



HI 96 Series

Single and Multiparameter Portable Photometers

**WE DESIGN, MANUFACTURE, SUPPLY AND SUPPORT
ALL OF OUR PRODUCTS.**

When you buy a HANNA product, you're not only buying the best value for your money, but you're also adding the benefit of HANNA's unsurpassed customer service and post-sale technical support. **That's 360° Value.**

**With great
products,
come great
results™**

 **HANNA®
instruments**
an ISO 9001:2000 CERTIFIED COMPANY

Single and Multiparameter Portable Photometers

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

HANNA's line of portable photometers includes instruments to measure ammonia, chlorine at several ranges, copper, anionic detergents, fluoride, iron, nitrite, phosphate, phosphorus, and more. This series features an advanced optical system and HANNA's exclusive CAL CHECK™ validation function. The advanced optical system is based on a special tungsten lamp/LED–Light Emitting Diode and a narrow band interference filter assuring accurate readings every time.

With the exclusive CAL CHECK™ validation function, users are able to verify the performance of the instrument at any time. Taking just a few short steps, the validation procedure is extremely user friendly and ensures that the meter is properly calibrated. Just use the exclusive HANNA ready-made, NIST traceable standards to verify the performance of the instrument and recalibrate as necessary. All instruments are factory calibrated and the electronic and optical design minimizes the need for frequent calibration.

The cuvette is made from special optical glass to obtain best results and an exclusive positive-locking system ensures that the cuvette is in the same position every time it is placed into the measurement cell. The cell is designed to fit a wide mouth cuvette making it easier to add both samples and reagents.

The reagents are in powder or liquid form and the amount of reagent is precisely dosed to ensure maximum repeatability.



HI 96 Series Kit

SOLUTIONS

HI 93703-50 Cuvette cleaning solution, 230 mL

ACCESSORIES

- HI 731318** Cuvette cleaning cloth (4)
- HI 731331** Measuring cuvettes (4)
- HI 731335** Cuvette caps (4)
- HI 740318** Carrying case for HI 96 series



CAL CHECK™ Validation

2-step validation procedure for proper calibration.

Zero the meter prior to validation...

Place the CAL CHECK™ Standard A into the cuvette holder and press ZERO/CFM. The lamp, cuvette and detector icons will appear on the display followed by "-0.0-". The meter is now zeroed and ready for validation.

... and compare accuracy against a known standard.

Place the CAL CHECK™ standard B into the cuvette holder and press CAL CHECK™. The lamp, cuvette and detector icons together with "CAL CHECK" will appear on the display. At the end of the measurement the display will show the validation standard value.

CAL CHECK™ Calibration

Calibrate your instrument quickly and easily.

Zero the meter prior to calibration...

Press and hold CAL CHECK™ for three seconds to enter calibration mode. Place the CAL CHECK™ Standard A into the cuvette holder and press ZERO/CFM. The lamp, cuvette and detector icons will appear on the display followed by "-0.0-". The meter is now zeroed and ready for calibration.

... and calibrate to a known standard.

Place the CAL CHECK™ Standard B into the cuvette holder. Press READ/▶ and the lamp, cuvette and detector icons will appear on the display. After measurement the instrument will show the CAL CHECK™ Standard value.

GENERAL SPECIFICATIONS

Power Supply	9V battery
Auto-off	after 10 minutes of non-use in measurement mode; after 1 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.)

Each CAL CHECK™ cuvette is clearly labeled with its respective measurement. Please read the full instruction manual before validation/calibration.

Single Parameter Portable Photometers



SPECIFICATIONS	HI 96712 Aluminum	HI 96700 Ammonia, Low Range	HI 96715 Ammonia, Medium Range
Range	0.00 to 1.00 mg/L (ppm)	0.00 to 3.00 mg/L (ppm) (as NH ₃ -N)	0.00 to 9.99 mg/L (ppm) (as NH ₃ -N)
Resolution	0.01 mg/L (ppm)	0.01 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.02 mg/L ±4% of reading	±0.04 mg/L ±4% of reading	±0.05 mg/L ±5% of reading
Light Source	tungsten lamp	tungsten lamp	light emitting diode
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 420 nm	silicon photocell with narrow band interference filter @ 466
Method	adaptation of the aluminon method	adaptation of the ASTM Manual of Water and Environmental Technology, D1426-92, Nessler method	



SPECIFICATIONS	HI 96733 Ammonia, High Range	HI 96769 Anionic Surfactants	HI 96716 Bromine
Range	0.0 to 50.0 mg/L (ppm) (as NH ₄ ⁺)	0.00 to 3.50 mg/L (ppm) as SDBS	0.00 to 10.00 mg/L (ppm)
Resolution	0.1 mg/L (ppm)	0.01 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.5 mg/L ±5% of reading	±0.04 mg/L ±3% of reading	±0.08 mg/L ± 3% of reading
Light Source	tungsten lamp	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 420 nm	silicon photocell with narrow band interference filter @ 610 nm	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the ASTM Manual of Water and Environmental Technology, D1426-92, Nessler method	adaptation of the USEPA method 425.1 and Standard Methods for the Examination of Water and Wastewater, 20th edition, 5540C, Anionic Surfactants as MBAS	adaptation of the Standard Methods for the Examination of Water and Wastewater, 20th edition, DPD method

ORDERING INFORMATION

HI 96712 Aluminum

HI 96712 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

HI 96712-11 CAL CHECK™ standard cuvettes

HI 93712-01 Reagents for 100 tests

HI 93712-03 Reagents for 300 tests

HI 96700 Ammonia, Low Range

HI 96700 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96700C includes photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96700-11 CAL CHECK™ standard cuvettes

HI 93700-01 Reagents for 100 tests (N-NH₃ LR)

HI 93700-03 Reagents for 300 tests (N-NH₃ LR)

HI 96715 Ammonia, Medium Range

HI 96715 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96715C includes photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96715-11 CAL CHECK™ standard cuvettes

HI 93715-01 Reagents for 100 tests (N-NH₃ MR)

HI 93715-03 Reagents for 300 tests (N-NH₃ MR)

HI 96733 Ammonia, High Range

HI 96733 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96733C includes photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96733-11 CAL CHECK™ standard cuvettes

