

CO2-AirCheck



Signal 121013

Control 121112

Ideal for measuring the quality of air in offices, hotels, conference centers, schools or residential buildings

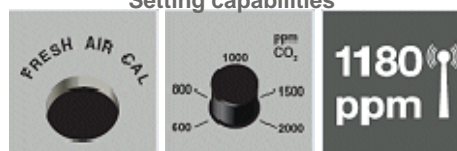
Modern buildings are becoming more air-tight on the one hand, but let in more light on the other. Tailoring the ventilation of rooms used by people is becoming a priority exercise for planners and engineers. In the past, air-conditioning or central ventilation systems were favoured. However, since the emergence of the "Sick Building" syndrome, planners and architects are being confronted with new tasks too. Providing natural ventilation by activating actuators is becoming an increasingly popular solution. STEINEL is setting a new standard in automating building services: invisibly integrated, drives move actuators fully automatically and in virtual silence. Automation and control using sensors is essential for efficient, tailored natural ventilation. The benefits over manual ventilation are obvious:

- The need for ventilation changes during the course of the day
- Human beings do not properly sense the need for ventilation
- People tend to waste energy

Providing ventilation when it's needed can create a pleasant room climate and save energy – even without controlling air humidity or active cooling. If you also add occupancy detection to the control concept (e.g. LuxMaster lighting control – see page 26 ff.), the system can be enhanced even further.

STEINEL's CO2-AirCheck features infrared optical two beam gas detectors that work on the absorption principle and measure the concentration of CO2 in room air. The measuring element used is a dual thermopile sensor with a measuring channel and reference channel. As the reference channel largely compensates for any measurement corruption caused by measurement system soiling, ageing of the light source or changes in ambient temperature, the unit continues to work for prolonged periods of time without the need for action on the part of the user.

Setting capabilities



CO2-AirCheck Signal Control

Dimensions (h / w / d)	120 x 120 x 53 mm
CO2 measurement range	300 ppm - 2000 ppm (- 5000 ppm possible)
3-LED-threshold indicator	Green 300 - 1000 ppm - Yellow 1001 - 1500 ppm -Red > 1500 ppm -
Accuracy	± 100 ppm (meteorological fluctuations in air pressure not taken into account)
Air pressure	500 hPA – 1060 hPA
Geographical height	compens. for altitudes up to 2000 m above sea level
Temperature (function)	5° C to 40° C
Response time (T90)	approx. 30 min
Measurement cell life	> 15 years
Power consumption	2.5 W on average
Operating voltage reversal	230 – 240 V / 50 Hz 18 – 30 V = or 24 V ac ± 15 %, protected against polarity
Switching output	Floating switching output - for direct connection of an actuator
Switching capacity	49 V ac max.
Resistive/inductive	4 A / 2 A
-Analog output (5mA max.)	0 – 10 V (0 – 2000 ppm CO2), pract. 2 – 10 V (400 – 2000 ppm)
- Serial interface	requirement for bus devices
Air humidity	90 % max. (no moisture condensation permissible)
EMV	Noise immunity to DIN EN 50082 Part 1 Emitted interference to DIN EN 50081 Part 1
Enclosure IP	20
Protection class	II
	Subject to technical modifications