

HI770 · HI705

## Silica High Range and Low Range

Handheld Colorimeter

- Easier to use and more accurate than chemical test kits
- Dedicated to a single parameter
- Small size, big convenience
- Ideal for:
  - Aquaculture
  - Water quality
  - Environmental
  - Water treatment

Silica is the name given to silicon dioxide, SiO<sub>2</sub>. Silicon (Si), is the most abundant element in the Earth's crust. Silicon is never found in its elemental form in nature. In its crystallized form it is only reactive under conditions of extremely high temperatures. Water and water vapor have little influence upon silicon solubility, because a protective surface layer of silicon dioxide is rapidly formed. Silicon binds with other elements to form various species of silica and silicate. The concentration of the soluble silica molecules are important to aquaculture because they influence (and limit) the growth of diatoms. In most waters, the predominant form of dissolved silica is monosilicic acid, which incorporates two water molecules.

The HI770 and HI770 Checker®HC Handheld Colorimeters are a simple, accurate, and cost effective way to measure silica. Each model is designed for a specific range (low or high) in order to provide high levels of accuracy.

The contoured style of these Checkers HC fit easily in the palm of your hand or pocket and the large LCD is easy to read. The auto shut-off feature assures the battery life will not be drained if you forget to turn it off.



SPECIFICATIONS	HI770 (HR)	HI705 (LR)
Range	0 to 200 ppm	0.00 to 2.00 ppm
Resolution	1 ppm	0.01 ppm
Accuracy @25°C (77°F)	±2 ppm ±5% of reading	±0.03 ppm ±5% of reading
Light Source	LED @ 470 nm	LED @ 610 nm
Light Detector	silicon photocell	
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing	
Battery Type	1.5V AAA (1)	
Auto-off	after ten minutes of non-use	after three minutes of non-use and two 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)	
Method	adaptation of the USEPA method 370.1 for drinking, surface and saline waters and Standard Method 4500-SiO <sub>2</sub> C for domestic and industrial waters	adaptation of the ASTM D859, heteropoly blue method
<b>ORDERING INFORMATION</b>	<p><b>HI770</b> Checker®HC is supplied with sample cuvettes with caps (2), silica HR reagent starter kit (reagents for 6 tests), battery, instructions, and quick start guide.</p> <p><b>HI705</b> Checker®HC is supplied with sample cuvettes with caps (2), silica LR reagent starter kit (reagents for 12 tests), battery, instructions, and quick start guide.</p>	
<b>Reagent Set</b>	<b>HI770-25</b> (25 tests)	<b>HI705-25</b> (25 tests)
<b>Calibration Set</b>	<b>HI770-11</b>	<b>HI705-11</b>