HI 93733-01 Reagents for 100 tests (NH₄⁺ HR)

HI 93733-03 Reagents for 300 tests (NH₄⁺ HR)

HI 96769 Anionic Surfactants

HI 96769 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96769C includes HI 96769 photometer, sample cuvettes (2) with caps, 25 mL glass vial with cap, plastic pipettes (3), 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96769-11 CAL CHECK™ standard cuvettes

HI 93769-01 Reagent for 40 anionic surfactants tests

HI 96716 Bromine

HI 96716 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96716C includes HI 96716 photometer, sample cuvettes (2) and caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96716-11 CAL CHECK™ standard cuvettes

HI 93716-01 Reagents for 100 tests

HI 93716-03 Reagents for 300 tests

CAL CHECK™ standards and testing reagents sold separately



SPECIFICATIONS	HI 96753 Chloride	HI 96738 Chlorine Dioxide	HI 96701 Chlorine, Free
Range	0.0 to 20.0 mg/L (ppm)	0.00 to 2.00 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)
Resolution	0.1 mg/L (ppm)	0.01 mg/L (ppm)	0.01 mg/L from 0.00 to 3.50 mg/L (ppm); 0.10 mg/L above 3.50 mg/L (ppm)
Accuracy @ 25°C	±0.5 mg/L ±6% of reading	±0.10 mg/L ±5% of reading	±0.03 mg/L ±3% of reading
Light Source	light emitting diode	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 466 nm	silicon photocell with narrow band interference filter @ 575 nm	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the mercury (II) thiocyanate method	Chlorophenol Red method	adaptation of the USEPA method 330.5 and Standard Method 4500-Cl G



Chlorine is most notably used for producing safe drinking water. It is also extensively used in the production of paper products, dyestuffs, textiles, medicines, antiseptics, insecticides, food, solvents, paints, plastics, and many other consumer products.

SPECIFICATIONS	HI 96762 Chlorine, Free Low Range	HI 96771 Chlorine, Free and Ultra High Range
Range	0.000 to 0.500 mg/L (ppm)	Free (P1): 0.00 to 5.00 mg/L (ppm) UHR (P2): 0 to 500 mg/L (ppm)
Resolution	0.001 mg/L (ppm)	Free (P1): 0.01 mg/L from 0.00 to 3.50 mg/L (ppm); 0.10 mg/L above 3.50 mg/L (ppm) UHR (P2): 1 mg/L from 0 to 200 mg/L (ppm); 10 mg/L above 200 mg/L (ppm)
Accuracy @ 25°C	±0.020 mg/L ±3% of reading	Free (P1): ±0.03 mg/L ±3% of reading UHR (P2): ±3 mg/L ±3% of reading
Light Source	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 466 nm
Method	adaptation of the USEPA method 330.5 and Standard Method 4500-Cl G	adaptation of Standard Methods for the Examination of Water and Wastewater, 20th edition, 4500-Cl

ORDERING INFORMATION

HI 96753 Chloride

HI 96753 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96753C includes HI 96753 photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96753-11 CAL CHECK™ standard cuvettes
- HI 93753-01 Reagents for 100 tests
- HI 93753-03 Reagents for 300 tests

HI 96738 Chlorine Dioxide

HI 96738 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96738C includes HI 96738 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96738-11 CAL CHECK™ standard cuvettes
- HI 93738-01 Reagents for 100 tests
- HI 93738-03 Reagents for 300 tests

HI 96701 Chlorine, Free

HI 96701 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96701C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96701-11 CAL CHECK™ Standard Cuvettes
- HI 93701-01 Reagents for 100 tests
- HI 93701-03 Reagents for 300 tests

HI 96762 Chlorine, Free

HI 96762 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96762C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96762-11 CAL CHECK™ Standard Cuvettes
- HI 95762-01 Reagents for 100 tests
- HI 95762-03 Reagents for 300 tests

HI 96771 Chlorine, Free and Ultra High Range

HI 96771 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96771C includes HI 96771 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 95771-11 CAL CHECK™ Standard Cuvettes
- HI 93701-01 Reagents for 100 tests
- HI 93701-03 Reagents for 300 tests
- HI 95771-01 Reagents for 100 tests
- HI 95771-03 Reagents for 300 tests



CAL CHECK™ standards and testing reagents sold separately



SPECIFICATIONS	HI 96711 Chlorine, Free and Total	HI 96761 Chlorine, Total Low Range	HI 96723 Chromium VI High Range
Range	0.00 to 5.00 mg/L (ppm)	0.000 to 0.500 mg/L (ppm)	0 to 1000 µg/L (ppb)
Resolution	0.01 mg/L from 0.00 to 3.50 mg/L (ppm); 0.10 mg/L above 3.50 mg/L (ppm)	0.001 mg/L (ppm)	1 µg/L (ppb)
Accuracy @ 25°C	±0.03 mg/L ±3% of reading	±0.020 mg/L ±3% of reading	±5 mg/L ±4% of reading
Light Source	tungsten lamp		tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm		silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the USEPA method 330.5 and Standard Method 4500-Cl G		adaptation of the ASTM Manual of Water and Environmental Technology, D1687-92, diphenylcarbohydride method. The reaction between Cr VI and reagents causes a purple tint in the sample



SPECIFICATIONS	HI 96749 Chromium VI Low Range	HI 96727 Color of Water	HI 96747 Copper, Low Range
Range	0 to 300 µg/L (ppb)	0 to 500 PCU (Platinum Cobalt Units)	0.000 to 1.500 mg/L (ppm)
Resolution	1 µg/L (ppb)	10 PCU	0.001 mg/L (ppm)
Accuracy @ 25°C	±1 mg/L ±4% of reading	±10 PCU ±5% of reading	±0.010 mg/L ±5% of reading
Light Source	tungsten lamp	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 420 nm	silicon photocell with narrow band interference filter @ 560 nm
Method	adaptation of the ASTM Manual of Water and Environmental Technology, D1687-92, diphenylcarbohydride method. The reaction between Cr VI and reagents causes a purple tint in the sample	Colorimetric Platinum Cobalt method	adaptation of the USEPA approved bichinonate method

