



A new Borehole Gamma Spectrometer "The Mole"

Optimized for fast borehole gamma-ray measurements and natural radioisotopes assay.

The main application for the RT-60 is spectral gamma logging and assaying in blast holes, which in most cases are less than 25 m deep. The RT-60 is also used in mineral exploration, for radon risk assessments and for classifying rocks used for building purposes.

Furthermore, RT-60 can be used to check for radioactive contamination, often Ra-226, in petrochemical piping, in water wells or in sewage systems such as those used in chemical waste dumps.

The standard reel holds up to 50 m cable. The depth capacity can be extended on special request to 200 m by using a longer cable and a different winch.

Typical users

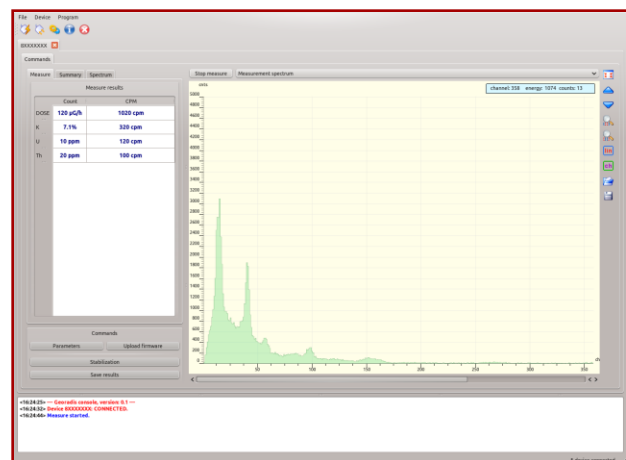
**Geologists and geophysicists
Environmental engineers
Geotechnical engineers**

RT-60 utilises a 1024 channel gamma-ray spectrometer with built-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.

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.



The built-in electronics module is powered from a standard USB port. Data is transferred from the detector pod by a multi-core cable with stainless steel armoured mantle. The cable is wound on a special drum mounted on a robust tripod. With exception of the tripod, all components are delivered in a single suitcase for easy transport and storage.

RADIATION DETECTION SYSTEMS AB

Address
Bäckeåhagen 35
SE-791 91 FALUN
SWEDEN

Tel/Fax
+46 23 214 80
Mobile
+46 70 584 1243

E-mail
leif.lofberg@falubo.se



Technical specifications

Spectrometer: 1024 channels, high speed with linear energy converter. Automatic stabilization on natural background, *no radioactive calibration sources needed.*

Detector: Highly sensitive BGO, with dimensions 30 x 30 mm (21.2 cm³) integrated with bi-alkali photomultiplier



Sensitivity: 80 cps/1MBq for Cs-137 at 1 m distance

Energy response: 30 keV - 3,0 MeV

Power : 5V, 100 mA supplied from USB port.

Dimensions: 60 mm diameter x 600 mm, probe weight 1,9 kg.

Temperature & pressure: 0 – 60 °C, max pressure 0,5 MPa.

Converter:

Input	USB 2.0 Compatible
Output	RS-485, half duplex, up to 115k bps
Power	80 mA, powered from the USB Port
Dimension	90 x 55 x 25 mm, 90 grams

Standard delivery accessories



- Probe with 25 m armoured cable (Other lengths on request, max length 200 m)
 - Manual reel with rotary connector
 - Converter
 - 1.5 m USB Cable
 - 0.3 m Interface Cable
 - Software Package
- Shipped in a sturdy field case

Optional Accessories:

- Heavy duty tripod
- longer cable

Calibration:

All RT-60 units are shipped pre-calibrated at the DIAMO calibration site, following IAEA directives, for U, K and Th,

The RT-60 is made in the European Union by Georadis Specifications are subject to change.

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Address Bäckeåhagen 35 SE-791 91 FALUN SWEDEN	Tel/Fax +46 23 214 80 Mobile +46 70 584 1243	E-mail leif.lofberg@falubo.se
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