

# Gyro

Probe Head



2.29m  
(90")

Accelerometer &  
Magnetometer

Gyroscope

Gyro Probe

The Gyro probe acquires borehole inclination/azimuth logs in situations where metal casing or magnetic materials around the borehole prevent use of the standard verticality probe.

The Gyro Magnetometer version also acquires 3D-magnetic data for location of magnetic ore bodies.

### Principle of Measurement:

The standard probe includes a gimbal-mounted directional gyroscope for orientational measurement and three accelerometers for inclination. In the Gyro Magnetometer probe, an additional triaxial fluxgate magnetometer continuously measures X, Y and Z magnetic components. These are used to compute the magnitude and direction of the magnetic field around the probe.

## SPECIFICATION:

### Features

- Continuous log of borehole inclination/azimuth
- Not influenced by metal casing or magnetic materials
- Low drift compared to 'rate' gyroscopes
- Natural-gamma measurement
- Magnitude and direction of surrounding magnetic field

### Measurements

- Borehole inclination
- Borehole drift
- True vertical depth
- Natural Gamma
- Magnitude and direction of surrounding magnetic field

### Applications

#### Water / Minerals / Engineering

- Verticality measurements in steel casing or in the presence of magnetic ores
- Detection of nearby magnetic ore bodies (Gyro Magnetometer probe)

### Operating Conditions

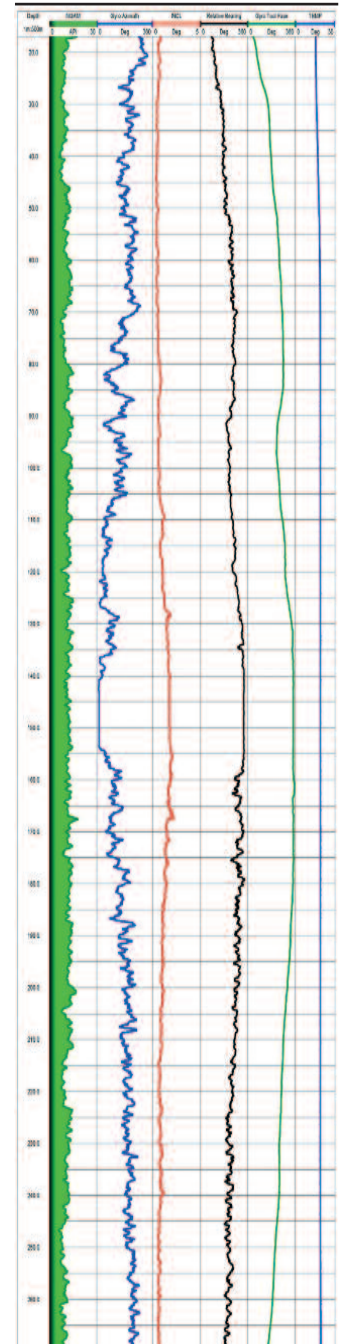
- Borehole type: open/cased hole; water/air-filled
- Centralisation: required
- Recommended Logging Speed: 3m/min

### Specifications

- Diameter: 45mm
- Length: 2.29m
- Weight: 12kg
- Temperature: 0-70°C (extended ranges available)
- Max. pressure: 20MPa
- Inclination range: 0 to 30°
- Azimuth range: 0 to 360°
- Magnetometer range: +/-100  $\mu$ T

### Part Numbers

- 1002150 Gyro probe with natural gamma
- 1014559 Gyro Magnetometer probe with natural gamma



Examples of logging data

