HI96728 • HI96786

Nitrate Portable Photometers

- CAL Check™
  - Enables users to check validity of calibration
- BEPS
  - Alerts the user of low battery power that could adversely affect reading
- GLP Features
  - Meets Good Laboratory Practices

Nitrogen is abundant in the Earth's atmosphere and is present in water in the form of nitrate, nitrite and ammonia. Plants use nitrogen as a nutrient to build proteins by tracking it in through their root system. Nitrate is formed in water mainly through rainfall, decomposition of organic matter, and runoff from man-made pollutants such as sewage waste and fertilizers.

Almost all the surface waters have some measurable level of nitrate, and a moderate amount is considered beneficial. Large amounts of nitrate, however, can lead to eutrophication which may result in decreased levels of dissolved oxygen in the water.

A maximum level of 45 mg/L (ppm) is established as a worldwide guideline for nitrate concentration in water. In Europe, the maximum consented level of nitrates in potable water is 50.0 mg/L (ppm), while in the USA, the EPA has established a guideline for the maximum level of nitrate–nitrogen of 10 mg/L (NO_3^--N), which corresponds to 45.0 mg/L of nitrates.

The HI96728 and HI96786 meters measure the nitrate content in water and wastewater.

Both meters use an exclusive positive-locking system to ensure that the cuvette is in the same place every time it is placed into the measurement cell.

Specifications	HI96728 Nitrate-Nitrogen	HI96786 Nitrate
Range	0.0 to 30.0 mg/L (ppm)	0 to 100 mg/L (ppm)
Resolution	0.1 mg/L	1 mg/L
Accuracy @ 25°C (77°F)	±0.5 mg/L ±10% of reading	±5 mg/L ±5% of reading
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	
Power Supply	9V battery	
Auto-off	after ten minutes of non-use in measurement mode; after one hour of non-use in calibration mode; with last reading reminder	
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing	
Dimensions	193 x 104 x 69 mm (7.6 x 4.1 x 2.7")	
Weight	360 g (12.7 oz.)	
Method	adaptation of cadmium reaction method causes amber tint in sample	
Ordering Information	**HI96728** and **HI96786** are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instruction manual. CAL Check™ standards and testing reagents sold separately **HI96728C** and **HI76786C** include photometer, CAL Check™ standards, sample cuvettes (2) with caps, 9V battery, scissors, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately	
Reagents and Standards	HI96728	**HI96728-11** CAL Check™ standard cuvettes **HI93728-01** reagents for 100 tests **HI93728-03** reagents for 300 tests
	HI96786	**HI96786-11** CAL Check™ standard cuvettes **HI93728-01** reagents for 100 tests **HI93728-03** reagents for 300 tests

Standard reagents begin on page 10.70; CAL Check™ standard reagents begin on page 10.71