

## DHA-7 Data Sheet

The DHA-7 downhole hydrophone array is designed for high-resolution seismic borehole imaging. Unique proprietary polymer hydrophones (no ceramics) are in-line molded to a fully integrated, triple-sealed multi-conductor cable. Non-shattering polymer material provides superior performance and durability under the rigors of borehole applications and a stable signal response up to 10 kHz.



*DHA-7 with Geode Seismograph.*

The Model DHA-7 is suited for use in cased and uncased, water-filled, narrow-diameter boreholes. The standard configurations include a group interval of 0.5 to 5 m and a total cable length of up to 400 m (1,312 ft). The cable is terminated topside with suitable connectors to mate with the seismograph and a 12VDC rechargeable power supply. Custom group intervals and multiborehole configurations are also available to tailor the system to meet your needs. The array is easily deployed by hand.

### Applications

- Image faults and fractures, stratigraphy, voids, mineral deposits, underground structures; determine soil, rock and reservoir properties
- Ideal for shallow gas and mining investigations, earthquake engineering and foundation studies, teaching and research
- Suited for high-resolution uphole, VSP, and crosshole surveys

### Features

- State-of-the-art polymer hydrophones provide superior, stable response
- Unique design isolates vibration and suppresses cable-related noise
- Small diameter and light weight make for easy deployment
- Reliably performs under the rigors of borehole applications

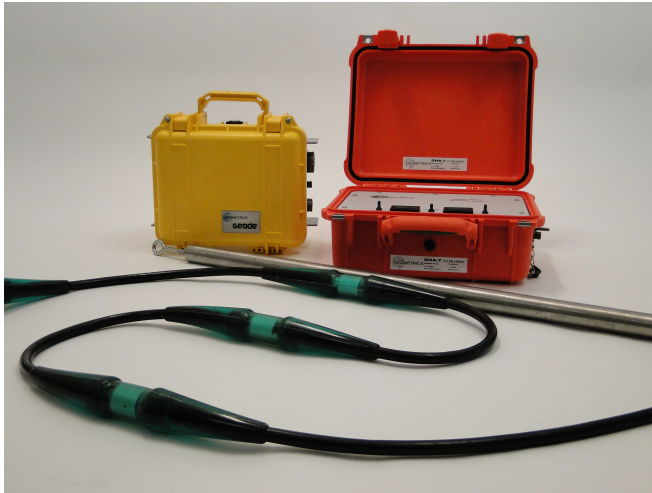
### Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	depends on hydrophone int x 41.3mm x 41.3mm	0.15kg/m

## Technical Specifications

<b>Hydrophone Sensor Type:</b>	Proprietary Polymer
<b>Channels:</b>	12 or 24.
<b>Hydrophone Interval:</b>	1-5m
<b>Sensors per Group:</b>	One.
<b>Frequency Response:</b>	10 Hz to 10,000 Hz $\pm$ 1.0 dB.
<b>Sensitivity:</b>	-197 dB re 1 Volt per 1 $\mu$ Pa.
<b>Sensitivity with depth:</b>	< 1.0 dB over 400 m depth.
<b>Sensitivity with acceleration:</b>	< -70 dB re 1 Volt per g.
<b>Preamplifier Type:</b>	Ultra-low noise differential.
<b>Gain:</b>	6 dB
<b>Power:</b>	$\pm$ 12V DC Model DHA Battery Pack on surface.
<b>Maximum total length:</b>	400 m, lead plus active section.
<b>Strength member:</b>	Kevlar center stress core.
<b>Bend Radius:</b>	12.7 cm
<b>Working Load:</b>	273 kg
<b>Breaking strength:</b>	909 kg
<b>Temperature Operating Range:</b>	-10°C to +70°C

## Gallery



*DHA-7 with Geode, Image courteous of Geometrics Inc.*



*DHA-7 field Deployment*