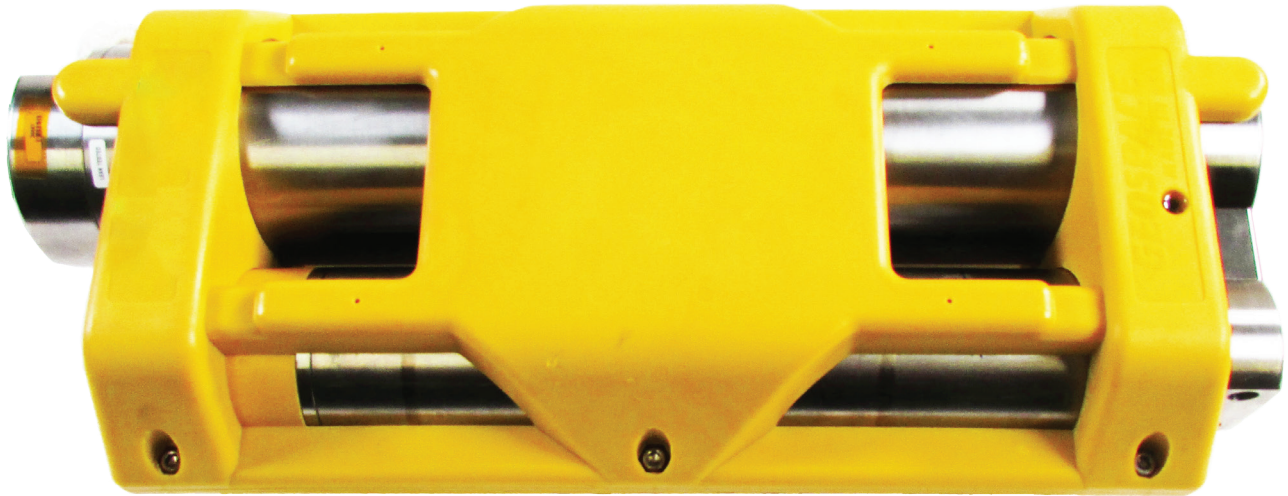


OBX-110

OCEAN BOTTOM RECORDER



- Continuous cable-free 4C autonomous recording
- Battery module: 110 days operation
- Built-in full resolution test generator
- Solid-state flash memory: 16 GB per channel
- CSAC clock
- Internal Heading Sensor
 - 3 Component Magnetic Sensor
 - $\pm 5^\circ$ Accuracy
 - Measurements written to header every 2,000 samples

GS-ONE Omni

GEOPHONE

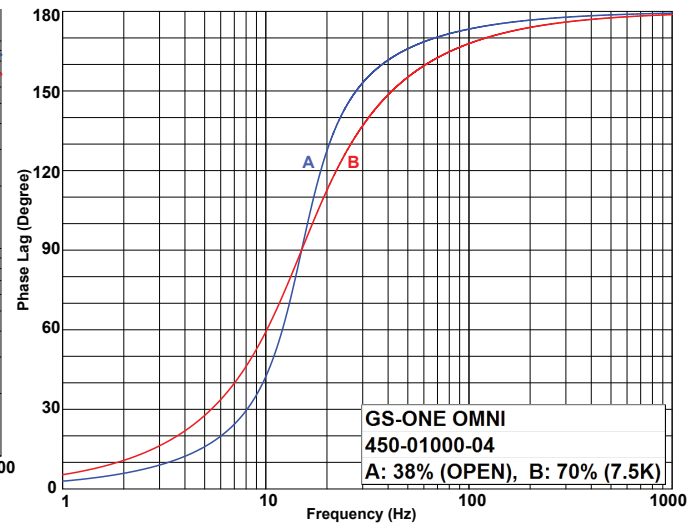
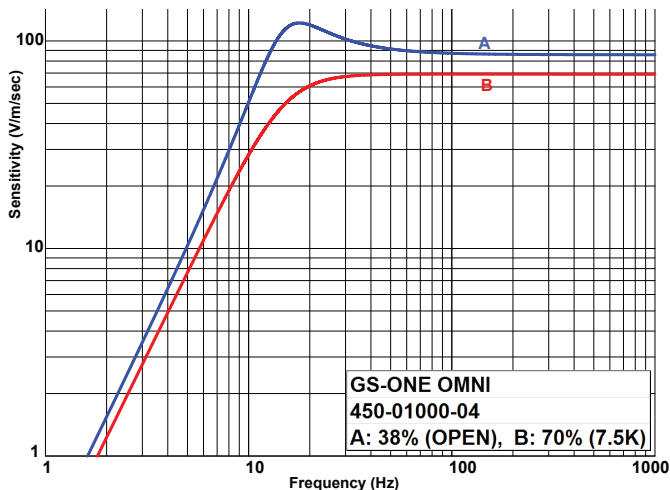
PHYSICAL SPECIFICATIONS

