

# 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/<br/>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.*

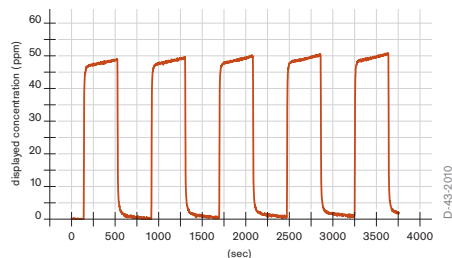
Safety & Industrial Products

800-467-9005

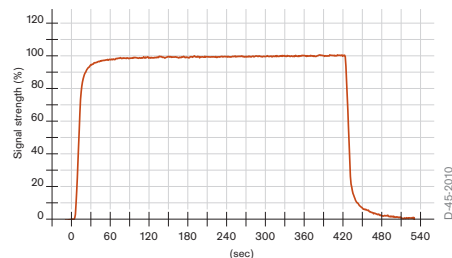
## SPECIAL CHARACTERISTICS

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