

- Chlorophyll
- CDOM
- Uranine
- Rhodamine
- Phycoerythrin

The highly successful WETStar fluorometer family is growing! These miniature, low cost, low power optical instruments provide comparable performance to other available fluorometers at a fraction of their cost, power requirements, and size. The unit employs a novel optical flow tube design that lends itself to both pump-through and flow-through operation. It is easily mated with existing CTD packages and is available with optional digital output.



Specifications

Mechanical		Environmental	
Diameter	6.9 cm	Temperature range	0–30 deg C
Length	17.1 cm	Depth rating	600 m
Weight in air	0.8 kg		
Weight in water	0.1 kg		
Electrical			
Response time	0.17 sec (analog); 0.125 sec (optional digital)		
Input	7–15 VDC		
Current draw	< 40 mA (analog); < 80 mA (optional digital)		
Linearity	□ 99% R ²		
Output	0–5 VDC (analog); 0–4095 counts (optional digital)		

Chlorophyll—an indicator of viable phytoplankton biomass and chlorophyll concentrations in water.
EX: 460 nm • EM: 695 nm • Sensitivity: $\geq 0.03 \mu\text{g/l}$ • Dynamic range: 0.03–75 $\mu\text{g/l}$ (std)

CDOM—Created from decayed biomass, CDOM contributes to coloration of both fresh and marine waters.
EX: 370 nm • EM: 460 nm • Sensitivity: 0.100 ppb QSD • Dynamic range: 100, 250, or 1000 ppb

Uranine—Used as a dye to study hydraulic connections and water transport mechanisms.
EX: 485 nm • EM: 532 nm • Sensitivity: 1 $\mu\text{g/l}$ • Dynamic range: 1–4000 $\mu\text{g/l}$ uranine

Rhodamine—Used as a dye similar to uranine.
EX: 470 nm • EM: 570 nm

Phycoerythrin—Allows measurement of the red pigment in cyanobacteria.
EX: 525 nm • EM: 575 nm

Specifications subject to change without notice.

WETStar

Specifications Sheet

Revision History

Revision	Date	Revision Description	Originator
A	12/01/99	Begin revision control	H. Van Zee
B	01/03/00	Change depth rating; add excitation and emission	D. Hankins
C	12/12/00	Change sensitivity range	D. Hankins
D	11/26/01	Revise ex and em values (DCR 164)	J. Kitchen
E	04/10/02	Add digital capabilities (DCR 213)	H. Van Zee
F	6/8/04	Update format (DCR 402)	H. Van Zee
G	1/11/05	Combine fluorometer specs (DCR 435)	M. Everett
H	2/16/09	Remove US measurements, add "optional" to digital (DCR 657)	H. Van Zee