

Azimuthal Gamma (Probe-based)

■ Introduction

Azimuthal Gamma Probe-based can realize the detection of formation lithology while drilling, especially maintain borehole trajectory within the target reservoir in horizontal-drilling. It can provide for interpretation of the shale reservoir's organic richness and clay content, identify the top or bottom boundary in CBM. Azimuthal Gamma Probe-based is particularly valuable in unconventional reservoir well placement and evaluation as well as CBM drilling applications.

■ Features

- Lithology identification
- Qualitative evaluation of shale content and radioactive mineral
- Dynamic rotary geosteering (upper gamma and lower gamma) during drilling
- Eliminate the interference of clay composition to sandstone and sand determination
- Installed on inclinometer while drilling, easy to use
- LHE623501/LHE625601 series MWD can be mounted after firmware upgrade
- Can be matched with MWD of other manufacturers

■ Application

- Development of oil sheet and CBM
- Measure natural gamma in specific direction
- Determine the interface position and dip angle of different formation

■ Technical Parameters

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| • Operating temperature | Up to 150°C / 302°F
Up to 175°C / 347°F |
| • Max. pressure | 140MPa(20,000psi) |
| • Sensitivity | ≥0.3CPS/API |
| • Accuracy | ≤150°C / 302°F:±5%/150 to 175°C/302 to 347°F:±10% |
| • Detection range | 200mm |
| • Sine Vibration | 10g 50 to 200Hz
20g 30 to 200Hz |
| • Random vibration | 10grms,50 to 200Hz |
| • Shock | X-axis or Y-axis:1000g/0.5ms1/2Sine wave
Z-axis:500g/0.5ms1/2Sine wave |
| • Operating voltage | 20 to 30VDC |
| • Gamma window range | 75° |
| • Rotation speed | 0 to 200r/min |
| • OD | φ48mm |

