



HI96705 · HI96770

Silica Portable Photometers

- **CAL Check**
 - Allows for performance verification and calibration of the meter using NIST traceable standards
- **GLP**
 - Review of the last calibration date
- **Auto-shut off**
- **Battery status indicator**
- **Built-in timer**
 - Display of time remaining before a measurement is taken. Ensures that all readings are taken at the appropriate reaction intervals for the test being performed.
- **Error messages**
 - Messages on display alerting to problems including no cap, high zero, and standard too low
- **Cooling lamp indicator**
- **Units of measure**
 - Appropriate unit of measure is displayed along with reading

The HI96705 and HI96770 portable photometers are for the measurement of silica. Hanna's portable photometers feature an advanced optical system; the combination of a special tungsten lamp, a narrow band interference filter, and silicon photodetector ensure accurate photometric readings every time. The Hanna exclusive CAL Check™ feature utilizes ready-made, NIST traceable standards to verify both meter validation and calibration. The exclusive cuvette locking system ensures that the cuvette is inserted into the measurement cell in the same position every time to maintain a consistent path length.

Significance of Use

Silica is found in all natural waters in the dissolved mineral form. Silica is only slightly soluble in water and can be found as ionic silica, silicates, or colloidal or suspended particles. The solubility of silica is highly dependent on pH, temperature and pressure. Silica's presence in industrial applications, particularly high pressure turbines, is undesirable because of the scaling caused by the elevated temperature and pressure. Heating systems and reverse osmosis plants also require monitoring of silica to ensure process efficiency.

Specifications	HI96705 Silica	HI96770 Silica HR														
Range	0.00 to 2.00 mg/L (ppm)	0 to 200 mg/L (ppm)														
Resolution	0.01 mg/L	1 mg/L														
Accuracy @ 25°C (77°F)	±0.03 mg/L ±3% of reading	±1 mg/L ±5% of reading														
Light Source	tungsten lamp	light emitting diode														
Light Detector	silicon photocell with narrow band interference filter @ 610 nm	silicon photocell with narrow band interference filter @ 466 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 the ASTM D859, heteropoly blue method	adaptation of the USEPA method 370.1 for drinking, surface and saline waters, domestic and industrial wastes and Standard Method 4500-SiO ₂ C														
Ordering Information	<p>HI96705 and HI96770 are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instructions. CAL Check™ standards and testing reagents sold separately</p> <p>HI96705C and HI96770C 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</p>															
Reagents and Standards	<table border="1"> <tr> <td rowspan="3">HI96705</td> <td>HI96705-11</td> <td>CAL Check™ standard cuvettes</td> </tr> <tr> <td>HI93705-01</td> <td>reagents for 100 tests</td> </tr> <tr> <td>HI93705-03</td> <td>reagents for 300 tests</td> </tr> <tr> <td rowspan="3">HI96770</td> <td>HI96770-11</td> <td>CAL Check™ standard cuvettes</td> </tr> <tr> <td>HI96770-01</td> <td>reagents for 100 tests</td> </tr> <tr> <td>HI96770-03</td> <td>reagents for 300 tests</td> </tr> </table>	HI96705	HI96705-11	CAL Check™ standard cuvettes	HI93705-01	reagents for 100 tests	HI93705-03	reagents for 300 tests	HI96770	HI96770-11	CAL Check™ standard cuvettes	HI96770-01	reagents for 100 tests	HI96770-03	reagents for 300 tests	
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