

HI774 · HI713 · HI7134 · HI717

# Phosphate

## Handheld Colorimeters

- Easier to use and more accurate than chemical test kits
- Dedicated to a single parameter
- Small size, big convenience
- Ideal for:
  - Aquaculture
  - natural, waste, agricultural and drinking waters
  - Pools and spas

Orthophosphates are found in natural waters and wastewaters. They are commonly added to drinking water as a corrosion inhibitor. The instantaneous analysis of orthophosphates by colorimetric determination provides rapid results using a standard analysis technique.

The Hanna HI774, HI713, HI7134 and HI717 Checker®HC bridges the gap between simple chemical test kits and professional instrumentation. Chemical test kits are not very accurate and only give some points resolution, while professional instrumentation can cost hundreds of dollars and can be time-consuming to calibrate and maintain. These Checker HC's are accurate and affordable.

The HI774 Checker HC is a simple, accurate, and cost effective way to measure ultra low range phosphates in seawater. HI774 features a resolution of 0.01 ppm and  $\pm 0.02$  ppm  $\pm 5\%$  of reading accuracy. The HI774 Checker HC uses an adaptation of the Ascorbic Acid method.

The HI713 and HI7134 Checker HC portable handheld colorimeters features a resolution of 0.01 ppm and  $\pm 0.04$  ppm  $\pm 4\%$  of reading accuracy. The HI713 Checker HC uses an adaptation of the Ascorbic Acid method.

The HI717 Checker HC portable handheld colorimeter features a resolution of 0.1 ppm and  $\pm 1.0$  ppm  $\pm 5\%$  of reading accuracy. The HI717 Checker HC uses an adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Amino Acid method.



Specifications	HI774 (Marine ULR)	HI713 (LR)	HI7134 (LR)	HI717 (HR)
Range	0.00 to 0.90 ppm	0.00 to 2.50 ppm (as PO <sub>4</sub> <sup>3-</sup> )		0.0 to 30.0 ppm (as PO <sub>4</sub> <sup>3-</sup> )
Resolution	0.01 ppm	0.01 ppm		0.1 ppm
Accuracy	$\pm 0.02$ ppm $\pm 5\%$ of reading @ 25 °C (77 °F)	$\pm 0.04$ ppm $\pm 4\%$ of reading @ 25 °C (77 °F)		$\pm 1.0$ ppm $\pm 5\%$ of reading @ 25 °C (77 °F)
Light Source	Light Emitting Diode @ 525 nm			
Light Detector	Silicon photocell			
Method	Adaptation of Standard Methods for the Examination of Water & Wastewater, 20th Edition, Ascorbic Acid Method. The reaction between phosphate and the reagent causes a blue tint in the sample.		Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, Heteropoly-molybdenum Blue Method. The reaction between orthophosphate (reactive phosphorus) and the reagent causes a blue tint in the sample.	
Environment	0 to 50 °C (32 to 122 °F); max. RH 95% non-condensing			
Battery Type	1.5V AAA Alkaline			
Auto-off	After 7 minutes of non-use and 2 minutes after reading	After 10 minutes of non-use and 2 minutes after reading		
Dimensions	86.0 x 61.0 x 37.5 mm (3.4 x 2.4 x 1.5")			
Weight	64 g (2.3 oz)			
Ordering Information	<p><b>HI774</b> Checker®HC is supplied with sample cuvette and cap (2 pcs.), Marine Phosphate Ultra Low Range reagent starter kit (reagents for 10 tests), 1.5V AAA Alkaline battery (1 pc.), and instruction manual.</p> <p><b>HI713</b> and <b>HI7134</b> Checker®HC is supplied with sample cuvette and cap (2 pcs.), Phosphate Low Range reagent starter kit (reagents for 6 tests), 1.5V AAA Alkaline battery (1 pc.), and instruction manual.</p> <p><b>HI717</b> Checker®HC is supplied with sample cuvette and cap (2 pcs.), Phosphate High Range reagent starter kit (reagents for 20 tests), 1.5V AAA Alkaline battery (1 pc.), and instruction manual.</p>			
Reagent Set	<b>HI774-25</b> Reagents for 25 Marine Phosphate Ultra Low Range tests	<b>HI713-25</b> Reagents for 25 Phosphate Low Range tests	<b>HI7134-25</b> Reagents for 25 Phosphate Low Range tests	<b>HI717-25</b> Reagents for 40 Phosphate High Range tests
Calibration Set	<b>HI774-11</b> Marine Phosphate Ultra Low Range certified standard kit	<b>HI713-11</b> Phosphate Low Range certified standard kit	<b>HI7134-11</b> Phosphate Low Range certified standard kit	<b>HI717-11</b> Phosphate High Range certified standard kit