

	Sensor type PST1		Sensor type TOS7	
Specifications	Gaseous & Dissolved Oxygen	Dissolved Oxygen	Gaseous & Dissolved Oxygen	Dissolved Oxygen
Measurement range	0 – 50 % O <sub>2</sub>	0 – 22.5 mg/L	0 – 3 % O <sub>2</sub>	0 – 1.1 mg/L
	0 – 500 hPa	0 – 700 µM	0 – 28.8 hPa	0 – 34.5 µM
Limit of detection	0.05 % oxygen	20 ppb	0.002 % oxygen	1 ppb
Resolution	± 0.01 % O <sub>2</sub> at 0.21 % O <sub>2</sub>	± 0.005 mg/L at 0.09 mg/L	± 0.0009 % O <sub>2</sub> at 0.002 % O <sub>2</sub>	± 0.4 ppb at 10 ppb
	± 0.09 % O <sub>2</sub> at 20.9 % O <sub>2</sub>	± 0.04 mg/L at 9.06 mg/L	± 0.001 % O <sub>2</sub> at 0.02 % O <sub>2</sub>	± 0.63 ppb at 200 ppb
	± 0.1 hPa at 2 hPa	± 0.14 µM at 2.83 µM	± 0.010 hPa at 0.23 hPa	± 0.013 µM at 0.31 µM
	± 0.87 hPa at 207 hPa	± 1.3 µM at 283 µM	± 0.015 hPa at 2.0 hPa	± 0.020 µM at 6.20 µM
Accuracy	± 0.4 % O <sub>2</sub> at 20.9 % O <sub>2</sub> ± 0.05 % O <sub>2</sub> at 0.2 % O <sub>2</sub>		± 1 ppb or ± 5 % of the respective concentration whichever is higher	
Drift at 0 % oxygen	< 0.1 % O <sub>2</sub> within 30 days (sampling interval of 1 min)		< 10 ppb within 30 days (sampling interval of 1 min)	
Measurement temperature range	0 – 50 °C		0 – 50 °C	
Response time TS* (t <sub>90</sub> )	< 1 s (gas)	< 2 s (liquid)	not available	
Response time TF** (t <sub>90</sub> )	< 15 s (gas)	< 30 s (liquid)	< 15 s (gas)	< 30 s (liquid)
<b>Properties</b>				
Compatibility	Aqueous solutions, ethanol, methanol			
No cross-sensitivity to	pH 1 – 14			
	CO <sub>2</sub> , H <sub>2</sub> S, SO <sub>2</sub>			
	Ionic species			
Cross-sensitivity to	Organic solvents, such as acetone, toluene, chloroform or methylene chloride			
	Chlorine gas			
Sterilization procedures	Steam sterilization (only implantable & TF** sensor) Ethylene oxide (EtO)			
Cleaning procedures	3 % H <sub>2</sub> O <sub>2</sub> , ethanol, soap solution			
Calibration	Two-point calibration with oxygen-free environment (nitrogen, sodium sulphite) and air-saturated environment		Two-point calibration in oxygen-free environment (nitrogen) and a second calibration value optimally between 1 and 2 % oxygen	
Storage stability	5 years provided the sensor material is stored in the dark at room temperature (20 °C +/- 5°C)			

\*TS: tapered sensor tip with a diameter < 50 µm and no optical isolation

\*\*TF: flat-broken sensor tip with a diameter of 140 µm