

Specifications	Sensor type PSt1		Sensor type TOS7	
	Gaseous & Dissolved Oxygen	Dissolved Oxygen	Gaseous & Dissolved Oxygen	Dissolved Oxygen
Measurement range	0 – 50 % O ₂	0 – 22.5 mg/L	0 – 3 % O ₂	0 – 1.1 mg/L
	0 – 500 hPa	0 – 700 µmol	0 – 28.8 hPa	0 – 34.5 µmol
Limit of detection	0.05 % oxygen	20 ppb	0.002 % oxygen	1 ppb
Resolution	± 0.01 % O ₂ at 0.21 % O ₂	± 0.005 mg/L at 0.09 mg/L	± 0.0009 % O ₂ at 0.002 % O ₂	± 0.4 ppb at 10 ppb
	± 0.09 % O ₂ at 20.9 % O ₂	± 0.04 mg/L at 9.06 mg/L	± 0.001 % O ₂ at 0.02 % O ₂	± 0.63 ppb at 200 ppb
	± 0.1 hPa at 2 hPa	± 0.14 µmol at 2.83 µmol	± 0.010 hPa at 0.23 hPa	± 0.013 µmol at 0.31 µmol
	± 0.87 hPa at 207 hPa	± 1.3 µmol at 283 µmol	± 0.015 hPa at 2.0 hPa	± 0.020 µmol at 6.20 µmol
Accuracy		± 0.4 % O ₂ at 20.9 % O ₂ ± 0.05 % O ₂ at 0.2 % O ₂	± 1 ppb or ± 5 % of the respective concentration whichever is higher	
Drift at 0 % oxygen	< 0.1 % O ₂ 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 ₉₀)	< 1 sec. (gas)	< 2 sec. (liquid)	not available	
Response time TF** (t ₉₀)	< 15 sec. (gas)	< 30 sec. (liquid)	< 15 sec. (gas)	< 30 sec. (liquid)
Properties				
Compatibility	Aqueous solutions, ethanol, methanol			
No cross-sensitivity with	pH 1 – 14 CO ₂ , H ₂ S, SO ₂ 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 ₂ O ₂ , ethanol, soap solution			
Calibration	Two-point calibration in 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