

DrägerSensor® XXS NO₂ LC

Order no. 68 12 600

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 8000	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
Dräger X-am 8000	no	yes	1 year	> 2 years	no

MARKET SEGMENTS

Mining and tunnelling (emissions from diesel-engined vehicles), inorganic chemistry, metal processing, oil & gas, petrochemical industry, shipping, rocket technology

TECHNICAL SPECIFICATIONS

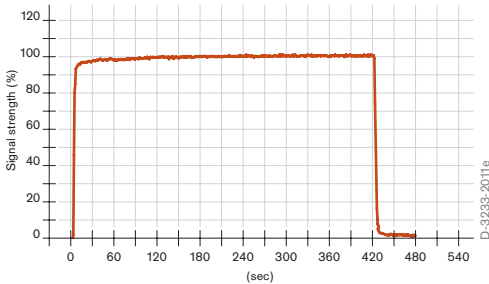
Detection limit:	0.04 ppm
Resolution:	0.02 ppm
Measurement range:	0 to 50 ppm NO ₂ (nitrogen dioxide)
Response time:	≤ 15 seconds (t ₉₀)
Precision	
Sensitivity:	≤ ± 3% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.04 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 120 minutes
Ambient conditions	
Temperature:	(–30 to 50)°C (–22 to 122)°F
Humidity:*	(15 to 80)% RH
Pressure:	(700 to 1,300) hPa
Influence of temperature	
Zero point:	No effect
Sensitivity:	≤ ± 0.5% of measured value
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
Test gas:	approx. 0.5 to 45 ppm NO ₂

*A use or storage over a longer period below the specified relative humidity may cause a change of sensor sensitivity due to dehydration. This effect is reversible once the relative humidity increases. Please consider the storage conditions stated on the packaging or in the instruction for use.

SPECIAL CHARACTERISTICS

Low cross sensitivities (e.g against SO₂, H₂S, NO and CO), which allows a selective measurement of NO₂. With a detection limit of 0.04 ppm and a quick response time this sensor is excellent to measure around the limit values.

Typical gas response of XXS NO₂ LC at 20 °C
Flow = 0.5 l/min, 1 ppm NO₂



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 NO₂. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm NO ₂ LC
Acetylene	C ₂ H ₂	100 ppm	No effect
Ammonia	NH ₃	30 ppm	No effect
Arsine	AsH ₃	0.5 ppm	No effect
Carbon dioxide	CO ₂	5 Vol.-%	No effect
Carbon monoxide	CO	2,000 ppm	No effect
Chlorine	Cl ₂	1 ppm	≤ 1.5
Chlorine dioxide	ClO ₂	1 ppm	≤ 1.5
Ethane	C ₂ H ₆	0.1 Vol.-%	No effect
Ethanol	C ₂ H ₅ OH	250 ppm	No effect
Hydrazine	N ₂ H ₄	1 ppm	No effect
Hydrogen	H ₂	0.1 Vol.-%	No effect
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H ₂ S	1 ppm	≤ 0.03 ⁽⁻⁾
Isobutylene	(CH ₃) ₂ CCH ₂	100 ppm	No effect
Methane	CH ₄	5 Vol.-%	No effect
Nitrogen monoxide	NO	30 ppm	No effect
Ozone	O ₃	0,5 ppm	≤ 1
Phosphine	PH ₃	0,5 ppm	No effect
Propane	C ₃ H ₈	1 Vol.-%	No effect
Sulfur dioxide	SO ₂	1 ppm	≤ 0.12 ⁽⁻⁾

(-) Indicates negative deviation