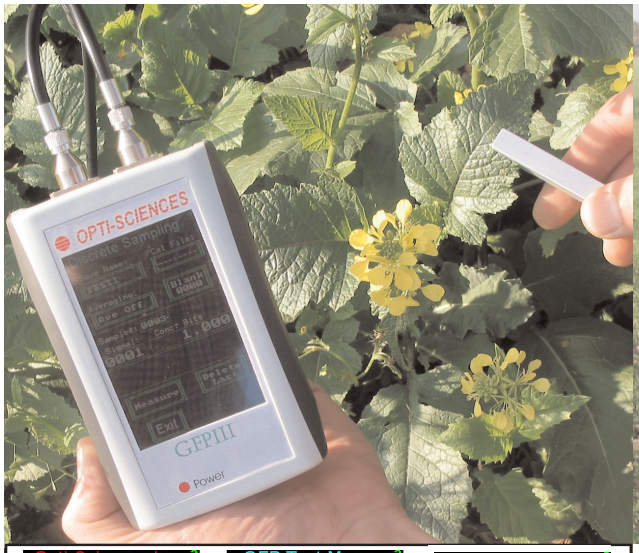
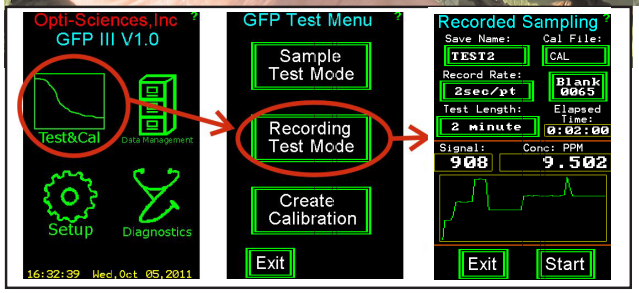
GFPIII Meter

Fluorescent Protein Meter

A hand-held device for the non-destructive determination of green fluorescent protein and other fluorescent protein compounds





- Non-destructive
- Hand-held, battery operated
- Accurate
- Touch screen, colour graphic display
- Large 2Gb internal memory
- Variety of other fluorescent compounds

Non-destructive and battery portable

The GFPIII Meter is a revolutionary new instrument, employing a modulated fluorescence technique for the non-destructive, quantitative measurements of Green Fluorescent Protein (GFP) in intact leaves.

Weighing only 275gms the GFPIII Meter is a lightweight, hand-held, field portable instrument.

Programming and operation is easy, via a colour touch screen graphic display. Data and traces are also clearly presented on this display. The integral 2Gb data storage allows many thousands of experimental results to be saved, before downloading via a USB port.

Powered by two AA rechargeable batteries, the power effeceint GFPIII Meter will operate for up to 8 hours between charging.

A leaf clip is supplied as standard.

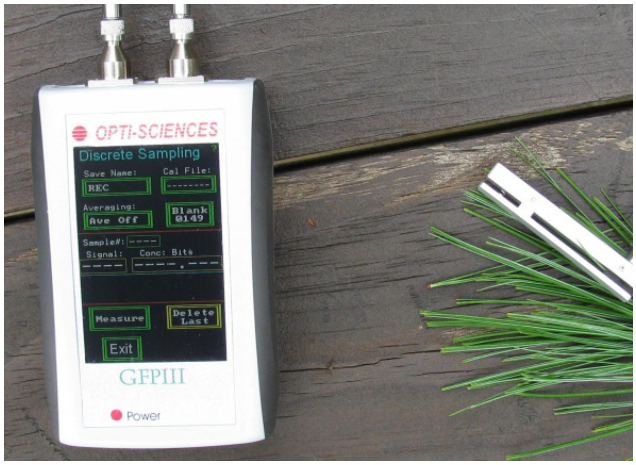
GFP and other fluorescent proteins

Green Fluorescent Protein is the most commonly used genetic marker in gene expression studies, associated with genetically modified crop research. GFP is only detected, in a leaf sample, if the marker gene has been expressed by the plant.

Measurements are made using a 4mm fibre optic probe. The user may select to make single measurements or conduct automated continous measurements per second or up to per minute.

The GFPIII Meter provides researchers with a simple, accurate and fast means to study and differentiate high and low GFP expressing plants and transformed from non-transformed plants.

By simply changing the internal filter set, the GFPIII Meter can be used for measuring other fluorescent compounds such as Chlorophyll, Rhodamine and Fluoroscein.



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Technical Specifications

Measured parameters: User programable, can be calibrated to known concentrations or ratios. Multiple calibration tables may be generated.

Sensitivity: Depending on fluorescent compound for example Fluorescein:10ppb, Rhodamine 30ppb in pure water.

Source: LED selected for application in range 375nm-660nm. User changeable.

Detector: Solid state, high sensitivity detector. Band limiting filters set the detection range between 400nm-750nm. User changeable.

Detection technique: Modulated light digitally controlled to minimise background detection. Source and detector temperature compensation.

Storage capacity: 2 Gb internal non-volatile flash memory.

Measurement modes: Single point or continuous measurements from per second up to per minute.

User interface: 240 x 320 pixel colour touch screen graphic display with stylus.

Measurement interface: Bifurcated fiber optic probe (4mm) with 3mm diameter measurement circle.

Output: USB 1.1

Operating temperature range: 5^{O}C-45^{O}C

Batteries: 2 x rechargeable AA batteries. Two spare batteries also included.

Auto off interval: 4 minutes (with no key press or download)

Dimensions: 12 x 9 x 3cms

Weight: 275g

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