

## DrägerSensor® XXS O<sub>2</sub> 100

Order no. 68 12 385

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life	Selective filter
Dräger X-am 5000	no	yes	1 year	> 3 years	no
Dräger X-am 5600	no	yes	1 year	> 3 years	no

### MARKET SEGMENTS

Gas suppliers, oxygen cylinders (diving), submarines, nuclear power plants

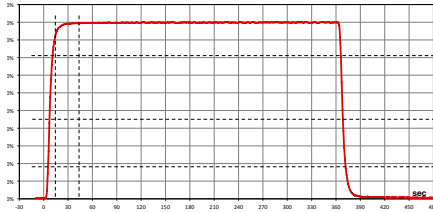
### TECHNICAL SPECIFICATIONS

<b>Detection limit:</b>	0.5 Vol.-%
<b>Resolution:</b>	0.5 Vol.-%
<b>Measurement range:</b>	0 to 100 Vol.-% O <sub>2</sub> (oxygen)
<b>Response time:</b>	≤ 5 seconds (T <sub>90</sub> )
<b>Measurement accuracy</b>	
Sensitivity:	≤ ± 1% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 0.5 Vol.-%/year
Sensitivity:	≤ ± 3% of measured value/year
<b>Warm-up time:</b>	≤ 1 hour
<b>Ambient conditions</b>	
Temperature:	(0 to 45)°C (32 to 113)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,100) hPa
<b>Influence of temperature</b>	
Zero point:	No effect
Sensitivity:	≤ ± 5% of measured value
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.01% of measured value/% RH
<b>Test gas:</b>	approx. 10 to 100 Vol.-% O <sub>2</sub> in N <sub>2</sub>

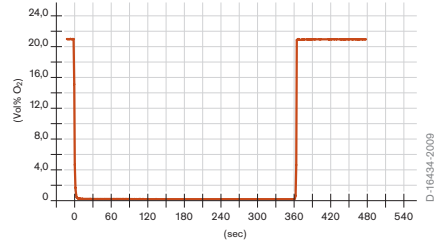
## SPECIAL CHARACTERISTICS

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.

Typical gas response of XXS O<sub>2</sub> 100 at 20°C  
Flow = 0.5 l/min, purged with 100% O<sub>2</sub>



Typical gas response of O<sub>2</sub> 100 at 20°C  
Flow = 0.5 l/min, purged with 100% N<sub>2</sub>



The values shown in the following table are standard and apply to new sensors. The values may 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 O<sub>2</sub>. To be sure, please check if gas mixtures are present.

## RELEVANT CROSS-SENSITIVITIES DRÄGERSENSOR® XXS O<sub>2</sub> 100

Gas/vapor	Chem. symbol	Concentration	Display in Vol.-% O <sub>2</sub>
Carbon dioxide	CO <sub>2</sub>	5 vol.-%	$\leq 1^{(-)}$
Chlorine	Cl <sub>2</sub>	20 ppm	No effect
Helium	He	50 vol.-%	$\leq 1^{(-)}$
Hydrogen chloride	HCl	40 ppm	No effect
Hydrogen sulphide	H <sub>2</sub> S	100 ppm	No effect
Isobutylene	(CH <sub>3</sub> ) <sub>2</sub> CCH <sub>2</sub>	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	0.05 vol.-%	$\leq 1^{(-)}$
Propane	C <sub>3</sub> H <sub>8</sub>	2 vol.-%	No effect
Sulphur dioxide	SO <sub>2</sub>	50 ppm	No effect

(-) Indicates negative deviation