ORDERING INFORMATION

HI 96711 Chlorine, Free and Total

HI 96711 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96711C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 95701-11 CAL CHECK™ standard cuvettes
- HI 93701-01 Reagents for 100 tests
- HI 93701-03 Reagents for 300 tests
- HI 96711-11 CAL CHECK™ standard cuvettes
- HI 93711-01 Reagents for 100 tests
- HI 93711-03 Reagents for 300 tests

HI 96761 Chlorine, Total Low Range

HI 96761 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96761C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96761-11 CAL CHECK™ Standard cuvettes
- HI 95761-01 Reagents for 100 tests
- HI 95761-03 Reagents for 300 tests

HI 96723 Chromium VI High Range

HI 96723 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96723-11 CAL CHECK™ standard cuvettes
- HI 93723-01 Reagents for 100 tests
- HI 93723-03 Reagents for 300 tests

HI 96749 Chromium VI Low Range

HI 96749 are supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96749-11 CAL CHECK™ standard cuvettes
- HI 93749-01 Reagents for 100 tests
- HI 93749-03 Reagents for 300 tests

HI 96727 Color of Water

HI 96727 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96727-11 CAL CHECK™ standard cuvettes 0.45 nm membrane for true color measurement

HI 96747 Copper, Low Range

HI 96747 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96747C include photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96747-11 CAL CHECK™ standard cuvettes
- HI 95747-01 Reagents for 100 tests
- HI 95747-03 Reagents for 300 tests



SPECIFICATIONS	HI 96702 Copper, High Range	HI 96714 Cyanide	HI 96722 Cyanuric Acid
Range	0.00 to 5.00 mg/L (ppm)	0.000 to 0.200 mg/L (ppm)	0 to 80 mg/L (ppm)
Resolution	0.01 mg/L (ppm)	0.001 mg/L (ppm)	1 mg/L (ppm)
Accuracy @ 25°C	±0.02 mg/L ± 4% of reading	±0.005 mg/L ±3% of reading	±1 mg/L ±15% of reading
Light Source	tungsten lamp	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 575 nm	silicon photocell with narrow band interference filter @ 610 nm	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the USEPA approved bicinchoninate method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, Pyridine-Pyrazolone method	adaptation of the turbidimetric method



Fluoride is best known for preventing tooth decay. Water authorities often add fluoride to drinking water to maintain approximately a 1.0 mg/L (ppm) concentration. Fluoride can be found naturally in ground water, particularly if a reservoir is in the proximity of draws of sea water. While fluoride does help prevent tooth decay, too little can be ineffective and too much can cause staining.



SPECIFICATIONS	HI 96729 Fluoride, Low Range	HI 96739 Fluoride, High Range	HI 96720 Ca Hardness
Range	0.00 to 2.00 mg/L (ppm)	0.0 to 20.0 mg/L (ppm)	0.00 to 2.70 mg/L (ppm)
Resolution	0.01 mg/L (ppm)	0.1 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.03 mg/L ±3% of reading	±0.5 mg/L ±3% of reading	±0.11 mg/L ±5% of reading
Light Source	tungsten lamp		tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 575 nm		silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the EPA method 340.1 and Standard Methods for the Examination of Water and Wastewater, 20th edition, SPADNS method	adaptation of the SPADNS method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. Calmagite method

ORDERING INFORMATION

HI 96702 Copper, High Range

HI 96702 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96702C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96702-11 CAL CHECK™ standard cuvettes
- HI 93702-01 Reagents for 100 tests
- HI 93702-03 Reagents for 300 tests

HI 96714 Cyanide

HI 96714 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96714-11 CAL CHECK™ standard cuvettes
- HI 93714-01 Reagents for 100 tests
- HI 93714-03 Reagents for 300 tests

HI 96722 Cyanuric Acid

HI 96722 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96722-11 CAL CHECK™ standard cuvettes
- HI 93722-01 Reagents for 100 tests
- HI 93722-03 Reagents for 300 tests

HI 96729 Fluoride, Low Range

HI 96729 is supplied sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96729C includes photometer, sample cuvettes (2) with caps, 2000 µL automatic pipette with instruction sheet, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS, STANDARDS AND ACCESSORIES

- HI 93703-53 Reagent for reducing chlorine concentration
- HI 96729-11 CAL CHECK™ standard cuvettes
- HI 93729-01 Reagents for 100 tests
- HI 93729-03 Reagents for 300 tests

HI 96739 Fluoride, High Range

HI 96739 is supplied sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96739C includes photometer, sample cuvettes (2) with caps, 2000 µL automatic pipette with instruction sheet,

9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS, STANDARDS AND ACCESSORIES

- HI 93703-53 Reagent for reducing chlorine concentration
- HI 96739-11 CAL CHECK™ standard cuvettes
- HI 93739-01 Reagents for 100 tests
- HI 93739-03 Reagents for 300 tests

HI 96720 Ca Hardness

HI 96720 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96720C includes photometer, sample cuvettes (2) with caps, 9V battery, 1 mL syringe with tip, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96720-11 CAL CHECK™ standard cuvettes
- HI 93720-01 Reagents for 100 tests
- HI 93720-03 Reagents for 300 tests



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.

SPECIFICATIONS	HI 96719 Mg Hardness	HI 96735 Hardness, Total		
Range	0.00 to 2.00 mg/L (ppm)	LR (P1): 0 to 250 mg/L (ppm)	MR (P2): 200 to 500 mg/L (ppm)	HR (P3): 400 to 750 mg/L (ppm)
Resolution	0.01 mg/L (ppm)	LR (P1): 1 mg/L from 0 to 100 mg/L, 5 mg/L from 100 to 750 mg/L	MR (P2): 5 mg/L	HR (P3): 5 mg/L
Accuracy @ 25°C	±0.11 mg/L ±5% of reading	LR (P1): ±5 mg/L ±4% of reading	MR (P2): ±7 mg/L ±3% of reading	HR (P3): ±10 mg/L ±2% of reading
Light Source	tungsten lamp	light emitting diode		
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 466		
Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed. EDTA colorimetric method	adaptation of the EPA recommended method 130.1		



