



HYDROPHONE

Diameter	45mm
Length	260mm
Weight	1.3 Kg
Waterproofing	300m
Connector	Souriau TP series 10 poles
Case	Stainless steel, Aluminium, PVC

ELECTRONIC FEATURES

Hydrophone	piezoelectric element
Bandwidth	30Hz to 15KHz
Operating temperature range	0 to +70°C
Power supply	±5 to ±15Vdc
Power consumption	<10mA

VERTICAL GEOPHONE

Diameter	60mm
Length	315mm
Weight	2 Kg
Waterproof	120m
Max Air Pressure	12bar
Air pipe connection	6 mm
Max piston range	21.5 mm
Connector	Souriau
Case	Aluminum

ELECTRONIC FEATURES

Geophone	SM-6
Number of axis	1 (vertical)
Natural frequency	14Hz ±7%
Damping	0.7
Open circuit sensitivity	800V/m/s +5/-10%
Operating temperature range	0 to +70°C
Power supply	±5 to ±15Vdc
Power consumption	<10mA



Rev2401



SET SEISMIC CROSS HOLE

The seismic cross-hole set for borehole surveys is designed for the measurement of compression (P) and shear (Sv) seismic waves of ground/soil/rock and concrete /embankments dams.

Contact now your
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SET SEISMIC CROSS HOLE

Two specific borehole sources are used to generate seismic signals and one (or more) receivers are used to detect the first arrival of the seismic wave; the distance between boreholes at each depths is measured using a borehole deviation survey (Inclis30). Wave velocity is calculated as the ratio between the distance at each depth and the measured time.

P WAVES

SOLGEO SPARKER is an automatic source to generate P waves; different levels of power (from 100J to 500J), frequency contents from 100 Hz up to 6kHz; it must be used in boreholes filled with water.

S WAVES

SOLGEO GEOSv is used to generate S waves. It allows to automatically produce both upwards and downwards signals to obtain an inversion of the shear waves polarization without P waves noise. The Solgeo AVG (Amplified Vertical Geophone) is the paired receiver. The clamping is obtained with pneumatic device.

APPLICATIONS

- Seismic cross-hole (2 or 3 bore holes)
- Seismic down-hole
- Seismic tomography
- Ground elastic modules estimation
- Cavities / faults detection
- Detection of infiltration



1 Pressure regulator for pneumatic coupling of S-wave transmitter and receiver;

2 Seismic power supply, electric survoltage for generating the energy necessary to run/operate the P-wave and S-wave transmitters;

3 Remote control of the electric survolter;

4 GEOSv transmitter, probe for the generation of vertically polarised shear waves (S);

5 Sparker transmitter, probe to generate compression wave (P);

6 Interchangeable high-voltage connection cable for the two sparker and GEOSv sources/transmitters;

7 Incliner probe, Inclis30, for measuring 3D borehole deviation;

8 Hydrophonic receiving probe, single channel, for receiving compression waves (P);

9 Geophonic receiving probe, single vertical channel, for receiving shear waves (S);

10 Connection cable for receivers probes and inclinometer probe;

11 Air compressor for managing the pneumatic coupling;

12 2-channelS, high-sampling ALLinONE data logger.

GEOSv TRANSMITTER

TECHNICAL FEATURES

Diameter	65 mm
Length	650 mm
Waterproofing	200 m
Max Air Pressure	25 bar
Air pipe connection	6 mm
Max piston range	21 mm
Connector	High voltage 7 pins
Case	Aluminum
Clamping pistons	2
Power supply	Max 3000 V 200 J
Frequency Bandwidth	100-600 Hz

SPARKER BOREHOLE TRANSMITTER

TECHNICAL FEATURES (MULTI)

Operating Voltage	Up to 6000 v
Operating Energy	Up to 1500 J (optionally: up to 500 J, up to 2500 J)
Well Diameters	From 70 mm (optionally: from 40 mm)
Diameter	60 mm (optionally: 36 mm, 80 mm)
Length	500 mm
Dimensions on a reel	800 x 700 x 400 mm
Weight with a reel and a 100 m cable	Appr. 75 Kg

TECHNICAL FEATURES (MONO)

Operating Voltage	Up to 3000 v
Operating Energy	Up to 500 J
Well Diameters	From 60 mm
Diameter	50 mm
Length	750 mm
Dimensions on a reel	600 x 500 x 460 mm
Weight with a reel and a 100 m cable	Appr. 53 Kg

