

HI96741

Total Hardness and Iron, Low Range Portable Photometer

- **CAL Check**
 - Allows for performance verification and calibration of the meter using NIST traceable standards
- **Auto-shut off**
- **Built-in timer**
 - Display of time remaining before a measurement is taken

The HI96741 can provide critical measurements of low range iron and total hardness (magnesium and calcium).

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

In domestic water, iron can alter taste, making it unpleasant to drink. It can also stain laundry, damage kitchenware and favor the growth of certain bacteria. However, low levels of iron are critical in beverage production.

The iron concentration in water needs to be monitored since it can become harmful above certain levels.

Hardness, on the other hand, is indicative of the presence of calcium and magnesium in water. By passing through various layers of soil and rocks, rain water dissolves some of the mineral substances.

Hardness can cause pipe rusting in water heating and cooling systems, reverse osmosis and demineralization plants. It can also increase the consumption of soaps and detergents in industrial washing machines or laundries.



Specifications

HI96741 Total Hardness and Iron, LR

Parameter Specifications	Mg Hardness	Ca Hardness
	Range	0.00 to 2.00 mg/L
Resolution	0.01 mg/L	0.01 mg/L
Accuracy @ 25°C (77°F)	±0.11 mg/L ±5% of reading	±0.11 mg/L ±5% of reading
Additional Specifications	Total Hardness (P1)	Iron, LR (P2)
	Range	0.00 to 4.70 mg/L
Resolution	0.01 mg/L	0.01 mg/L
Accuracy @ 25°C (77°F)	±0.11 mg/L ±5% of reading	±0.01 mg/L ±8% of reading
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 525 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	Total Hardness: adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. colorimetric method. Iron LR: Adaptation of the TPTZ method.	
Ordering Information	HI96741 is supplied with sample cuvettes with caps (2), 9V battery, instrument quality certificate and instruction manual. <small>CAL Check™ standards and testing reagents sold separately</small>	
Reagents and Standards	HI96719-11	CAL Check™ standard cuvettes (hardness)
	HI93719-01	reagents for 100 tests (hardness)
	HI93719-03	reagents for 300 tests (hardness)
	HI96746-11	CAL Check™ standard cuvettes (iron)
	HI93746-01	reagents for 50 tests (iron)
HI93746-03	reagents for 150 tests (iron)	

See page 10.70 for standard reagents; see page 10.71 for CAL Check standard reagents; see page 10.22 for general accessories