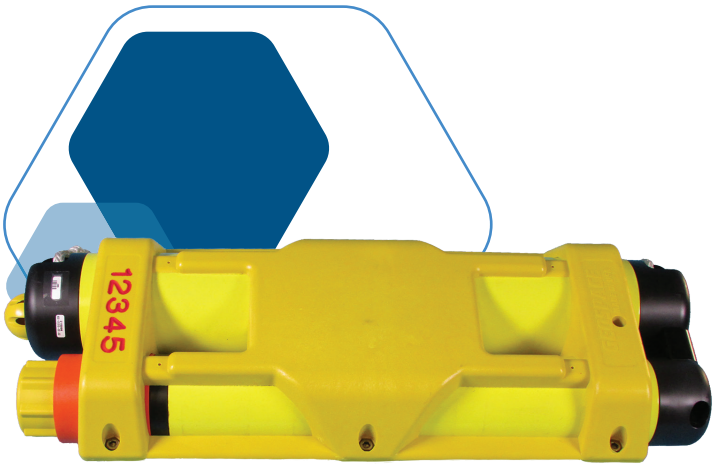
OCEAN BOTTOM RECORDER

750 METERS MAX OPERATING DEPTH



PRODUCT DESCRIPTION

The OBX-750E is a seabed ocean bottom wireless seismic data acquisition node with a maximum operating depth of 750 meters. Nodes can be deployed in shallow offshore waters and transition zones, which include estuaries, marsh wetlands, and freshwater environments, such as rivers and lakes. Once deployed, the OBX-750E can collect seismic data continuously for up to 60 days.

FEATURE HIGHLIGHTS

- Continuous cable-free 4C autonomous recording
- Maximum operating depth: 750 meters
- Battery module: 60 days
- Built-in full resolution test generator
- Solid-state flash memory: 8 GB per channel
- OVCXO clock

GEOPHONE

GS-ONE OMNI

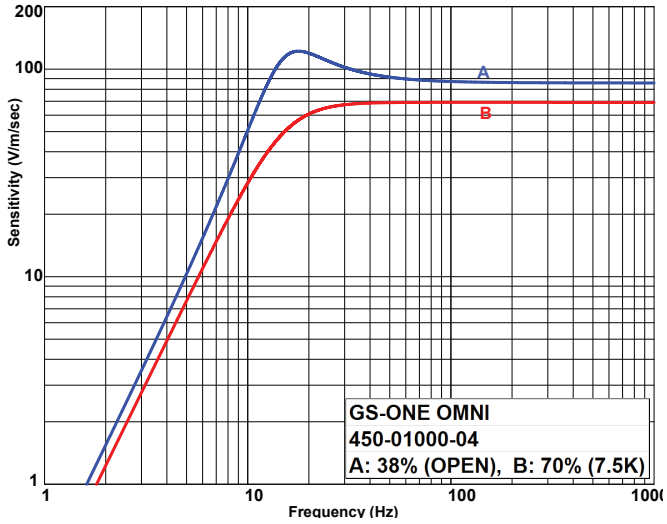
PHYSICAL SPECIFICATIONS

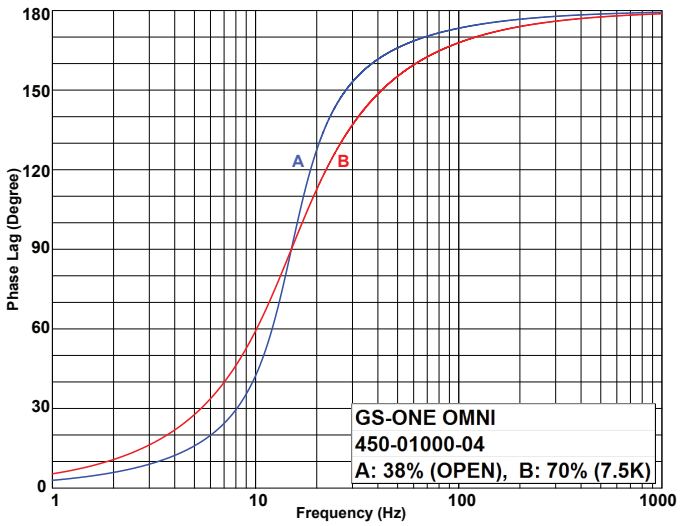
Moving Mass	13.2 g	0.466 oz
Maximum coil excursion p-p	4.06 mm	0.16 in.
Minimum coil excursion p-p	1.02 mm	0.04 in.
Diameter	30.5 mm	1.2 in.
Height	40.7 mm	1.6 in.
Weight	130 g	4.60 oz
Operating and Storage Temperature Range	–40°C to +100°C	–40°F to +212°F

