

Polymer electrodes consist of various ion-exchange materials in an inert matrix such as PVC, polythene or silicone rubber.

Solid state electrodes utilise relatively insoluble inorganic salts in a membrane.

Glass membrane electrodes are formed by the doping of the silicon dioxide glass matrix with various chemicals.

Two versions available:

- Sealed (ISE20B...ISE37B)
- Refillable with replaceable membrane (ISE60B...ISE77B)

Gas sensing electrodes are available for the measurement of ammonia, carbon dioxides and nitrogen oxides. These electrodes have a gas permeable membrane and an internal filling solution.

One versions available:

- Flat replaceable membrane (ISE50B...ISE52B)

All models are combination electrodes and have an epoxy body.

Dimensions: **110xØ12 mm**



MODEL	ION	SENSOR	RANGE (M)	RANGE (ppm)	°C	INTERFERENCES	pH	ELECTROLYTE
ISE20B	Ammonium	polymer	5.10 ⁻⁶ - 10 ⁰	0.1 - 18000	0 - 50	K ⁺	4 - 10	NaCl
ISE60B	NH ₄ ⁺							
ISE21B	Bromide	solid state	5.10 ⁻⁶ - 10 ⁰	0.4 - 79900	0 - 50	I ⁻ , CN ⁻ , S ²⁻ , high levels of Cl ⁻ and NH ₃	2 - 14	KNO ₃
ISE61B	Br ⁻							
ISE22B	Cadmium	solid state	10 ⁻⁷ - 10 ⁻¹	0.01 - 11200	0 - 50	Cu ²⁺ , Hg ²⁺ , Ag ⁺ , high levels of Fe ²⁺ and Pb ²⁺	2 - 12	KNO ₃
ISE62B	Cd ²⁺							
ISE23B	Calcium	polymer	5.10 ⁻⁶ - 10 ⁰	0.2 - 40000	0 - 50	Pb ²⁺ , Hg ²⁺ , Cu ²⁺ , Ni ²⁺	3 - 10	KCl
ISE63B	Ca ²⁺							
ISE24B	Chloride	solid state	5.10 ⁻⁵ - 10 ⁰	1.8 - 35500	0 - 50	I ⁻ , Br ⁻ , CN ⁻ , S ²⁻	1 - 12	KNO ₃
ISE64B	Cl ⁻							
ISE25B	Copper	solid state	10 ⁻⁸ - 10 ⁻¹	0.00064 - 6350	0 - 50	Hg ²⁺ , Ag ⁺ , high levels of Cl ⁻ , Br ⁻ , Fe ²⁺ and Cd ²⁺	2 - 12	KNO ₃
ISE65B	Cu ²⁺							
ISE26B	Cyanide	solid state	5.10 ⁻⁶ - 10 ⁻²	0.13 - 260	0 - 50	Cl ⁻ , Br ⁻ , I ⁻ , S ²⁻	11 - 13	KNO ₃
ISE66B	CN ⁻							
ISE27B	Fluoride	solid state	10 ⁻⁶ - sat.	0.02 - sat.	0 - 50	OH ⁻	5 - 8	KCl
ISE67B	F ⁻							
ISE28B	Fluoroborate	polymer	7.10 ⁻⁶ - 10 ⁰	0.1 - 10800	0 - 50	I ⁻ , ClO ₄ ⁻ , CN ⁻	2.5 - 11	(NH ₄) ₂ SO ₄
ISE68B	BF ₄ ⁻							
ISE29B	Iodide	solid state	5.10 ⁻⁸ - 10 ⁰	0.006 - 127000	0 - 50	S ²⁻ , CN ⁻ , Cl ⁻ , Br ⁻ , S ₂ O ₃ ²⁻ , NH ₃	0 - 14	KNO ₃
ISE69B	I ⁻							
ISE30B	Lead	solid state	10 ⁻⁶ - 10 ⁻¹	0.2 - 20700	0 - 50	Hg ²⁺ , Ag ⁺ , Cu ²⁺ , high levels of Fe ²⁺ and Cd ²⁺	3 - 8	KNO ₃
ISE70B	Pb ²⁺							
ISE31B	Nitrate	polymer	7.10 ⁻⁶ - 10 ⁰	0.5 - 62000	0 - 50	I ⁻ , ClO ₄ ⁻ , CN ⁻ , BF ₄ ⁻	2.5 - 11	(NH ₄) ₂ SO ₄
ISE71B	NO ₃ ⁻							
ISE32B	Perchlorate	polymer	7.10 ⁻⁶ - 10 ⁰	0.7 - 99500	0 - 50	-	2.5 - 11	(NH ₄) ₂ SO ₄
ISE72B	ClO ₄ ⁻							
ISE33B	Potassium	polymer	10 ⁻⁶ - 10 ⁰	0.04 - 39000	0 - 50	Cs ⁺ , NH ₄ ⁺	2 - 12	NaCl
ISE73B	K ⁺							
ISE34B	Silver/Sulphide	solid state	10 ⁻⁷ - 10 ⁰	0.01 - 107900	0 - 50	Hg ⁺ , Hg ²⁺	2 - 12	KNO ₃
ISE74B	Ag ⁺ /S ²⁻			0.003 - 32000				
ISE35B	Sodium	glass	10 ⁻⁶ - sat.	0.02 - sat.	0 - 50	H ⁺ , K ⁺ , Li ⁺ , Ag ⁺ , Cs ⁺ , TI ⁺	5 - 12	NH ₄ Cl
	Na ⁺							
ISE36B	Surfactant	polymer	10 ⁻⁵ - 5.10 ⁻²	1 - 12000	0 - 50	similar types of surfactants	2 - 12	KCl
ISE76B	X ⁺ /X ⁻							
ISE37B	Water hardness	polymer	10 ⁻⁵ - 10 ⁰	0.4 - 4000 (Ca ²⁺)	0 - 50	Cu ²⁺ , Zn ²⁺ , Ni ²⁺ , Fe ²⁺	5 - 10	KCl
ISE77B	Ca ²⁺ /Mg ²⁺							
ISE50B	Ammonia	gas sensing	5.10 ⁻⁷ - 10 ⁰	0.01 - 17000	0 - 50	volatile amines	11 - 13	NH ₄ Cl
	NH ₃							
ISE51B	Carbon dioxide	gas sensing	10 ⁻⁴ - 10 ⁻²	4.4 - 440	0 - 50	volatile week acids	4.8 - 5.2	NaHCO ₃
	CO ₂ /CO ₃ ²⁻							
ISE52B	Nitrogen oxides	gas sensing	5.10 ⁻⁶ - 5.10 ⁻³	0.2 - 220	0 - 50	SO ₂ , HF, acetic acid	1.1 - 1.7	NaNO ₂
	NO _x							