

# DrägerSensor® XXS CO<sub>2</sub>

Order no. 68 10 889

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 7000	no	yes	1 year	> 1.25 years	no
Dräger Pac 8000	no	yes	1 year	> 1.25 years	no
Dräger X-am 5000	no	yes	1 year	> 1.25 years	no
Dräger X-am 5600	no	yes	1 year	> 1.25 years	no
Dräger X-am 8000	no	yes	1 year	> 1.25 years	no

## MARKET SEGMENTS

Waste disposal, Food and beverage (breweries), metal processing, petrochemical, fertilizer production, sewage, police, customs and rescue services, mining and tunneling, shipping and transport, power generation.

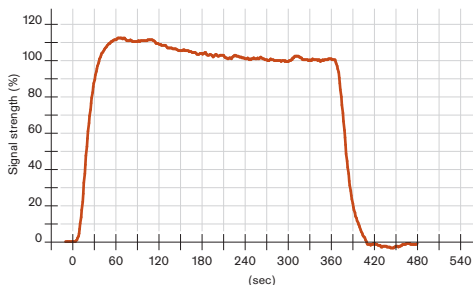
## TECHNICAL SPECIFICATIONS

<b>Detection limit:</b>	0.3 Vol.-%
<b>Resolution:</b>	0.1 Vol.-%
<b>Measurement range:</b>	0 to 5 Vol.-% CO <sub>2</sub> (carbon dioxide)
<b>Response time:</b>	≤ 30 seconds (T <sub>50</sub> )
<b>Measurement accuracy</b>	
Sensitivity:	≤ ± 20% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0.2 Vol.-%/year
Sensitivity:	≤ ± 15% of measured value/month
<b>Warm-up time:</b>	≤ 12 hours
<b>Ambient conditions</b>	
Temperature:	(-20 to 40)°C (-4 to 104)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
<b>Influence of temperature</b>	
Zero point:	≤ ± 0.01 Vol.-%/K
Sensitivity:	≤ ± 2% of measured value/K
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
<b>Test gas:</b>	1 to 4 Vol.-% CO <sub>2</sub>

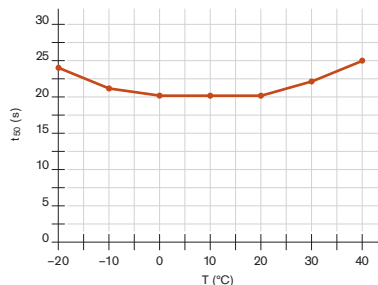
## SPECIAL CHARACTERISTICS

This sensor is highly sensitive (see cross-sensitivity list) and offers an economical alternative to infrared sensors if you need to warn against CO<sub>2</sub> concentrations in the ambient air.

Sensor reaction to CO<sub>2</sub> at 20 °C/68 °F  
Flow = 0.5 l/min, with 5000 ppm CO<sub>2</sub>



Response time (t<sub>50</sub>) vs. temperature  
with 5000 ppm CO<sub>2</sub>



D-27840-2009

The values shown in the following table are standard and apply to new sensors. The values may fluctuate by  $\pm 30\%$ . The sensor may also be sensitive to additional gases (for more information, please contact Dräger). Gas mixtures may be displayed as the sum of all components. Gases with a negative cross sensitivity may displace an existing concentration of CO<sub>2</sub>. To be sure, please check if gas mixtures are present.

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm CO <sub>2</sub>
Acetylene	C <sub>2</sub> H <sub>2</sub>	100 ppm	No effect
Ammonia	NH <sub>3</sub>	50 ppm	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Chlorine	Cl <sub>2</sub>	10 ppm	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	250 ppm	No effect
Hydrogen	H <sub>2</sub>	1.6 Vol.-%	No effect
Hydrogen chloride	HCl	20 ppm	No effect
Hydrogen cyanide	HCN	60 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	20 ppm	No effect
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	100 ppm	No effect
Nitrogen dioxide	NO <sub>2</sub>	20 ppm	No effect
Nitrogen monoxide	NO	20 ppm	No effect
Methane	CH <sub>4</sub>	0.9 Vol.-%	No effect
Ozone	O <sub>3</sub>	1.5 ppm	No effect
Phosphine	PH <sub>3</sub>	5 ppm	No effect
Sulfur dioxide	SO <sub>2</sub>	20 ppm	No effect

(-) Indicates negative deviation