DrägerSensor® IR CO_2

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	–
Dräger X-am 8000	–	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 122)°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.-% CO_2

Response time:		X-am 5600	X-am 8000
	Diffusion mode (T_{50})	≤ 15 seconds	≤ 12 seconds
	Diffusion mode (T_{90})	≤ 31 seconds	≤ 50 seconds
	Pump mode (T_{50})	≤ 10 seconds	≤ 10 seconds
	Pump mode (T_{90})	≤ 15 seconds	≤ 15 seconds
Measurement accuracy			
Sensitivity:	≤ ± 0.08 Vol.-% CO_2 at 2.5 Vol.-%		
Linearity error, typical:	≤ ± 3.5% of measured value or ≤ ± 1.5% of the end of measurement range (whichever is higher)		
Long-term drift			
Zero point:	≤ ± 0.005 Vol.-% CO_2/month		
Sensitivity:	≤ ± 0.1 Vol.-% CO_2 /6 months at 2.5 Vol.-% CO_2		
Influence of temperature			
Zero point:	≤ ± 0.0002 Vol.-% CO_2/K at (–20 to 50)°C (–4 to 122)°F		
Sensitivity:	≤ ± 0.0015 Vol.-% CO_2/K at 2.5 Vol.-% and (–20 to 50)°C (–4 to 122)°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.

D-2108-2011

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