

## Classic Fluorometer USB Standard 3m



Aquation's **Classic Fluorometer USB Standard 3m** is designed for ease of handling, with the cable extending from the base of the sensor. The water resistant design enables convenient measurement of wet material including aquatic plants, algae and wet leaves. The small size of the fluorometer (1.8" diameter, 2.7" long), and its 12-24V capability makes it easy to use in the field.

### Benefits

- Powered from battery or mains
- Fully waterproof for field and wet-lab applications
- 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 unit is ideal for field work (netbook recommended!)

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 Fluorometer USB Standard 3m is designed to be operated from a PC (Windows XP and later) via a standard USB cable. Both the power supply and computer are connected to the interface enclosure. A water resistant cable runs from this enclosure to the fluorescence sensor. All items are contained in a lightweight carry case that is small enough to fit in a shoulder bag.

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.

*See over for further detail.*

#### Field Studies



#### Pollution Studies



#### Plant Stress Analysis



#### Environmental Analysis





## Classic Fluorometer USB Standard 3m

### Features and Specifications:

- Chlorophyll fluorometer for plant physiology and chlorophyll content studies
- Fluorescence sensor with cable located at base of unit
- Sensor is waterproof to 3m
- 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
- USB 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: acetal, 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, 2.7" long
- Voltage: 110-240V 50-60Hz, 12-24VDC

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.