DrägerSensor® XXS NH_3

Order no. 68 10 888

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 7000	no	yes	1 year	> 2 years	no
Dräger X-am 5000	no	yes	1 year	> 2 years	no
Dräger X-am 5600	no	yes	1 year	> 2 years	no

MARKET SEGMENTS

Food and beverage, poultry farming, power generation, inorganic chemicals, fertilizer production, hazmat, fumigation, metal processing, petrochemical, pulp and paper.

TECHNICAL SPECIFICATIONS

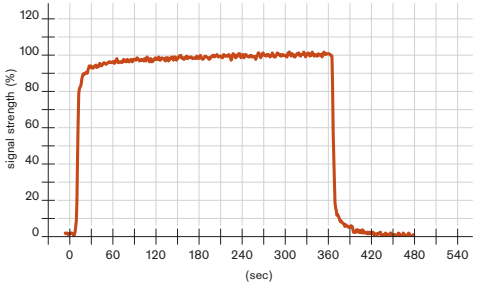
Detection limit:	4 ppm
Resolution:	1 ppm
Measurement range:	0–300 ppm NH_3 (ammonia)
Response time:	≤ 10 seconds (T_{50})
Measurement accuracy	
Sensitivity:	≤ ± 3% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 5 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 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.

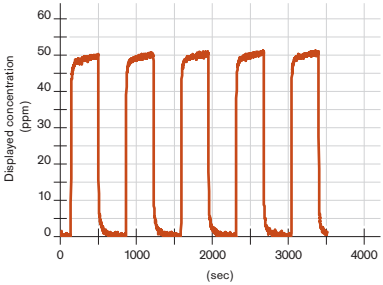
SPECIAL CHARACTERISTICS

A fast response time and excellent repeatability are just two examples of this sensor's special characteristics.

Sensor reaction to NH_3 at 20 °C/68 °F
Flow = 0.5 l/min, 50 ppm NH_3



Repeatability of NH_3 Sensor with 50 ppm NH_3, average from five sensors



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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
Carbon dioxide	CO_2	10 Vol.-%	No effect
Carbon monoxide	CO	1,000 ppm	No effect
Chlorine	Cl_2	10 ppm	≤ 30 (–)
Ethanol	C_2H_5OH	250 ppm	≤ 40
Ethine	C_2H_2	100 ppm	No effect
Hydrogen	H_2	1,000 ppm	≤ 4
Hydrogen chloride	HCl	20 ppm	≤ 15 (–)
Hydrogen sulfide	H_2S	20 ppm	≤ 70
Isobutylene	$(CH_3)_2CCH_2$	100 ppm	No effect
Methane	CH_4	0.9 Vol.-%	No effect
Nitrogen dioxide	NO_2	20 ppm	≤ 10 (–)
Nitrogen monoxide	NO	20 ppm	≤ 10
Ozone	O_3	0.5 ppm	No effect
Phosphine	PH_3	1 ppm	≤ 2
Sulfur dioxide	SO_2	20 ppm	No effect

(–) Indicates negative deviation