DrägerSensor® XS EC NH_3

Order no. 68 09 145

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

MARKET SEGMENTS

Food and beverage, poultry farming, power generation, inorganic chemicals, fertilizer production, analysis of chemical war agents, hazmat, fumigation, metal processing, petrochemicals, pulp and paper.

TECHNICAL SPECIFICATIONS

Detection limit:	3 ppm
Resolution:	1 ppm
Measurement range:	0 to 300 ppm NH_3 (ammonia)
Response time:	≤ 20 seconds (t_{50})
Precision	
Sensitivity:	≤ ± 3% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 2 ppm/month
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 12 hours
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:	≤ ± 5 ppm
Sensitivity:	≤ ± 5% of measured value
Influence of humidity	
Zero point:	≤ ± 0.1 ppm/% RH
Sensitivity:	≤ ± 0.2% of measured value/% RH
Test gas:	approx. 10 to 150 ppm NH_3

*Sudden temperature or humidity changes lead to dynamic effects (fluctuations). These dynamic effects decrease within 2 to 3 minutes.

SPECIAL CHARACTERISTICS

The quick response time of this sensor provides a fast and reliable warning against ammonia.

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 NH_3. To be sure, please check if gas mixtures are present. .

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm NH_3
Acetone	CH_3COCH_3	1,000 ppm	No effect
Acetylene	C_2H_2	200 ppm	No effect
Carbon dioxide	CO_2	1.5 Vol. %	≤ 5(–)
Carbon monoxide	CO	200 ppm	No effect
Chlorine	Cl_2	10 ppm	≤ 20(–)
Ethene	C_2H_4	1,000 ppm	≤ 3
Hydrogen	H_2	1,000 ppm	≤ 3
Hydrogen cyanide	HCN	25 ppm	≤ 3
Hydrogen sulfide	H_2S	20 ppm	≤ 50
Methane	CH_4	10 Vol. %	No effect
Methanol	CH_3OH	200 ppm	≤ 3
Nitrogen dioxide	NO_2	20 ppm	≤ 10(–)
Nitrogen monoxide	NO	20 ppm	≤ 10
Phosphine	PH_3	5 ppm	≤ 8
Sulfur dioxide	SO_2	20 ppm	No effect
Tetrahydrothiophene	C_4H_8S	10 ppm	≤ 10

(–) Indicates negative deviation