

Classic Fluorometer Wireless Benchtop



Aquation's **Classic Fluorometer Wireless Benchtop** is designed for use on a bench, and can also be used in the field. Variable chlorophyll fluorescence measurements include F_0 , F_0' , F_m , F_m' , F_v/F_m . The water resistant design enables convenient measurement of wet material including aquatic plants and even coral.

Features

- Fully waterproof for field and wet-lab applications
- Convenient flat base for use on a benchtop or similar
- Powered from battery or mains
- Repeated measurements are possible when attached to PC or datalogger
- Easy-to-use software with an uncluttered interface
- Extensive programmable capacity in software for advanced users
- Portable and rugged unit is ideal for field work (netbook recommended!)

The small size of the fluorometer (45 mm/1.8" diameter, 55 mm/2.4" long), and its 12-24V capability makes it easy to use in the field. On commencing measurements, one establishes a suitable gain setting with a sample leaf and a zero offset value in air or water. Chlorophyll-containing samples are then simply placed over the sampling window for single or repeated measurements. An optional clear light pipe extension enables measurement of samples 0.5m from the sensor; this is particularly useful for long term measurements where shading of the sample must be avoided.

The Classic Benchtop Wireless fluorometer is designed to be operated from a PC (Windows XP and later). A small transceiver plugs into the computer USB port and wirelessly connects to the interface box and sensor. This enables the computer to be located separately from the sensor, for example in a dry part of a greenhouse. Both power and the fluorescence sensor are connected to the interface enclosure. All items are contained in a lightweight carry case that is small enough to fit in a shoulder bag.

See over for further detail.

Field Studies



Pollution Studies



Plant Stress Analysis



Environmental Analysis





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Other details:

- Chlorophyll fluorometer for plant physiology and chlorophyll content studies
- Fluorescence sensor designed to sit upright on a flat surface for ease of use
- Measures variable fluorescence of photosystem II
- Returns F_0 , F_m and F_v/F_m values
- Calculates relative chlorophyll index that correlates with chlorophyll concentration
- Measures temperature in sensor
- Flexible and uncluttered software is easy to use
- User manual and software supplied
- Wireless connection to PC
- Unit of measure: relative fluorescence units
- Range: 0-4000
- Automatic ranging and autozero functions
- Relative chlorophyll index (function of gain and F_0)
- Temperature in $^{\circ}\text{C}$
- Light sources: 470nm LED (excitation), white (saturation and actinic), 735 nm (far red)
- Sensor housing: acetel, stainless steel 316
- Interface enclosure: strengthened aluminium
- Maximum immersion depth of sensor: 3m/10ft depth
- Weight: Sensor and cable 250g/8.8oz
- Dimensions: Interface 5"x2.5"x1.2"; Sensor 1.8" diameter, 2.4" long
- Voltage: 110-240V 50-60Hz, 12-24VDC

AquationDirect is the proprietary software used to communicate with the fluorometer.

The simple uncluttered approach hides features when they are not required, providing a more enjoyable user experience.

There are three levels of control:

"Profile" defines settings for each measurement (measuring light intensity, saturating pulse intensity etc.).

"Program" defines a sequence of yield measurements, actinic treatments and far-red light treatments. The intensity and duration of each light can be defined. A Light Curve and Recovery Curve generator provides flexible generation of curves with user defined actinic intensities and durations. Even reverse light curves can be defined if required.

"Schedule" simply schedules a series of Programs, where one may wish to run different programs during the early morning program, midday, afternoon and night time.



Above: Classic Fluorometer, Wireless Benchtop: Fluorescence Sensor



From left to right: USB Wireless unit, Fluorescence Sensor, Power plug, Wireless Interface box