

HI97741

Total Hardness and Iron, Low Range Portable Photometer

- Advanced LED optical system
 - Innovative optical design that utilizes a reference detector and focusing lens to eliminate errors from changes in the light source and from imperfections in the glass cuvette.
 - LEDs have a much higher luminous efficiency, providing more light while using less power. They also produce little heat, which could otherwise affect electronic stability.
- CAL Check™
 - Validate instrument performance at any time using CAL Check cuvettes made with NIST traceable standards.
 The CAL Check screen guides the user step-by-step through the validation process and user calibration.
- On-screen tutorial mode with animations
 - \cdot $\;$ Guides users step-by-step through the measurement process
- Waterproof and floating IP67 case
- Unit of measure is displayed along with reading
- Built-in timer
 - Built-in reaction timer that ensures consistency between tests.
- · Error messages on display
 - Alerts to problems including no cap, high zero, and standard too low

- GLP data
- Displays the last calibration date.
- Auto logging
- Battery status indicator
- Auto-shut off

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.

Methodness Resolution 0.01 mg/l. seb of reading Ca Hardness Accuracy p 25°C (7°F) and adaptation of the Standard Methods for the Examination of Water and Wastewater, IB the dicolorimetric method adaptation of the Standard Methods for the Examination of Water and Wastewater, IB the dicolorimetric method (Parameter) Ca Hardness Method adaptation of the Standard Methods for the Examination of Water and Wastewater, IB the dicolorimetric method (Parameter) Method adaptation of the Standard Methods for the Examination of Water and Wastewater, IB the dicolorimetric method (Parameter) Method adaptation of the Standard Methods for the Examination of Water and Wastewater, IB the dicolorimetric method (Parameter) Method 40.11 mg/l. 49% of reading Method 0.01 mg/l. 49% of reading Method 40.01 mg/l. 49% of reading	Mg Hardness	Range	0.00 to 2.00 mg/L (as CaCO ₃)	
Accuracy packs** (CPF) 4.01 mg/L ±5% of reading Accuracy packs** (CPF) 4.00 mg/L Agange 0.00 to 2.70 mg/L (as CaCO ₃) Accuracy packs** (CPF) ±0.01 mg/L Bandage Accuracy packs** (CPF) ±0.01 mg/L		Resolution	0.01 mg/L	
Ce Hurdness Rangle 0.00 to 2.70 mg/L (as CaCO ₃) Ce Hurdness Resolution 0.01 mg/L Accuracy pe25°C (77°F) ±0.11 mg/L ±5% of reading Machine Range 0.00 to 4.70 mg/L (as CaCO ₃) Resolution 0.01 mg/L Method adaptation of the Standard Methods for the Examination of Water and Wastewater.19th ed. colorimetric method Method adaptation of the Standard Methods for the Examination of Water and Wastewater.19th ed. colorimetric method Method adaptation of the Standard Methods for the Examination of Water and Wastewater.19th ed. colorimetric method Method Adaptation of the Standard Methods for the Examination of Water and Wastewater.19th ed. colorimetric method Method Adaptation of the FP72 method. Method Adaptation of the FP72 method. Method Adaptation of the FP72 method. Measurement System Bandpass filter 525 nm Bandpass filter 525 nm Bandpass filter 525 nm Uph Disease tiles 1 pm mullimeter (22 mm Inside) Additional Specification 4 pm mullimeter (22 mm Inside) Additional Specification 50 readings <t< td=""><td>Accuracy @25°C (77°F)</td><td>±0.11 mg/L ±5% of reading</td></t<>		Accuracy @25°C (77°F)	±0.11 mg/L ±5% of reading	
Cal Hardness Resolution 0.01 mg/L 450 mg/L <td>Method</td> <td>adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. colorimetric method</td>		Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. colorimetric method	
Genuracy @S°C (7°Ps) ±0.11 mg/L±5% of reading Method adaptation of the Standard Methods for the Examination of Water and Wastewater. 18 the d. colorimetric method Manage 0.00 to 4.70 mg/L (as CaCo ₃) Method 0.00 to 4.70 mg/L (as CaCo ₃) Method adaptation of the Standard Methods for the Examination of Water and Wastewater. 18 the d. colorimetric method Manage 0 to 1.60 mg/L (as Fa) Method Adaptation of the E787 method. Method Adaptation of the TPT2 method. Method Adaptation of the TPT2 method. Messurement System Bight emitting diode Bandpass filter 25 m Bandpass filter bandwidth 9 m Bandpass filter bandwidth 9 mm Light Detector 3 likon photocell Light Detector 2 likon photocell Light Detector 3 likon photocell Light Detector 4 likon photocell Light Detector	Ca Hardness	Range	0.00 to 2.70 mg/L (as CaCO ₃)	
