

# KEYDRILL ROTATIONAL / AZIMUTHAL GAMMA MODULE (KRG)

## Overview:

KeyDrill's Rotational / Azimuthal Gamma Module (KRG) can detect and save to memory sixteen (16) sections of gamma borehole images. These images can be combined into as many as eight configurable sections (8) and transmitted while drilling. It also provides precise total gamma ray and near-bit inclination information while drilling. The KRG is particularly valuable in Shale Reservoir Development (SRD) and Coal Bed Methane (CBM) drilling, where the realtime borehole images facilitate geosteering and provide the formation's structural information. The spectral gamma ray data provide for interpretation of the shale reservoir's organic richness and clay content in SRD and identify the top or bottom boundary in CBM. This single LWD tool delivers superior value for unconventional reservoir well placement and evaluation as well as CBM drilling applications.



## Features:

- Depth determination and correlation within and between wells.
- Lithology identification.
- Qualitative evaluation of shaliness and radioactive mineral deposits.
- Dynamic rotary geosteering while drilling.
- Distinguish shales from non-shales.
- Estimate clay content in sands and limestone.
- Correlation of real-time data with offset logs to determine geologic location.
- Picking casing and coring point specifications.

## Specifications:

Operating Temperature: ..... -40°C to 175°C  
Max. Pressure: ..... 20,000 PSI  
Sensitivity: ..... 0.82 counts per API  
Accuracy: ..... ±5% to 150°C / ± 10% to 175°C  
Penetration: ..... <12-18" (30-45cm)  
Vibration: ..... (3 axis) 50-300 Hz, Max 20G  
Shock: ..... 500 G, 0.5ms  
Operating Voltage: ..... 18 - 38V  
Gamma Window Range: ..... 30° - 120°  
Rotation Speed Range: ..... 0-200 rpm  
Inclination Range: ..... 60° - 120°  
Connection Style: ..... Kintec  
Dimensions: ..... 1.875"OD x 45"L/25lbs.

