



HI96720 · HI96719

## Hardness Standard Method 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**
  - Automatic shut off after 10 minutes of non-use when the meter is in measurement mode. Prevents wastage of batteries in the event the meter is accidentally left on.
- **Battery status indicator**
  - Indicates the amount of battery life left.
- **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**
  - To maintain the desirable wavelength to be used for absorbance, it is necessary to ensure components are not overheated from the heat generated by the tungsten lamp. Each photometer is designed to allow a minimal amount of time for components to cool. The cooling lamp indicator is displayed prior to a reading being taken.
- **Units of measure**
  - Appropriate unit of measure is displayed along with reading.

### Significance of Use

Water, with exception to distilled water, contains dissolved salts (magnesium and calcium carbonates). The concentration of these salts determines the water hardness, which can be expressed in calcium carbonate or magnesium carbonate. The sum of these two represents the total hardness level. In addition, water hardness is also related to the phenomenon of pipe rusting in water heating and cooling systems, reverse osmosis, and demineralization plants.

Specifications	HI96720 Ca Hardness	HI96719 Mg Hardness
Range	0.00 to 2.70 mg/L (ppm)	0.00 to 2.00 mg/L (ppm)
Resolution	0.01 mg/L	
Accuracy @ 25°C (77°F)	±0.11 mg/L ±5% of reading	
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 525nm	
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 Standard Methods for the Examination of Water and Wastewater, 18th ed. Calmagite method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. EDTA colorimetric method.
Ordering Information	<p><b>HI96720</b> and <b>HI96719</b> are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instruction manual. CAL Check™ standards and testing reagents sold separately</p> <p><b>HI96720C</b> and <b>HI96719C</b> include photometer, CAL Check™ standards, sample cuvettes (2) with caps, 9V battery, 1 mL syringe with tip, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately</p>	
Reagents and Standards	<p>HI96720</p> <p>HI96719</p>	<p><b>HI96720-11</b> CAL Check™ standard cuvettes</p> <p><b>HI93720-01</b> reagents for 100 tests</p> <p><b>HI93720-03</b> reagents for 300 tests</p> <p><b>HI96719-11</b> CAL Check™ standard cuvettes</p> <p><b>HI93719-01</b> reagents for 100 tests</p> <p><b>HI93719-03</b> reagents for 300 tests</p>

The HI96720 portable photometer is for the measurement of calcium hardness while the HI96719 measures magnesium hardness. 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.