www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438

IPG 5000 Downhole Source Data Sheet

The basic seismic crosshole source equipment consists of the electric surge generator IPG 5000 and the remote control unit RCU controlling the surge generator together with a downhole cable ending in a common source adapter CSA. Various seismic sparker sources can be connected to the CSA, typically a SBS42 (P-Wave) or BIS-SH (SH-Wave) probes. Triggering of the seismic acquisition system is performed by the remote unit.



Impulse Generator (IPG) 5000 and surface cable. Image courtesy of Geotomographie.

The impulse generator delivers short electrical impulses of an energy up to about 1000 J by means of a high voltage condenser bank, charged with a voltage of up to 5 kV.

The SBS42 P-Wave sparker probe must be operated in water filled boreholes and at a minimum depth of 1m. Whilst the BIS-SH SH-Wave sparker probe is capable operate in both dry and water filled boreholes.

The repetition rate of the system is between 4-7s depending on how long the power supply take to charge the condenser bank.

The Remote control unit RCU converts the reference signal of the surge generator to a trigger signal. Sparker pulses are released through manual or automatic triggering of the generator by the remote unit. The background noise can be recorded automatically and used to interrupt data acquisition if the noise level is too high.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	52cm x 25cm x 50cm	52kg

Technical Specifications

IPG 1005:	-

Geomatrix Earth Science Limited, Unit 20 Eden Way, Pages Industrial Park, Leighton Buzzard, Bedfordshire, LU7 4TZ

www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438

Impulse Voltage:	5kV.
Impulse Energy:	1000J.
Repetition Rate:	4 - 7s.
Power Supply:	230V, 50Hz, 2.5A.
Triggering:	Manual or Continuous.
Safety:	Emergency OFF button & Safety key lock.
BIS-SH:	-
Waves Generated:	Horizontal Shear (SH) waves and P-Waves
BIS-SH source diameter:	65mm
Maximum Borehole diameter:	12cm (5")
Housing:	Stainless Steel
Maximum Operational Depth:	65m
Frequencies:	Up to 4kHz.
Clamping:	Pneumatic bladder.
Rotation:	Via borehole cable.
SBS42:	-
Waves Generated:	P-Waves
Housing:	Stainless Steel
SBS42 source diameter:	45mm
Maximum Borehole diameter:	12cm (5")
Frequencies:	Up to 5kHz.
Maximum Operational Depth:	100m

Gallery

Geomatrix Earth Science Limited, Unit 20 Eden Way, Pages Industrial Park, Leighton Buzzard, Bedfordshire, LU7 4TZ

www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438



BIS-SH Sear wave seismic source. Image courtesy of Geotomographie.



SBS42 P-Wave seismic source. Image courtesy of Geotomographie.



RCU5000 remote for IGP5000. Image courtesy of

Geomatrix Earth Science Limited, Unit 20 Eden Way, Pages Industrial Park, Leighton Buzzard, Bedfordshire, LU7 4TZ

www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438

Geotomographie.

Geomatrix Earth Science Limited, Unit 20 Eden Way, Pages Industrial Park, Leighton Buzzard, Bedfordshire, LU7 4TZ