ELSE NUCLEAR

LUNG COUNTER

Lung counter for measuring radioactivity in the lungs

Counting system for fast and reliable radiometric checks of human lungs. Two NaI(Tl) detectors on a height-adjustable table are aimed at the lungs while the person sits in a chair, and the software converts count rates into activity in the lungs and committed effective dose using response curves from Monte Carlo simulations.



Detector type	Energy range	Spectrum channels
Two cylindrical 5 × 4 in NaI(Tl) crystals with PMT [1]	**30 keV–3 MeV** [1]	**,048** [1]

Specifications

DETECTOR

Detector type	Two cylindrical 5 × 4 in NaI(Tl) crystals with PMT	[1]

PERFORMANCE

Energy resolution at 662 keV	<7% (^{137}Cs)	[1]

MEASURING RANGE

Energy range	30 keV–3 MeV	[1]

ELECTRONICS & SIGNAL

Spectrum channels	2,048	[1]

SOFTWARE & DATA

Software	Efficiency curves from Monte Carlo calculations; activity (Bq) homogeneously dispersed in the lungs following the IDEAS guidelines' models; customisable activity limits, isotope library and reports; good-functioning check	[1]

POWER & BATTERY

Power supply	230 V AC, 50 Hz	[1]

MECHANICAL

Dimensions	Table plane 700 × 1200 mm; table height 1060–1510 mm	[1]
Weight	Approx. 110 kg including all components	[1]

GENERAL

Lead shielding	Low-background lead, 50 mm rings with 1 mm Cu inserts	[1]
Construction	Table with up/down movement to align the detectors; detectors move independently left/right on a rail; chair with armrests and footrest; laptop with software	[2]

Sources

[1] **LUNG COUNTER Lungs Burden Analysis/Counting System (datasheet)**
ELSE NUCLEAR · datasheet · p. 2, Technical Specifications; p. 2, Management software · checked 2026-10-16
https://www.elsenuclear.com/wp-content/uploads/2025/05/DAT_LUNG-COUNTER_EN_1.00.pdf

[2] **LUNG COUNTER Lungs Burden Analysis/Counting System**
ELSE NUCLEAR · product-page · Product page · checked 2026-10-16
https://www.elsenuclear.com/portfolio/lung-counter/

Every value is taken from the manufacturer's own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer's published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.