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/	0 to 100 ppm C_2H_4O (ethylene oxide)	1.00
relative sensitivity	0 to 100 ppm H_2CCHCN (acrylonitrile)	0.10
	0 to 100 ppm $C_6H_5CHCH_2$ (styrene)	0.50
	0 to 100 ppm $H_2CC(CH_3)COOCH_3$ (methyl methacrylate)	0.30
	0 to 300 ppm $(CH_3)_2CCH_2$ (isobutylene)	0.70
	0 to 100 ppm $C_2H_3OCH_2Cl$ (epichlorohydrin)	0.45
Response time:	≤ 90 seconds (t_{50}) for EO, iBut, ClPO	
	≤ 300 seconds (t_{50}) for ACN, MMA, Styr	
Precision		
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, iBut, Styr, ClPO	
	(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:	5 to 200 ppm C_2H_4O, $C_2H_3OCH_2$	
	10 to 100 ppm H_2CCHCN, $C_6H_5CHCH_2$, $H_2CC(CH_3)COOCH_3$,	
	20 to 300 ppm $(CH_3)_2CCH_2$	

SPECIAL CHARACTERISTICS

The DrägerSensor® XS OV-A has the same excellent insensitivity to moisture that the other DrägerSensor® XS OVs have, but it has also been optimized for other organic gases and vapors. Target gas calibration is required for all gases.

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_2H_4O
Acetic acid	CH_3COOH	100 ppm	No effect
Acetone	CH_3COCH_3	1,000 ppm	≤ 15
Ammonia	NH_3	100 ppm	No effect
Benzene	C_6H_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_6H_5Cl	200 ppm	No effect
Dichloromethane	CH_2Cl_2	1,000 ppm	No effect
Dimethyl disulfide	$(CH_3)_2S_2$	50 ppm	≤ 65
Dimethyl sulfide	$(CH_3)_2S$	50 ppm	≤ 40
Dimethylformamide	$HCON(CH_3)_2$	100 ppm	No effect
Ethyl acetate	$CH_3COOC_2H_5$	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_2S	10 ppm	≤ 20
Methane	CH_4	2 Vol. %	No effect
Methanethiol	CH_3SH	50 ppm	≤ 75
Methyl isobutyl ketone	$(CH_3)_2CHCH_2COCH_3$	500 ppm	No effect
Nitrogen dioxide	NO_2	50 ppm	≤ 5
Nitrogen monoxide	NO	25 ppm	≤ 25
Phenol	C_6H_5OH	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