

OBX Ocean Bottom Recorder

OBX-90



- Continuous cable-free 4C autonomous recording
- Battery module: 90 days operation
- Built-in full resolution test generator
- Solid-state flash memory: 16 GB per channel
- CSAC clock

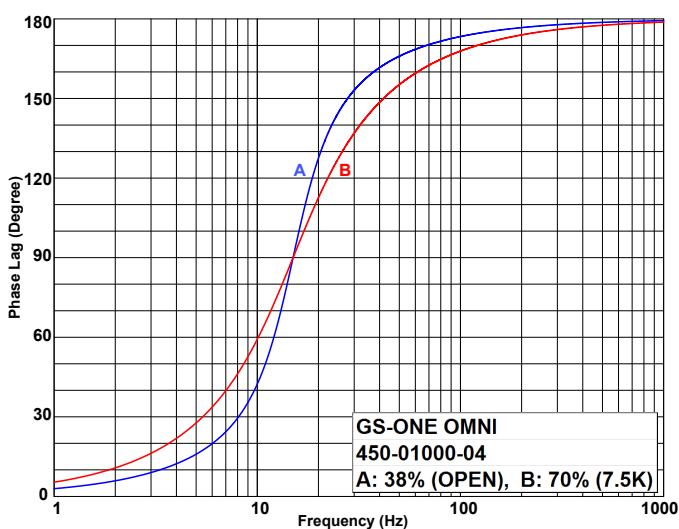
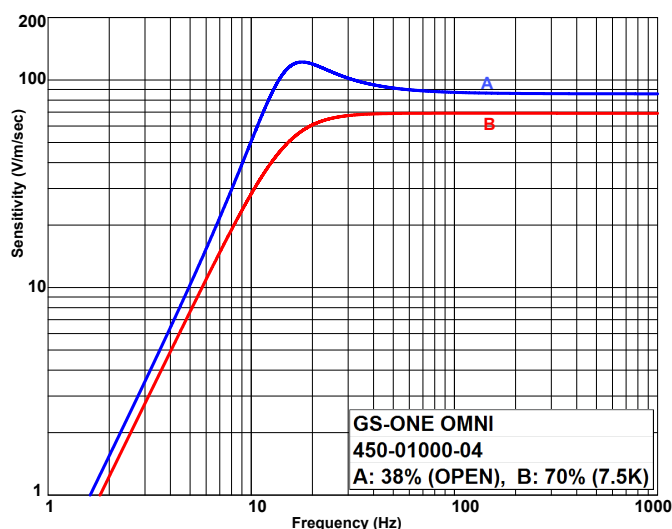
PHYSICAL SPECIFICATIONS

Moving Mass	13.2 g	0.466 oz
Maximum coil excursion p-p	4.06 mm	0.16 in.
Minimum coil excursion p-p	1.02 mm	0.04 in.
Diameter	30.5 mm	1.2 in.
Height	40.7 mm	1.6 in.
Weight	130 g	4.60 oz
Operating and Storage Temperature Range	-40°C to +100°C	-40°F to +212°F

ELECTRICAL SPECIFICATIONS

All parameters are specified with 7.5 k Ω load at 25°C in all tilt positions unless otherwise stated.

Frequency	15 Hz
Spurious Frequency	>160 Hz
Distortion at Horizontal	0.05% Typical
Coil Resistance	1450 Ω
Open-Circuit Sensitivity	69.2 V/m/s (1.75 V/i/s)
Sensitivity at 70% Damping	69.2 V/m/s (1.75 V/i/s)
Open-Circuit Damping	70%
Distortion at all tilt angles	<0.2% measured at 15 Hz with 0.2 in/s p-p



