

SS-DH-5C downhole geophone



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

Made from stainless steel, with detachable probe, it is slim, robust and rugged.

It can be equipped with 4.5, 8 or 10Hz geophone sensors. It can be used with any exploration seismograph and, naturally, with all our seismographs, especially the **DORÉMI™** system.

The SSDH sensors is extremely practical with its electric simple action switch for locking and unlocking the sensor to the borehole wall.

Four LED indicators on the control panel show the status of equipment, battery, water ingress, locking and unlocking.

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.

The integrated lead-acid battery (commercial off-the-shelf type) makes the system more practical and with less cables around.

The locking piston is also equipped with a specific breaking point that helps to recovery the unit if in case it jams inside the hole.

Movement of piston is limited in force with an electronic torque control.



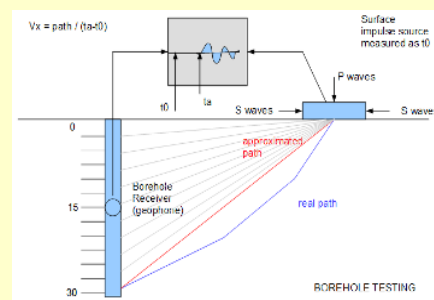
Note! The probe is detachable from the cable

Applications

The SS-DH sensors is designed mainly to measure soil properties as per Vs30 calculation.

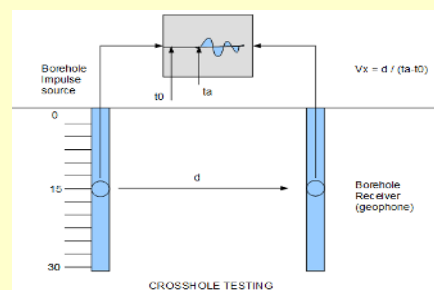
Downhole

Injecting energy from the surface you can measure the travel time of P waves and SH waves and then calculate the elasto-mechanic properties of soil.



Crosshole

Using a proper borehole source of mechanical pulses to be put at the same depth of receiver and/or measuring with a variety of depths for both direct measurement of P wave speed and S wave speed can be accurately accomplished.



Some customization can be applied to the sensor for example connecting rods to use 2 sensors as a double body sensors to measure the differential time arrivals.

Technical Features

Number of channels:	5 standard (optional 3 or customized)
Configuration:	Z vertical, horizontal at 0°, 45°, 90°, 135°
Eigen frequency:	10Hz (+/-5%) (other upon request)
Sensitivity:	28V/m/s
Dimensions:	1080x45mm (sensor body)
Min - Max diameter:	63.5mm - 80mm
Sensor weight:	2.5kg
Total weight:	8 kg (50 meters cable)
Cable length:	standard 50 meters
Connector:	MIL-C-56842 series 10-pole
Locking system:	electric motor
Power supply:	12V lead-acid battery
Conformity declaration:	CE

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