



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 ($\text{NO}_3\text{-N}$), 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 HI96786C 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

