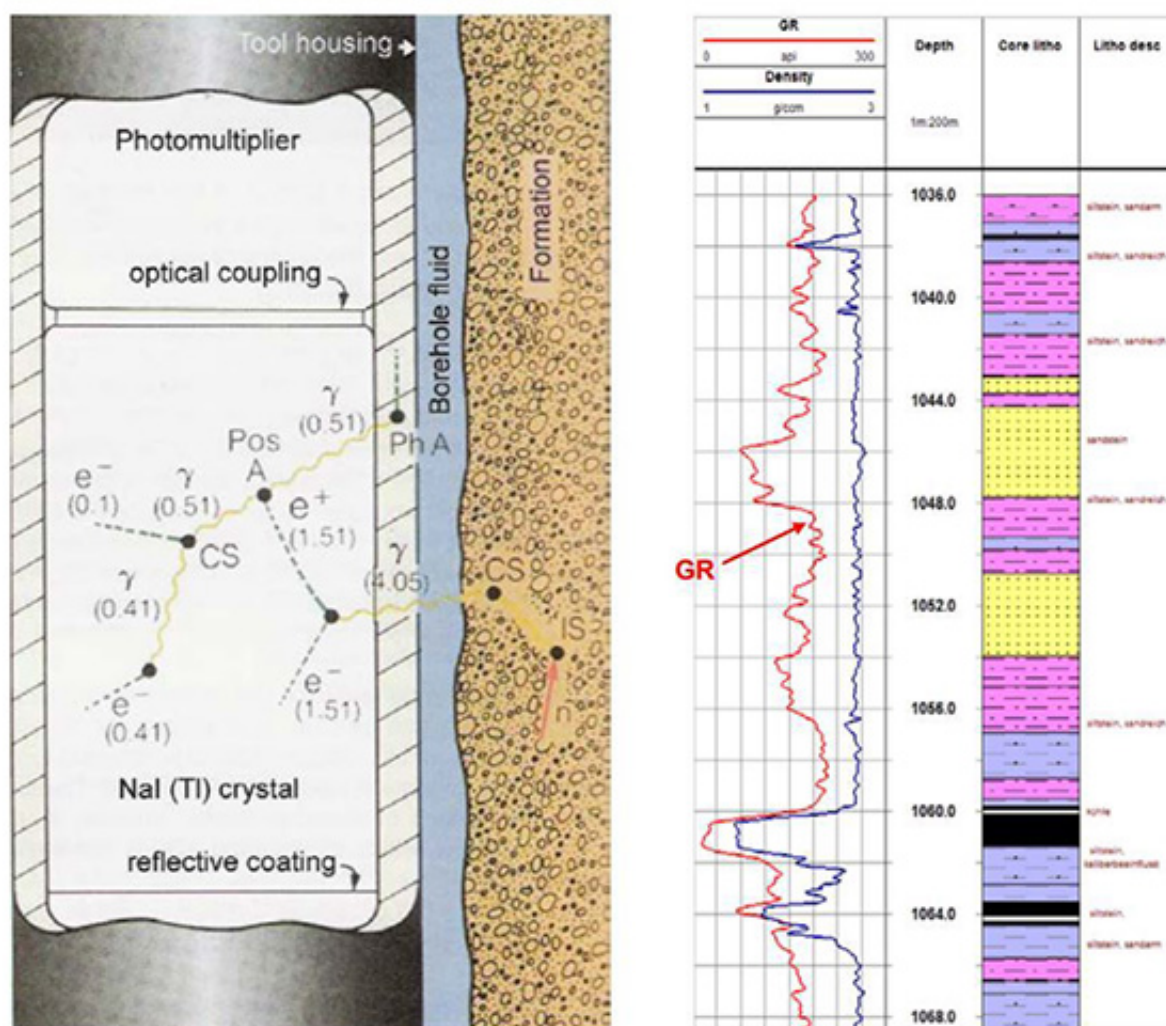


## Q40-GR Natural Gamma Data Sheet

The QL40GRA-1000 natural gamma probe sub can be run stand-alone, or with other QL tools in a custom stack. The natural gamma crystal is a proven 22mm diameter x 73mm long Na(Th)I scintillation crystal, suitable for general lithology applications and uranium exploration.

Other QL probes commonly stacked with the QL40GRA include the QL40RES (8-16-32-64" normal resistivity), QL40FTC-B (temperature / fluid resistivity), and the QL40CAL (3-arm caliper). But many possibilities exist owing to the flexibility of the QL (Quick Link) family of geophysical logging probe functions. Natural gamma logs can be run in any borehole environment, cased, uncased.



Measurement principle (left, O.&L. Serra, 2004) and typical GR responses and data display (right). Taken from the Q40GRA-1000 manual on the 23/06/2014.

Above shows Typical GR responses and data display (right). The QL40-GRA tool is equipped with a scintillation Thallium doped Sodium Iodide crystal - NaI(Tl), which, when hit by gamma rays, emits pulses of light. These pulses of light are amplified by a photo multiplier tube and are then converted into electrical pulses. The number of pulses are counted, digitised and transmitted up the wireline to the surface acquisition system.

### Operating Conditions

**W** - Water ?

**M** - Mud ?

**D**- Dry ?

**S** - Steel ?

**P** - PVC Borehole ?

**UC**- Uncased ?

\*Centralization is not required

## Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	127cm x 4.23cm x 4.23cm	5kg

## Technical Specifications

<b>Operating Temperature:</b>	Up to 80°C
<b>Sensor:</b>	NaI crystal (22mm dia x 76mm long).
<b>Accuracy:</b>	1% F.S.
<b>Resolution:</b>	1% F.S
<b>Cable:</b>	compatible with Mono, Coaxial, 4 or 7 conductor.
<b>Power:</b>	DC voltage at probe top: Min 80 VDC -Max 160 VDC Current: Nominal 25 mA