

DrägerSensor® Smart IR CO₂

Order no. 68 10 590

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	5 years	> 5 years	-

MARKET SEGMENTS

Telecommunications, shipping, sewage, gas supply companies, refineries, chemical industry, mining, landfills, biogas plants, tunneling.

TECHNICAL SPECIFICATIONS

Detection limit:	0.01 Vol.-%
Resolution:	0.01 Vol.-% CO ₂
Measurement range:	0 to 5 Vol.-% CO ₂
Ambient conditions	
Temperature:	(-20 to 60)°C (-4 to 140)°F
Humidity:	(10 to 95)% RH
Pressure:	(700 to 1,300) hPa
Warm-up time:	≤ 4 minutes

FOR THE MEASUREMENT RANGE 0 TO 5 VOL.-% CO₂

Response time	Diffusion mode ≤ 20 seconds (T ₅₀) Diffusion mode ≤ 45 seconds (T ₉₀ /T ₁₀) Pump mode ≤ 20 seconds (T ₅₀) Pump mode ≤ 50 seconds (T ₉₀ /T ₁₀)
Measurement accuracy	
Sensitivity:	≤ ± 0.06 Vol.-% CO ₂ at 2.5 Vol.-%
Linearity error, typical:	> 0 to ≤ 1 Vol.-% CO ₂ <± 1 % of the full scale value > 1 to ≤ 4 Vol.-% CO ₂ <± 5 % of the measured value > 4 to ≤ 5 Vol.-% CO ₂ <± 10 % of the full scale value
Long-term drift	
Zero point:	≤ ± 0.004 Vol.-% CO ₂ /month
Sensitivity:	≤ ± 3% of measured value/month at 2.5 Vol.-%
Influence of temperature	
Zero point:	≤ ± 0.002 Vol.-% CO ₂ /K at (-20 to 60)°C (-4 to 140)°F
Sensitivity:	≤ ± 0.4% of measured value/K at 2.5 Vol.-% and (-20 to 60)°C (-4 to 140)°F
Effect of humidity, at 40°C (104 °F) (0 to 95% RH, non-condensing)	
Zero point:	≤ ± 0.02 Vol.-% CO ₂
Test gas:	2.5 Vol.-% CO ₂

SPECIAL CHARACTERISTICS

With its extremely low drift and low detection limit, this sensor is ideal for measuring carbon dioxide inside closed spaces, and for monitoring CO₂ in the workplace. As with all other IR sensors, it requires little maintenance and has a high level of long-term stability.



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