SPECIFICATIONS	HI 96704 Hydrazine	HI 96718 Iodine	HI 96746 Iron, Low Range
Range	0 to 400 µg/L (ppb)	0.0 to 12.5 mg/L (ppm)	0.00 to 1.60 mg/L (ppm)
Resolution	1 µg/L (ppb)	0.1 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±3% of full scale	±0.1 mg/L ±5% of reading	±0.01 mg/L ±8% of reading
Light Source	light emitting diode	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 466 nm	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the ASTM Manual of Water and Environmental Technology, method D1385-88 for natural and treated water	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th edition, DPD method	adaptation of the TPTZ method

ORDERING INFORMATION

HI 96719 Mg Hardness

HI 96719 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96719C includes photometer, sample cuvettes (2) with caps, 9V battery, 1 mL syringe with tip, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96719-11 CAL CHECK™ standard cuvettes

HI 93719-01 Reagents for 100 tests

HI 93719-03 Reagents for 300 tests

HI 96735 Hardness, Total

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

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)

HI 96704 Hydrazine

HI 96704 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96704C includes HI 96704 photometer, sample cuvettes (2) with caps, 9V battery, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96704-11 CAL CHECK™ standard cuvettes

HI 93704-01 Reagents for 100 tests

HI 93704-03 Reagents for 300 tests

HI 96718 Iodine

HI 96718 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96718C includes HI 96718 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96718-11 CAL CHECK™ standard cuvettes

HI 93718-01 Reagents for 100 tests

HI 93718-03 Reagents for 300 tests

HI 96746 Iron, Low Range

HI 96746 is supplied with sample cuvettes (2) with caps, 9V battery and instructions.

HI 96746C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

HI 96746-11 CAL CHECK™ standard cuvettes

HI 93746-01 Powder reagents for 100 tests

HI 93746-03 Powder reagents for 300 tests



Cuvette cleaning solution, cuvette cleaning cloth and measuring cuvettes

CAL CHECK™ standards and testing reagents sold separately



Manganese salts are also used in iron alloys (steel manufacturing) and non-iron alloys as it improves their corrosion resistance and hardness.

SPECIFICATIONS	HI 96721 Iron, High Range	HI 96748 Manganese, Low Range	HI 96709 Manganese, High Range
Range	0.00 to 5.00 mg/L (ppm)	0 to 300 µg/L	0.0 to 20.0 mg/L
Resolution	0.01 mg/L (ppm)	1 µg/L	0.1 mg/L
Accuracy @ 25°C	±0.04 mg/L ±2% of reading	±10 µg/L ±3% of reading	±0.2 mg/L ±3% of reading
Light Source	tungsten lamp		tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm		silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the USEPA method 315B and Standard Method 3500-Fe B	adaptation of the 1-(2-pyridylazo)-2-naphtol PAN method	adaptation of Standard Methods for the Examination of Water and Wastewater, 18th edition, Periodate method



SPECIFICATIONS	HI 96730 Molybdenum	HI 96740 Nickel, Low Range	HI 96726 Nickel, High Range
Range	0.0 to 40.0 mg/L (ppm)	0.000 to 1.000 mg/L (ppm)	0.00 to 7.00 g/L
Resolution	0.1 mg/L	0.001 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.3 mg/L ±5% of reading	±0.010 mg/L ±7% of reading	±0.07 mg/L ±4% of reading
Light Source	tungsten lamp		tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 420 nm		silicon photocell with narrow band interference filter @ 575 nm
Method	adaptation of the mercaptacetic acid method	adaptation of the PAN method	adaptation of the photometric method

ORDERING INFORMATION

HI 96721 Iron, High Range

HI 96721 is supplied with sample cuvettes (2) with caps, 9V battery and instructions.

HI 96721C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96721-11 CAL CHECK™ standard cuvettes
- HI 93721-01 Reagents for 100 tests
- HI 93721-03 Reagents for 300 tests

HI 96748 Manganese, Low Range

HI 96748 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96748-11 CAL CHECK™ standard cuvettes
- HI 93748-01 Reagents for 50 tests
- HI 93748-03 Reagents for 150 tests

HI 96709 Manganese, High Range

HI 96709 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96709C includes HI 96709 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96709-11 CAL CHECK™ standard cuvettes
- HI 93709-01 Reagents for 100 tests
- HI 93709-03 Reagents for 300 tests

HI 96730 Molybdenum

HI 96730 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96730-11 CAL CHECK™ standard cuvettes
- HI 93730-01 Reagents for 100 tests
- HI 93730-03 Reagents for 300 tests

HI 96740 Nickel, Low Range

HI 96740 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96740C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96740-11 CAL CHECK™ standard cuvettes
- HI 93740-01 Reagents for 100 tests
- HI 93740-03 Reagents for 300 tests

HI 96726 Nickel, High Range

HI 96726 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96726C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96726-11 CAL CHECK™ standard cuvettes
- HI 93726-01 Reagents for 100 tests
- HI 93726-03 Reagents for 300 tests



SPECIFICATIONS	HI 96728 Nitrate (as nitrogen)	HI 96786 Nitrate	HI 96707 Nitrite, Low Range	HI 96708 Nitrite, High Range
Range	0.0 to 30.0 mg/L (ppm)	0.0 to 100 mg/L	0.000 to 0.600 mg/L (ppm)	0 to 150 mg/L (ppm)
Resolution	0.1 mg/L (ppm)	1 mg/L	0.001 mg/L (ppm)	1 mg/L (ppm)
Accuracy @ 25°C	±0.5 mg/L ±10% of reading	±5 mg/L ±5% of reading	±0.020 mg/L ±4% of reading	±4 mg/L ±4% of reading
Light Source	tungsten lamp		tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm		silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 575 nm
Method	adaptation of cadmium reaction method		adaptation of an EPA approved method	adaptation of the Ferrous Sulfate method



