

Scour Monitor



Year of Purchase: 2019

Cost: 10.87 Lac

Description

The Scour Monitor head, showing the four transducer arrangement. The instrument has no protruding parts, making mounting arrangements less susceptible to damage.

The intensity of the acoustic return signal along four narrow beams, with angles 10, 20, 30, and 45 degrees from the vertical is measured. The bottom reflection provides a strong peak in signal amplitude, which is used to determine the exact distance.

The distance from the Scour Monitor to the seabed along each of the four beams is instantly displayed on a password-protected web site. The displayed data are corrected for tilt and beam angles, to provide true bottom elevation as a function of time.

Technical Specification:

Transducer

Frequency:	2.0 MHz	1.0 MHz
Beam width:	1.7°	3.4°
Beam angles:	10°, 20°, 30° and 45°	10°, 20°, 30° and 45°
Resolution:	1-1.5 cm	2-3 cm
Blanking distance:	0.1 m	7.0 m

Measurement:

Vertical range:	10 m	30 m
Along beam range:	19.4 m	45.4 m
Number of cells:	96	96
Measurement region:	0.1 m - 10 m	7.0 m - 30 m
Cell size:	20 cm	40 cm
Accuracy:	10 cm	20 cm

Temperature: Thermistor embedded in sensor head

Range: -	4°C to 30°C
Accuracy/resolution:	0.1°C/0.01°C
Time response:	10 min

Tilt: Liquid level

Accuracy/resolution	0.2°/0.1°
Maximum tilt:	30°
Up or down:	Automatic detect

Internal recording

Capacity:	9 Mb expandable
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Power

DC input:	9-16 VDC
Internal battery:	18AA Alkaline cells/50 Wh
New battery voltage:	13.5 VDC

Materials

Standard model:	Delrin® and polyurethane
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Dimensions

Weight in air:	1.7 kg
Weight in water:	0.7 kg buoyant
Length:	590 mm
Diameter:	75 mm