

常用水质电化学传感器参数 Specifications of Electrodes

Ion-Selective Electrode	Single-Junction Electrodes	Double-Junction Electrodes	Type	Concentration Range	Temperature/ pH Range	Interferences
Ammonia (NH ₃)	H-27502-00	-	Gas sensing	5 x 10 ⁻⁷ to 1.0 M (0.01 to 17,000 ppm)	0 to 50°C/ above 11	Volatile amines
Ammonium (NH ₄ ⁺)	H-27502-02	H-27502-03	PVC membrane	5x10 ⁻⁶ to 0.01 M (0.1 to 18,000 ppm)	0 to 50°C/ 4 to 10	K ⁺
Bromide (Br ⁻)	H-27502-04	H-27502-05	Solid-state	5 x 10 ⁻⁶ to 1.0 M (0.4 to 79,900 ppm)	0 to 80°C/ 2 to 14	S ²⁻ , I ⁻ , CN ⁻ ; high levels of Cl ⁻ and NH ₃
Cadmium (Cd ²⁺)	H-27502-06	H-27502-07	Solid-state	10 ⁻⁷ to 10 ⁻¹ M (0.01 to 11,200 ppm)	0 to 80°C/ 2 to 12	Ag ⁺ , Hg ²⁺ , Cu ²⁺ ; high levels of Pb ²⁺ and Fe ²⁺
Calcium (Ca ²⁺)	H-27502-08	H-27502-09	PVC membrane	5 x 10 ⁻⁶ to 1.0 M (0.2 to 40,000 ppm)	0 to 50°C/ 3 to 10	Pb ²⁺ , Hg ²⁺ , Cu ²⁺ , Ni ²⁺
Carbon dioxide (CO ₂) Carbonate (CO ₃ ²⁻)	H-27502-10	-	Gas sensing	10 ⁻⁴ to 10 ⁻² M (4.4 to 440 ppm)	0 to 50°C/ 4.8 to 5.2	Volatile weak acids
Chloride (Cl ⁻)	H-27502-12	H-27502-13	Solid-state	5 x 10 ⁻⁵ to 1.0 M (1.8 to 35,500 ppm)	0 to 80°C/ 2 to 12	S ²⁻ , I ⁻ , CN ⁻ , Br ⁻ , OH ⁻ , NH ₃ , S ₂ O ₃ ²⁻
Chlorine (Cl ₂) 氯	H-3221A-171	H-3221A-171D	Solid-state	5 x 10 ⁻⁵ to 1.0 M (3.6 to 71,000 ppm)	0 to 60°C/ 2 to 12	
Chlorine (Cl ₂) 氯	H-3221A-172	H-3221A-172D	Solid-state	3 x 10 ⁻⁶ to 0.1 M (0.02 to 3,550 ppm of Cl)	0 to 60°C/ 2 to 12	
hypochlorite (OCl ⁻) 次氯酸根	H-3221A-171	H-3221A-171D	Solid-state	3 x 10 ⁻⁶ to 0.1 M (0.03 to 5,140 ppm)	0 to 60°C/ 2 to 12	
Chlorine dioxide (ClO ₂) 二氧化氯	H-3221A-172	H-3221A-172D	Solid-state	3 x 10 ⁻⁶ to 0.1 M (0.04 to 6,750 ppm)	0 to 60°C/ 2 to 12	
Perchlorate (ClO ₄ ⁻) 高氯酸根	H-27502-38	H-27502-39	PVC membrane	5 x 10 ⁻⁶ to 10 ⁻¹ M (0.5 to 99,500 ppm)	0 to 60°C/ 2 to 12	
Perchlorate (ClO ₄ ⁻) 高氯酸根	H-27502-40	H-27502-41	PVC membrane	7 x 10 ⁻⁶ to 1.0 M (0.7 to 98,000 ppm)	0 to 50°C/ 2.5 to 11	No significant interferences
Copper (Cu ²⁺)	H-27502-14	H-27502-15	Solid-state	10 ⁻⁸ to 10 ⁻¹ M (0.0006 to 6350 ppm)	0 to 80°C/ 2 to 12	Ag ⁺ , Hg ²⁺ , high levels of Cl ⁻ , Br ⁻ , Fe ²⁺ , Cd ²⁺
Cyanide (CN ⁻)	H-27502-16	H-27502-17	Solid-state	5 x 10 ⁻⁶ to 10 ⁻² M (0.1 to 260 ppm)	0 to 80°C/ 11 to 13	S ²⁻ , I ⁻ , Br ⁻ , Cl ⁻
