

C-Star

Transmissometer

The C-Star incorporates a novel monolithic housing with a highly integrated opto-electronic design to provide a low cost, compact solution for underwater measurements of beam transmittance.

The sensor is capable of either free space measurements, or through the use of an optical flow tube, flow-through sampling with a pump. It can be used in profiling, moored, or underway applications.

The C-Star transmissometer offers versatility in applications with high resolution RS-232 data output. The new C-Star maintains its robust mechanical design.

Features

- 14 bit analog and digital output
- Outputs calculated attenuation
- Compatible with previous generations
- Optional flow tube
- 10 and 25 cm pathlengths available
- Available in 6000 meter depth rating
- Easily interfaced
- Available in multiple wavelengths



Optical

Pathlength	25 or 10 cm
Wavelengths	370, 470, 530 or 650 nm
Acceptance Angle	~1 deg
Bandwidth, 470, 530, 660 nm	~ 20 nm
Bandwidth, 370 nm	~ 10–12 nm
Linearity	99% R ²

Electrical

Input	7-15 VDC
Current draw	< 35 mA (typ); 50 mA (max)
Data output	0-16380 counts (0-5 V)
Output resolution	14 bit
Sample rate	to 8 Hz

Mechanical

25 cm pathlength	47 x 6.4 x 9.3 cm
10 cm pathlength	29.2 x 6.4 x 9.3 cm
Weight in air	2.2 kg (plastic) 3.6 kg (aluminum)
Weight in water	0.9 kg (plastic) 2.7 kg (aluminum)

Environmental

Temperature range	0 - 40 °C
Depth Rating	600 m (plastic) 6000 m (aluminum)
Temperature error	0.02 % F.S./ °C
Long term stability	0.02 % F.S./Hr

