HACH | Environmental
Be Right. The Environment is worth it.

Ion Selective Electrodes (ISE)

Brief Introduction:

Hydrolab's Ion Selective Electrodes (ISEs) are available for measuring Ammonia, Nitrate, or Chloride.

Features:

- ISE is a reference electrode immersed in a solution of fixed ion concentration separated by a membrane containing a chemical compound that reacts with the ion of interest, measuring electrical potential that varies with concentration.

Benefits:

- Applications for Hydrolab Ammonia and Nitrate ISEs include tracing the movement of point- or non-point source pollutants (for instance, runoff from agricultural operations), monitoring aquaculture projects for excessive waste concentrations, and surveying nutrient levels in natural water bodies
  - o Ammonia: High levels of accessible nitrogen, of which total ammonia is one form, can lead to an overabundance of microorganisms, often resulting in mortality to higher organisms (such as fish and shrimp) because of depleted dissolved oxygen
  - o Nitrate: Small changes in biologically available nitrogen levels can dramatically affect the levels of microbiological, plant, and eventually, animal life.
- Applications of Chloride ion measurement include monitoring landfills for leaks, tracing the movement of point-or non- point source pollutants (for instance, storm water runoff) within a natural water body, monitoring estuarine waters for changes in salinity, and detection of salt water intrusion into drinking water supplies (ground or surface waters).
  - o Chloride: Does not react with, or adsorb to, most components of rocks and soils, and so is easily transported through water columns; therefore, it is an effective tracer for pollution from chemicals moving from man-made sources into natural water bodies, or for salt water intrusion.

Specifications:

Ammonia	
Range:	0 to 100 mg/L-N
Accuracy:	Greater of +/- 5% of reading
Resolution:	0.01 mg/L-N
Max Depth:	15 meters
Nitrate	
Range:	0 to 100 mg/L-N
Accuracy:	Greater of +/- 5% of reading
Resolution:	0.01 mg/L-N
Max Depth:	15 meters
Chloride	
Range:	0.5 to 18,000 mg/L
Accuracy:	Greater of +/- 5% of reading
Resolution:	4 digits
Max Depth:	15 meters

This sensor available on These sondes:

Hydrolab DS5X
Hydrolab DS5
Hydrolab MS5

HYDROLAB®
A HACH COMPANY BRAND