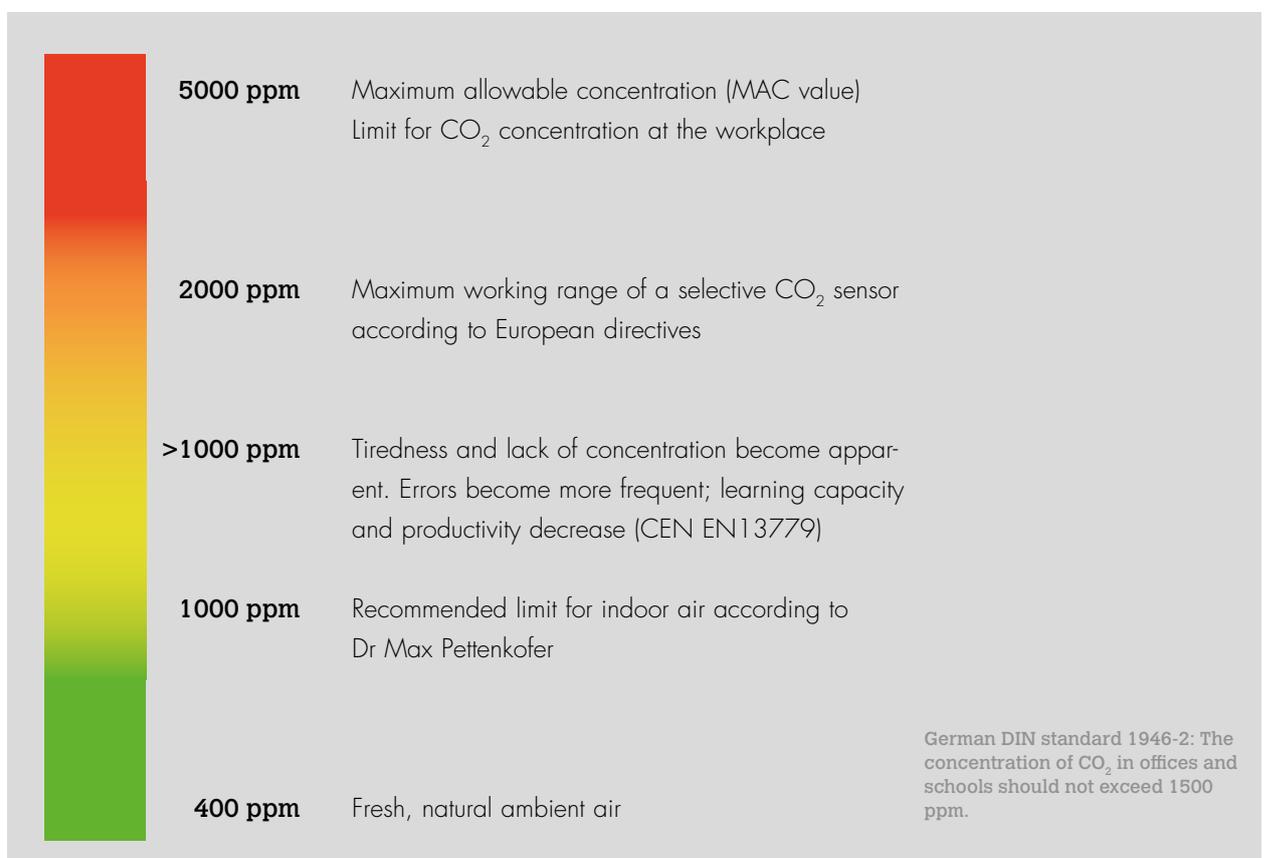
When the air quality in a room is good, the people in it feel more at ease and are more productive. The new SAUTER NDIR CO₂ sensor (single-source, dual-beam, dual-wavelength) is ideal for use in low-energy buildings, for efficient ventilation systems and for rooms with constant or changing occupation. These include hospitals, schools, conference centres, concert halls, airports and offices.

Wherever reliable CO₂ readings need to be taken, the SAUTER sensor is the answer. A regulation system ensures that the air flow is constantly modified according to demand. The amount of fresh air required depends on the number of people in a room and their activities. The system must be able to control the air flow, using, for example, regulated fans, air dampers and air filters. CO₂ and mixed-gas sensors constantly measure the quality of the air flow. The ventilation can then adapt to maintain the recommended CO₂ concentration in the room.

Improve the **indoor air quality** with intelligent room air management

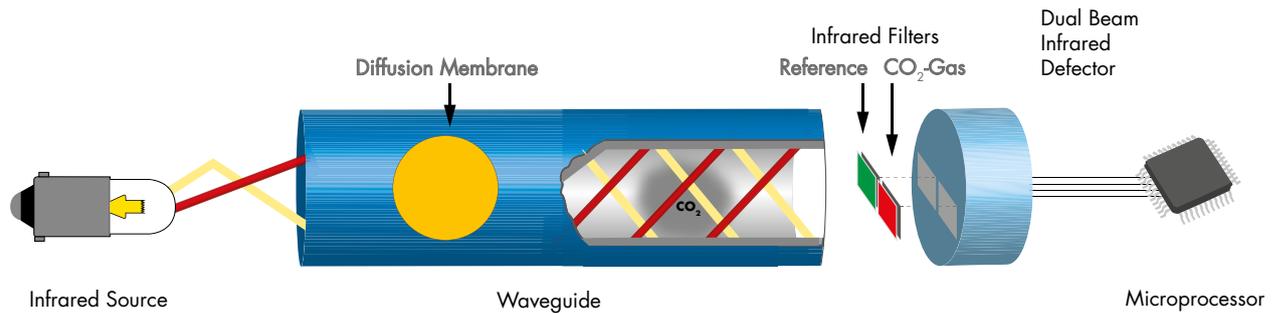
More comfort, less energy consumption, lower costs

The effects of excessive CO₂ concentration in the air range from reduced attention spans, tiredness, poor concentration and discomfort to increased mistakes and sick days. This means a loss of working hours and higher costs. These effects can be mitigated by precisely measuring CO₂ levels and regulating the ventilation accordingly.



