

DrägerSensor® XS EC OV-A

Order no. 68 09 522

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	1 year	> 2 years	–

MARKET SEGMENTS

Production of plastics, disinfection, painter, chemical industry.

TECHNICAL SPECIFICATIONS

Detection limit:	5 ppm	
Resolution:	0.5 ppm	
Measurement range/ relative sensitivity	0 to 100 ppm C ₂ H ₄ O (ethylene oxide)	1.00
	0 to 100 ppm H ₂ CCHCN (acrylonitrile)	0.10
	0 to 100 ppm C ₆ H ₅ CHCH ₂ (styrene)	0.50
	0 to 100 ppm H ₂ CC(CH ₃)COOCH ₃ (methyl methacrylate)	0.30
	0 to 300 ppm (CH ₃) ₂ CCH ₂ (isobutylene)	0.70
	0 to 100 ppm C ₂ H ₃ OCH ₂ Cl (epichlorohydrin)	0.45
Response time:	≤ 90 seconds (T ₅₀) for EO, But, CIPO	
	≤ 300 seconds (T ₅₀) for ACN, MMA, Styr	
Measurement accuracy		
Sensitivity:	≤ ± 20% of measured value	
Long-term drift, at 20°C (68°F)		
Zero point:	≤ ± 2 ppm/month	
Sensitivity:	≤ ± 10% of measured value/month	
Warm-up time:	≤ 18 hours	
Ambient conditions		
Temperature:	(–20 to 55)°C (–4 to 131)°F for EO, But, Styr, CIPO (5 to 40)°C (41 to 104)°F for ACN, MMA	
Humidity:	(10 to 90)% RH	
Pressure:	(700 to 1,300) hPa	
Influence of temperature		
Zero point:	≤ ± 0.2 ppm/K	
Sensitivity:	≤ ± 1% of measured value/K	
Influence of humidity		
Zero point:	≤ ± 0.1 ppm/% RH	
Sensitivity:	≤ ± 0.2% of measured value/% RH	
Test gas:	10 to 100 ppm H ₂ CCHCN, C ₆ H ₅ CHCH ₂ , H ₂ CC(CH ₃)COOCH ₃ , C ₂ H ₃ OCH ₂ 20 to 300 ppm (CH ₃) ₂ CCH ₂	

SPECIAL CHARACTERISTICS

The DrägerSensor® XS OV-A has the same excellent insensitivity to moisture that the other Dräger-Sensor® XS OVs have, but it has also been optimized for other organic gases and vapors. Target gas calibration is required for all gases. Because of the absorption effects of the gases it measures, dust filters cannot be used.

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

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm C ₂ H ₄ O
Acetic acid	CH ₃ COOH	100 ppm	No effect
Acetone	CH ₃ COCH ₃	1,000 ppm	≤ 15
Ammonia	NH ₃	100 ppm	No effect
Benzene	C ₆ H ₆	2,000 ppm	No effect
Carbon dioxide	CO ₂	30 Vol. %	No effect
Carbon monoxide	CO	30 ppm	≤ 15
Chlorine	Cl ₂	10 ppm	No effect
Chlorobenzene	C ₆ H ₅ Cl	200 ppm	No effect
Dichloromethane	CH ₂ Cl ₂	1,000 ppm	No effect
Dimethyl disulfide	(CH ₃) ₂ S ₂	50 ppm	≤ 65
Dimethyl sulfide	(CH ₃) ₂ S	50 ppm	≤ 40
Dimethylformamide	HCON(CH ₃) ₂	100 ppm	No effect
Ethyl acetate	CH ₃ COOC ₂ H ₅	100 ppm	No effect
Gasoline, F 50	–	700 ppm	≤ 20
Hydrogen	H ₂	5,000 ppm	≤ 50
Hydrogen chloride	HCl	40 ppm	≤ 10
Hydrogen cyanide	HCN	20 ppm	≤ 20
Hydrogen sulfide	H ₂ S	10 ppm	≤ 20
Methane	CH ₄	2 Vol. %	No effect
Methanethiol	CH ₃ SH	50 ppm	≤ 75
Methyl isobutyl ketone	(CH ₃) ₂ CHCH ₂ COCH ₃	500 ppm	No effect
Nitrogen dioxide	NO ₂	50 ppm	≤ 5
Nitrogen monoxide	NO	25 ppm	≤ 25
Phenol	C ₆ H ₅ OH	30 ppm	≤ 6
Phosgene	COCl ₂	50 ppm	No effect
Sulfur dioxide	SO ₂	10 ppm	≤ 4
Trichloroethylene	CHClCCl ₂	1,000 ppm	No effect