



Turbidity Sensor 3612

A rugged sensor for measuring the turbidity of the water based on scattered infra-red light. This sensor is used on oceanographic instruments; RCM 9/11 and RDGP and other applications.

Features:

- 2000 meters depth capacity
- Optically confined sensing volume
- Insensitive to ambient light
- 3 standard ranges available
- Absolute calibration referred to laboratory meter

Turbidity Sensor 3612 measures scattered light. This measurement is known to have a good correlation to the amount of suspended matter in water and can be used to monitor sediment, algae, or particle pollution.

The sensor head is cylindrically shaped, molded in Durotong and installed in a foot of titanium. The sensor is furnished with a cable and a 5-pin plug for connection to the Aanderaa recorder. Two light emitting diodes and one photo diode point towards a common center at an angle of 15°. The photo diode is furnished with a daylight filter. The electronic circuitry is molded in the sensor housing.

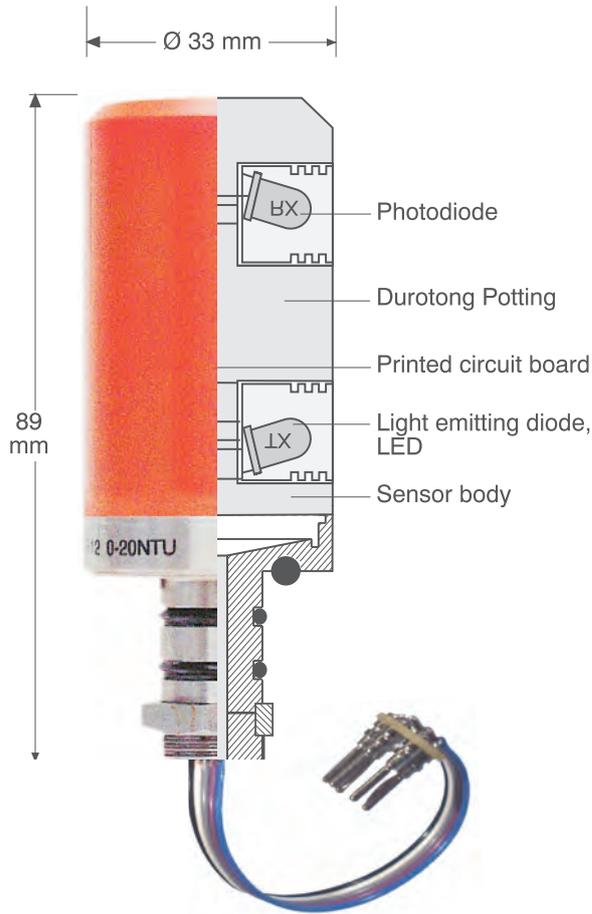
When a measurement is taken the IR light emitting diode is switched on for half a second and sends

a light beam into the water. If the surrounding water is clean and clear the photo diode will not detect this light. On the other hand, if the water is contaminated, scattered light from particles in the water will be sensed by the photo diode and a photocurrent will flow in the diode.

This current gives a signal that signifies the amount of light that has been scattered. The signal is independent of the ambient light intensity. The output is in the standard Aanderaa SR-10 format.

The sensor is designed to avoid marine fouling. It is important to keep the plastic surfaces covering the IR-LED and the photo diode clean to ensure accurate measurements. When measuring in air, the sensor should read 0.1 NTU.

Specifications 3612



Turbidity range:	3612:	0 - 20	NTU
	3612A:	0 - 100	NTU
	3612B:	0 - 500	NTU
	3612S:	NTU
	(NTU=Nephelometric Turbidity Unit)		
Accuracy:	2% of full scale.		
Wavelength:	880nm		
Resolution:	0.1 % of full scale		
Angle of measured diffused radiation:	30°		
Output signal:	SR10		
Time constant(63%):	30 sec		
Depth capability:	2000m		
Current consumption:	150µA average when read every 10 min		
Weight:	In air 385g(13.6oz) in water 196g (7oz)		
Packing:	Cardboard box		
Gross weight:	425 grams (15oz)		
Materials:	Durotong, Acrylic, Stainless steel 316L		
Electrical Connection:	5-pin plug		

Specifications subject to change without prior notice.



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