Fotómetrometro portátil de sílice de alto rango solamente con Maleta – HI97770

Description

Silica is found in all natural waters in the dissolved mineral form. Silica is only slightly soluble in water and can be found as ionic silica, silicates, or colloidal or suspended particles. The solubility of silica is highly dependent on pH, temperature, and pressure, and in unfavorable conditions forms deposits or scale. Silica?s presence in industrial applications, particularly high-pressure turbines, is undesirable because of the scaling caused by the elevated temperature and pressure. Heating systems and reverse osmosis plants also require monitoring of silica to ensure process efficiency.The HI97770 uses an adaptation of the USEPA Method 370.1 and Standard Method 4500-SiO2 C to measure silica concentrations up to 200 mg/L (ppm). When the reagent is added to samples containing silica, the sample will turn a yellow 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 high range silica determination, a narrow band interference filter at 466 nm allows only blue light to be detected by the silicon pHotodetector and omits all other visible light emitted from the LED. As the change in color of the reacted sample increases, absorbance of the specific wavelength of light also increases, while transmittance decreases. Using a pre-programmed curve a result is then displayed.The HI97770 has an innovative optical system that offers superior performance in accuracy, repeatability, and the short amount of time it takes to perform a measurement. This compact, waterproof meter is extremely user friendly with a tutorial mode that walks the user grapHically, step by step, in performing a measurement. The use of a backlit dot matrix LCD allows the use of virtual keys which makes the operation of the meter very intuitive including selecting different units of measure, reviewing GLP data, recalling the last 50 measurements, and customizing the meter to user preferences.HI97770 is completely waterproof including the cuvette holder that is designed with ridges to protect the optical path from getting scratched by the cuvette and a gasketed battery compartment that holds three common AA batteries. The compact design fits comfortably in the hand for use in the field or on a table for benchtop use. The LCD is backlit for easy viewing under all conditions.

pHotometer optical system

- LED that generates very little heat.
- 8 nm narrowband interference filter that is accurate to +/- 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

Image not found or type unknown

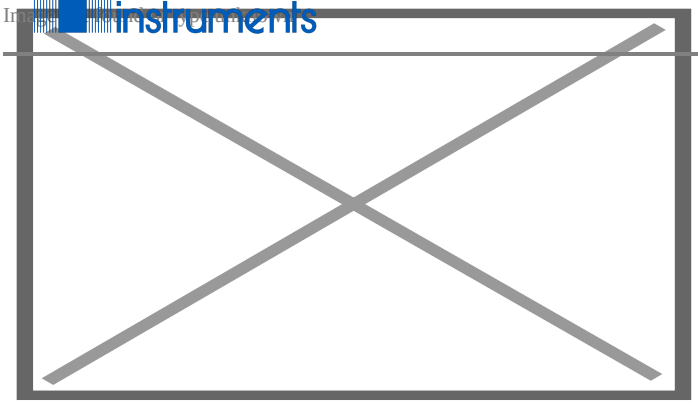
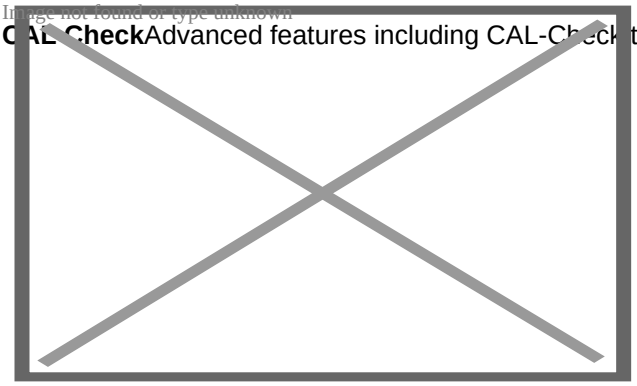


Image not found or type unknown

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



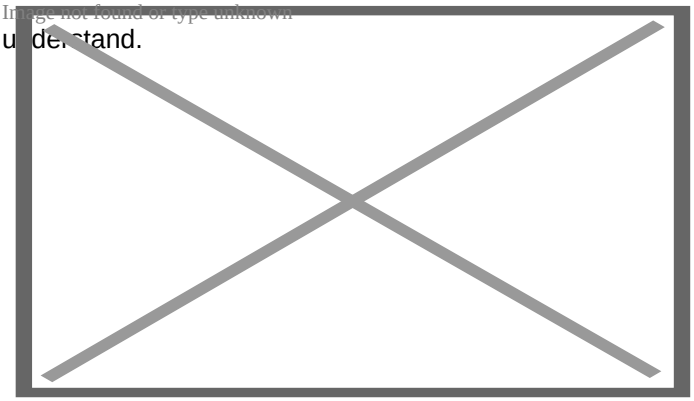
method option

Setup Options Setup options for meter personalization include date and time format, language, and enabling the tutorial mode.

Image not found or type unknown

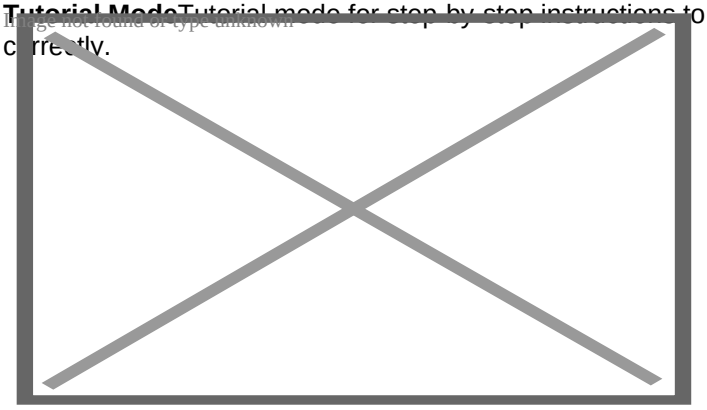
Backlit Display Backlit dot matrix LCD that offers an exceptionally intuitive user interface that is easy to read and

Image not found or type unknown
understand.



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

Image not found or type unknown



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

HI97770 FEATURES/BENEFITS:

Stable Light Source:

- The internal reference system of the HI97770 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 HI97770 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 HI97770 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	HI97770C
Intervalo	0.00 a 200.0 mg/L (ppm) (como SiO_2)
Resolución	1 mg/L
Exactitud	± 1 mg/L ±5 % de la lectura a 25 °C
Método	Adaptación de método USEPA método 370.1 para Agua potable, superficial y salina, residuos domésticos e industriales y método estándar 4500-SiO_2
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	610nm

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.)