

Borehole deviation probe

The **BDV42** probe is used to determine the exact drilled trajectory of a borehole in the subterranean space. Boreholes drilled close to infrastructure such as cables or tunnels can be surveyed before reaching the critical point. Another application of this method lies in water well quality control by ensuring that well deviation and curvature criteria are met so that problems with lowering pumps and other equipment can be avoided.

The probe is based on a high-precision combination magnetometer and accelerometer sensor providing a continuous measurement of borehole inclination and azimuth. Because of the resulting magnetic disturbance, reliable azimuth data can not be obtained in steel-cased wells or in iron-rich geological formations.

As an option, the probe can be supplied with a natural gamma detector to provide additional lithological information or for horizon correlation purposes.

Specifications

- ✓ Diameter: 42 mm / 1.65"
- ✓ Length: 1760 mm / 69.3" (probe only)
2240 mm / 88.2" (w. weights)
- ✓ Weight: 7 kg / 2.2 lbs (probe only)
11 kg / 24.2 lbs (with weights)
- ✓ Max operating temperature: 70°C / 158°F
- ✓ Max operating pressure: 200 bar / 2900 psi
- ✓ housing type: titanium & non-magnetic brass

Data / sensor parameters

- ✓ Orientation sensor: triple magnetometers / accelerometers
- ✓ Measurement range: 360° inclination / azimuth
- ✓ Orientation precision: ± 0.5° inclination,
± 1.0° azimuth.

Accessories / options

- ✓ Natural gamma detector: ø25 x 50 mm NaI(Tl) crystal
- ✓ Non-magnetic centralisers
- ✓ Sinker weights

Borehole conditions

- ✓ Dry or fluid-filled borehole
- ✓ Open hole or PVC casing: if azimuth required
- ✓ Steel casing: if azimuth not required

