

WETStar

Flow-through Fluorometer

These miniature, low cost, low power optical instruments provide comparable performance to other fluorometers at a fraction of their cost, power requirements, and size.

WETStar employs a novel optical flow tube design that lends itself to both pumphrough and flow-through operation. It is easily mated with existing CTD packages and available with digital output.

Chlorophyll-a

Provides calibrated, high-resolution (60 Hz signal & 1 Hz average) measurement of mechanically stimulated bioluminescence for assessing water column ecosystem dynamics.

Colored Dissolved Organic Matter

Created from decayed biomass, CDOM contributes to coloration of both fresh and marine waters.

Uranine (fluorescein) & Rhodamine

Used as dye to study hydraulic connections and water transport mechanisms.

Phycoerythrin

Allows measurement of the red pigment in cyanobacteria.



Optical

Chlorophyll-a	ex/em: 460/695 nm
Sensitivity	0.03 8 µg/L
Range	0.03–75 8 µg/L
CDOM	ex/em: 370/460 nm
Sensitivity	0.100 ppb QSD*
Ranges	0–100, 0–250 ppb
Uranine	ex/em: 485/530 nm
Sensitivity	18 µg/L
Range	0–4000 8 µg/L
Rhodamine	ex/em: 470/590 nm
Phycoerythrin	ex/em: 525/575 nm
Linearity (all)	99 % R ²

Environmental

Temperature Range	0 - 30 °C
Depth Rating	600 m

Mechanical

Diameter	6.9 cm
Length	17.1 cm
Weight in air	0.8 kg
Weight in water	0.1 kg

Electrical

Input voltage	7 - 15 VDC
Output, digital	0 - 4095 counts
Output, analog	0 - 5 V
Current draw, digital	80 mA
Current draw, analog	40 mA
Response time, digital	0.125 sec
Response time, analog	0.17 sec
Connector	MCBH6MP

* The CDOM in the WETStar is not calibrated to CDOM, but rather QSD, which has historically been used to establish the response and sensitivity of fluorometers used in CDOM fluorescence applications. Refer to Product Manual for more explanation.