Ferrous (Fe ²⁺) 亚铁离子	H-27502-14	H-27502-15	Solid-state	7 x 10 ⁻⁶ to 10 ⁻² M (0.4 to 560 ppm)	0 to 60°C/ 11 to 13	
Fluoride (F ⁻)	H-27502-18	H-27502-19	Solid-state	10 ⁻⁶ to saturated (0.02 to saturated)	0 to 80°C/ 5 to 8	OH ⁻
Fluoroborate (BF ₄ ⁻)	H-27502-20	H-27502-21	PVC membrane	7 x 10 ⁻⁶ to 1.0 M (0.1 to 10,800 ppm as B)	0 to 50°C/ 2.5 to 11	ClO ₄ ⁻ , I ⁻ , CN ⁻
Iodide (I ⁻)	H-27502-22	H-27502-23	Solid-state	5x10 ⁻⁶ to 1.0 M (0.006 to 127,000 ppm)	0 to 80°C/ 0 to 14	S ²⁻ , CN ⁻ , Br ⁻ , Cl ⁻ , NH ₃ , S ₂ O ₃ ²⁻
Lead (Pb ²⁺)	H-27502-24	H-27502-25	Solid-state	10 ⁻⁶ to 10 ⁻¹ M (0.2 to 20,700 ppm)	0 to 80°C/ 3 to 8	Ag ²⁺ , Hg ²⁺ , Cu ²⁺ , high levels of Cd ²⁺ and Fe ²⁺
Lithium (Li ⁺)	H-27502-28	H-27502-29	PVC membrane	10 ⁻⁶ to 0.01 M (0.7 to 6900 ppm)	0 to 50°C/ 5 to 10	Na ⁺ , K ⁺ , Ca ²⁺
Mercaptan (SH) 硫醇根	H-27502-30	H-27502-31	PVC membrane	0.003 to 3 ppm	0 to 50°C/5 to 10	Na ⁺ , K ⁺ , Ca ²⁺
Nitrate (NO ₃ ⁻)	H-27502-30	H-27502-31	PVC membrane	7 x 10 ⁻⁶ to 1.0 M (0.5 to 62,000 ppm)	0 to 50°C/ 2.5 to 11	ClO ₄ ⁻ , I ⁻ , CN ⁻ , BF ₄ ⁻
Nitrite (NO ₂ ⁻) 亚硝酸根	H-27502-34	H-27502-35	PVC membrane	5 x 10 ⁻⁶ to 1.0 M (0.2 to 46,000 ppm)	0 to 50°C/ 2.5 to 11	
Nitrogen oxide (NO _x)	H-27502-32	-	Gas sensing	5x10 ⁻⁶ to 5x10 ⁻³ M (0.2 to 220 ppm)	0 to 50°C/ 1.1 to 1.7	CO ₂ , SO ₂ , HF, acetic acid
pH (H ⁺)	H-27502-36	-	PVC membrane	10 ⁻⁷ to 10 ⁻¹ M (1 to 7 pH)	0 to 50°C/ 1 to 7	No significant pH interferences
Potassium (K ⁺)	H-27502-38	H-27502-39	PVC membrane	10 ⁻⁶ to 1.0 M (0.04 to 39,000 ppm)	0 to 50°C/ 2 to 12	Cs ⁺ , NH ₄ ⁺
Silver/sulfide (Ag ⁺ /S ²⁻)	H-27502-40	H-27502-41	Solid-state	10 ⁻⁷ to 1.0 M (Ag ⁺ , S ²⁻) 0.01 to 107,900 ppm Ag ⁺ ; 0.003 to 32,100 ppm S ²⁻	0 to 80°C/ 2 to 12	Hg ²⁺
Sodium (Na ⁺)	H-27502-42	H-27502-43	Glass membrane	10 ⁻⁶ M to saturated (0.02 ppm to saturated)	0 to 80°C/ 5 to 12	H ⁺ , K ⁺ , Li ⁺ , Ag ⁺ , Cs ⁺ , Tl ⁺
Surfactant (X ⁻ /X ⁻)	H-27502-44	H-27502-45	PVC membrane	10 ⁻⁵ to 5 x 10 ⁻² M (1.0 to 12,000 ppm)	0 to 50°C/ 2 to 12	Similar types of surfactants
Thiocyanate (SCN ⁻)	H-27502-46	H-27502-47	Solid-state	5 x 10 ⁻⁶ to 1.0 M (0.3 to 58,000 ppm)	0 to 80°C/ 2 to 10	S ²⁻ , CN ⁻ , I ⁻ , Br ⁻ , NH ₃ , S ₂ O ₃ ²⁻
Water hardness (Ca ²⁺ /Mg ²⁺)	H-27502-48	H-27502-49	PVC membrane	10 ⁻⁵ to 1.0 M (0.4 to 40,000 ppm as Ca ²⁺)	0 to 50°C/ 5 to 10	Cu ²⁺ , Zn ²⁺ , Ni ²⁺ , Fe ²⁺

