

# Lab Scout

Gamma radiation detector with nuclide identification

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## Applications:

- to determine the weight-specific activity of natural and artificial radionuclides in material samples
- for monitoring measurements of food, building materials and ash from biomass power plants and much more

## Features:

- spectroscopic resolution and a measuring range from 25 keV to 3 MeV
- 360° lead shielding to reduce background radiation and lower detection limits
- editable nuclide library, nuclide lists with up to 16 emission lines
- built-in balance to determine the weight-specific activity of the nuclide in the sample

**Gamma probe**

|                             |   |
|-----------------------------|---|
| <b>Detector type</b>        | sodium Iodide (NaI(Tl)) with integrated PMT and high voltage power supply, scintillation cristal 2" x 2" energy range 25 keV – 3 MeV<br>resolution < 7,5 % (7 % typ.) @ 662 keV                                     |
| <b>Efficiency</b>           | net count rate 1100 cps / (µSv/h) based on Cs-137   |
| <b>Max. count rate</b>      | 100.000 cps   |
| <b>Measuring range</b>      | 0 ... 15 µSv/h (Cs-137)   |
| <b>Spectrum</b>             | 1024 channels   |
| <b>Measurement/Analysis</b> | identification of up to 16 peaks (nuclide list)<br>creation of various nuclide lists from editable library<br>determination of weight specific nuclide activity<br>with flexible applicable efficiency calibrations |
| <b>Stabilization</b>        | electronic stabilization of temperature<br>Peak-Pickup by PSV algorithm   |

**General**

|                                 |   |
|---------------------------------|---|
| <b>Scale</b>                    | 0...2,5 kg  |
| <b>Measuring cycles</b>         | 1 min, 5 min, 15 min, 0,5 h, 1 h, 4 h, 12 h,            |
| <b>Data storage</b>             | 2 GB SD-Card for more than 780.000 data records         |
| <b>Operation/Display</b>        | 1 button, signal lights (red, yellow, green), 4x20      |
| <b>Acoustic Signal</b>          | 80 dB   |
| <b>Interface</b>                | USB   |
| <b>Software</b>                 | Labs Scout Works (analysis, calibration, configuration) |
| <b>Environmental conditions</b> |   |
| Temperature                     | 5...35 °C,  |
| Rel. humidity                   | 0...95 %, non-condensing                                |
| <b>Power supply</b>             | 15 V / 250 mA AC/DC adapter                             |
| <b>Dimensions</b>               | 200 mm x 220 mm x 520 mm                                |
| <b>Weight</b>                   | approx. 68 kg with lead shielding                       |