



# NuRADON SOIL

System For Measurement of Radon Concentration in Soil



The NuRADON SOIL system intended for in-situ measurement and evaluation of radon concentration in soil by Lucas chambers. The system undertakes data processing and determination of radon volume activity, and is compatible with different volumes of Lucas chambers. It has been designed for the determination of the radon index of land, as such can operate with a large number of measurement chambers. The system is very easy to operate without any pre-requisites.

## Benefits

- Direct determination of radon concentration based on measured values
- Compact one-case weather resistant system
- Universal charging via USB enabling charging from cars, cellphones, powerbanks, etc.
- Wide-range of accessories available

## Key Figures

Rn-222

↳ Determination of volume activity of radon in soil

24 hours

↳ Battery operation time at full load

IP67

↳ Ingress protection

## Product Description

The device comes in a small portable waterproof case containing a photomultiplier with a voltage divider, a preamplifier and a four-channel counter. A Lucas chamber can be attached above the photomultiplier via a light-tight sliding bar. There is also a control panel for settings and to display the measured data. The system measures in four basic modes: counter, radon measurement, background measurement and reference measurement. The standard Am-241 mixed with ZnS:Ag scintillator encapsulated in a glass plate is used as a safe reference source.

A simple four-key keyboard is used to control the device, and the system can be powered from a standard USB sockets.

## Complete System

The device is supplied either as a separate unit or as part of a system, which includes:

- A case containing 20 Lucas chambers (135ml) with a dust filter and humidity filters
- Hollow metal rod with 500 tips for sampling of radon from soil
- Vacuum pump for evacuating Lucas chambers

## Product Application

- Measuring Radon concentration in soil.



### Product Specifications

Measured value	Rn-222 volume activity
Units	CPS, Bq/m <sup>3</sup>
Measurement range	<1000 Bq/m <sup>3</sup> - 0.5 MBq/m <sup>3</sup>
Humidity range	10 - 90%
Temperature range	0 - 50 °C
Language	Czech, English
Power supply	USB, max. 1.5 A
Connector type	µB-USB
Internal memory	1000 samples
Control standard	Am-241 on ZnS:Ag
Weight	4100 g
Dimensions	270 × 310 × 200 mm
Display resolution	128 × 64 OLED
Battery life	24 hrs of measurement
Ingress protection	IP 67

## NuRADON View

The NuRADONView application is supplied together with the device and allows to read the measured data from the device, their management, storage and processing into the final measurement protocol. The form of the final protocol can be managed in the application as needed.

