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RT-60 Data Sheet

Referred to as ‘The Mole’ the RT-60 Gamma ray borehole logging system offers a simple solution for gamma-ray measurements and natural radioisotopes assay. The RT-60 includes a BGO (Bismuth Germanium Oxide) gamma-ray detector and a complete 1024 channel gamma ray spectrometer, offering 80 cps/ 1MBq for Cs-137 at 1m distance.



RT-60 borehole gamma ray spectrometer probe. Image courtesy of Georadis.

The RT-60 comes equipped with 25m of 4-wire stainless steel cable offering a light easy to deploy system for shallow radon gas mitigation within rocks allocated for building material or to aid delineate extents of radioactive contamination from industrial activities.On request the logging cable can be extended to up to 200m enabling the system to be used as part of mineral exploration projects.

RT-60 utilises a 1024 channel gamma-ray spectrometer with build in continuous analysis. It also uses an advanced method of automatic stabilisation on natural background radiation throughout its operation. This unique stabilisation method eliminates the need for an additional radioactive check source.

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A user interface is provided through any suitable PC or Laptop using the software package as provided with the instrument. This software ensures the on-line communication with the spectrometer, logs the data into the PC and assists the user to set-up the operational parameters. RT-60 has an integrated BGO (Bismuth Germanium Oxide) gamma-ray detector with a dimension of 30 x 30 mm. In addition to this detector, the unit houses a complete 1024 channel gamma-ray spectrometer with self contained power management. The detector and electronics are well protected by the RT-60 internal shielding and shock absorption. The rugged housing is made from 2,5 mm thick aluminium and allows the attachment of an extra hoist cable when required.

For monitoring projects the RT-60 can be supplied with a Power over Ethernet (PoE) data/power junction box which permits the system to be connected to a netwrok router and controlled remotely from any PC terminal. The instrument data acquisition software includes a measurements scheduling tool enabling the system to be autonomous.

Features

- All RT-60 probes are shipped pre-calibrated for U, K and Th, in accordance with the IAEA directives, at the DIAMO calibration site.
- Automatic stabilisation from background radiation. This unique stabilisation method eliminates the need for an additional radioactive check sample.
- Built in electronics modal powered from a standard USB.
- Rugged housing made from 2.5mm thick aluminium, which additional attachment for a separate hoist cable.

Technical Specifications

Sensitivity:	80 cps/ 1MBq for Cs-137 at 1m.
Energy response:	30keV-3.0MeV
Power requirements:	5V at 100mA.
Dimensions & weight:	60mm diameter x 600mm. 1.9kg.
Temperature & pressure:	0-60ºC, max pressure 0.5MPa.
USB converter:	USB 2.0 compatible.
Output:	RS-485, half duplex, up to 115k bps.

Gallery

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RT60 probe.

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