# 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 ($T_{50}$) |
| **Measurement accuracy** | |
| 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 |
| 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 |
| Ethine | $C_2H_2$ | 200 ppm | No effect |
| 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