

# SS-BH borehole geophone



SSBH sensor is a geophysical device designed to measure vibrations in boreholes for DownHole, UpHole and CrossHole surveys.

Made from stainless steel, it is robust and rugged, and can be equipped with 4.5Hz, 8 or 10Hz geophone sensors.

It can be used with any exploration seismograph and, naturally, with all our seismographs, especially the **DoReMi™** system.

## Simplicity

The SSBH sensors is extremely practical with its simple action device for locking and unlocking the sensor to the borehole wall. Two LED indicators on the control panel show if the sensor is locked or free to be moved. Use of four horizontal sensors guarantees the readability of the first breaks of the SH waves in any sensor orientation inside hole. Geophone outputs can be read from any brand of digitizer.

## Energy

The system use a small lead-acid battery to operate the motor that opens and closes the locking device.

## Precision

Although it is not critical in this field of application, SSBH uses the best geophone digital grade available on the market. A machined internal geophone holder guarantees precise angular orientation of the sensor and absolute orthogonality of the Z sensor.

## Safety

The locking system guarantees trouble-free operation even in harsh environments such as flooded wells and boreholes with mud or dirty water.

A safety cord can be applied to extract the sensor in case of malfunction or if for any other reason the sensor becomes jammed in the borehole.

The locking piston is also equipped with a specific breaking point that helps to unjam the unit as soon it is forced.

Operator safety is also guaranteed, since the movement is limited in force with an electronic torque control and the shape of the locking system is IP5-.



## Technical Features

Number of channels:	5 standard (optional 3 or customized)
Configuration:	Z vertical, horizontal at 0°, 45°, 90°, 135°
Non-orthogonality:	< 0.01%
Levelling:	not available
Eigen frequency:	recommended 10Hz (+/-5%) (other upon request)
Useable band*:	0.5-300Hz
Damping:	0.707
Inertial mass:	24 g
Sensitivity:	standard 80 V/m/s (optional 27V/m/s)
Maximum allowed tilt:	Vertical: 10° Horizontal (for 8Hz sensors): 5°
Sensor mass movement:	0.2mm

Dimensions: 1080x50mm (sensor body)

Sensor weight:	4500g
Total weight:	8000g
Cable length:	standard 50 meters
Connector:	Cannon JC series 10-pole
Digitizer integration:	DoReMi (native), SR04, SL06, SL07 (possible)
Locking system:	electric motor
Power supply:	12V lead-acid battery

Conformity declaration: CE



Picture of the control panel with LEDs for battery check, lock-unlock switch and status, wet alarm, battery connector, sensor connector and fuse.

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