

**DrägerSensor® XXS Cl<sub>2</sub>**

Order no. 68 10 890

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 8000	no	yes	1 year	> 2 years	no
Dräger X-am 5000	no	yes	1 year	> 2 years	no
Dräger X-am 5000	no	yes	1 year	> 2 years	no
Dräger X-am 8000	no	yes	1 year	> 2 years	no

**MARKET SEGMENTS**

Food and beverage, inorganic chemicals, manufacture of plastics, measuring dangerous substances, pulp and paper, power generation, sewage plants, water treatment.

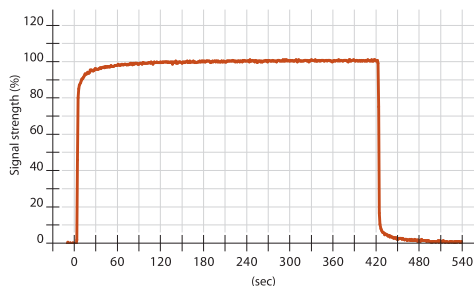
**TECHNICAL SPECIFICATIONS**

<b>Detection limit:</b>	0.05 ppm
<b>Resolution:</b>	0.05 ppm
<b>Measurement range/ relative sensitivity</b>	0 to 20 ppm Cl <sub>2</sub> (chlorine) 1.00
	0 to 20 ppm F <sub>2</sub> (fluorine) 1.00
	0 to 20 ppm Br <sub>2</sub> (bromine) 1.00
	0 to 20 ppm ClO <sub>2</sub> (chlorine dioxide) 0.60
<b>Response time:</b>	≤ 30 seconds (t <sub>90</sub> )
<b>Precision</b>	
Sensitivity:	≤ ± 2% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0.2 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
<b>Warm-up time:</b>	≤ 30 minutes
<b>Ambient conditions</b>	
Temperature:	(-40 to 50)°C (-40 to 122)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
<b>Influence of temperature</b>	
Zero point:	≤ ± 0.05 ppm
Sensitivity:	≤ ± 5% of measured value
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.4% of measured value/% RH
<b>Test gas:</b>	approx. 1 to 18 ppm Cl <sub>2</sub>

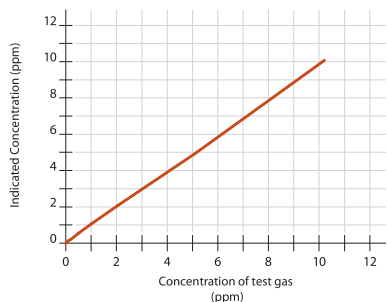
### SPECIAL CHARACTERISTICS

This sensor is suitable for monitoring concentrations of chlorine, bromine, fluorine, and chlorine dioxide in the ambient air. These sensors' advantages include excellent linearity and fast response times.

Sensor reaction Cl<sub>2</sub> at 20 °C/68°F  
Flow = 0.5 l/min, with 0,5 ppm Cl<sub>2</sub>



Linearity of Cl<sub>2</sub> Sensors  
calibrated with 10.2 ppm Cl<sub>2</sub>



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 chlorine. To be sure, please check if gas mixtures are present.

### RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm Cl <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 dioxide	CO <sub>2</sub>	10 Vol.-%	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	250 ppm	No effect
Hydrogen	H <sub>2</sub>	1,000 ppm	No effect
Hydrogen chloride	HCl	20 ppm	≤ 0,5
Hydrogen cyanide	HCN	60 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	10 ppm	≤ 0,6 (-)
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	100 ppm	No effect
Methane	CH <sub>4</sub>	0.9 Vol.-%	No effect
Nitrogen dioxide	NO <sub>2</sub>	10 ppm	No effect
Nitrogen monoxide	NO	20 ppm	No effect
Ozone	O <sub>3</sub>	1 ppm	No effect
Phosphine	PH <sub>3</sub>	1 ppm	No effect
Sulfur dioxide	SO <sub>2</sub>	10 ppm	≤ 1 (-)

(-) Indicates negative deviation