Fotómetro Portátil de Bajo Rango para Fluoruro – solo el medidor

Description

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 groundwater, particularly if a reservoir is in close proximity to seawater. While fluoride does help prevent tooth decay, too little can be ineffective while too much can cause staining of teeth.The HI97729 uses an adaptation of the EPA method 340.1 and the Standard Methods for the Examination of Water and Wastewater, 23rd Edition SPADNS method, to measure fluoride concentrations up to 2.00 mg/L (ppm). When the colored reagent is added to samples containing fluoride, the fluoride in the sample will form a colorless complex; the greater the concentration, the clearer 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 low range fluoride determination, a narrow band interference filter at 575 nm allows only yellow light to be detected by the silicon photodetector and omits all other visible light emitted from the LED lamp. As the change in color of the reacted sample decreases, absorbance of the specific wavelength of light also decreases, while transmittance increases.

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.

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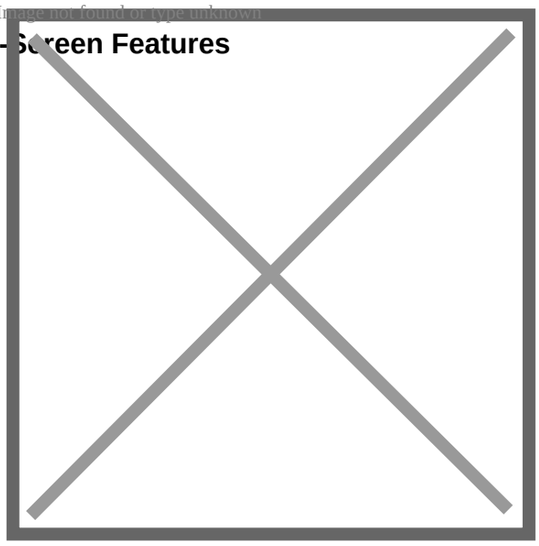
On-Screen Features



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

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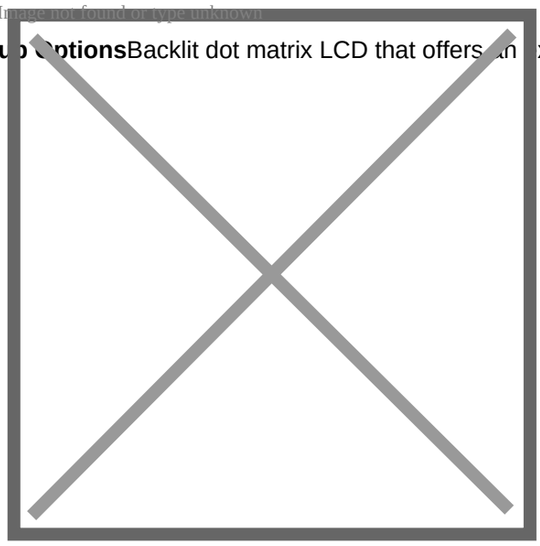
Setup Options Backlit dot matrix LCD that offers an exceptionally intuitive user interface that is easy to read and understand.



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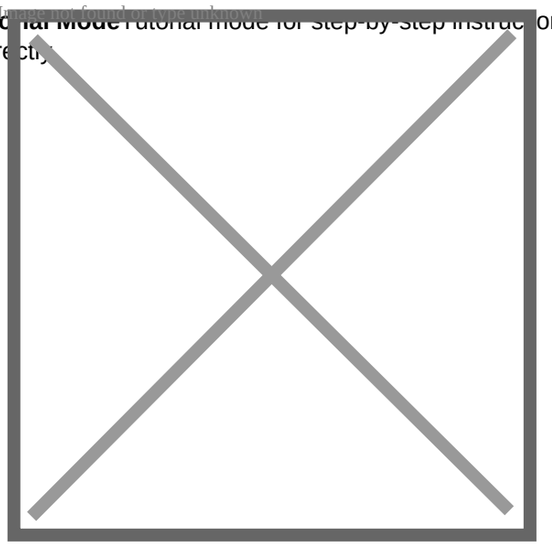
Tutorial Mode Tutorial mode for step-by-step instructions to guide a first-time user in how to perform a measurement correctly.



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

HI97729 FEATURES/BENEFITS:

Stable Light Source:

- The internal reference system of the HI97729 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 HI97729 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 HI97729 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

Intervalo (°C)	-10 a 300°C (HI99556 - 00); -20.0 a 199.9°C (HI99556-10)
Resolución (°C)	1ºC (HI99556-00); 0.1ºC (HI99556-10)
Exactitud (°C)	± 2% de la lectura o ± 2°C
Intervalo de la sonda	-40 a 150ºC (HI99556-00); -40.0 a 150.0°C (HI99556-10)
Resolución de sonda	1ºC (HI99556 - 00); 0,1ºC (HI99556 - 10)
Exactitud de la sonda	± 0.5°C (-20 a 120°C); ± 0.5°C + 1% de lectura (fuera)

Tiempo de respuesta del sensor IR	1 segundo
Coeficiente óptico del sensor IR	3:1 (relación de la distancia y el diámetro del objetivo)
Distancia mínima	30mm (1.2")
Electrodo / sonda	HI765PW de uso general/penetración, sonda termistor de temperatura de acero inoxidable con mango blanco y cable de 1m (incluido)
Tipo de batería/Vida útil	9V / aproximadamente 150 horas de uso continuo
Condiciones ambientales	0 a 50°C (32 a 122°F); HR max 95%
Dimensiones	143 x 80 x 38 mm (5.6 x 3.2 x 1.5")
Peso	320 g (11.3 oz)
Información para ordenar	HI99556 - [y] y = 00 Intervalo de IR de -10 a 300°C y = 10 Intervalo de IR de -20 a 199.9°C