DrägerSensor® XXS Cl_2

Order no. 68 10 890

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 7000	no	yes	1 year	> 2 years	no
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.

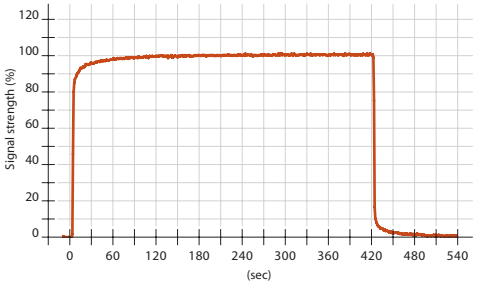
TECHNICAL SPECIFICATIONS

Detection limit:	0.05 ppm	
Resolution:	0.05 ppm	
Measurement range/ relative sensitivity	0 to 20 ppm Cl_2 (chlorine)	1.00
	0 to 20 ppm F_2 (fluorine)	1.00
	0 to 20 ppm Br_2 (bromine)	1.00
	0 to 20 ppm ClO_2 (chlorine dioxide)	0.60
Response time:	≤ 30 seconds (t_{90})	
Precision		
Sensitivity:	≤ ± 2% of measured value	
Long-term drift, at 20°C (68°F)		
Zero point:	≤ ± 0.2 ppm/year	
Sensitivity:	≤ ± 2% of measured value/month	
Warm-up time:	≤ 30 minutes	
Ambient conditions		
Temperature:	(–40 to 50)°C (–40 to 122)°F	
Humidity:	(10 to 90)% RH	
Pressure:	(700 to 1,300) hPa	
Influence of temperature		
Zero point:	≤ ± 0.05 ppm	
Sensitivity:	≤ ± 5% of measured value	
Influence of humidity		
Zero point:	No effect	
Sensitivity:	≤ ± 0.4% of measured value/% RH	
Test gas:	approx. 1 to 18 ppm Cl_2	

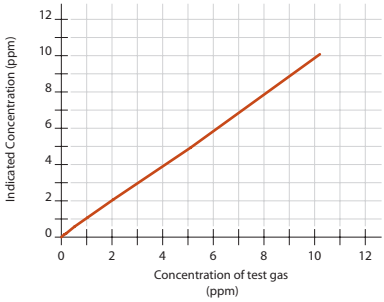
SPECIAL CHARACTERISTICS

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_2 at 20 °C/68°F
Flow = 0.5 l/min, with 0,5 ppm Cl_2



Linearity of Cl_2 Sensors
calibrated with 10.2 ppm Cl_2



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The values shown in the following table are standard and apply to new sensors. The values maybe fluctuate by ± 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_2
Acetylene	C_2H_2	100 ppm	No effect
Ammonia	NH_3	50 ppm	No effect
Carbon dioxide	CO_2	10 Vol.-%	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Ethanol	C_2H_5OH	250 ppm	No effect
Hydrogen	H_2	1,000 ppm	No effect
Hydrogen chloride	HCl	20 ppm	≤ 0.5
Hydrogen cyanide	HCN	60 ppm	No effect
Hydrogen sulfide	H_2S	10 ppm	≤ 0.6 (–)
Isobutylene	$(CH_3)_2CCH_2$	100 ppm	No effect
Methane	CH_4	0.9 Vol.-%	No effect
Nitrogen dioxide	NO_2	10 ppm	No effect
Nitrogen monoxide	NO	20 ppm	No effect
Ozone	O_3	1 ppm	No effect
Phosphine	PH_3	1 ppm	No effect
Sulfur dioxide	SO_2	10 ppm	≤ 1 (–)

(–) Indicates negative deviation