

# 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

<b>Detection limit:</b>	2 ppm
<b>Resolution:</b>	1 ppm
<b>Measurement range/relative sensitivity</b>	0 - 100 ppm CH <sub>3</sub> NH <sub>2</sub> (methylamine) 0.70
	0 - 100 ppm (CH <sub>3</sub> ) <sub>2</sub> NH (dimethylamine) 0.50
	0 - 100 ppm (CH <sub>3</sub> ) <sub>3</sub> N (trimethylamine) 0.50
	0 - 100 ppm C <sub>2</sub> H <sub>5</sub> NH <sub>2</sub> (ethylamine) 0.70
	0 - 100 ppm (C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NH (diethylamine) 0.50
	0 - 100 ppm (C <sub>2</sub> H <sub>5</sub> ) <sub>3</sub> N (triethylamine) 0.50
	0 - 100 ppm NH <sub>3</sub> (ammonia)* 1.00
<b>Response time:</b>	≤ 30 seconds (T <sub>90</sub> )
<b>Measurement accuracy</b>	
<b>Sensitivity:</b>	≤ ± 5 % of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
<b>Zero point:</b>	≤ ± 2 ppm/month
<b>Sensitivity:</b>	≤ ± 3 % of measured value/month
<b>Warm-up time:</b>	≤ 12 hours
<b>Ambient conditions</b>	
<b>Temperature:</b>	(-40 to 50)°C (-40 to 122)°F
<b>Humidity:</b>	(10 to 90) % RH.
<b>Pressure:</b>	(700 to 1300) hPa
<b>Influence of temperature</b>	
<b>Zero point:</b>	≤ ± 5 ppm
<b>Sensitivity:</b>	≤ ± 5 % of measured value
<b>Influence of humidity</b>	
<b>Zero point:</b>	≤ ± 0.1 ppm / % RH
<b>Sensitivity:</b>	≤ ± 0.2 % of measured value/% RH
<b>Test gas:</b>	approx. 5 to 90 ppm NH <sub>3</sub>

+ lead compound



*Northside Sales, Co.*

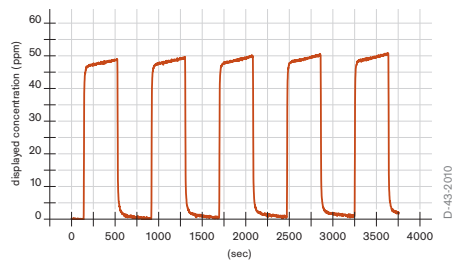
Safety & Industrial Products

800-467-9005

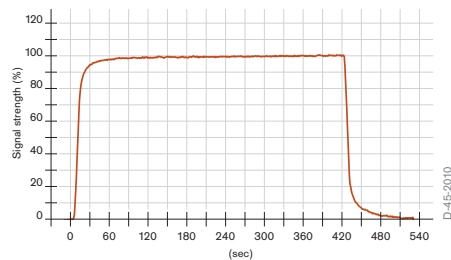
## SPECIAL CHARACTERISTICS

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.

Reproducibility of Amine sensors  
purged with 48 ppm methyl amine average of five sensors



Typical gas response of Amine at 20 °C  
flow = 0,5 l/min, purged with 48 ppm methyl amine



The values shown in the following table are standard and apply to new sensors. The values may 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  $\text{NH}_3$ . To be sure, please check if gas mixtures are present.

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm $\text{NH}_3$
Acetone	$\text{CH}_3\text{COCH}_3$	1000 ppm	No effect
Acetylene	$\text{C}_2\text{H}_2$	200 ppm	No effect
Carbon dioxide	$\text{CO}_2$	1.5 Vol.-%	$\leq 5$ ppm (-)
Carbon monoxide	$\text{CO}$	200 ppm	No effect
Chlorine	$\text{Cl}_2$	10 ppm	$\leq 20$ ppm (-)
Ethene	$\text{C}_2\text{H}_4$	1000 ppm	$\leq 3$ ppm
Hydrogen	$\text{H}_2$	1000 ppm	$\leq 3$ ppm
Hydrogen cyanide	$\text{HCN}$	25 ppm	$\leq 3$ ppm
Hydrogen sulfide	$\text{H}_2\text{S}$	20 ppm	$\leq 50$ ppm
Isobutylene	$(\text{CH}_3)_2\text{CCH}_2$	100 ppm	$\leq 4$ ppm
Methane	$\text{CH}_4$	10 Vol.-%	No effect
Methanol	$\text{CH}_3\text{OH}$	200 ppm	$\leq 10$ ppm
Nitrogen dioxide	$\text{NO}_2$	20 ppm	$\leq 10$ ppm (-)
Nitrogen monoxide	$\text{NO}$	20 ppm	$\leq 10$ ppm
Phosphine	$\text{PH}_3$	5 ppm	$\leq 8$ ppm
Sulfur dioxide	$\text{SO}_2$	20 ppm	No effect
Tetrahydrothiophene	$\text{C}_4\text{H}_8\text{S}$	10 ppm	$\leq 10$ ppm

(-) Indicates negative deviation