

# DrägerSensor® XXS NO<sub>2</sub>

Order no. 68 10 884

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 7000	no	yes	1 year	> 2 years	no
Dräger X-am 2500	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

Inorganic chemicals, metal processing, oil and gas, petrochemical, steel industry, shipping, rocket engineering, mining and tunneling.

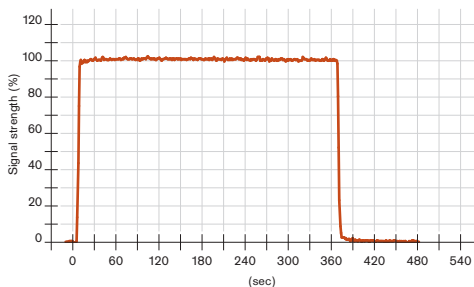
## TECHNICAL SPECIFICATIONS

Detection limit:	0.2 ppm
Resolution:	0.1 ppm
Measurement range:	0 to 50 ppm NO <sub>2</sub> (nitrogen dioxide)
Response time:	≤ 15 seconds (T <sub>90</sub> )
Measurement accuracy	
Sensitivity:	≤ ± 2% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 1 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 15 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:	≤ ± 1 ppm
Sensitivity:	≤ ± 5% of measured value
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.2% of measured value/% RH
Test gas:	approx. 1 to 45 ppm NO <sub>2</sub>

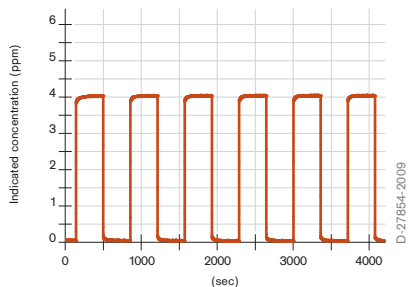
## SPECIAL CHARACTERISTICS

This sensor's advantages include a fast response time and excellent repeatability. This sensor enables a selective measurement of NO<sub>2</sub>. NO concentrations < 20 ppm do not influence the measurement results, thus a selective NO<sub>2</sub> measurement is possible.

Sensor reaction to NO<sub>2</sub> at 20 °C/68 °F  
Flow = 0.5 l/min, 4 ppm NO<sub>2</sub>



Repeatability of NO<sub>2</sub> sensors  
with 4 ppm NO<sub>2</sub>



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 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>
Acetylene	C <sub>2</sub> H <sub>2</sub>	100 ppm	$\leq 10^{(-)}$
Ammonia	NH <sub>3</sub>	50 ppm	No effect
Carbon dioxide	CO <sub>2</sub>	1.5 Vol.-%	No effect
Carbon monoxide	CO	200 ppm	No effect
Chlorine	Cl <sub>2</sub>	10 ppm	$\leq 5$
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	250 ppm	No effect
Hydrogen	H <sub>2</sub>	1,000 ppm	No effect
Hydrogen chloride	HCl	20 ppm	$\leq 10^{(-)}$
Hydrogen cyanide	HCN	60 ppm	$\leq 10^{(-)}$
Hydrogen sulfide	H <sub>2</sub> S	20 ppm	$\leq 100^{(-)}$
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	100 ppm	$\leq 0.8^{(-)}$
Methane	CH <sub>4</sub>	1 Vol.-%	No effect
Nitrogen monoxide	NO	20 ppm	No effect
Ozone	O <sub>3</sub>	0.5 ppm	No effect
Phosphine	PH <sub>3</sub>	1 ppm	$\leq 4^{(-)}$
Sulphur dioxide	SO <sub>2</sub>	20 ppm	$\leq 20^{(-)}$

(-) Indicates negative deviation