

Scour Monitor

The **Nortek Scour Monitor** comprises four downward looking narrow acoustic beams, to provide a profile of the seabed close to the base of the wind turbine pile. The beams fan out in a single axial plane, normally orientated perpendicular to the circumference of the pile. Data are recorded internally, plus being output in RS 232 or RS 422 as required. Changes in seabed (scour) can therefore be measured in real-time and relayed back from the field, even during storm periods, thus providing invaluable information for modellers of these crucial changes, as they occur.

Transducer

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

Measurement :

Vertical range:	10m	30m
Along beam range:	19.4m	45.4m
Number of cells:	96	96
Measurement region:	0.1m - 10m (2 MHz)	
	7.0m - 30m (1 MHz)	
Cell size:	20cm	40cm
Accuracy:	Better than 20 cm	

Temperature:

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

Tilt:

	Liquid level
Accuracy/resolution:	2° / 0.1°
Maximum tilt:	30°
Up or down:	Automatic detect

Data communication

I/O:	RS232, RS422
Baud rate:	9600 standard, 300-115200 (User setting)

Internal recording

Capacity:	9Mb expandable
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Power

DC Input:	9-16 VDC
Internal battery:	18AA Alkaline cells/50Wh
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

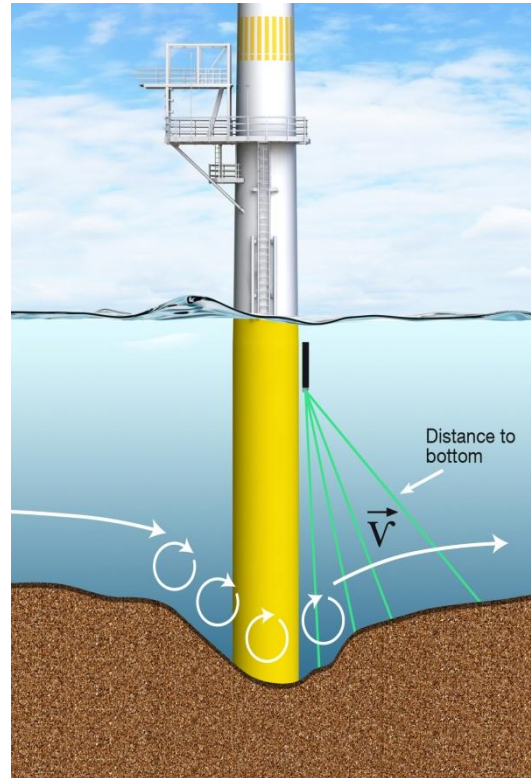


Diagram showing method of deployment



Scour Monitor head showing four transducer arrangement.

All figures are subject to modification following further testing