



Fotómetro Portátil para Cromo (VI) – kit

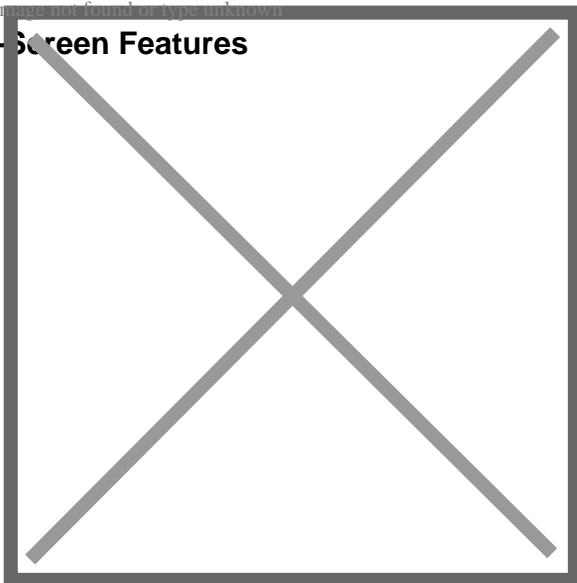
## Description

Hexavalent chromium salts are used in various industrial applications, such as in the manufacture of paints, dyes, explosives, and ceramics, and extensively in the metal finishing and plating industries. Due to its toxicity to humans, animals, and aquatic life, hexavalent chromium is actively monitored and neutralized in wastewater from the above industries. The HI97723 uses an adaptation of the ASTM Manual of Water and Environmental Technology, D1687-92, diphenylcarbohydrazide method to measure chromium VI concentrations up to 1000  $\mu\text{g/L}$  (ppb). When the diphenylcarbohydrazide reagent is added to samples containing chromium VI, the sample will turn a purple hue; the greater the concentration, the deeper the color. The associated color change is then colorimetrically analyzed according to the Beer-Lambert Law. This principle states that light is absorbed by a complementary color, and the emitted radiation is dependent upon concentration. For higher levels of chromium VI, a narrow band interference filter at 525 nm allows only green light to be emitted and passed through the sample cuvette. As the change in color of the reacted sample increases, absorbance of the specific wavelength of light also increases, while transmittance decreases.

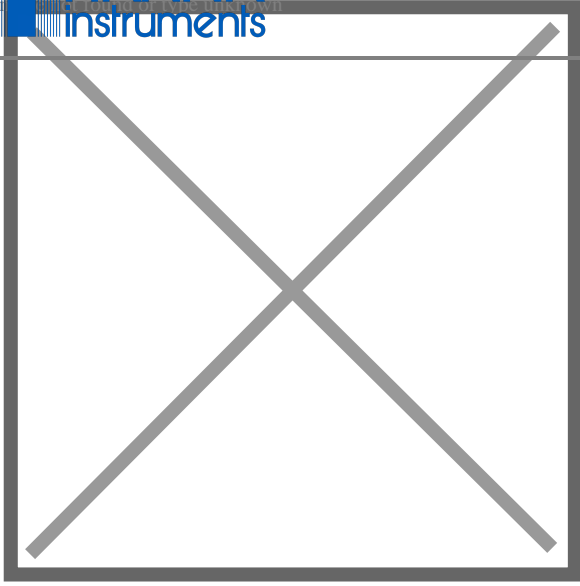
photometer optical system

- LED that generates very little heat.
- 8 nm narrowband interference filter that is accurate to  $\pm 1$  nm.
- Reference detector that modulates the voltage to LED for consistent light output.
- A concave focusing lens that reduces errors from imperfections in the cuvette.

