

Ultra-Low Power. Digitally Connected. Ready for the Field.



C-FLUOR probes are compact, factory-calibrated, single-wavelength *in situ* fluorescence and turbidity sensors designed for long-term deployment, low-power consumption, and fast integration. Now available with both Analog (0–5 V) and Digital (RS-232 ASCII) output options, C-FLUOR probes support polling every 0.5 seconds ideal for real-time monitoring or battery-powered logging systems.

Digital models require $\leq 22\text{mA}$ at 12VDC, and respond in under 0.5 seconds (T99), making them one of the most efficient probes in their class. Their compact form — only 5.2" (13.24 cm) long and 0.9" (2.23 cm) in diameter, weighing just 3.3 oz (95g) — allows for seamless integration into tight spaces and mobile platforms. They're also pin-compatible with Cyclops sensors, enabling drop-in replacement for many third-party systems.

Every C-FLUOR ships with a factory calibration certificate specifying detection limits and linear concentration ranges for its configured application. The titanium housing is depth-rated to 2,000 meters and offers superior corrosion resistance — an essential feature for extended field deployments.

Available accessories enhance versatility and ease of use:

- **Flowthrough Cap** – for in-line sampling
- **Shade Cap** – to minimize ambient light effects and protect optics
- **Solid Secondary Standards** – for checking measurement stability
- **Liquid Equivalent Standards** – for checking calibration
- **Custom-length cables and a programming cable** – for flexible integration and reconfiguration



PRODUCT HIGHLIGHTS

- Low power consumption
 - $\leq 12\text{mA}$ @ 12V (Analog Output)
 - $\leq 22\text{mA}$ @ 12V (Digital Output)
- Fast response time
 - T99 < 0.5 seconds
- No calibration required
- 2,000 meter depth rating
- Titanium housing and connector with sapphire optical window
- Analog or Digital data output

AVAILABLE OPTICAL KITS

- Blue Green Algae
 - Phycoerythrin
 - Hycocyanin
- CDOM/FDOM
- Chlorophyll *in vivo*
 - Blue excitation
 - Red excitation (for CDOM-rich environments)
- Fluorescent Dye Tracing
 - Fluorescein
 - Rhodamine
- Hydrocarbons
 - Crude Oil
- Turbidity
- Wastewater Monitoring
 - Optical Brighteners
 - Tryptophan

OPTICAL SPECIFICATIONS

Application	MDL	Linear Range
CDOM/FDOM	0.2 ppb QSU	0-500 ppb QSU
Chlorophyll (Blue)	0.03 µg/L	0-100 µg/L
Chlorophyll (Red)	0.3 µg/L	0-500 µg/L
Fluorescein	0.02 ppb	0-150 ppb
Crude Oil	0.2 ppb PTSA	0-300 ppb PTSA
Optical Brighteners	0.08 ppb Uvitex	0-300 ppb Uvitex
Hycocyanin	0.8 ppbPC	0-4,500 ppbPC
Phycoerythrin	0.1 ppbPE	0-700 ppbPE
Rhodamine WT	0.03 ppb	0-200 ppb
Tryptophan	3 ppb	0-5,000 ppb
Turbidity	0.1 NTU	0-200 NTU

FLUOROMETER PERFORMANCE

- **Linearity:** $\overset{\curvearrowright}{\sim} 0.99R^2$

PHYSICAL DIMENSIONS

- **Length x Diameter:** 5.2" x 0.9"; 13.24 x 2.23 cm
- **Weight:**
 - 3.1 oz; 89 grams Analog
 - 3.3 oz; 95 grams Digital

ENVIRONMENTAL CHARACTERISTICS

- **Temperature Range:**
 - **Ambient:** $\overset{\curvearrowright}{\sim} 0$ to 50 deg C
 - **Water Temp:** $\overset{\curvearrowright}{\sim} -2$ to 50 deg C
- **Depth Range:** 2,000 meters

ELECTRICAL SPECIFICATIONS

- **T99:** <0.5 seconds
- **Analog Output:** $\overset{\curvearrowright}{\sim} 0 - 5$ VDC
- **Digital Output:** $\overset{\curvearrowright}{\sim}$ RS232
 - Streaming or Polling Modes
- **Supply Voltage Range:** $\overset{\curvearrowright}{\sim} 3 - 15$ VDC
- **Current Draw Analog:** 12mA @ 12V
 - Turbidity 10mA @12V
 - Red Excitation Chl 16mA @12V
 - Tryptophan 35mA @ 12V
- **Current Draw Digital:** 22mA @ 12V
 - Turbidity 20mA @12V
 - Red Excitation Chl 26mA @12V
 - Tryptophan 41mA @ 12V

CONTACT US

Web: www.turnerdesigns.com

Email: sales@turnerdesigns.com

Toll-Free: ~1.877.316.8049

Phone: ~1.408.749.0994

ACCESSORIES & SPARE PARTS

Accessories



2100-751
10 Meter Pigtail Cable
with Locking Sleeve



2100-701
Shade Cap



2100-750
0.6 Meter Pigtail Cable
with Locking Sleeve



2120-900
RS-232 Programming Kit



2820-530
C-FLUOR In-Line Adaptor

Standards & Tracer Dyes



2100-900
Solid Secondary
Standard



PTSA Dye,
100 ppb



Rhodamine WT
Dye, 200 ppb



2100-904
UV Solid
Secondary
Standard



PTSA Dye,
400 ppb



Rhodamine WT
Dye, 400 ppb



Fluorescein Dye,
100 ppb



Rhodamine WT Dye,
20% Concentrate
(8 oz bottle)



Rhodamine WT
Dye, 800 ppb



Turner Designs Inc. | Reliable Instruments for an Unreliable World
1995 N 1st Street San Jose CA 95112-4220 USA

WHO WE ARE

Since 1972 Turner Designs has provided over 75,000 sensitive, reliable and easy-to-use fluorometers for environmental and industrial uses. We specialize in sensitive detection of materials with fluorescence properties. With distributors around the world, we provide free technical support for the life of our instruments.