112 | Dräger infrared sensors

DrägerSensor® IR CO₂

Order no. 68 12 190

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 5600		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% CO ₂	
Resolution:	0.01 Vol% CO ₂ or 50 ppm CO ₂ (dependent on measuring range)	
Measurement range:	0 to 5 Vol% CO ₂	
Ambient conditions		
Temperature:	(-20 to 50)°C (-4 to 120)°F	
Humidity:	(10 to 95)% RH	
Pressure:	(700 to 1,300) hPa	
Warm-up time:	≤ 5 minutes	

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

Response time:	Diffusion mode ≤ 15 seconds (T ₅₀)			
	Diffusion mode ≤ 31 seconds (T ₉₀)			
	Pump mode ≤ 10 seconds (T ₅₀)			
	Pump mode \leq 15 seconds (T ₉₀)			
Measurement accuracy				
Sensitivity:	≤ ± 0.08 Vol% CO ₂ at 2.5 Vol%			
Linearity error, typical:	\leq ± 10% of measured value or \leq ± 1.5% of the highest figure in the set			
	measuring range (whichever is higher)			
Long-term drift				
Zero point:	≤ ± 0.005 Vol% CO ₂ /month			
Sensitivity:	≤ ± 0.1 Vol% CO ₂ /6 months			
Influence of temperature				
Zero point:	≤ ± 0.0002 Vol% CO ₂ /K at (-20 to 50)°C (-4 to 120)°F			
Sensitivity:	≤ ± 0.0015 Vol% CO ₂ /K at 2.5 Vol% and			
	(-20 to 50)°C (-4 to 120)°F			
Effect of humidity, at 40°C (104 °F)				
(0 to 95% RH, non-condensing)				
Zero point:	≤ ± 0.0001 Vol% CO ₂ /% RH			
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 CO_2 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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