## On-Screen Features



**CAL Check** Advanced features including CAL-Check to verify performance and if necessary, recalibrate.



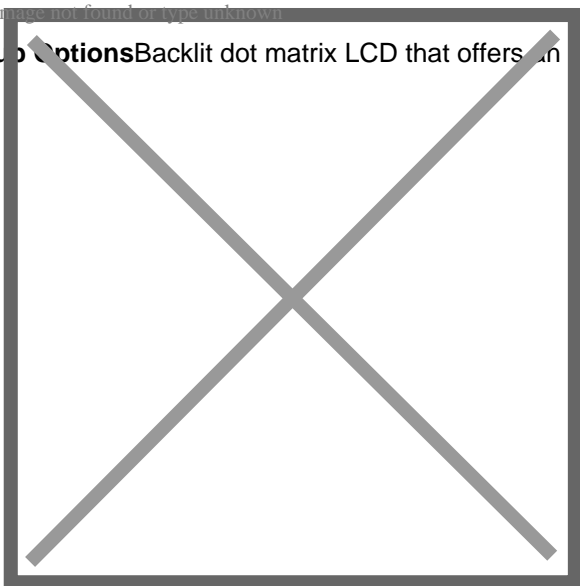
method option

**Multiple Chemical Forms** Results can be displayed in multiple chemical forms.

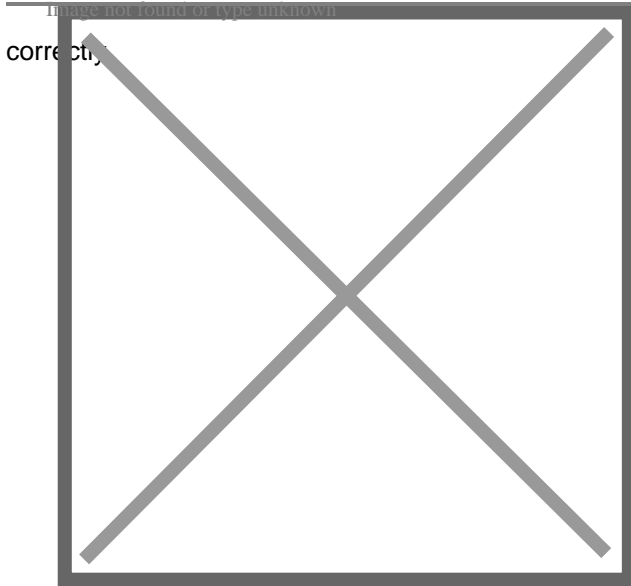
Image not found or type unknown

Image not found or type unknown

**Setup Options** Backlit dot matrix LCD that offers an exceptionally intuitive user interface that is easy to read and understand.



**Tutorial Mode** Tutorial mode for step-by-step instructions to guide a first-time user in how to perform a measurement



**Reaction Timer** Built-in reaction timer that ensures consistency amongst multiple users.

## HI97723 FEATURES/BENEFITS:

### Stable Light Source:

- The internal reference system of the HI97723 photometer compensates for any drifts due to power fluctuations or ambient temperature changes. With a stable source of light the readings are fast and stable between your blank (zero) measurement and sample measurement.

### High Efficiency Light Source:

- LED light sources offer superior performance compared to tungsten lamps. 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.

### High Quality Filters:

- Improved optical filters ensure greater wavelength accuracy and allow a brighter, stronger signal to be received. The end result is higher measurement stability and less wavelength error.

### Greater Light Yield:

- A focusing lens collects all of the light that exits the cuvette, eliminating errors from imperfections and scratches that may be present in the glass. The use of the convex lens reduces the need for indexing cuvettes.

### CAL Check Functionality:

- Hanna's exclusive CAL Check feature allows for performance verification and calibration of the meter using NIST traceable standards. Our CAL Check standard vials are developed to simulate a specific absorbance value at each wavelength to verify the accuracy of subsequent readings.

### Large Cuvette Size:

- The sample cell of the HI97723 fits a round, glass cuvette with a 25 mm path length. The relatively long path length of the sample cuvette allows the light to pass through more of the sample solution, ensuring accurate

measurements even in low absorbance samples.

**Intuitive Dot Matrix Display:**

- The HI97723 is designed with a backlit, graphic LCD. With virtual keys, a battery status indicator, and error messages. Users will find the meter interface intuitive and easy to read. A dedicated help key provides information relating to the current meter operation, and can be used at any stage in the setup or measurement process to show contextual help.

**Auto-off Protection:**

- The meter uses three common AA batteries that allow for about 800 measurements to be taken. The auto-off feature automatically shuts off the meter after 15 minutes of inactivity in order conserve battery life.

**Especificaciones**

Especificación	Detalle
Código	HI97723C
Intervalo	0.00 a 1000.0 µg/L (ppb) (como Cr (VI))
Resolución	1 µg/L
Exactitud	± 5 mg/L ±4 % de la lectura a 25 °C
Método	Adaptación del Manual de ASTM de tecnología del agua y el medio ambiente, D1687-92, Método de difenilcarbohidrazida
Fuente de luz	Diodo emisor de luz
Detector de luz	Fotocelda de silicio
Tipo de celda	Cilíndrica 24.6 mm de diámetro (22 mm por dentro)
Ancho de banda del filtro	8 nm
Filtro de banda	525 nm
Exactitud de longitud de onda del filtro	±1.0 nm
Almacenamiento	50 lecturas (almacenamiento automático)
Tipo de batería	Alcalina 1.5 V AA (3 pzas.)
Duración de la batería	> 800 mediciones (sin luz de fondo)
Apagado automático	Después de 15 minutos de inactividad (30 minutos antes de una medición realizada al presionar el botón READ)
Condiciones ambientales	0 a 50 °C (32 a 122 °F); 0 a 100% HR
Dimensiones	142.5 x 102.5 x 50.5 mm (5.6 x 4.0 x 2.0")
Peso	380 g (13.4 oz.)