SPECIFICATIONS	HI 96732 Oxygen, Dissolved	HI 96713 Phosphate, Low Range	HI 96717 Phosphate, High Range	HI 96706 Phosphorus
Range	0.0 to 10.0 mg/L (ppm)	0.00 to 2.50 mg/L (ppm)	0.0 to 30.0 mg/L (ppm)	0.0 to 15.0 mg/L (ppm)
Resolution	0.1 mg/L (ppm)	0.01 mg/L (ppm)	0.1 mg/L (ppm)	0.1 mg/L (ppm)
Accuracy @ 25°C	±0.2 mg/L ±3% of reading	±0.04 mg/L ±4% of reading	±1.0 mg/L ±4% of reading	±0.3 mg/L ±4% of reading
Light Source	light emitting diode	tungsten lamp	tungsten lamp	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 466 nm	silicon photocell with narrow band interference filter @ 610 nm	silicon photocell with narrow band interference filter @ 525 nm	silicon photocell with narrow band interference filter @ 525 nm
Method	modified Winkler method	adaptation of the ascorbic acid method	Amino Acid Method, adapted from Standard Method for the Examination of Water and Wastewater	Amino Acid Method, adapted from Standard Method for the Examination of Water and Wastewater

ORDERING INFORMATION

HI 96728 Nitrate (as Nitrogen)

HI 96728 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96728C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96728-11 CAL CHECK™ standard cuvettes
- HI 93728-01 Reagents for 100 tests
- HI 93728-03 Reagents for 300 tests

HI 96786 Nitrate

HI 96786 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96786C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96786-11 CAL CHECK™ standard cuvettes
- HI 93728-01 Reagents for 100 tests
- HI 93728-03 Reagents for 300 tests

HI 96707 Nitrite, Low Range

HI 96707 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96707C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96707-11 CAL CHECK™ standard cuvettes
- HI 93707-01 Powder reagents for 100 tests
- HI 93707-03 Powder reagents for 300 tests

HI 96708 Nitrite, Low Range

HI 96708 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96708C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96708-11 CAL CHECK™ standard cuvettes
- HI 93708-01 Powder reagents for 100 tests
- HI 93708-03 Powder reagents for 300 tests

HI 96732 Oxygen, Dissolved

HI 96732 is supplied with sample cuvettes (2) with caps, 60 mL glass bottle with stopper, 9V battery and instruction manual

REAGENTS AND STANDARDS

- HI 96732-11 CAL CHECK™ standard cuvettes
- HI 93732-01 Reagents for 100 tests
- HI 93732-03 Reagents for 300 tests

HI 96713 Phosphate, Low Range

HI 96713 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96713C includes photometer, sample cuvettes (2) with

caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96713-11 CAL CHECK™ standard cuvettes
- HI 93713-01 Reagents for 100 tests
- HI 93713-03 Reagents for 300 tests

HI 96717 Phosphate, High Range

HI 96717 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96717C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96717-11 CAL CHECK™ standard cuvettes
- HI 93717-01 Reagents for 100 tests
- HI 93717-03 Reagents for 300 tests

HI 96706 Phosphorus

HI 96706 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual

HI 96706C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96706-11 CAL CHECK™ standard cuvettes
- HI 93706-01 Reagents for 100 tests
- HI 93706-03 Reagents for 300 tests



SPECIFICATIONS	HI 96750 Potassium	HI 96705 Silica	HI 96770 Silica, High Range
Range	0.0 to 10.0 mg/L (ppm) 10 to 100 mg/L (ppm)	0.00 to 2.00 mg/L (ppm)	0 to 200 mg/L (as SiO ₂)
Resolution	0.1 mg/L (ppm) 1 mg/L (ppm)	0.01 mg/L (ppm)	1 mg/L
Accuracy @ 25°C	±1.5 mg/L ±7% of reading ±15 mg/L ±7% of reading	±0.03 mg/L ±3% of reading	±1 mg/L ±5% of reading
Light Source	light emitting diode	tungsten lamp	light emitting diode
Light Detector	silicon photocell with narrow band interference filter @ 466 nm	silicon photocell with narrow band interference filter @ 610 nm	silicon photocell with narrow band interference filter @ 466 nm
Method	Tetraphenylborate method	adaptation of the ASTM D859 method of heteropoly blue method	adaptation of the USEPA METHOD 370.1 for drinking, surface and saline waters, domestic and industrial wastes and Standard Method 4500-SiO ₂ C



SPECIFICATIONS	HI 96737 Silver	HI 96751 Sulfate	HI 96731 Zinc
Range	0.000 to 1.000 mg/L (ppm)	0 to 150 mg/L (ppm)	0.00 to 3.00 mg/L (ppm)
Resolution	0.001 mg/L (ppm)	1 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.005 mg/L ±10% of reading	±1 mg/L ±5% of reading	±0.03 mg/L ±3% of reading
Light Source	tungsten lamp	light emitting diode	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 575 nm	silicon photocell with narrow band interference filter @ 466 nm	silicon photocell with narrow band interference filter @ 575 nm
Method	adaptation of the PAN method	adaptation of the turbidimetric method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 20th edition, Zincon method

ORDERING INFORMATION

HI 96750 Potassium

HI 96750 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96750C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96750-11 CAL CHECK™ standard cuvettes
- HI 93750-01 Reagents for 100 tests
- HI 93750-03 Reagents for 300 tests

HI 96705 Silica

HI 96705 is supplied with sample cuvettes (2) with caps, 9V battery and instructions.

HI 96705C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96705-11 CAL CHECK™ standard cuvettes
- HI 93705-01 Reagents for 100 tests
- HI 93705-03 Reagents for 300 tests

HI 96770 Silica, High Range

HI 96770 is supplied with sample cuvettes (2) with caps, 9V battery and instructions.

HI 96770C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96770-11 CAL CHECK™ standard cuvettes
- HI 96770-01 Reagents for 100 tests
- HI 96770-03 Reagents for 300 tests

HI 96737 Silver

HI 96737 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96737-11 CAL CHECK™ standard cuvettes
- HI 93737-01 Reagents for 50 tests
- HI 93737-03 Reagents for 150 tests

HI 96751 Sulfate

HI 96751 is supplied with sample cuvettes with caps (2), 9V battery and instructions.

HI 96751C includes photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 96751-11 CAL CHECK™ standard cuvettes
- HI 93751-01 Reagents for 100 tests
- HI 93751-03 Reagents for 300 tests

HI 96731 Zinc

HI 96731 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

REAGENTS AND STANDARDS

- HI 96731-11 CAL CHECK™ standard cuvettes
- HI 93731-01 Reagents for 100 tests
- HI 93731-03 Reagents for 300 tests

Multiparameter Portable Photometers

HI 96101

Bromine, Chlorine, Cyanuric Acid, Iron Iodine and pH Portable Photometer



The HI 96101 measures Bromine, Free and Total Chlorine, Cyanuric Acid, Iron, Iodine and pH content in water and wastewater samples. The reagents are in powder and liquid form depending on the parameter and they are supplied in dropper bottles and packets.

