DrägerSensor® XS EC NO_2

Order no. 68 09 155

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	1 year	> 2 years	–

MARKET SEGMENTS

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

TECHNICAL SPECIFICATIONS

Detection limit:	0.5 ppm
Resolution:	0.1 ppm
Measurement range:	0 to 50 ppm NO_2 (nitrogen dioxide)
Response time:	≤ 15 seconds (t_{90})
Precision	
Sensitivity:	≤ ± 2% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 1 ppm/month
Sensitivity:	≤ ± 2% of measured value/month
Warm-up time:	≤ 15 minutes
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:	≤ ± 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 50 ppm NO_2 test gas

SPECIAL CHARACTERISTICS

This sensor offers a fast response time and stable readings, even after experiencing high concentrations of nitrogen dioxide.

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_2
Acetaldehyde	CH_3CHO	500 ppm	No effect
Acetone	CH_3COCH_3	1,000 ppm	No effect
Acetylene	C_2H_2	200 ppm	≤ 60(–)
Ammonia	NH_3	200 ppm	No effect
Carbon dioxide	CO_2	2.5 Vol. %	No effect
Carbon monoxide	CO	125 ppm	No effect
Chlorine	Cl_2	10 ppm	≤ 10
Ethene	C_2H_4	1,000 ppm	≤ 1(–)
Formaldehyde	HCHO	50 ppm	No effect
Hydrogen	H_2	1,000 ppm	≤ 2(–)
Hydrogen cyanide	HCN	50 ppm	≤ 10(–)
Hydrogen sulfide	H_2S	20 ppm	≤ 100(–)
Methane	CH_4	5 Vol. %	No effect
Methanol	CH_3OH	175 ppm	No effect
Nitrogen monoxide	NO	20 ppm	No effect
Phosphine	PH_3	5 ppm	≤ 25(–)
Sulfur dioxide	SO_2	50 ppm	≤ 50(–)
Tetrahydrothiophene	C_4H_8S	10 ppm	≤ 5(–)

(–) Indicates negative deviation