HI 96735

Hardness, EPA Portable Photometer

- **CAL CHECK™**
- **User calibration**
- **Certified calibration and verification standards**
- **BEPS** (Battery Error Prevention System)
- **TIMER function**
- **Auto shut-off**
- **GLP Features**

Total hardness, that is the presence of magnesium and calcium, is due mainly to the runoff water dissolving these salts as it flows or filters through different strata. Hardness can also cause scaling of pipes in cooling and heating systems.

The HI 93735 measures the total hardness in drinking, surface and wastewater.

This meter uses an exclusive positive-locking system to ensure that the cuvette is in the same position every time it is placed into the measurement cell. It is designed to fit cuvettes with a larger neck making it easier to add both sample and reagents. The cuvettes are made from special optical glass to obtain best results.

Hardness in water is caused by dissolved minerals, primarily divalent cations, including calcium (Ca^{2+}), iron (Fe^{2+}), strontium (Sr^{2+}), zinc (Zn^{2+}), and manganese (Mn^{2+}). Calcium and magnesium ions are usually the only ions present in significant concentrations, therefore, hardness is generally considered to be a measure of the calcium and magnesium content of water. Considerations should be given when other cations contributing to hardness are present in significant amounts.

SPECIFICATIONS	HI 96735 Hardness, Total		
	Hardness LR (P1)	Hardness MR (P2)	Hardness HR (P3)
Range	0 to 250 mg/L (ppm)	200 to 500 mg/L (ppm)	400 to 750 mg/L (ppm)
Resolution	1 mg/L from 0 to 100 mg/L, 5 mg/L from 100 to 750 mg/L	5 mg/L	5 mg/L
Accuracy @ 25°C (77°F)	±5 mg/L ±4% of reading	±7 mg/L ±3% of reading	±10 mg/L ±2% of reading
Light Source	light emitting diode		
Light Detector	silicon photocell with narrow band interference filter @ 466		
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	192 x 104 x 69 mm (7.6 x 4.1 x 2.7")		
Weight	360 g (12.7 oz.)		
Method	adaptation of the EPA recommended method 130.1		

The reagents are in liquid and powder form and are supplied in bottles and in packets. The amount of reagent is precisely dosed to ensure maximum repeatability.

ORDERING INFORMATION

HI 96735 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

CAL CHECK™ standards and testing reagents sold separately

REAGENTS AND STANDARDS

HI 96735-11	CAL CHECK™ standard cuvettes
HI 93735-00	Reagents for 100 tests (0-250 mg/L)
HI 93735-01	Reagents for 100 tests (200-500 mg/L)
HI 93735-02	Reagents for 100 tests (400-750 mg/L)
HI 93735-0	Reagents for 100 tests (0-750 mg/L)

For a complete list of Reagents, see Reagents *Section 18*.