

CYCLOPS-7F

SUBMERSIBLE SENSORS



Cyclops-7F Submersible Sensors

Cyclops-7F Sensors are high performance, compact submersible sensors designed for integration into any platform that provides power and datalogging. Available with multiple optical configurations, Cyclops-7F Sensors have a universal I/O for connection to parent systems. Recently updated to have a faster settling time, Cyclops-7F is ready to make measurements 1 second after power up.



Cyclops-7F Highlights

- Small and available in multiple housing/connector configurations
- Built-in light scatter rejection
- Low power consumption
- Easily integrates into any third-party platform
- Interfaces with DataBank Handheld Datalogger
- Submersible Logger Available
- Cyclops Explorer enables various lab applications



Configured with DataBank Handheld Datalogger for field sampling



Configured with PME Submersible Logger for *in situ* sampling



Configured with Ayyeka Wavelet for remote monitoring

Available Sensors

- Blue Green Algae
 - Phycoerythrin (marine)
 - Phycocyanin (freshwater)
- CDOM/FDOM
- Chlorophyll *in vivo*
 - Blue excitation
 - Red excitation (high CDOM)
- Fluorescent Dye Tracing
 - Fluorescein
 - PTSA
 - Rhodamine
- Hydrocarbons
 - Crude Oil
 - Refined Fuels
- Turbidity
- Wastewater Monitoring
 - Optical Brighteners
 - Tryptophan

Custom Optics Available : 260-900 nm

Fluorometer Performance

Linearity: 0.99R²

APPLICATION	MINIMUM DETECTION LIMIT	LINEAR RANGE	POWER REQUIREMENT (mW @ 12V)
CDOM/FDOM	0.1 ppb** 0.5 ppb***	0-1,500 ppb** 0-3,000 ppb***	240
Chlorophyll <i>in vivo</i>			
Blue excitation	0.03 µg/L	0-500 µg/L	240
Red excitation	0.3 µg/L	>500 µg/L	240
Fluorescein Dye	0.01 ppb	0-500 ppb	145
Oil - Crude	0.2 ppb***	0-1,500 ppb***	250
Oil - Fine	10 ppb* 10 ppm****	7,000 ppb* >100ppm****	530
Optical Brighteners	0.6 ppb***	0-2,500 ppb***	200
Phycocyanin	2 ppb ^{PC}	0-4,500 ppb ^{PC}	160
Phycoerythrin	0.1 ppb ^{PE}	0-750 ppb ^{PE}	270
PTSA Dye	0.1 ppb***	0-650 ppb***	320
Rhodamine Dye	0.01 ppb	0-1,000 ppb	175
Tryptophan	3 ppb	5,000 ppb	540
Turbidity	0.05 NTU	0-1,500 NTU	120

* 1,5 Naphthalene Disulfonic Disodium Salt

** Quinine Sulfate

*** PTSA (1,3, 6, 8 - Pyrenetetrasulfonic Acid Tetrasodium Salt)

**** BTEX (Benzene, Toluene, Ethylbenzene, Xylenes)

^{PC} Phycocyanin pigment from Prozyme diluted in Deionized water

^{PE} Phycoerythrin pigment from Prozyme diluted in Deionized water

Physical Dimensions

Length x Diameter:

5.7" x 0.9"; 14.48 x 2.23 cm (SSSt or Ti)

5.7" x 1.25"; 14.48 x 3.18 cm (Delrin)

Weight: 5.0 oz; 142 grams

Environmental Characteristics

Temperature Range:

Ambient: 0 to 50 deg C

Water Temp: -2 to 50 deg C

Depth Range: 600 meters

Signal Output: 0 - 5 VDC

Supply Voltage Range: 3 - 15 VDC

Ordering Information

Stainless Steel, Titanium and Plastic Housings available. Titanium and Plastic withstand corrosion better than stainless steel and are recommended for stationary deployments in highly corrosive environments.

ACCESSORIES

Solid Secondary Standards

Flowthrough Cap

Shade Cap (Recommended for most deployments)

0.6 Meter Pigtail Cable with Locking Sleeve

5 Meter Pigtail Cable with Locking Sleeve

10 Meter Pigtail Cable with Locking Sleeve

25 Meter Pigtail Cable with Locking Sleeve

50 Meter Pigtail Cable with Locking Sleeve

Cyclops Explorer

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