

# DrägerSensor® XXS NO

Order no. 68 11 545

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 8000	no	yes	1 year	> 2 years	no
Dräger X-am 2800	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

Power and district heating plants, chemical industry.

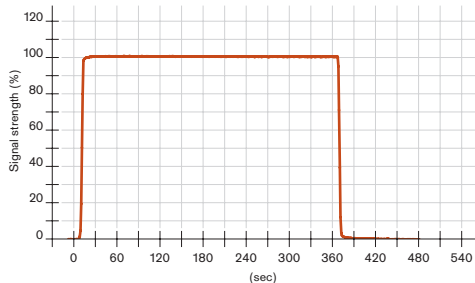
## TECHNICAL SPECIFICATIONS

<b>Detection limit:</b>	0.3 ppm
<b>Resolution:</b>	0.1 ppm
<b>Measurement range:</b>	0 to 200 ppm NO (nitrogen monoxide)
<b>Response time:</b>	≤ 10 seconds ( $t_{90}$ )
<b>Precision</b>	
Sensitivity:	≤ ± 3% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0.3 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
<b>Warm-up time:</b>	≤ 20 hours
<b>Ambient conditions</b>	
Temperature:	(-40 to 50)°C (-40 to 122)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
<b>Influence of temperature</b>	
Zero point:	≤ ± 0.02 ppm/K
Sensitivity:	≤ ± 0.3% of measured value/K
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.05% of measured value/% RH
<b>Test gas:</b>	approx. 3 to 175 ppm NO

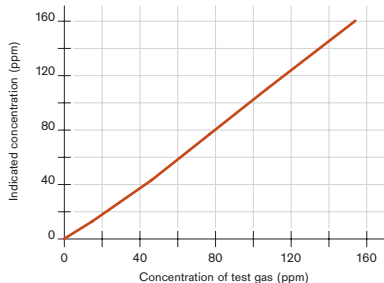
## SPECIAL CHARACTERISTICS

This sensor enables a selective measurement of NO. NO<sub>2</sub> concentrations < 20 ppm have not effects. It also offers a very fast response time and excellent linearity across its entire measurement range.

Typical gas response of XXS NO at 20°C flow = 0.5 l/min, purging with 20 ppm NO



Linearity of NO sensor calibrated with 76 ppm NO



D-27855-2009

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

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm NO
Acetone	CH <sub>3</sub> COCH <sub>3</sub>	1,000 ppm	No effect
Acetylene	C <sub>2</sub> H <sub>2</sub>	0.8 Vol.-%	No effect
Ammonia	NH <sub>3</sub>	500 ppm	No effect
Benzene	C <sub>6</sub> H <sub>6</sub>	0.6 Vol.-%	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>	5 ppm	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	250 ppm	No effect
Ethene	C <sub>2</sub> H <sub>4</sub>	0.1 Vol.-%	No effect
Hydrogen	H <sub>2</sub>	1.5 Vol.-%	No effect
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	5 ppm	1
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	100 ppm	No effect
Methane	CH <sub>4</sub>	2 Vol.-%	No effect
Nitrogen dioxide	NO <sub>2</sub>	20 ppm	No effect
Phosphine	PH <sub>3</sub>	2 ppm	No effect
Propane	C <sub>3</sub> H <sub>8</sub>	1 Vol.-%	No effect
Sulphur dioxide	SO <sub>2</sub>	10 ppm	No effect
Tetrachloroethylene	CCl <sub>2</sub> CCl <sub>2</sub>	1,000 ppm	No effect
Toluene	C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	0.6 Vol.-%	No effect
Trichloroethylene	CHClCCl <sub>2</sub>	1,000 ppm	No effect