Accuracy p3FC (77°F) 40.1 mg/l ±5% of reading		Resolution	0.01 mg/L	
Range		Accuracy @25°C (77°F)	±0.11 mg/L ±5% of reading	
Resolution 0.01 mg/L 5% of reading 1.01 mg/L 5% of reading 2.01 mg/L 5%		Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. colorimetric method	
Total Hardness Accuracy @25°C(77°F)	Total Hardness	Range	0.00 to 4.70 mg/L (as CaCO ₃)	
Accuracy φ25°C(77°F) ±011 mg/L ±5% of reading Agange		Resolution	0.01 mg/L	
Range 0 to 1.60 mg/L (as Fe)		Accuracy @25°C (77°F)	±0.11 mg/L ±5% of reading	
Resolution 0.01 mg/L ±8% of reading Method Adaptation of the TPTZ method. Method Adaptation of the TPTZ method. Bandpass filter 525 m Cuvette type round 24.6 mm diameter (22 mm inside) Cuvette type round 24.6 mm diameter (22 mm inside) Auto logging 50 readings Display 128 x 64 pixel B/W LCD with backlight Auto-off after 15 minutes of inactivity (30 minutes before a READ measurement) Auto-off after 15 minutes of inactivity (30 minutes before a READ measurement) Environment 0 to 50°C (32 to 122°F; D to 100% Rt. non-serviceable Environment 0 to 50°C (32 to 122°F; D to 100% Rt. non-serviceable Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0°) Weight 380 g (13.4 oz) Ordering Information Hi97741 supplied with sample cuvetters (2), sample caps (2), plastic stoppers (2), 15V AA batteries (3), ristrument quality certificate, and instruction manual. Out the standards and testing reagents sold separately Hi97716 Includes photometer. CAL Check standards, sample cuvetters (2), sample caps (2), plastic stoppers (2), 15V AA batteries (3), scissors, cuvette wiping loth, CAL Check standard deritificate, instruction manual, and rigid carrying case. Hi97719-01 hardness reagents for 300 tests Hi997746-11 CAL Check standard cuvettes for inon Hi99746-11 CAL Check standard cuvettes for iron Hi99746-11 CAL Check standard cuvettes for iron Hi99746-11 (AL Check standard cuvettes for iron Hi99746-11 (AL Check standard cuvettes for iron		Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. colorimetric method	
Accuracy@25°C(77°F)	Iron, LR	Range	0 to 1.60 mg/L (as Fe)	
Accuracy @25°C (77°F)		Resolution	0.01 mg/L	
Light Source light emitting dlode		Accuracy @25°C (77°F)	±0.01 mg/L ±8% of reading	
Bandpass filter S25 nm		Method	Adaptation of the TPTZ method.	
Bandpass filter bandwidth Binm	Measurement System	Light Source	light emitting diode	
Bandpass filter wavelength accuracy ±1.0 nm		Bandpass filter	525 nm	
#1.0 nm wavelength accuracy Light Detector Silicon photocell Cuvette type round 24.6 mm diameter (22 mm inside) Auto logging Display Display 128 x 64 pixel B/W LCD with backlight Auto-off after 15 minutes of inactivity (30 minutes before a READ measurement) Additional Specifications Battery type / Life alkaline 1.5 V AA (3) / > 800 measurements (without backlight) Environment Oto 50°C (32 to 122°F); 0 to 100% RH, non-serviceable Dimensions 142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0") Weight 380 g (13.4 oz.) H197741 is supplied with sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), instrument quality certificate, and instruction manual. CAL Check standards and testing reagents sold separately H197741C includes photometer, CAL Check standards, sample cuvettes (2), sample caps (2), plastic stoppers (2), 1.5V AA batteries (3), scissors, cuvette winjing cloth, CAL Check standard certificate, instrument quality certificate, instruction manual, and rigid carrying case. Reagents and Standards H197741 H197746-11 CAL Check standard cuvettes for hardness H193719-01 hardness reagents for 100 tests H193719-03 hardness reagents for 300 tests H197746-11 CAL Check standard cuvettes for iron H193746-01 iron reagents for 50 tests		Bandpass filter bandwidth	8 nm	
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			HI97746-11 CAL Check standard cuvettes for iron	
HI93746-03 iron reagents for 150 tests			HI93746-01 iron reagents for 50 tests	
			HI93746-03 iron reagents for 150 tests	

HI97741 Total Hardness and Iron, LR



Specifications