

Electrochemical sensors

Ion Selective Electrodes

B&C Electronics offers a wide range of Ion Selective Electrodes including:

1. Polymer Membrane Electrodes
2. Solid State Electrodes
3. Gas Sensing Electrodes
4. Glass Membrane Electrodes



Ion Selective Electrodes are available as half-cells (mono) or as glass or epoxy combination electrodes. Measurements with half-cell electrodes require the use of an additional reference electrode.

Ask our sales department in order to select the suitable ISE for continuous operation with our IC 7685 - IC 7685.010 Ion Concentration Controls.

Electrode	P/N	Director Measurement Range		Slope mV/Decade at (25 °C)	pH Range	Temperature Range °C		Response time sec.	Interferences (95%, in 1x10 ⁻² M)
		Molar	PPM			continuous	not continuous		
Ammonia (NH ₃)	NH31501	1.0 - 5x10 ⁻⁷	17,000-0.01	56±3	> 11	0-50	-	30	Volatile amines
Ammonium (NH ₄ ⁺)	NH41501/NH41502	1.0 - 5x10 ⁻⁶	18,000-0.1	56± 2	4-10	0-50	-	30	K ⁺
Bromide (Br ⁻)	BR01501/BR01502	1.0 - 5X10 ⁻⁶	79,900-0.40	57±2	2-14	0-80	0-100	20	I ⁻ , CN ⁻ , S ₂ ⁻ , elevate conc. di Cl ⁻ , NH ₃
Cadmium (Cd ²⁺)	CD21501/CD21502	1x10 ⁻¹ - 1x10 ⁻⁷	11,200-0.01	27±2	2-12	0-80	0-100	20	Ag ⁺ , Hg ₂ ⁺ , Cu ₂ ⁺ , elevate conc. di Pb ₂ ⁺ , Fe ₂ ⁺
Calcium (Ca ²⁺)	CAL1501/CAL1502	1.0 - 5x10 ⁻⁶	40,000-0.2	27±2	3-10	0-50	-	30	Pb ₂ ⁺ , Hg ₂ ⁺ , Cu ₂ ⁺ , Ni ₂ ⁺
Carbon dioxide (CO ₂) (Carbonate CO ₃ ²⁻)	CO21501	1x10 ⁻² - 1x10 ⁻⁴	440-4.4	56±3	4.8-5.2	0-50	-	30	Volatile weak acids
Chloride (Cl ⁻)	CL01501/CL01502	1.0 - 5x10 ⁻⁶	35,500-1.8	56±2	2-12	0-80	-	20	S ₂ ⁻ , I ⁻ , CN ⁻ , Br ⁻ ,
Copper (Cu ²⁺)	CU01501/CU01502	1x10 ⁻¹ - 1x10 ⁻⁸	6,350-6.4x10 ⁻⁴	27±2	0-12	0-80	0-100	20	Ag ⁺ , Hg ₂ ⁺ , elevate conc. di Cl ⁻ , Br ⁻ , Fe ₂ ⁺
Cyanide (CN ⁻)	CNO1501/CNO1502	1X10 ⁻² - 5X10 ⁻⁶	260-0.13	57±2	11-13	0-80	0-100	20	S ₂ ⁻ , I ⁻ , Br ⁻ , Cl ⁻
Fluoride (F ⁻)	FO01501/FO01502	Saturated - 1x10 ⁻⁶	Saturated -0;02	57±2	5-8	0-80	0-100	20	OH ⁻
Fluoroborate (BF ₄ ⁻)	BF45101 BF41502	1.0 - 7x10 ⁻⁶	10,800-0.1 (as B)	57±2 56±2	2.5-11	0-50	-	30	Cl O ₄ ⁻ , I, CN ⁻
Iodide (I ⁻)	IO01501/IO01502	1.0 - 5x10 ⁻⁸	127,000-6x10 ⁻³	57±2	0-14	0-80	0-100	20	S ₂ ⁻ , CN ⁻ , NH ₃ , S ₂ O ₃ ²⁻ , Cl ⁻ , Br ⁻
Lead (Pb ₂ ⁺)	PB21501/PB21502	1x10 ⁻¹ - 1x10 ⁻⁶	20,700-0.2	25±2	3-8	0-80	0-100	20	Ag ⁺ , Hg ₂ ⁺ , elevate conc. di Cd ₂ ⁺ e di Fe ₂ ⁺
Lithium (Li ⁺)	LIT1501/LIT1502	1.0 - 1x10 ⁻⁵	6,900-0.7	56±2	5-10	0-50	-	30	Na ⁺ , K ⁺ , Ca ₂ ⁺
Nitrate (NO ₃ ⁻)	NO31501/NO31502	1.0 - 7x10 ⁻⁶	62,000-0.5	57±2	2.5-11	0-50	-	30	Cl O ₄ ⁻ , I, CN ⁻ , BF ₄ ⁻
Nitrogen Oxide (NO _x)	NOX1501	5x10 ⁻³ - 5x10 ⁻⁶	220-0.2	56±3	1.1-1.7	0-50	-	30	SO ₂ - HF, CH ₃ COOH
Perchlorate (Cl O ₄ ⁻)	PER1501/PER1502	1.0 - 7x10 ⁻⁶	98,000-0.7	56±2	2.5-11	0-50	-	30	No significant interference
Potassium (K ⁺)	K001501/K001502	1.0 - 1x10 ⁻⁶	39,000-0.04	56±2	2-12	0-40	0-50	30	Cs ⁺ , NH ₄ ⁺
Silver/Sulfide (Ag ⁺ /S ₂ ⁻)	AGS1501 AGS1502	Ag ⁺ =1.0 - 1x10 ⁻⁷ S ₂ ⁻ =1.0 - 1x10 ⁻⁷	107,900-0.01 32,100-0.003	57±2 27	2-12	0-80	0-100	20	Hg ₂ ⁺ , Hg ⁺
Sodium (Na ⁺)	NA71501/NA71502	1.0 - 1x10 ⁻⁵	23,000-0.2	56±2	5-12	0-80	-	20	K ⁺ , Li ⁺ , H ⁺ , Ag ⁺ , Cs ⁺
Surfactant (X ⁺ , X ⁻)	SUR1501/SUR1502	5x10 ⁻² , 1x10 ⁻⁵	12,000-1.0	for titration	2-12	0-50	-	30	Similar types of Surfactants
Water Hardness (Ca ₂ ⁺ /Mg ₂ ⁺)	WHA1501/WHA1502	1.0 - 1x10 ⁻⁵	4,000-0.4 (as Ca)	26±3	5-10	0-50	-	20	Cu ₂ ⁺ , Zn ₂ ⁺ , Ni ₂ ⁺ , Fe ₂ ⁺

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