HI96746 · HI96721

Iron Portable Photometers

- CAL Check™
  - Allows for performance verification and calibration of the meter using NIST traceable standards.
- GLP
  - Review of the last calibration date.
- Auto-shut off
  - Automatic shut off after 10 minutes of non-use when the meter is in measurement mode. Prevents wastage of batteries in the event the meter is accidentally left on.
- Battery status indicator
  - Indicates the amount of battery life left.
- Built-in timer
  - Display of time remaining before a measurement is taken. Ensures that all readings are taken at the appropriate reaction intervals for the test being performed.
- Error messages
  - Messages on display alerting to problems including no cap, high zero, and standard too low.
- Cooling lamp indicator
  - To maintain the desirable wavelength to be used for absorbance, it is necessary to ensure components are not overheated from the heat generated by the tungsten lamp. Each photometer is designed to allow a minimal amount of time for components to cool. The cooling lamp indicator is displayed prior to a reading being taken.
- Units of measure
  - Appropriate unit of measure is displayed along with reading.

The HI96746 and HI96721 portable photometers are for the measurement of iron in freshwater samples. 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

Iron is naturally present in water in low concentrations, but it reaches high concentrations in wastewater effluents. The iron concentration in water needs to be monitored because it becomes harmful above certain levels. In domestic water, for instance, iron can unpleasantly alter the taste, stain laundry, damage kitchenware and favor the growth of certain bacteria. Iron is also an indicator of ongoing corrosion in water cooling and heating systems. Moreover, iron is normally monitored in mining wastewater to avoid contamination.

Specifications	HI96746 Iron LR	HI96721 Iron HR
Range	0.00 to 1.60 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)
Resolution	0.01 mg/L	0.01 mg/L
Accuracy @ 25°C (77°F)	±0.01 mg/L ±8% of reading	±0.04 mg/L ±2% 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	192 x 104 x 69 mm (7.6 x 4.1 x 2.7")	
Weight	320g (11.3 oz.)	
Method	adaptation of the TPTZ method	Adaptation of Standard Method 3500-Fe B, Phenanthroline Method
Ordering Information	**HI96746** and **HI96721** are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate and instructions. CAL Check standards and testing reagents sold separately **HI96746C** and **HI96721C** includes photometer, CAL Check standards, sample cuvettes (2) with caps, 9V battery, scissors, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately	

Reagents and Standards			
	HI96746	**HI96746-11**	CAL Check standard cuvettes
		HI93746-01	reagents for 50 tests
		HI93746-03	reagents for 150 tests
	HI96721	**HI96721-11**	CAL Check standard cuvettes
		HI93721-01	powder reagents for 100 tests
		HI93721-03	powder reagents for 300 tests