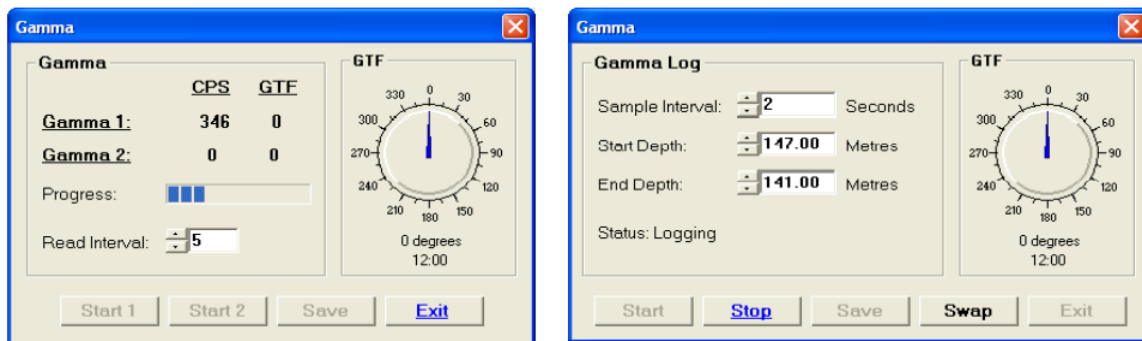


## DGS Focused Gamma Module for Drill Guidance System (PROD0675)

This DGS Focused Gamma Module, PROD0675, is used to identify the proximity of naturally radio-active roof / floor formations. Under certain conditions this will aid the directional drilling operations. It uses a super-sensitive hermetically sealed scintillation crystal and photomultiplier for maximum data quality. Mechanical design techniques have been developed specifically for the Measure Whilst Drilling (MWD) environment to ensure a rugged and reliable instrument. The mechanical structure provides maximum strength and rigidity but minimizes vibration loads due to the low mass. The electronics are fully temperature compensated to maintain constant count-rates at all temperatures.

The window is achieved via an Alloy/Tungsten shield covering 285 degrees. This window provides the directional functionality when drilling horizontal for positive roof and or floor identification.

The DGS Focused Gamma Module can collect data and with the aid of the built-in Gamma Tool Face provides information for the proper orientation when looking up and down. Two sets of Gamma Data, including Gamma Tool Face, can be stored with each Survey Shot.



The DGS Focused Gamma Module can also be used to collect continuous data, including Gamma Tool Face, between Survey Shots. This data is stored in a separate Gamma logging file for further analysis. The DGS Focused Gamma Module is mounted inside the existing DGS Downhole instrument enclosure. Therefore, the overall length of the DGS Downhole instrument does not increase.

<b>Specifications: PROD0675 – DGS Focused Gamma Module:</b>
Alloy/Tungsten shielded to provide a 75 degree open window
Front/Back Count Ratio 2.4:1
Mounted inside existing DGS Downhole instrument
Vibration rated at 30G, 50-300 Hz three axis
Shock rated at 1000G at 0.5 mseconds
Temperature rated to 175 °C
Temperature compensated to maintain 5 percent accuracy
Only 16 mA extra power consumption when collecting dat
Two Gamma data sets, including Gamma Tool Face, can be stored with each survey shot
Hole Data files compatible with Focused Gamma sensor
Continuous Gamma logging, including Gamma Tool Face between each survey shot
Counts Per Second averaged over programmable time intervals