

DDS - Dual Downhole System Data Sheet

The Dual Downhole System (DDS) consists of two geophone receivers, both fitted with a minimum of 3 geophone elements, separated by a fixed distance. When deriving interval velocities the receiver geometry is extremely important. A fixed receiver separation reduces geometry and trigger errors which can be an issues when using two independent downhole geophones.



Dual Downhole System (DDS) with two 3 component geophones separated with a 2m interval.

To aid orientate the receivers a fluxgate magnetic compass is installed in the casing of the low receiver. The heading of the receiver is then reported on a LCD screen fitted in the hub of the cable reel. The pneumatic air line and signal cables are integrated within a jacketed Kevlar weave allowing the tool to be easily deployed by hand. The Kevlar weave also prevents the cable from stretching.

Each receiver is supported against the borehole side wall by a pneumatic bladder. The pneumatic system is adequate for exploration depths of 100m and the air bladders will inflate to fill a 75mm diameter borehole. In larger diameter boreholes spacers can be fitted to the DDS receivers.

The stainless steel receiver casing is sealed to allow the tool to operate in dry or water filled boreholes.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	55cm x 50cm x 50cm	32kg

Technical Specifications

Natural sensor frequency: 4.5, 10, 15, 28 or 30Hz

Sensor arrangement: DDS3 - 1 vertical & 2 horizontal (90° spacing)
DDS5 - 1 vertical & 4 horizontal (45° spacing)

Operational depth: 100m

Number of stations: 2

Station interval: 2m

Station length: 620mm

Station diameter: 65mm

Station weight: 2.5kg

Cable weight per metre: 145g

Cable strength: 2150N

Borehole diameter: 75mm

Clamping system: Inflatable bladder

Orientation: Magnetic compass (+/-2.5°)

Seismograph: Any (requires adapter cable)