The meter uses an exclusive positive-locking system to ensure that the cuvette is in the same place every time it is placed into the measurement cell.

The cuvette has a very important role because it is an optical element and thus requires particular attention. It is important that both the measurement and calibration (zeroing) cuvettes are optically identical to provide the same measuring conditions.

SPECIFICATIONS	HI 96101 Bromine, Chlorine, Cyanuric Acid, Iodine, Iron LR and pH						
	(P1) pH	(P2) Chlorine, Free	(P3) Chlorine, Total	(P4) Cyanuric Acid	(P5) Iodine	(P6) Bromine	(P7) Iron, Low Range
Range	6.5 to 8.5 pH	0.00 to 5.00 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)	0 to 80 mg/L (ppm)	0.0 to 12.5 mg/L (ppm)	0.00 to 10.00 mg/L (ppm)	0.00 to 1.60 mg/L (ppm)
Resolution	0.1 pH	0.01 mg/L under 3.50 mg/L; 0.10 mg/L above 3.50 mg/L		1 mg/L (ppm)	0.1 mg/L (ppm)	0.01 mg/L (ppm)	0.01 mg/L
Accuracy @ 25°C	±0.1 pH	±0.03 mg/L ±3% of reading		±1 mg/L ±15% of reading	±0.1 mg/L ±5% of reading	±0.08 mg/L ±3% of reading	±0.01 mg/L ±8% of reading
Light Source	tungsten lamp						
Light Detector	Silicon photocell with narrow band interference filter @ 525 nm						
Method	Phenol Red method	Adaptation of the USEPA method and Standard Method 4500-Cl G		adaptation of the turbidimetric method	adaptation of the EPA, DPD method	adaptation of the EPA, DPD method	adaptation of the TPTZ method

ORDERING INFORMATION

HI 96101 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96101C includes HI 96101 photometer, sample cuvettes (2) with caps, scissors, cuvette cleaning cloth, 9V battery, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

pH

HI 96710-11 CAL CHECK™ standard cuvettes

HI 93710-01 Reagents for 100* tests

Cl, Free

HI 96701-11 CAL CHECK™ standard cuvettes

HI 93701-01 Reagents for 100* tests

Cl, Total

HI 96711-11 CAL CHECK™ standard cuvettes

HI 93711-01 Reagents for 100* tests

Cyanuric Acid

HI 96722-11 CAL CHECK™ standard cuvettes

HI 93722-01 Reagents for 100* tests

Iodine

HI 96718-11 CAL CHECK™ standard cuvettes

HI 93718-01 Reagents for 100* tests

Bromine

HI 96716-11 CAL CHECK™ standard cuvettes

HI 93716-01 Reagents for 100* tests

Iron

HI 96746-11 CAL CHECK™ standard cuvettes

HI 93746-01 Reagents for 50 tests

*Reagents for 300 tests also available

HI 96104

pH, Free and Total Chlorine & Cyanuric Acid Portable Photometer



Chlorine is the most common water disinfectant used in many swimming pools and spas.

In swimming pools, spas and similar applications, Cyanuric Acid helps to stabilize the breakdown of chlorine, especially in sunlight. Frequent testing of both cyanuric acid and pH will help to minimize chlorine consumption.

SPECIFICATIONS	HI 96104 Chlorine, Cyanuric Acid and pH			
	pH (P1)	Cl, Free (P2)	Cl, Total (P3)	Cyanuric Acid (P4)
Range	6.5 to 8.5 pH	0.00 to 5.00 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)	0 to 80 mg/L (ppm)
Resolution	0.1 pH	0.01 mg/L (ppm)	0.01 mg/L (ppm)	1 mg/L (ppm)
Accuracy @ 25°C	±0.1 pH	±0.03 mg/L (ppm) ±3% of reading	±0.03 mg/L (ppm) ±3% of reading	±1 mg/L (ppm) ±15% of reading
Light Source	tungsten lamp			
Light Detector	silicon photocell with narrow band interference filter @ 525 nm			
Method	phenol red method	adaptation of the EPA recommended DPD method 330.5		adaptation of the Turbidimetric method

HI 96104 ORDERING INFORMATION

HI 96104 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual. HI 96104C includes HI 96104 photometer, sample cuvettes (2) with caps, scissors, cuvette cleaning cloth, 9V battery, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

Cl, Free		pH	
HI 96701-11	CAL CHECK™ standard cuvettes	HI 96710-11	CAL CHECK™ standard cuvettes
HI 93701-01	Reagents for 100 tests	HI 93710-01	Reagents for 100 tests
HI 93701-03	Reagents for 300 tests	HI 93710-03	Reagents for 300 tests
Cl, Total		Cyanuric Acid	
HI 96711-11	CAL CHECK™ standard cuvettes	HI 96722-11	CAL CHECK™ standard cuvettes
HI 93711-01	Reagents for 100 tests	HI 93722-01	Reagents for 100 tests
HI 93711-03	Reagents for 300 tests	HI 93722-03	Reagents for 300 tests

HI 96710

Free and Total Chlorine and pH Portable Photometer



HANNA has developed the HI 96710 to measure pH, free chlorine and total chlorine – three critical parameters to ensure good water quality.

HI 96710 Free and Total Chlorine and pH		
(P1) pH	(P2) Chlorine, Free	(P3) Chlorine, Total
6.5 to 8.5 pH	0.00 to 5.00 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)
0.1 pH	0.01 mg/L (ppm)	0.01 mg/L (ppm)
±0.1 pH	±0.03 mg/L (ppm) ±3% of reading	±0.03 mg/L (ppm) ±3% of reading
tungsten lamp		
silicon photocell with narrow band interference filter @ 525 nm		
phenol red	adaptation of the EPA recommended DPD method 330.5	

HI 96710 ORDERING INFORMATION

HI 96710 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual. HI 96710C includes HI 96710 photometer, sample cuvettes (2) with caps, scissors, cuvette cleaning cloth, 9V battery, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

Cl, Free		pH	
HI 96701-11	CAL CHECK™ standard cuvettes	HI 96710-11	CAL CHECK™ standard cuvettes
HI 93701-01	Powder reagents for 100 tests	HI 93710-01	Reagents for 100 tests
HI 93701-03	Powder reagents for 300 tests	HI 93710-03	Reagents for 300 tests
Cl, Total			
HI 96711-11	CAL CHECK™ standard cuvettes		
HI 93711-01	Reagents for 100 tests		
HI 93711-03	Reagents for 300 tests		

HI 96724

Free and Total Chlorine Portable Photometer



This photometer has been designed to be used with liquid reagents. Free and total chlorine parameters can be switched between depending on procedure and reagents.