SAUTER is setting new standards

Do you need to know when and how often your building needs to be ventilated to keep the CO₂ concentration below the limit? The new NDIR CO₂ sensor from SAUTER has the answer.



The advantages of the SAUTER NDIR CO₂ sensor at a glance:

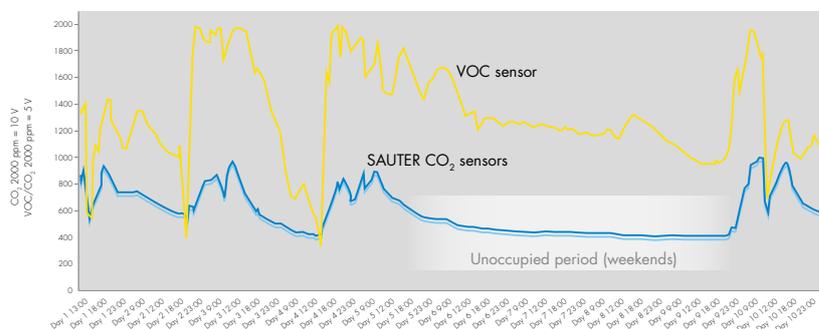
The benefits to you:

+	Highly accurate (± 75 ppm) due to calibration and temperature compensation	▶ Uses energy efficiently
+	High quality, which guarantees long service life with no deterioration in accuracy	▶ Saves on maintenance costs
+	An innovative system of continuous drift compensation ensures high reliability without additional costs	▶ Requires no maintenance
+	Dual-beam method compensates for temperature fluctuations and measurement errors caused by dust, dirt or ageing	▶ Ensures correct regulation
+	Innovative direct dual-beam technology	▶ Maintenance-free, durable, no drift
+	Suitable for all HVAC applications	▶ Can be used round the clock
+	Sturdy design and greater impact resistance due to special infrared source	▶ Easy to install
+	Can be fully integrated in modern building control systems	▶ Pioneering construction
+	Exceeds minimum requirements of VDI 6038 guideline	▶ Future-proof technology, built to last

Healthy air in every room thanks to the VOC sensor from SAUTER

You can also minimise VOC content in the air

Alongside CO₂ content, VOC content (volatile organic compounds) is also a pivotal factor in air quality. VOCs are emitted by fitted carpets, furniture and so on. At SAUTER, we have VOC sensors that are highly sensitive to these changes in the air. Combined with an occupancy detector and/or a time control system, they guarantee energy-efficient ventilation.



Recommended uses:

Type of buildings/rooms	Non-smoking	Smoking	Other types of pollution	CO ₂ sensors	Mixed gas sensors (VOC)
Schools	•			•	
Gymnasiums	•			•	
Offices/conference rooms	•			•	
Individual rooms	•			•	
Festivity rooms	•	•	•		•
Foyers	•	•	•		•
Kitchens	•		•		•
Sanitary areas	•		•		•

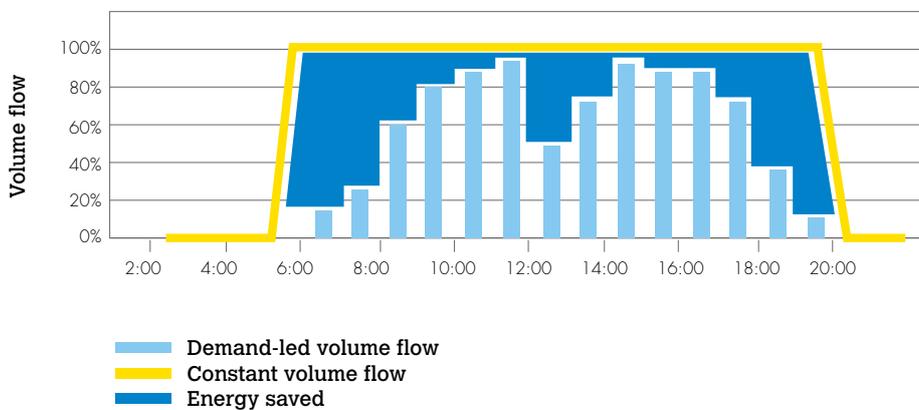
European standards and directives on air quality

Air quality is an important aspect of building certifications such as LEED and DGNB. This is because building shells are becoming increasingly airtight, preventing air from being exchanged naturally. An efficient means of ventilation is vital. The European Community has issued the following standards with regard to indoor air quality:

- EN 13779: Ventilation for non-residential buildings. Performance requirements for ventilation, air-conditioning and cooling systems
- EN 15251: Indoor environmental input parameters for design and assessment of the energy performance of buildings, addressing indoor air quality, thermal environment, lighting and acoustics

Save energy and money with the SAUTER CO₂ sensor

Demand-led ventilation control not only provides an atmosphere in which the room users feel comfortable; it also achieves energy savings of up to 60 percent. This is because faster and more precise regulation leads to increased energy efficiency. 75 to 80 % of the life-cycle costs are operating costs. The efficient room management system from SAUTER will enable you to cut your energy consumption, thus minimising your running costs. The intelligent room automation system will pay for itself in less than a year.



Systems

Components

Services

Facility Services

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