



## Combination ISEs

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EDT direction electrodes are rugged solid state sensors with built in driTEK Teflon double junction references that do not require filling solutions, membrane replacements or operator maintenance.

These combination ISEs can be stored dry and are submersible and waterproof. The solid state sensor and maintenance free reference makes these electrodes ideal for both laboratory and field work. The Epoxy tubular body provides complete protection to the electrode which allows these sensors to be used in field applications by unskilled operators.

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.

Each EDT direction Combination ISE has a 1 metre cable and a BNC connector (other connectors available on request) allowing use on all types of pH/ION meter including laboratory bench and research models. For direct concentration reading and absolute simplicity the EDT DR359TX pH/ION meter is the perfect instrument for these ISEs.

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 combination ISEs have an unrivalled lifetime and a very low cost of ownership.

EDT are a UK based manufacturer and produce ISEs 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
3302	Ammonia	0.02 - 17,000	0-50°C	Hydrazine	11-13
3051	Ammonium	0.9 – 9,000	0-50°C	K <sup>+</sup> Na <sup>+</sup>	0-8.5
3271	Bromide	0.4 – 81,000	5-50°C	I <sup>-</sup> S <sup>2-</sup> CN <sup>-</sup>	1-12
3241	Cadmium	0.1 – 11,200	5-50°C	Cu <sup>++</sup> Hg <sup>++</sup> Ag <sup>+</sup>	3-7
3041	Calcium	0.02 – 4,010	0-50°C	Ba <sup>++</sup> Al <sup>+++</sup> Sr <sup>++</sup>	3.5-11
3261	Chloride	1-35,500	5-50°C	I <sup>-</sup> Br <sup>-</sup> CN <sup>-</sup> S <sup>2-</sup>	1-12
3227	Copper	0.006 – 64,000	5-50°C	Hg <sup>++</sup> Ag <sup>+</sup> S <sup>2-</sup>	2-7
3291	Cyanide	0.03 - 260	5-50°C	Br <sup>-</sup> I <sup>-</sup> S <sup>2-</sup>	11-13
3221	Fluoride	0.02 --1,900	5-50°C	OH <sup>-</sup>	4-8
3281	Iodide	0.06 – 127,000	5-50°C	S <sup>2-</sup> CN <sup>-</sup>	2-12
3231	Lead	0.2 – 20,800	5-50°C	Hg <sup>++</sup> Ag <sup>+</sup> Cu <sup>++</sup>	3-7
3921	Nitrate	0.4 – 62,000	0-50°C	Cl <sup>-</sup> NO <sup>2-</sup>	2-11
3271	Nitrite	0.5 – 460	0-50°C	CN <sup>-</sup>	4.6-8
3031	Potassium	0.04 – 39,000	0-50°C	Cs <sup>+</sup> NH <sub>4</sub> <sup>+</sup>	1-9
3211	Silver	0.01 – 107,900	5-50°C	Hg <sup>++</sup> S <sup>2-</sup>	1-9
3301G	Sodium	0.002 – 69,000	0-50°C	Li <sup>+</sup> K <sup>+</sup> Ba <sup>++</sup>	9-12
3301	Sodium	1-35,000	0-50°C	K <sup>+</sup> NH <sub>4</sub> <sup>+</sup> Ca <sup>++</sup> Mg <sup>++</sup>	1-12
3225	Sulphide	0.003 – 32,000	0-50°C	Hg <sup>++</sup> Ag <sup>+</sup>	13-14
3229	Thiocyanate	1 – 5,800	5-50°C	Cl <sup>-</sup> Br <sup>-</sup> I <sup>-</sup> S <sup>2-</sup>	2-12



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