HI 96734

Free and Total Chlorine, High Range Portable Photometer



HI 96734 permits free and total chlorine analysis to monitor overchlorination through chloramine destruction.

HI 96736

Total Hardness and pH Portable Photometer



HI 96736 is a multiparameter portable photometer that measures total hardness and pH.

SPECIFICATIONS	HI 96724 Free and Total Chlorine	
	Range	0.00 to 5.00 mg/L (ppm)
Resolution	0.01 mg/L from 0.00 to 3.50 mg/L (ppm); 0.10 mg/L above 3.50 mg/L	
Accuracy @ 25°C	±0.03 mg/L ±3% of reading	
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 525 nm	
Method	adaptation of the USEPA method 330.5 and Standard Method 4500-Cl G	

HI 96724 ORDERING INFORMATION

HI 96724 is supplied with sample cuvettes (2) with caps, 9V battery and instruction manual.

HI 96724C includes HI 96724 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 93701-F Reagents for 300 tests
- HI 93701-T Reagents for 300 tests; free and 100 tests total chlorine
- HI 93711-D3 DPD3 reagent for 200 tests
- HI 96724-11 CAL CHECK™ Standard Cuvettes

HI 96734 Free and Total Chlorine, High Range	
(P1) Chlorine, Free High Range	(P2) Chlorine, Total High Range
Range	0.00 to 10.00 mg/L
Resolution	0.01 mg/L from 0.00 to 3.50 mg/L; 0.10 mg/L above mg/L
Accuracy @ 25°C	±0.03 mg/L ±3% of reading (excluding dilution error)
Light Source	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the USEPA method 330.5 and Standard method 4500-CL G

HI 96734 ORDERING INFORMATION

HI 96734 is supplied with sample cuvettes (2) with caps, 9V battery and instructions.

HI 96734C includes HI 96734 photometer, sample cuvettes (2) with caps, 9V battery, scissors, cuvette cleaning cloth, instrument quality certificate, instruction manual and rigid carrying case.

REAGENTS AND STANDARDS

- HI 93734-01 Reagents for 100 Tests
- HI 93734-03 Reagents for 300 Tests
- HI 96734-11 CAL CHECK™ standard cuvettes

HI 96736 Total Hardness and pH	
(P1) Total Hardness	(P2) pH
Range	0.00 to 4.70 mg/L (ppm)
Resolution	0.01 mg/L (ppm)
Accuracy @ 25°C	±0.11 mg/L ±5% of reading
Light Source	tungsten lamp
Light Detector	silicon photocell with narrow band interference filter @ 525 nm
Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, colorimetric method
	phenol red method

HI 96736 ORDERING INFORMATION

HI 96736 is supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

- pH**
- HI 96710-11 CAL CHECK™ standard cuvettes
- HI 93710-01 Reagents for 100 tests
- HI 93710-03 Reagents for 300 tests
- Total Hardness**
- HI 96719-11 CAL CHECK™ standard cuvettes
- HI 93719-01 Reagents for 100 tests
- HI 93719-03 Reagents for 300 tests

HI 96741

Total Hardness and Iron, Low Range Portable Photometer



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

Hardness is a consequence of the type of rock layers which the water passes through and of its permanence in the water bearing stratum.

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.

HI 96741 can provide critical measurements of low range iron and total hardness (magnesium and calcium).

SPECIFICATIONS	HI 96741 Total Hardness and Iron, Low Range	
	(P1) Total Hardness	(P2) Iron, Low Range
Range	0.00 to 4.70 mg/L (ppm)	0 to 1.60 mg/L (ppm)
Resolution	0.01 mg/L (ppm)	0.01 mg/L (ppm)
Accuracy @ 25°C	±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	
Method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th ed.	adaptation of TPTZ method

HI 96741 ORDERING INFORMATION

HI 96741 is supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

Total Hardness	Iron, Low Range
HI 96719-11 CAL CHECK™ standard cuvettes	HI 96746-11 CAL CHECK™ standard cuvettes
HI 93719-01 Reagents for 100 tests	HI 93746-01 Reagents for 50 tests
HI 93719-03 Reagents for 300 tests	HI 93746-03 Reagents for 150 tests

HI 96742

Iron, Low Range and Manganese Low Range Portable Photometer



Neither iron nor manganese are considered dangerous, but high concentrations of these metals in water can create a bittersweet or astringent taste.

The presence of iron in supplied water is undesirable due to the staining effect on laundry and porcelain.

Manganese, in high concentrations, can produce corrosion and scaling in pipes, which is a serious industrial concern.

HI 96742 Iron, Low Range and Manganese	
(P1) Iron, Low Range	(P2) Manganese, Low Range
0 to 1.60 mg/L (ppm)	0 to 300 µg/L
0.01 mg/L (ppm)	1 µg/L
±0.01 mg/L ±8% of reading	±2 µg/L ±3% of reading
tungsten lamp	
silicon photocell with narrow band interference filter @ 525 nm	
adaptation of TPTZ method	adaptation of the 1-(2-pyridylazo)-2-naphthol PAN method

HI 96742 ORDERING INFORMATION

HI 96742 are supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

Iron, Low Range	Manganese, Low Range
HI 96746-11 CAL CHECK™ standard cuvettes	HI 96748-11 CAL CHECK™ standard cuvettes
HI 93746-01 Reagents for 100 Tests	HI 93748-01 Reagents for 100 Tests
HI 93746-03 Reagents for 300 Tests	HI 93748-03 Reagents for 300 Tests

HI 96743

Iron LR and pH Portable Photometer



pH is normally measured using litmus paper or a pH meter with an electrode. Litmus paper provides poor results and also poses a serious problem to those who find it difficult to distinguish certain colors. Conventional pH meters, however, provide very accurate results but require electrode maintenance and do not measure iron, a prime cause of unpleasant taste in drinking water and kitchenware and laundry damage.

