DrägerSensor® XXS NO_2 LC

Order no. 68 12 600

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 5000	no	yes	1 year	> 2 years	no
Dräger X-am 5600	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

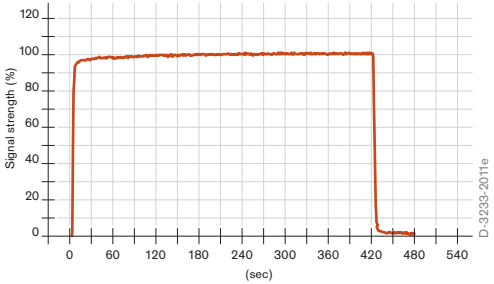
TECHNICAL SPECIFICATIONS

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})
Measurement accuracy	
Sensitivity:	≤ ± 3% of measured value
Long-term drift, at 20°C (68°F), 50% RH	
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

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.

Typical gas response of XXS NO_2 LC at 20 °C
Flow = 0.5 l/min, 1 ppm NO_2



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_2. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm NO_2LC
Acetylene	C_2H_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_2H_6	0.1 Vol.-%	No effect
Ethanol	C_2H_5OH	250 ppm	No effect
Hydrazine	N_2H_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_2S	1 ppm	≤ 0.03(–)
Isobutylene	$(CH_3)_2CCH_2$	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_3H_8	1 Vol.-%	No effect
Sulfur dioxide	SO_2	1 ppm	≤ 0.12(–)

(–) Indicates negative deviation