

DrägerSensor® XXS O₂ DrägerSensor® XXS E O₂

Order no. 68 10 881
68 12 211

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger Pac 3500/5500	no	yes	3 years	> 5 years	no
Dräger Pac 6000/6500	no	yes	3 years	> 5 years	no
Dräger Pac 7000	no	yes	3 years	> 5 years	no
Dräger Pac 7000 5Y	no	yes	5 years	> 5 years	no
Dräger X-am 2500	no	yes	3 years	> 5 years	no
Dräger X-am 5000	no	yes	3/5 years	> 5 years	no
Dräger X-am 5600	no	yes	3/5 years	> 5 years	no
Dräger X-am 8000	no	yes	3/5 years	> 5 years	no

MARKET SEGMENTS

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

TECHNICAL SPECIFICATIONS

Detection limit:	0.1 Vol.-%
Resolution:	0.1 Vol.-%
Measurement range:	0 to 25 Vol.-% O ₂ (oxygen)
Response time:	≤ 10 seconds (t ₉₀)
Precision	
Sensitivity:	≤ ± 1% of measured value
Long-term drift, at 20°C (68°F)	
Zero point:	≤ ± 0.5 Vol.-%/year
Sensitivity:	≤ ± 1% of measured value/year
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:	≤ ± 0.2 Vol.-%
Sensitivity:	≤ ± 2% of measured value
Influence of humidity	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
Test gas:	approx. 12 to 20 Vol.-% O ₂ in N ₂

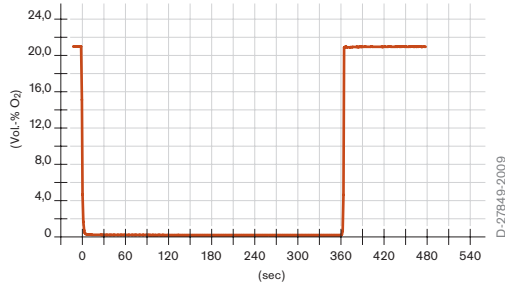
The sensor cannot be used to measure oxygen in the presence of helium. For oxygen monitoring during inerting processes, see DrägerSensor XXS O₂ 100 (SN 68 12 385).

SPECIAL CHARACTERISTICS

DrägerSensor® XXS oxygen sensors are lead-free, thus complying with Directive 2002/95/EC (RoHS). Because they are non-consuming sensors, they have much longer life times than sensors that are consuming. An extremely fast response time of less than ten seconds produces a reliable warning of any lack or excess of oxygen.

Sensor reaction to O₂ at 20 °C/68 °F

Flow = 0.5 l/min, with 100% N₂



The values shown in the following table are standard and apply to new sensors. The values maybe 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 O₂. To be sure, please check if gas mixtures are present.

RELEVANT CROSS-SENSITIVITIES DRÄGERSENSOR® XXS O₂ AND XXS E O₂

Gas/vapor	Chem. symbol	Concentration	Display in Vol.-% O ₂
Acetylene	C ₂ H ₂	1 Vol.-%	$\leq 0.5^{(-)}$
Ammonia	NH ₃	500 ppm	No effect
Carbon dioxide	CO ₂	10 Vol.-%	$\leq 0.4^{(-)}$
Carbon monoxide	CO	0.5 Vol.-%	No effect
Chlorine	Cl ₂	10 ppm	No effect
Ethane	C ₂ H ₆	1.0 Vol.-%	$\leq 0.2^{(-)}$
Ethanol	C ₂ H ₅ OH	250 ppm	No effect
Ethene	C ₂ H ₄	2 Vol.-%	$\leq 2^{(-)}$
Helium	He	20 Vol.-%	$\leq 3^*$
Hydrogen	H ₂	1.6 Vol.-%	$\leq 2.5^{(-)}$
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen cyanide	HCN	50 ppm	No effect
Hydrogen sulfide	H ₂ S	100 ppm	No effect
Isobutylene	(CH ₃) ₂ CCH ₂	100 ppm	No effect
Methane	CH ₄	10 Vol.-%	No effect
Nitrogen dioxide	NO ₂	20 ppm	No effect
Nitrogen monoxide	NO	30 ppm	No effect
Propane	C ₃ H ₈	2 Vol.-%	No effect
Sulfur dioxide	SO ₂	20 ppm	No effect

(-) Indicates negative deviation

* non-linear false positive display value