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



US Patent 8,098,546

Deepender™ 5000-X

HYDROPHONE

PHYSICAL SPECIFICATIONS

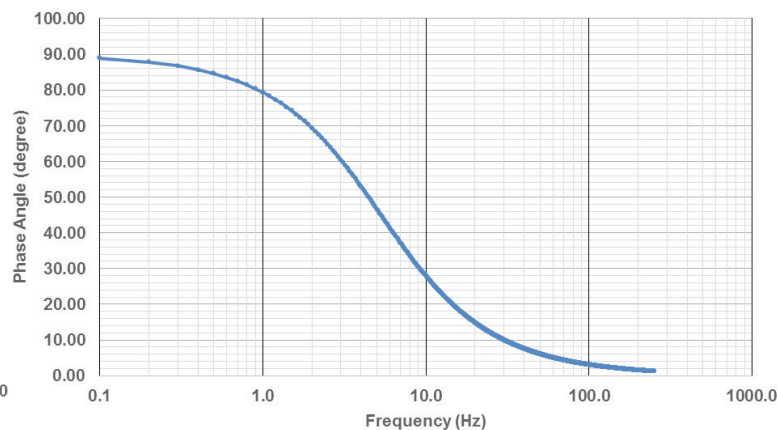
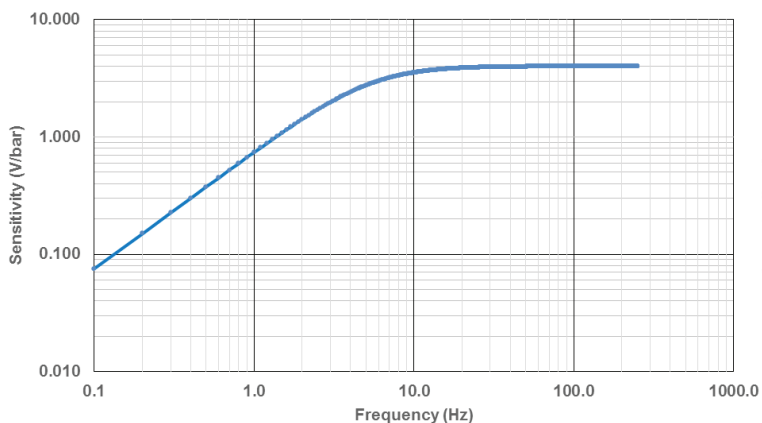
Maximum Operating Pressure	34.5 MPa (5,000 psi)
Maximum Working Depth	3450 m (11,319 ft.)
Operating Temperature Range ¹	-10 to +75°C (+14 to 167°F)
Outside Diameter	50.8 mm (2.0 in.)
Length	38.1 mm (1.5 in.)

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 +/- 1.5db
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-110

OCEAN BOTTOM RECORDER

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 μVrms			
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		110 days operation			
CLOCK SPECIFICATIONS					
Days	30	60	90	100	
Max Uncorrected Drift	2ms	8ms	17ms	21ms	
Corrected Drift	<.25ms	<.5ms	1ms	1ms	

7007 Pinemont Drive • Houston, Texas 77040 USA
www.geospace.com • T: 713-986-4444 • F: 713-986-4445

Geospace Technologies, Canada
2735 - 37th Avenue N.E.
Calgary, Alberta,
T1Y 5R8 Canada
403 250-9600

Geospace Technologies, China
Room 700, 7th Floor
Lido Office Tower, Lido Place
Jichang Road, Jiang Tai Road
Beijing, 100004, P.R.China
011 (86) 10 6437 8768

Geospace Technologies
Sucursal Sudamericana
Carrera 127-22 G 28 Int. 30
Agrupación Industrial La Esperanza
Bogotá, Colombia
011-57-1-742-7414

Geospace Technologies, Eurasia
Kirovogradskaya, 36
Ufa, Baskortostan
Russia 450001
011 (7) 3472 25 39 73

Geospace UK
F3 Bramingham Business Park,
Enterprise Way, Luton
Bedfordshire LU3 4BU, England
011 44 (0) 7775 688 467