

ER-Gyro-03 Gyro While Drilling FOG INS (GWD)

Introduction

FOG Gyro While Drilling FOG INS (GWD) uses an inertial measurement unit which consist of three axis fiber optic gyro and three axis accelerometer and applied well trajectory tracking algorithm to calculate well information (inclination, azimuth, tool face angle and No. 1 pole angle), and can be used for drawing, data display etc.

Compared with the last generation, under the situation of ensuring measurement accuracy, it achieves size and volume more miniaturized, more wide application, suit for narrow borehole oil and gas wells. This instrument without any moving parts, have characteristics of strong impact resistance, small drift and high precision etc.

Application

1.Oil and Gas Exploitation,

Cased hole, well retest

Open window positioning, downhole directional perforation

Oil pipe logging

Measurement while drilling

2.Coal Mining

Measurement of gas drainage hole in coal seam

Features

High precision fast continuous attitude and position measurement

It has the function of self seeking, easy to use

High precision, unaffected by magnetic field

Good seismic performance

Long life, high reliability, long calibration period

Real-time uploading and drawing of measurement data through cable

Multi sensor simultaneous complementary redundancy measurement, high reliability

Can be matched with existing logging instruments to achieve a variety of underground parameters and measurements

Inner diameter 38mm, which can be well used in drilling field

Specifications

Inclination Measurement Range&Accuracy	0°~180°/±0.2°
Azimuth Measurement Range&Accuracy	0°~360°/±2° (inclination≥3°)
Tool Face Angle Measurement Range&Accuracy	0°~360°/±0.5°
Working Temperature	-25°C~125°C (without heat shield)
Pressure	140MPa
Inner Diameter	38mm
Outer Diameter	Φ48mm (without heat shield)
Instrument Length	1700mm
Weight	45Kg
Well diameter	≥Φ60mm
Power Supply	DC48V±10%
Output Interface	RS232、RS422、CAN
Measuring Speed	2m/s