DrägerSensor® XXS NO

Order no. 68 11 545

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

Power and district heating plants, chemical industry.

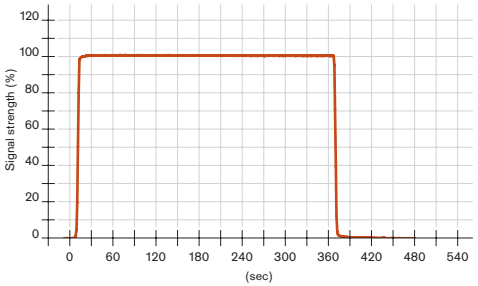
TECHNICAL SPECIFICATIONS

Detection limit:	0.3 ppm
Resolution:	0.1 ppm
Measurement range:	0 to 200 ppm NO (nitrogen monoxide)
Response time:	≤ 10 seconds (t_{90})
Precision	
Sensitivity:	≤ ± 3% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.3 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 20 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:	≤ ± 0.02 ppm/K
Sensitivity:	≤ ± 0.3% of measured value/K
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.05% of measured value/% RH
Test gas:	approx. 3 to 175 ppm NO

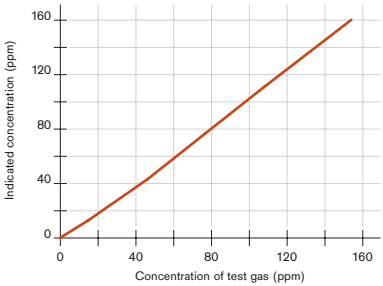
SPECIAL CHARACTERISTICS

This sensor enables a selective measurement of NO. NO_2 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



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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 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_3COCH_3	1,000 ppm	No effect
Acetylene	C_2H_2	0.8 Vol.-%	No effect
Ammonia	NH_3	500 ppm	No effect
Benzene	C_6H_6	0.6 Vol.-%	No effect
Carbon dioxide	CO_2	5 Vol.-%	No effect
Carbon monoxide	CO	2,000 ppm	No effect
Chlorine	Cl_2	5 ppm	No effect
Ethanol	C_2H_5OH	250 ppm	No effect
Ethene	C_2H_4	0.1 Vol.-%	No effect
Hydrogen	H_2	1.5 Vol.-%	No effect
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H_2S	5 ppm	1
Isobutylene	$(CH_3)_2CCH_2$	100 ppm	No effect
Methane	CH_4	2 Vol.-%	No effect
Nitrogen dioxide	NO_2	20 ppm	No effect
Phosphine	PH_3	2 ppm	No effect
Propane	C_3H_8	1 Vol.-%	No effect
Sulphur dioxide	SO_2	10 ppm	No effect
Tetrachloroethylene	CCl_2 CCl_2	1,000 ppm	No effect
Toluene	$C_6H_5CH_3$	0.6 Vol.-%	No effect
Trichloroethylene	$CHClCCl_2$	1,000 ppm	No effect