INSTRUMENTS

CONTACTS

TERMS & CONDITIONS

ARTICLES

PDF

Home ▶ Products ▶ Scintillation detectors, spectrometers & radiometers ▶ Wbc: thyroid monitor

WBC: Thyroid monitor



Application

Whole body counting (WBC) system, is designed for identification of radionuclides content in human body and organs, in particular thyroid gland. By its sensitivity WBC system is in compliance with up-to-date requirements for radiation standards in internal irradiation level control of personnel on facilities and plants of nuclear-fuel cycle, in medical facilities in regions with high probability of pollution by induced radionuclides, etc.







COMPLETE SET

Thyroid measurement version of BSI Whole Body Counting system (WBC)

- Phantom for calibration
- Other

DESCRIPTION

Thyroid measurement version of BSI Whole Body Counting system (WBC) is made of light and compact aluminum construction which is really $% \left\{ \left(1\right) \right\} =\left\{ \left(1\right) \right\} =\left$ easy to handle for everyday usage. The main holder has wheel base and handle to move the measuring part around the facility. When it is fixed in certain location, the operator is capable of adjusting the position of the detector in vertical and horizontal position to find the most convenient position for the person being analyzed.

Different sizes and materials of scintillation detector can be used in accordance to customer's preference.

SPECIFICATION

Parameter	Value
Detector type	NaI, Ø63*63mm
Spectrometer provides registration of gamma-radiation in the energy range	0.05 - 3.0 MeV
Radionuclides activity measurement range, for 5 min	8510 ⁵ Bq for I- 131 11010 ⁵ Bq for I-133
Minimum measured activity: thyroid measurement for 30 min	30 Bq for I-131 45 Bq for I-133
Number of ADC channels	512 – 4k
Typical resolution at 662 keV (137Cs)	< 7,5%
Measurement instability	±1% max.
Working temperature range	+10°C+35°C
Operation mode setup time	10 min

In order to guarantee the best performance of the system in terms of MDA, our detector is covered with lead shied and equipped with collimator. Moreover, the comfortable chair has lead plate installed in the back to avoid interference of other objects and to have good parameters of background.

