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<u>Photometers</u>

## **Total Hardness** and Iron, Low Range Portable Photometer

CAL Check<sup>™</sup>

HI96741

- · 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.

Additional

HI93746-03

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 Mg Hardness Ca Hardness 0.00 to 2.00 mg/L 0.00 to 2.70 mg/L Range 0.01 mg/L 0.01 mg/L Resolution Accuracy @ ±0.11 mg/L ±5% of reading ±0.11 mg/L ±5% of reading 25°C (77°F) Parameter Specifications Total Hardness (P1) Iron, LR (P2) 0.00 to 4.70 mg/L 0 to 1.60 mg/L Range Resolution 0.01 mg/L 0.01 mg/L Accuracy @ ±0.11 mg/L ±5% of reading ±0.01 mg/L ±8% of reading 25°C (77°F) Light Source tungsten lamp Light Detector silicon photocell with narrow band interference filter @ 525 nm Power Supply 9V batterv after ten minutes of non-use in measurement mode; after one Auto-off 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 Specifications Dimensions 192 x 104 x 69 mm (7.6 x 4.1 x 2.7") Weight 320g (11.3 oz.) Total Hardness: adaptation of the Standard Methods for the Method Examination of Water and Wastewater, 18th ed. colorimetric method. Iron LR: Adaptation of the TPTZ method. HI96741 is supplied with sample cuvettes with caps (2), 9V battery, instrument quality Ordering certificate and instruction manual. Information CAL Check standards and testing reagents sold separately HI96719-11 CAL Check standard cuvettes (hardness) HI93719-01 reagents for 100 tests (hardness) HI93719-03 reagents for 300 tests (hardness) **Reagents and** Standards HI96746-11 CAL Check standard cuvettes (iron) HI93746-01 reagents for 50 tests (iron)

reagents for 150 tests (iron)

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