ER-MWD-38 Small Diameter Measurement While Drilling (MWD-Φ38mm)

Introduction:

Small Diameter Measurement While Drilling (MWD-Φ38mm) is a kind of small-path mud pulse wireless in-drilling inclinometer. This is a new product developed following the ER-MWD-48 Measurement While Drilling . This product not only inherits the characteristics of high precision, high stability and high vibration resistance of the ER-MWD-48 inclinometer, but also more extensive applications.

Features:

1. ER-MWD-38 Measurement While Drilling can be used for the construction of conventional wellbore like the ER-MWD-48 Measurement While Drilling . Different diameters can be selected according to the conditions of on-site drilling tools (diameter of the drill collar Φ50.8mm, Φ71.4mm) Rubber wings to suit different drilling tools.
2. The external diameter of the instrument is Φ38mm. In the construction of small wellbore, the hole of the non-magnetic drilling tool may not be reamed (diameter of the drill collar is Φ50.8mm), which reduces the erosion of the drilling tool and enhances the safety of the downhole drilling tool.
3. When used in conventional large borehole construction, the muddy water circulation area of the non-magnetic drill collar is relatively increased, erosion of the drilling equipment and drilling tool is reduced, and the safety

construction of the well team is facilitated.

4. It is more suitable for the second and third development of oil wells and small hole operations such as window sidetrack drilling. Also suitable for use with coiled tubing to connect MWD.

5. The underground electrical connection adopts self-locking air plug + cord connection, which makes the instrument connection convenient and reliable, and improves the reliability of the instrument.

6. The electronic chamber of the pulse generator and the gamma probe share a compression cylinder. The user can select conventional gamma or orientation gamma. Became one of the first manufacturers in China to use the Φ38mm outer diameter directional gamma wireless MWD system.

7. ER-MWD-48 and ER-MWD-38 are compatible with ground equipment, reducing the cost of using.

8. Ground equipment can be selected for wireless or wired transmission.

Specifications:

Parameter	Measuring range & accuracy
Inclination	0~180°/±0.1°
Azimuth	0~360°/±1°
Tool Face Angle	0~360°/±2°
Pulse Type	Positive pulse
Gamma	The gamma probe is integrated in the pulsar and is approximately 1500mm closer to the drill than the conventional gamma short section (optional gamma orientation)
Operating Temperature	150℃
Mud Displacement	10~55L/S
Outside Diameter	38.1mm/1.5” (Pulse section-48mm/1.875”)
Downhole Power Supply	Lithium battery 21-28.8V DC (Can connect two battery segments)
Battery Life	Single battery more than 1300 hours

Impact Resistance	1000g, 0.5msec (Half shaft sine wave)
Anti-vibration	20g RMS 15-500Hz
Pressure Tube	100 MPa
Temperature Limit	0℃-125℃
Total Length of Downhole Tool String	6.0m (No gamma) ; 6.7m (With gamma）
Instrument Pressure Drop	(50~200) PSI
Mud Sediment Content	≤1%
Mud Weight	≤2.2 g/cm3
Mud Viscosity (Funnel Viscosity)	≤140s
Mud Signal Strength	(50~100) PSI
Adaptable to Drill Collar	3.125”~8”