ELECTRICAL SPECIFICATIONS

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

Frequency	15 Hz
Spurious Frequency	>160 Hz
Distortion at Horizontal	0.05% Typical
Resistance with 7.5 kΩ load	1450 Ω
Sensitivity at 70% Damping	69.2 V/m/s (1.75 V/in/s)
Damping	70%
Distortion at all tilt angles	<0.2% measured at 15 Hz with 0.2 in/s p-p





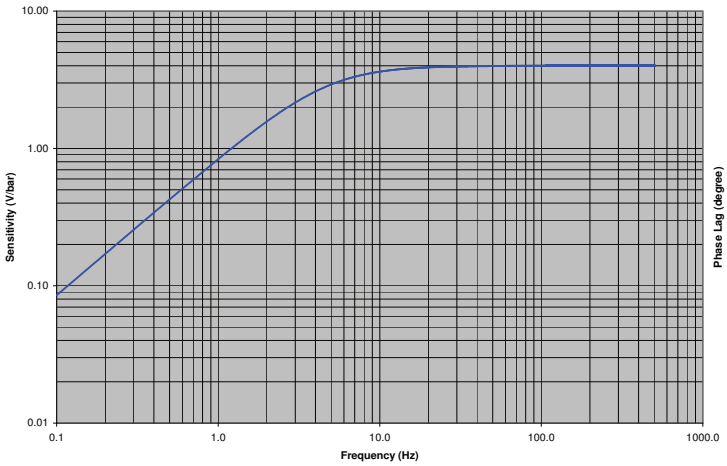
HYDROPHONE

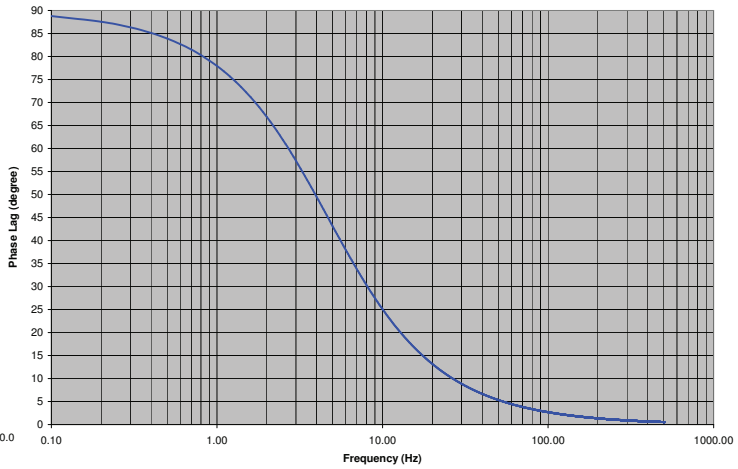
MP 18 BH

ELECTRICAL SPECIFICATIONS

Nominal Capacitance (at 25°C 1atm)	16.0 nanofarads
Voltage Sensitivity[2]	4 V/Bar
Sensitivity (dBv ref 1µPa @ 25°C)	–208
Frequency Response (into 2 MΩ load)	5–1000 Hz (typical)

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 750-E
OCEAN BOTTOM RECORDER

MECHANICAL SPECIFICATIONS	METRIC	US
Length	521 mm	20.5 in.
Width	208 mm	8.2 in.
Height	108 mm	4.25 in.
Weight in Air	11.85 kg	26 lbs.
Weight in Seawater	4.1 kg	9.0 lbs.
Maximum Operating Pressure	7.5 MPa/75 Bar	1095 psi
Maximum Operating Depth	750 M	2460 ft.
Operating Temperature Range	–5°C to +50°C	+23°F to +122°F

ELECTRICAL SPECIFICATIONS

Digitized 4C Recording Station:	4 Channel, 24 Bit A/D Digitizer 3C Orthogonal oriented GS-One OMNI Geophones 1 MP-18BH-2500 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	1.8Vrms
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	8 GB per channel
Frequency Response	1 Hz – 1650 Hz @ ¼ ms sample interval
Battery Module	60 days operation

SOLUTIONS FOR A SMARTER FUTURE

Specifications subject to change at sole discretion of Geospace Technologies.