The best choice for pH and Iron measurement is the HI 96743. Measurements with the HI 96743 can be performed in a few short steps and are impervious to temperature variations, a common source of error with conventional pH meters.

SPECIFICATIONS	HI 96743 Iron, Low Range and pH	
	(P1) Iron, Low Range	(P2) pH
Range	0 to 1.60 mg/L (ppm)	6.5 to 8.5 pH
Resolution	0.01 mg/L (ppm)	0.1 pH
Accuracy @ 25°C	±0.01 mg/L ±8% of reading	±0.1 pH
Light Source	0 to 1.60 mg/L (ppm)	
Light Detector	0.01 mg/L (ppm)	
Method	adaptation of TPTZ method	phenol red method

HI 96743 ORDERING INFORMATION

HI 96743 is supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

pH		Iron, Low Range	
HI 96710-11	CAL CHECK™ standard cuvettes	HI 96746-11	CAL CHECK™ standard cuvettes
HI 93710-01	Reagents for 100 tests	HI 93746-01	Reagents for 50 tests
HI 93710-03	Reagents for 300 tests	HI 93746-03	Reagents for 150 tests

HI 96744

Total Hardness, Iron LR and pH Portable Photometer



Three important parameters measured with just one meter! The easy-to-use HI 96744 can replace several meters or test kits to practically perform the same tests with better accuracy.

HI 96744 Total Hardness, Iron LR and pH		
(P1) pH	(P2) Total Hardness	(P3) Iron, Low Range
6.5 to 8.5 pH	0.00 to 4.70 mg/L (ppm)	0 to 1.60 mg/L (ppm)
0.1 pH	0.01 mg/L (ppm)	0.01 mg/L (ppm)
±0.1 pH	±0.11 mg/L ±5% of reading	±0.01 mg/L ±8% of reading
tungsten lamp		
silicon photocell with narrow band interference filter @ 525 nm		
phenol red method	adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, colorimetric method	adaptation of TPTZ method

HI 96744 ORDERING INFORMATION

HI 96744 are supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

pH		Iron, Low Range	
HI 96710-11	CAL CHECK™ standard cuvettes	HI 93719-01	Reagents for 100 tests
HI 93710-01	Reagents for 100 tests	HI 93719-03	Reagents for 300 tests
HI 93710-03	Reagents for 300 tests	HI 96746-11	CAL CHECK™ standard cuvettes
Total Hardness		HI 93746-01	Reagents for 50 tests
HI 96719-11	CAL CHECK™ standard cuvettes	HI 93746-03	Reagents for 150 tests

HI 96752

Calcium and Magnesium Portable Photometer



HI 96745

Chlorine, Total Hardness, Iron LR and pH Portable Photometer



SPECIFICATIONS	HI 96752 Calcium and Magnesium, High Range	
	(P1) Calcium	(P2) Magnesium
Range	0 to 400 mg/L (ppm)	0 to 150 mg/L (ppm)
Resolution	1 mg/L (ppm)	1 mg/L (ppm)
Accuracy @ 25°C	±10 mg/L ±5% of reading	±3 mg/L ±3% of reading
Light Source	light emitting diode	
Light Detector	silicon photocell with narrow band interference filter @ 466 nm	

Method	Calcium	Magnesium
	adaptation of Oxalate method	adaptation of the Calmagite method

ORDERING INFORMATION

HI 96752 is supplied with sample cuvettes with caps (2), 9V battery and instruction manual.

REAGENTS AND STANDARDS

Calcium and Magnesium, High Range		Calcium HR
HI 93752-01	Reagents for 100 Tests	HI 96752-11 CAL CHECK™ standard cuvettes
HI 93752-03	Reagents for 300 Tests	Magnesium HR
		HI 96754-11 CAL CHECK™ standard cuvettes

CAL CHECK™ standards and testing reagents sold separately

HI 96745 Chlorine, Total Hardness, Iron Low Range and pH			
pH (P1)	Cl, Free (P2) Cl, Total (P3)	Total Hardness (P4)	Iron, Low Range (P5)
6.5 to 8.5 pH	0.00 to 5.00 mg/L	0.00 to 4.70 mg/L	0 to 1.60 mg/L (ppm)
0.1 pH	0.01 mg/L under 3.50 mg/L; 0.10 mg/L above 3.50 mg/L	0.01 mg/L	0.01 mg/L (ppm)
±0.1 pH	±0.03 mg/L ±3% of reading	±0.11 mg/L ±5% of reading	±0.01 mg/L ±8% of reading
tungsten lamp			
silicon photocell with narrow band interference filter @ 525 nm			

Method	Chlorine, Free	Total Hardness	Iron, Low Range
	Phenol Red	adaptation of the USEPA method and Standard Method 4500-Cl G	adaptation of the Standard Methods for the examination of Water and Wastewater, 18th ed., colorimetric method

ORDERING INFORMATION

HI 96745 is supplied with sample cuvettes (2) with caps, battery and instructions.

REAGENTS AND STANDARDS

pH		HI 93711-01	Reagents for 100 tests
HI 96710-11	CAL CHECK™ standard cuvettes	HI 93711-03	Reagents for 300 tests
HI 93710-01	Reagents for 100 tests	Hardness, Total	
HI 93710-03	Reagents for 300 tests	HI 96719-11	CAL CHECK™ standard cuvettes
Chlorine, Free		HI 93719-01	Reagents for 100 tests
HI 96701-11	CAL CHECK™ standard cuvettes	HI 93719-03	Reagents for 300 tests
HI 93701-01	Reagents for 100 tests	Iron, Low Range	
HI 93701-03	Reagents for 300 tests	HI 96746-11	CAL CHECK™ standard cuvettes
Chlorine, Total		HI 93746-01	Reagents for 50 tests
HI 96711-11	CAL CHECK™ standard cuvettes	HI 93746-03	Reagents for 150 tests