

# 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.

	HI96720		HI96719
Specifications	Ca Hardness		Mg Hardness
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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	HI96720 and HI96719 are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instruction manual.  CAL Check™ standards and testing reagents sold separately		
	HI96720C and HI96719C 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		
Reagents and Standards	HI96720	HI96720-11	CAL Check™ standard cuvettes
		HI93720-01	reagents for 100 tests
		HI93720-03	reagents for 300 tests
	HI96719	HI96719-11	CAL Check™ standard cuvettes
		HI93719-01	reagents for 100 tests
		HI93719-03	reagents for 300 tests

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.

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.

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