



RELIABLE LOW COST SENSOR

The detector used in these transmitters is a single wavelength non-dispersive infrared gas sensor. This technique makes the sensor highly gas specific; it is not sensitive to other gases including water vapour, nor is its performance affected by high concentrations of CO₂. The sensor is accurate and has

LOW MAINTENANCE

The **AirCheck IP65TM** has no moving parts that could wear out or fail, so there is little need for maintenance. As the sensing element of these transmitters is inherently stable, the transmitters require calibration only once a year.

QUALITY

Each **AirCheck IP65TM** is supplied fully tested and calibrated with a 2 year warranty against defective parts and workmanship.

The **AirCheck IP65TM** is a reliable low cost gas sensor, designed for the monitoring of environmental CO₂ in industrial applications including:-

Protected Crops

- Mushroom Farming
- Glass House Crops

Demand-Controlled Ventilation

- Air-conditioned Buildings
- Garages

The **AirCheck IP65TM** ensures accurate and reliable measurement of CO₂ gas concentrations in a robust low cost IP65 package without using a sampling pump and can be wall mounted if required.

OPERATION IN DEMANDING CONDITIONS

The **AirCheck IP65TM** sensors are aspirated by a combination of diffusion and convection within the sensor head. This gas sampling method is silent, reliable and provides a fast response time. Convection is used to circulate gas between the sensor head and the diffusion cell with gas exchange occurring, by diffusion, at the surface of the diffusion membrane. Since the gas in the cell circulates within a closed system, all optics are protected from the ingress of dust. No additional pumping or filtering of the gas is necessary.

OEM OPTION

The sensor head and electronics are available without the casing. They can be supplied either complete with a diffusion tube assembly or in a style suitable for operation with a pump.



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Technical Data

CO ₂ Measuring Range (by volume)	0 - 3000 ppm 0 - 7000 ppm
Accuracy	± 3 % of range
Stability	± 5 % of range over 12 months
Repeatability	
at zero	± 0.5 %
at span	± 1.5 %
Response Time	T ₉₀ = 50 s, including diffusion aspiration T ₉₀ = 20 s for pump operated OEM unit
Operating Temperature	0 - 45 °C
Temperature Co-efficient	± 0.3 % of range per °C
Warm-up Time	
Operational	2 mins
Full Specification	< 5 mins
Humidity	Unaffected by 0 - 100 % RH, (non-condensing)
Linear Output	4 - 20 mA or optional voltage output
Alarm Relay Output	
Set point (1000 ppm)	400, 600, 800, 1000 ppm
Set point (7000 ppm)	1000, 2000, 3000, 5000 ppm max current 5 A @ 30 V DC (residue)
Power Consumption	2.0 W typical 2.6 W maximum
Input Voltage Requirement	24 V DC (18 to 30 V)
Weight and Dimensions	0.9 kg, 200 x 120 x 57 mm
OEM with diffusion assembly	0.5 kg, 130 x 110 x 35 mm
OEM pumped version	0.3 kg, 130 x 80 x 35 mm
Enclosure	IP65, Grey Polycarbonate
CE	

Edinburgh Instruments has a policy of continuous product development and reserve the right to amend specifications without prior notice. (Jan 2001)



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