DrägerSensor® XXS Amine

Order no. 68 12 545

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	no	yes	1 year	> 1.5 years	no
Dräger X-am 5600	no	yes	1 year	> 1.5 years	no
Dräger X-am 8000	no	yes	1 year	> 1.5 years	no

MARKET SEGMENTS

Foundries, refineries, power plants

TECHNICAL SPECIFICATIONS

Detection limit:	2 ppm			
Resolution:	1 ppm			
Measurement range/	0 - 100 ppm CH ₃ NH ₂ (methylamine)	0.70		
relative sensitivity	0 - 100 ppm (CH ₃) ₂ NH (dimethylamine) 0.50			
	0 - 100 ppm (CH ₃) ₃ N (trimethylamine) 0.5			
	0 - 100 ppm C ₂ H ₅ NH ₂ (ethylamine)	0.70		
	0 - 100 ppm (C ₂ H ₅) ₂ NH (diethylamine)	0.50		
	0 - 100 ppm (C ₂ H ₅) ₃ N (triethylamine)	0.50		
	0 - 100 ppm NH ₃ (ammonia)*	1.00		
Response time:	≤ 30 seconds (T ₉₀)			
Measurement accuracy				
Sensitivity:	≤ ± 5 % of measured value			
Long-term drift, at 20°C (68°F)				
Zero point:	≤ ± 2 ppm/month			
Sensitivity:	≤ ± 3 % 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 1300) hPa	(700 to 1300) hPa		
Influence of temperature				
Zero point:				
Sensitivity:	≤ ± 5 % of measured value			
Influence of humidity				
Zero point:	≤ ± 0.1 ppm / % RH			
Sensitivity:	≤ ± 0.2 % of measured value/% RH			
Test gas:	approx. 5 to 90 ppm NH ₃			

⁺ lead compound



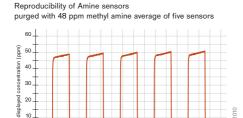
SPECIAL CHARACTERISTICS

1000 1500 2000 2500 3000 3500 4000

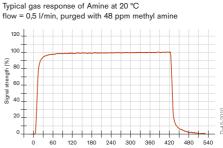
500

0

This sensor is suitable for monitoring concentration of six different amines in ambient air. A fast response time and excellent repeatability are just two examples of this sensor's special characteristics.



(sec)



The values shown in the following table are standard and apply to new sensors. The values maybe 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 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 No effect	
Acetone	CH₃COCH₃	1000 ppm		
Acetylene	C ₂ H ₂	200 ppm	No effect	
Carbon dioxide	CO ₂	1.5 Vol%	≤5 ppm (-)	
Carbon monoxide	СО	200 ppm	No effect	
Chlorine	Cl ₂	10 ppm	≤20 ppm (-)	
Ethene	C ₂ H ₄	1000 ppm	≤3 ppm	
Hydrogen	H ₂	1000 ppm	≤3 ppm	
Hydrogen cyanide	HCN	25 ppm	≤3 ppm	
Hydrogen sulfide	H ₂ S	20 ppm	≤50 ppm	
Isobutylene	(CH ₃) ₂ CCH ₂	100 ppm	≤4 ppm	
Methane	CH ₄	10 Vol%	No effect	
Methanol	CH₃OH	200 ppm	≤10 ppm	
Nitrogen dioxide NO ₂		20 ppm	≤10 ppm (-)	
Nitrogen monoxide	NO	20 ppm	≤10 ppm	
Phosphine PH ₃		5 ppm	≤8 ppm	
ulfur dioxide SO ₂		20 ppm	No effect	
Tetrahydrothiophene	C ₄ H ₈ S	10 ppm	≤10 ppm	