



Mini Half Cell Solid State ISEs

EDT directION mini Ion selective electrodes are rugged solid state sensors that can be used in conjunction with any reference electrode half cell to make a complete Ion sensor.

These mini ISEs are the sensing component of the half cell and Combination ISE's produced by EDT directION and can be used to build your own ISE to suit your application. They can also be used as a Micro alternative to 12mm half cell. Micro reference half cells are available on request.

There are two basic sensor constructions: PVC on a solid state substrate and Crystal membrane with a solid state contact. Crystalline electrodes maybe polished and cleaned as the electrode gets older. The PVC equivalents are less prone to oxidation and can be rinsed after use but cannot be polished. The lack of internal solution means that lifetime is enhanced and submersion is possible as the sensor does not flex under reasonable pressure.

The solid state sensors have a huge advantage over conventional ISEs in that there is no internal fill solution to degenerate the sensor this means that EDT direction mini ISEs have an un-rivalled lifetime and a very low cost of ownership.

EDT are a UK based manufacturer and produce ISE's for many prominent companies in the water testing sector. As a result our ISEs are very competitively priced and come complete with technical support provided from our vast library of applications and our in house electrochemistry technicians.

For optimum results use EDT direction standards and Ionic Strength Adjustment Buffers (ISABs).

SPECIFICATION TABLE



Cat. No	Species	Limits (ppm)	Temp Range	Interferences	pH Range
2051	Ammonium	0.9 – 9,000	0-50°C	K ⁺ Na ⁺	0-8.5
2081	Barium	1.4 – 13,700	0-50°C	K ⁺ Na ⁺ Sr ⁺⁺	3-10
2271	Bromide	0.4 – 81,000	5-50°C	I ⁻ S ²⁻ CN ⁻	1-12
2241	Cadmium	0.1 – 11,200	5-50°C	Cu ⁺⁺ Hg ⁺⁺ Ag ⁺	3-7
2041	Calcium	0.02 – 4,010	0-50°C	Ba ⁺⁺ Al ⁺⁺⁺ Sr ⁺⁺	3.5-11
2091	Carbonate	0.008 - 80	0-50°C	OAc ⁻ SCN ⁻	6.6-9.6
2261	Chloride	1-35,500	5-50°C	I ⁻ Br ⁻ CN ⁻ S ²⁻	1-12
2227	Copper	0.006 – 64,000	5-50°C	Hg ⁺⁺ Ag ⁺ S ²⁻	2-7
2291	Cyanide	0.03 - 260	5-50°C	Br ⁻ I ⁻ S ²⁻	11-13
2221	Fluoride	0.02 - -1,900	5-50°C	OH ⁻	4-8
2281	Iodide	0.06 – 127,000	5-50°C	S ²⁻ CN ⁻	2-12
2231	Lead	0.2 – 20,800	5-50°C	Hg ⁺⁺ Ag ⁺ Cu ⁺⁺	3-7
2251	Mercury	0.2 – 201,000	5-50°C	Ag ⁺ S ²⁻	0-2
2921	Nitrate	0.4 – 62,000	0-50°C	Cl ⁻ NO ²⁻	2-11
2271	Nitrite	0.5 – 460	0-50°C	CN ⁻	4.6-8
2061	Perchlorate	0.2 – 99,500	0-50°C	I ⁻ SCN ⁻ NO ₃ ⁻	0-11
2031	Potassium	0.04 – 39,000	0-50°C	Cs ⁺ NH ₄ ⁺	1-9
2211	Silver	0.01 – 107,900	5-50°C	Hg ⁺⁺ S ²⁻	1-9
2306	Sodium	0.002 – 69,000	0-50°C	Li ⁺ K ⁺ Ba ⁺⁺	9-12
2301	Sodium	1-35,000	0-50°C	K ⁺ NH ₄ ⁺ Ca ⁺⁺ Mg ⁺⁺	1-12
3225	Sulphide	0.003 – 32,000	0-50°C	Hg ⁺⁺ Ag ⁺	13-14
2229	Thiocyanate	1 – 5,800	5-50°C	Cl ⁻ Br ⁻ I ⁻ S ²⁻	2-12



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