

— LAND
↓ DOWNHOLE
— SEABED
— MARINE



MicrOBS

Ocean Bottom Seismometer



Ahead of the CurveSM

MicrOBS



// DEEPWATER CAPABILITY

Down to 6000 m

// EASE-OF-USE

Light and compact design

// MAINTENANCE FREE

External connection for data retrieval and battery charge

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MicrOBS is a new generation of autonomous deep 4C Ocean Bottom Seismometer.

Operated from any vessel, MicrOBS dives by itself to reach the sea floor to begin the seismic acquisition. Integrating a combination of 3-C low distortion geophones plus an hydrophone, it will record P-S waves up to 24 days. At any time, by sending a specific signal from the vessel, MicrObs will release its anchor to get up to the surface. Sending a radio signal and activating a flash light, it will be retrieved easily to download its data.



Features & Benefits

Controllable release from surface

Acoustic receptor (patented technology)



Multi localization devices

Xenon Flash light Radio Signal



4-c seismic sensors

3 geophones
+ 1 hydrophone

External connectivity

Data retrieval
Battery charge
Settings



High Autonomy

Rechargeable Li-Ion battery pack



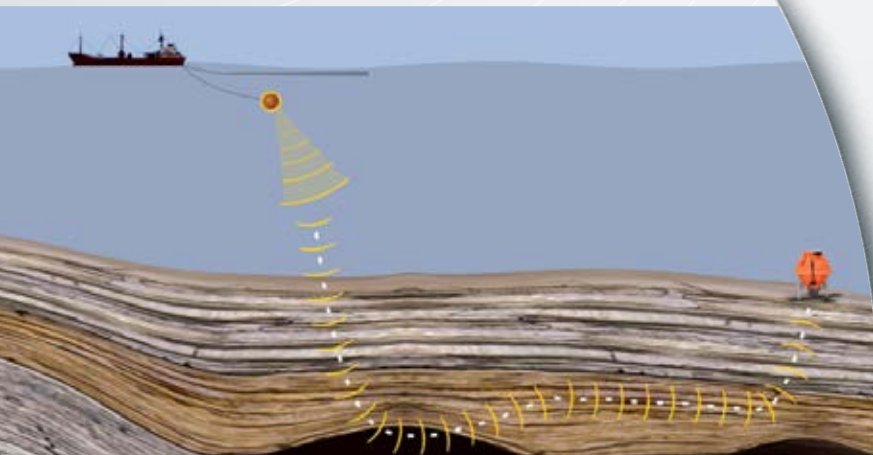
High Reliability

Mechanical release
by electrolysis



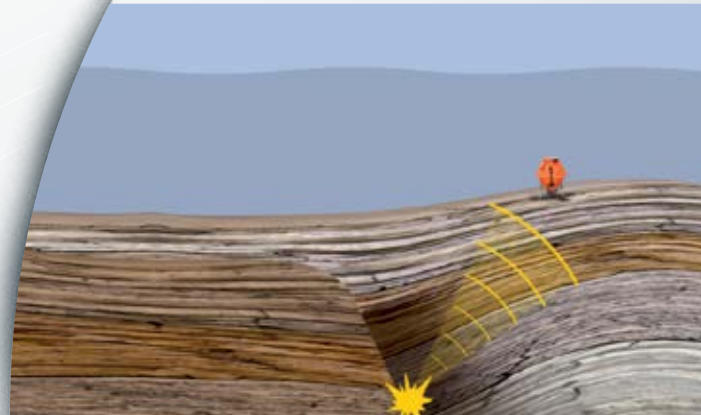
// DEEP REFRACTION SEISMIC

MicrOBS has been designed for deep water refraction seismic surveys. Using it in wide angle geometry provides excellent refractor arrivals from crustal discontinuities. With 4C multi-component recording, MicrOBS would allow accurate characterization of P & S velocities in deep crustal layers



// SEISMOLOGY

MicrOBS records and monitors earthquakes and natural seismicity to determine epicentre and associated mechanisms in active tectonic areas.





MicrOBS

Ocean bottom seismometer

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Ahead of the CurveSM

MicrOBS Specifications

WEIGHT	IN AIR	IN WATER		
MicrOBS	36 kg	-12.5 kg		
MicrOBS + Dead Weight	64 kg	11.5 kg		
SENSORS	HYDROPHONE	GEOPHONE		
Configuration	1 channel	3 axis		
Low frequency cut-off	2 Hz (- 3dB)			
Natural frequency		4.5 Hz	10 Hz	
Sensitivity	-160 dB ref 1V/μPa	22.8 V/m/s	32 V/m/s	85.8 V/m/s
BATTERIES				
Type	Rechargeable Li-Ion 15V/40Ah			
Autonomy	8 days idle + 24 days acquisition			
MEMORY				
Type	Compact Flash Card - 8 GB (Optional 32 GB)			
Autonomy	24 days (@2 ms SR)			
Operating depth	6000 m maximum			
DIMENSIONS				
Base	550 x 550 mm			
Height	720 mm			
Dead weight size (cross shape)	800 x 800 mm			
DATA LOGGER				
Seismic channel	4			
A/D converter (seismic channel)	24 bits			
Sampling frequency	25 to 1000 Hz			
Bandwidth	DC to 0.40 x sampling frequency			
Gain preamplifier	Hydrophone: 0 to 36 dB step 6 dB Geophone: 20 to 56 dB step 6 dB			
Dynamic range	120 dB			
Synchronization interface	DCF77 (from GPS)			
Configuration interface	RS 232 (9600,1,1)			
Date & Time stamped data	Yes			
SIGNAL				
Localization radio signal	VHF radio beacon: 160,725 MHz (Optional 156,625 MHz)			

Note: Sercel reserves the right to change its specifications without prior notice.
All specifications are typical at 20°C

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