

DrägerSensor® XS EC O<sub>2</sub>-LS

DrägerSensor® XS 2 O<sub>2</sub>

DrägerSensor® XS R O<sub>2</sub>

Order no. 68 09 130

68 10 375

68 10 262

Used in	Plug & Play	Replaceable	Guaranty*	Expected sensor life	Selective filter
Dräger X-am 7000	yes	yes	XS EC: 3 years	> 5 years	–
			XS 2: 2 years	> 3 years	
			XS R: 5 years	= 5 years	
				(limited operation time)	

MARKET SEGMENTS

Sewage, mining and tunneling, fumigation, biogas, measuring hazmat, industrial gases.

TECHNICAL SPECIFICATIONS

Detection limit:	0.1 Vol. %
Resolution:	0.1 Vol. %
Measurement range:	0 to 25 Vol. % O <sub>2</sub> (oxygen)
Response time:	≤ 25 seconds (T <sub>90</sub> ) – XS EC
	≤ 20 seconds (T <sub>90</sub> ) – XS 2 / XS R
Measurement accuracy	
Sensitivity:	≤ ± 1% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.5 Vol. %/year
Sensitivity:	≤ ± 1% of measured value/month
Warm-up time:	≤ 1 hour
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:	≤ ± 0.4 Vol. % XS EC
	≤ ± 0.2 Vol. % XS 2 / XS R
Sensitivity:	≤ ± 2% of measured value XS EC
	≤ ± 1% of measured value XS R / XS 2
Influence of humidity	
Zero point:	≤ ± 0.002 Vol. %/% RH – XS EC
	No effect – XS 2 / XS R
Sensitivity:	≤ ± 0.1% of measured value/% RH
Test gas:	N <sub>2</sub> (zero gas)
	11.5 to 23.0 Vol. % O <sub>2</sub>

**SPECIAL CHARACTERISTICS**

DrägerSensor® XS oxygen sensors are lead-free, thus complying with Directive 2002/95/EC (RoHS). Because they are non-consuming sensors, they have a much longer life spans than sensors that are consuming.

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 O<sub>2</sub>. To be sure, please check if gas mixtures are present.

**RELEVANT CROSS-SENSITIVITIES DrägerSensor® XS EC O<sub>2</sub> LS**

Gas/vapor	Chem. symbol	Concentration	Display in Vol. % O <sub>2</sub>
Chlorine	Cl <sub>2</sub>	20 ppm	No effect
Carbon dioxide	CO <sub>2</sub>	5 Vol. %	No effect
Carbon monoxide	CO	0.5 Vol. %	≤ 0.3(-)
Ethane	C <sub>2</sub> H <sub>6</sub>	5 Vol. %	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	1 Vol. %	≤ 0.2(-)
Ethene	C <sub>2</sub> H <sub>4</sub>	2 Vol. %	≤ 0.5(-)
Ethine	C <sub>2</sub> H <sub>2</sub>	0.5 Vol. %	≤ 0.2(-)
Hydrogen	H <sub>2</sub>	1 Vol. %	≤ 1.6(-)
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	100 ppm	No effect
Methane	CH <sub>4</sub>	10 Vol. %	No effect
Nitrogen dioxide	NO <sub>2</sub>	50 ppm	No effect
Nitrogen monoxide	NO	100 ppm	No effect
Propane	C <sub>3</sub> H <sub>8</sub>	2 Vol. %	No effect
Sulfur dioxide	SO <sub>2</sub>	50 ppm	No effect

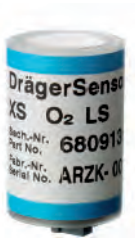
(-) Indicates negative deviation

### RELEVANT CROSS-SENSITIVITIES DrägerSensor® XS 2 O<sub>2</sub>

Gas/vapor	Chem. symbol	Concentration	Display in Vol. % O <sub>2</sub>
Chlorine	Cl <sub>2</sub>	20 ppm	No effect
Carbon dioxide	CO <sub>2</sub>	5 Vol. %	No effect
Carbon monoxide	CO	0.5 Vol. %	≤ 0.3 <sup>(-)</sup>
Ethane	C <sub>2</sub> H <sub>6</sub>	5 Vol. %	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	1 Vol. %	≤ 0.2 <sup>(-)</sup>
Ethene	C <sub>2</sub> H <sub>4</sub>	2 Vol. %	≤ 0.5 <sup>(-)</sup>
Ethyne	C <sub>2</sub> H <sub>2</sub>	0.5 Vol. %	≤ 0.2 <sup>(-)</sup>
Hydrogen	H <sub>2</sub>	1 Vol. %	≤ 1.6 <sup>(-)</sup>
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	100 ppm	No effect
Methane	CH <sub>4</sub>	10 Vol. %	No effect
Nitrogen dioxide	NO <sub>2</sub>	50 ppm	No effect
Nitrogen monoxide	NO	100 ppm	No effect
Propane	C <sub>3</sub> H <sub>8</sub>	2 Vol. %	No effect
Sulfur dioxide	SO <sub>2</sub>	50 ppm	No effect

### RELEVANT CROSS-SENSITIVITIES DrägerSensor® XS R O<sub>2</sub>

Gas/vapor	Chem. symbol	Concentration	Display in Vol. % O <sub>2</sub>
Chlorine	Cl <sub>2</sub>	20 ppm	No effect
Carbon dioxide	CO <sub>2</sub>	5 Vol. %	No effect
Carbon monoxide	CO	0.5 Vol. %	≤ 0.3 <sup>(-)</sup>
Ethane	C <sub>2</sub> H <sub>6</sub>	5 Vol. %	No effect
Ethanol	C <sub>2</sub> H <sub>5</sub> OH	1 Vol. %	≤ 0.2 <sup>(-)</sup>
Ethene	C <sub>2</sub> H <sub>4</sub>	2 Vol. %	≤ 0.5 <sup>(-)</sup>
Ethyne	C <sub>2</sub> H <sub>2</sub>	0.5 Vol. %	≤ 0.2 <sup>(-)</sup>
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen sulfide	H <sub>2</sub> S	100 ppm	No effect
Methane	CH <sub>4</sub>	10 Vol. %	No effect
Nitrogen dioxide	NO <sub>2</sub>	50 ppm	No effect
Nitrogen monoxide	NO	100 ppm	No effect
Propane	C <sub>3</sub> H <sub>8</sub>	2 Vol. %	No effect
Sulfur dioxide	SO <sub>2</sub>	50 ppm	No effect



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