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## General Purpose Portable Fluorometer for Liquids

### Field Portable

Lightweight, Self-Contained, Water-Proof  
Rechargeable Long-Life Ni-MH Battery  
Built-in 1 Gbyte Data-Logger  
Removable Memory SD Media cards

### Research Grade

Accurate Detection Down to PPT  
Stable Temperature Compensated Cuvette  
Flexible User Changeable Excitation/Emission Sets  
Useful Color Graphics Display, USB & RS-232 I/O

### In-Line or Discrete Sample

Continuous Monitoring for in-flow measurements  
20ml sample bottle and 1cm x 1cm sq. cuvettes

### Water & Pollution - Tracer Dyes

Ground Water Mapping  
Pollution Studies & Monitoring  
Mixing Zone Studies  
Time of Travel/Flow Measurement  
Contaminant Tracking

### Chlorophyll - Algae

Estimate Algal BioMass  
Monitor Algal Blooms  
Detect Chlorophyll



Multiple applications and multiple sampling options--the GFL-1a Fluorometer's unparalleled versatility expands your fluorescence measurement expectations.. Whether you research is in a chaotic field environment or a controlled laboratory you'll be guaranteed accurate, repeatable measurements. The unique exchangeable cuvette system allows the user to switch between Discrete bottle & cuvette samples and Flow-Through Mode in just moments. The quick and easy to change Filter Sets are available in a wide variety of wavelengths to accommodate just about any Tracer Dye or other fluorescence applications.

The GFL-1a provides the precision of a bench-top based unit packaged in a lightweight, portable and water tight case. The GFL-1a is also available for rental for one-time application

# GFL-1a Filter Fluorometer for Liquids- Portable, Water Tight

## Fast - Accurate - Flexible - Easy to Use

The GFL-1a Filter Fluorometer allows researchers unprecedented on-site investigation capability. Incorporating the latest advances in micro-electronics and fluorescence detection, the instrument provides accurate substance quantification in a rugged, lightweight, field portable package. Scientists, Researchers and Hydrology Experts alike will enjoy tremendous advantages, obtaining mission critical data faster and easier than ever before. Because the GFL-1a is easily portable and ready to go wherever your work takes you, it significantly reduces response time and logistical planning. With the GFL-1a, your lab is in a single 7 pound suitcase; equipped with onboard data logging, internal long-life battery, extended memory, and exchangeable application specific filter sets.

Until now so-called "portable" fluorometers have been bulky and rather heavy, lacking the pick-up-and-go flexibility researchers require to properly perform in-depth field analysis. The fact is, lugging 40 pounds of equipment along with an external battery is cumbersome and can be physically exhausting. The GFL-1a eliminates these peripheral concerns allowing you to place the emphasis where it should be, conducting the experiment and obtaining accurate and reliable data.

The GFL-1a affords the user a number of options to accommodate a variety of research and budget criteria. Application specific optics, extended automatic data logging, flow through cells, pumps, enhanced sensitivity and detection range, external battery case (~10 lbs) for extended field use, or it can even be configured for continuous monitoring/on-line applications. We will gladly work with you in tailoring the GFL-1a to your needs.

As a utility bench-top unit, the price and accuracy of the GFL-1a would make it an excellent addition to any laboratory, but its advanced design and portability make the GFL-1a uniquely suited for field research.



### Technical Specifications

**Configuration:** 90 degree filter fluorometer with reference beam.

**Sample Cell:** Interchangeable holders for: 20ml sample bottle, flow through cell, and 1cm square cuvette.

**Detector:** Silicon photodiode and optics with **user exchangeable** filters, (PMT optionally available).

**Source:** Solid state excitation sources with **user exchangeable** integral optical filters.

**Temperature Compensation:** Sensor included in flow-through cell. Constant may be entered in test mode.

**Data Logging:** Built in. Manual, or automatic for unattended operation. Includes real time clock for timed measurements.

**Storage Capacity:** 1 GB non-volatile memory, supports thousands of data sets. Standard MMC/SD storage memory media for unlimited storage.

**Sample Rate:** Manual, automatic 15 s/pt ~ 5 min/pt.

**Units:** User selectable (ppt, ppb, µg/l, µMols, etc.) or arbitrary units.

**Output:** USB and RS-232.

**User Interface:** 480 x 272 pixel Color Graphics TFT LCD with touch screen and on-screen synthesized control keys.

**Power Supply:** Internal 12V High Capacity Ni-MH battery 110/220Vac charger included.

**Operating Temperature:** 32 ~ 122 °F (0 ~ 50 °C), 10~90% RH non-condensing.

**Enclosure:** Water tight ABS case.

**Dimensions:** 10.75" x 9.75" x 5" (27cm x 25cm x 13cm).

**Weight:** 7.5 lbs (3.4 kg).

**Battery Life:** Up to 36 hours in automatic mode.



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