HYDROPHONE Deepender™ 5000-X

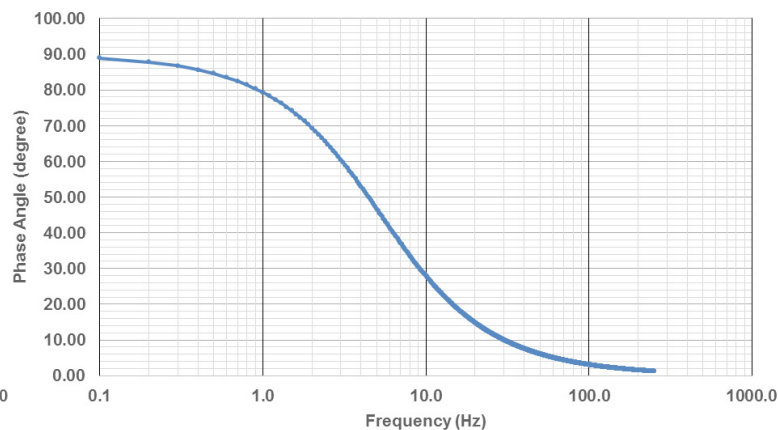
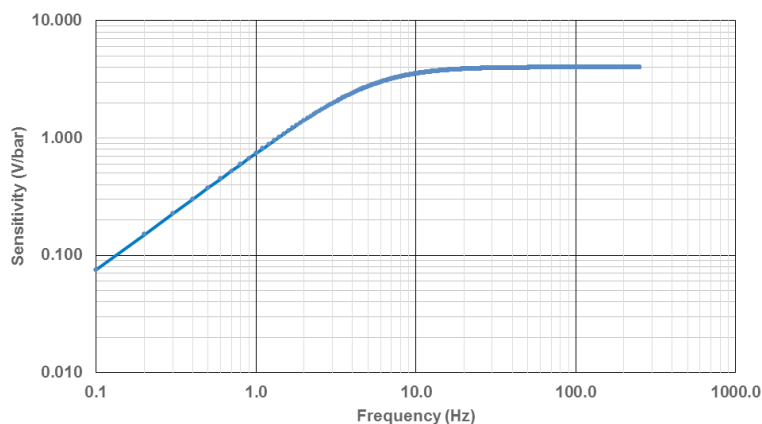
PHYSICAL SPECIFICATIONS

Maximum Operating Pressure	34.5 MPa (5,000 psi)
Maximum Working Depth	3450 m (11,319 ft.)
Operating Temperature Range ¹	-10 to +75°C (+14 to 167°F)
Outside Diameter	50.8 mm (2.0 in.)
Length	38.1 mm (1.5 in.)

ELECTRICAL SPECIFICATIONS

Nominal Capacitance (at 25°C 1atm)	20.0 nanofarads
Voltage Sensitivity ²	4.0 $\mu\text{V}/\mu\text{Bar}$
Sensitivity (dBv ref 1 μPa @ 25°C)	-181.9 dB re 1nC/ μPa
Frequency Response (into 2 M Ω load)	3 –15,000 Hz

1. Safe to be used slightly below 0°C as long as water is not frozen. Do not let hydrophone be frozen in ice, as this will cause irreversible damage to the crystals.
2. Voltage Sensitivity is specified when connected to OBX.



OBX-90

MECHANICAL SPECIFICATIONS (HOUSING)	Metric	US
Length	500 mm	19.7 in.
Width	215 mm	8.48 in.
Height	111 mm	4.38 in.
Weight in Air	17.0 kg	37.5 lbs.
Weight in Seawater	9.9 kg	21.8 lbs.
Maximum Operating Pressure	34.5 MPa/345 Bar	5,000 psi
Maximum Operating Depth	3,450 M	11,316 ft.
Operating Temperature Range	-5°C to +35°C	+23°F to +95°F
Storage Temperature Range	-10°C to +40°C	+14°F to +104°F

ELECTRICAL SPECIFICATIONS	
Digitized 4C Recording Station: 4 Channel, 24 Bit A/D Digitizer 3C Orthogonal oriented GS-One OMNI 15 Hz Geophones 1 DEEPENDER Hydrophone	
Digitization	24-bit Delta-Sigma
Sample Interval	0.25, 0.5, 1, 2, 4 ms
Pre-amplifier Gains	0, 6, 12, 18, 24, 30, 36 dB
Maximum Input Signal	1.8 Vrms
Equivalent Input noise (@2ms sample interval)	0.17 μ Vrms
Gain Accuracy	Better than 1%
Anti-alias Filter	83% Nyquist
Instantaneous Dynamic Range	124dB @ 2 ms sample interval
THD	<0.2%
Distance Between Digitizer & Farthest Sensor	<18 cm
Distance Between All Sensors	<13 cm
Flash Memory	16 GB per channel
Frequency Response	1 Hz – 1650 Hz @ ¼ ms sample interval
Battery Module	90 days operation

Specifications subject to change at sole discretion of Geospace Technologies.



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