

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 8000	no	yes	0.5 years	> 1 year at below 25°C	no
Dräger X-am 5000	no	yes	0.5 years	> 6 months at 35°C	no
Dräger X-am 5600	no	yes	0.5 years		no
Dräger X-am 8000	no	yes	0.5 years		no

## MARKTSEGMENTE

Manufacture of plastics, chemical industry, insecticides production, dyes, military

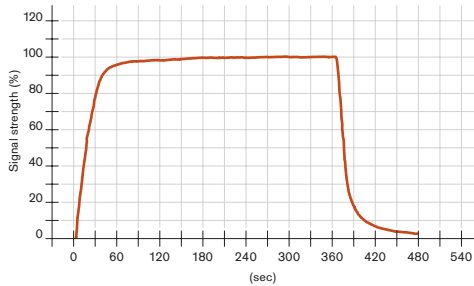
## TECHNISCHE DATEN

<b>Detection limit:</b>	0,01 ppm
<b>Resolution:</b>	0,01 ppm
<b>Measurement range:</b>	0 bis 10 ppm COCl <sub>2</sub> (Phosgene)
<b>Response time:</b>	≤ 20 seconds (t <sub>20</sub> )
<b>Precision</b>	
Sensitivity:	≤ ± 5% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0,01 ppm/year
Sensitivity:	≤ ± 1% of measured value/month
<b>Warm-up time:</b>	≤ 1 hour
<b>Ambient conditions</b>	
Temperature:	(-20 to 35) °C (-4 to 99) °F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1300) hPa
<b>Influence of temperature</b>	
Zero point:	no effect
Sensitivity:	≤ ± 0.2% of measured value/K
Storage:	(+4 ... +8)°C (39 ... 46) °F
<b>Influence of humidity</b>	
Zero point:	no effect
Sensitivity:	≤ ± 0.05% of measured value/RH
<b>Test gas:</b>	COCl <sub>2</sub> test gas between 3.8 to 9 ppm (not in Dräger's portfolio) When installing the sensor with CC-Vision, the supplied code number adopted the factory adjustment. A first adjustment not necessary. An inaccuracy of up to ± 30% must be expected.

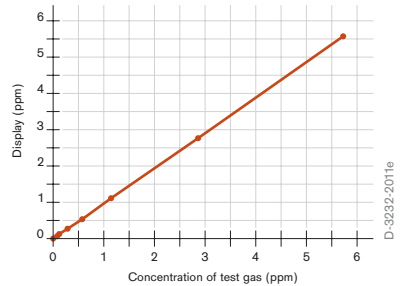
## SPECIAL CHARACTERISTICS

This sensor's advantages include a very low detection limit, excellent linearity and high signal stability.

Sensor reaction at 20 °C  
Flow = 0.5 l/min, 0.115 ppm COCl<sub>2</sub>



Linearity of COCl<sub>2</sub> Sensors  
calibrated with 0.28 ppm COCl<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 COCl<sub>2</sub>. To be sure, please check if gas mixtures are present.

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. Symbol	Concentration	Reading in ppm COCl <sub>2</sub>
Acetylene	C <sub>2</sub> H <sub>2</sub>	20 ppm	No effect
Ammonia	NH <sub>3</sub>	20 ppm	No effect
Carbon dioxide	CO <sub>2</sub>	1,5 Vol.-%	No effect
Carbon monoxide	CO	1000 ppm	No effect
Chlorine	Cl <sub>2</sub>	0,5 ppm	≤ 0.2
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	260 ppm	No effect
Hydrogen	H <sub>2</sub>	8000 ppm	No effect
Hydrogen chloride	HCl	0,5 ppm	≤ 0.7
Hydrogen fluoride	HF	0,4 ppm	≤ 0.1 ppm
Hydrogen peroxide	H <sub>2</sub> O <sub>2</sub>	1 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	1 ppm	≤ 1 <sup>1)</sup>
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	100 ppm	No effect
Nitrogen dioxide	NO <sub>2</sub>	1 ppm	≤ 0.1 <sup>(-)</sup>
Nitrogen monoxide	NO	30 ppm	No effect
Ozone	O <sub>3</sub>	0,3 ppm	≤ 0.05 <sup>(-)</sup>
Phosphine	PH <sub>3</sub>	0,5 ppm	≤ 0.1 ppm
Propanol	C <sub>3</sub> H <sub>7</sub> OH	500 ppm	No effect
Sulfur dioxide	SO <sub>2</sub>	2 ppm	No effect

(-) Indicates negative deviation

<sup>1)</sup> Permanent exposure to H<sub>2</sub>S can result in a reduction of sensitivity.