DrägerSensor® XS EC $COCl_2$

Order no. 68 08 582

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	6 months	> 1 year	–

MARKET SEGMENTS

Production of plastics, insecticides production, dyes.

TECHNICAL SPECIFICATIONS

Detection limit:	0.01 ppm
Resolution:	0.01 ppm
Measurement range:	0 to 10 ppm $COCl_2$ (phosgene)
Response time:	≤ 20 seconds (t_{20})
	≤ 40 seconds (t_{50})
Precision	
Sensitivity:	≤ ± 10% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.01 ppm/month
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 1 hour
Ambient conditions	
Temperature:	(–20 to 40)°C (–4 to 104)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
Influence of temperature	
Zero point:	≤ ± 0.001 ppm/K
Sensitivity:	≤ ± 1% of measured value/K
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.05% of measured value/% RH
Test gas:	3 to 10 ppm $COCl_2$

SPECIAL CHARACTERISTICS

The XS Phosgene sensor is highly selective, especially against hydrogen chloride (HCl).

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

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm $COCl_2$
Acetylene	C_2H_2	20 ppm	No effect
Ammonia	NH_3	20 ppm	No effect
Carbon dioxide	CO_2	1.5 Vol. %	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Chlorine	Cl_2	0.5 ppm	≤ 0.2
Ethanol	C_2H_5OH	260 ppm	No effect
Hydrogen	H_2	8,000 ppm	No effect
Hydrogen chloride	HCl	0.5 ppm	≤ 0.7
Hydrogen peroxide	H_2O_2	1 ppm	No effect
Hydrogen sulfide	H_2S	1 ppm	≤ 1
Nitrogen dioxide	NO_2	1 ppm	≤ 0.1(–)
Nitrogen monoxide	NO	30 ppm	No effect
Ozone	O_3	0.3 ppm	≤ 0.05(–)
Propanol	C_3H_7OH	500 ppm	No effect
Sulfur dioxide	SO_2	2 ppm	No effect

(–) Indicates negative deviation