# DrägerSensor® XXS NO<sub>2</sub> 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

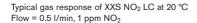
# **TECHNICAL SPECIFICATIONS**

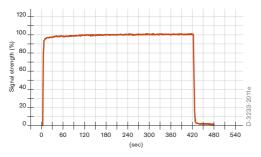
Detection limit:	0.04 ppm		
Resolution:	0.02 ppm		
Measurement range:	0 to 50 ppm NO <sub>2</sub> (nitrogen dioxide)		
Response time:	≤ 15 seconds (T <sub>90</sub> )		
Measurement accuracy	-		
Sensitivity:	≤ ± 3% of measured value		
Long-term drift, at 20°C (68°F)			
Zero point:	≤ ± 0.04 ppm/year		
Sensitivity:	≤ ± 2% of measured value/month		
Warm-up time:	≤ 120 minutes		
Ambient conditions	-		
Temperature:	(-30 to 50)°C (-22 to 122)°F		
Humidity:+	(10 to 90)% 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 <sub>2</sub>		

<sup>\*</sup>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  $SO_2$ ,  $H_2S$ , NO and CO), which allows a selective measurement of  $NO_2$ . With a detection limit of 0.04 ppm and a quick response time this sensor is excellent to measure around the limit values.





The values shown in the following table are standard and apply to new sensors. The values maybe 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 NO<sub>2</sub>. To be sure, please check if gas mixtures are present.

### **RELEVANT CROSS-SENSITIVITIES**

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

(-) Indicates negative deviation