常见水质传感器其它参数表 Sensors Specifications

Parameters	Descriptions
DO3230 Dissolved Oxygen Sensor	Galvanic Cell
Range:	0 to 500% air saturation; 0 to 50 mg/L
Accuracy:	0 to 200% air saturation, ± 2% of the reading or 2% air saturation; whichever is greater
Resolution:	0.1% air saturation; 0.01 mg/L
Sensor Size:	φ20x110 mm

水质电化学传感器

TMP36 Temperature Sensor	Thermistor IC
Range:	-40 to 120°C
Accuracy:	± 0.1°C
Resolution:	0.1°C
Sensor Size:	φ5x10 mm
SCT1121 Conductivity Sensor	Pulse-electrode cell
	K=0.1,1.0/cm
Range:	0 to 500µS/cm
Accuracy:	± 1.5% of reading
Resolution:	0.04 uS/cm
Methods:	USEPA 120.1 Standard Method 2510-B for wastewater
Sensor Size:	φ11x110 mm
SCT1122 Conductivity Sensor	2-electrode cell with auto-ranging
Range:	0 to 100, up to 1000 mS/cm
Accuracy:	± 0.5% of reading, or 0.1% of step whichever is greater
Resolution:	0.04 uS/cm to 0.1 mS/cm (range-dependent)
Salinity Sensor Type;	Calculated from conductivity and temperature
Range:	0 to 70 ppt
Accuracy:	± 1.0% of reading or 0.1 ppt, whichever is greater
Resolution:	0.01 ppt
Methods:	USEPA 120.1 Standard Method 2510-B for wastewater
Sensor Size:	φ50x300 mm
SCT1130 Conductivity Sensor	2-electrode high frequency attenuation
Range:	0 to 30% TDS
Accuracy:	± 0.1% FS
Resolution:	0.1%
Sensor Size:	φ24x300 mm
Mud1204 Concentration Sensor	high frequency attenuation
Range:	0 to 60% TDS
Accuracy:	± 0.1% FS
Resolution:	0.1%
Sensor Size:	φ24x300 mm
Turb4210D Turbidity Sensor	90° dispersion
Range:	0-2000 NTU
Accuracy:	± 0.5% of reading, ± 0.1% FS whichever is greater
Resolution:	1 NTU
Methods:	Turb.90d 4210_640 meets USEPA 180.1 Turb.90d 4210_880 meets ISO 7027 / EN 27027
Sensor Size:	φ32x300 mm
Turb4210DU Turbidity Sensor	90° dispersion
Range:	0-2000 NTU
Accuracy:	± 0.5% of reading, ± 0.1% FS whichever is greater
Resolution:	0.01 NTU
Methods:	Turb.90d 4210_640 meets USEPA 180.1 Turb.90d 4210_880 meets ISO 7027 / EN 27027
Sensor Size:	φ32x300 mm
Turb4210DTU Turbidity Sensor	90° dispersion
Range:	0-200 NTU
Accuracy:	± 0.5% of reading, ± 0.1% FS whichever is greater
Resolution:	0.001 NTU
Methods:	Turb.90d 4210_640 meets USEPA 180.1 Turb.90d 4210_880 meets ISO 7027 / EN 27027
Sensor Size:	φ32x300 mm
MLSS4210D Turbidity Sensor	90° dispersion
Range:	0-10, Max to 100g/L
Accuracy:	± 0.5% of reading, ± 0.1% FS whichever is greater
Resolution:	0.1mg/L(HBD5) 0.05%FS(HBD4)
Methods:	Adapted from <Sewage and Industrial Wastes,31,1159(1959)
Sensor Size:	φ32x300 mm
ORP Sensor Type:	Platinum button
Range:	-999 to +999 mV
Accuracy:	± 10 mV
Resolution:	0.1 mV
Sensor Size:	φ10x110 mm

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