ELSE NUCLEAR

AERIS

Portable gamma spectrometer for on-site air filter analysis

Rugged portable gamma spectrometer that analyses radioactive contamination on air filters and cartridges right where they are collected, in fixed or mobile set-ups. A shielded NaI(Tl) detector with SiPM identifies radionuclides and quantifies activity without sending samples to a laboratory; pre-loaded efficiency curves and a guided start let non-specialists measure correctly.



Detector type	Energy range	Weight
NaI(Tl) 2 × 2 in with SiPM and digital MCA [2]	**30 keV–3 MeV** [2]	**12 kg (excl. transport case)** [2]

Specifications

DETECTOR

Detector type	NaI(Tl) 2 × 2 in with SiPM and digital MCA	[2]
Sample geometry	Multiple filter and cartridge types and sizes up to 60 mm diameter; Monte Carlo-calculated efficiency curves for standard geometries	[2]

PERFORMANCE

Energy resolution at 662 keV	≤7% FWHM (^{137}Cs)	[2]

MEASURING RANGE

Energy range	30 keV–3 MeV	[2]
Dose-rate range	0.005–250 µSv/h (^{137}Cs)	[2]

SOFTWARE & DATA

Software	User-configurable isotope libraries, automatic energy calibration, guided workflow for non-specialists and expert mode; touch screen and trackball	[2]

CONNECTIVITY & INTERFACE

Communication	Integrated industrial 4G router (3G/4G LTE/5G NR), dual-band Wi-Fi, LAN, USB and RS232; GPS/GNSS	[2]

POWER & BATTERY

Battery life	3 h, extendable to 8 h	[2]

MECHANICAL

Dimensions	40 × 30 × 20 cm (excl. transport case)	[2]
Weight	12 kg (excl. transport case)	[2]

ENVIRONMENT & RATINGS

IP rating	IP65	[2]

perating temperature	−10 to +45 °C	[2]

GENERAL

Use	n-site analysis of radioactive contamination on air filters and cartridges, f ixed or mobile; nuclide identification and activity quantification without a l aboratory	[1]
Lead shielding	Cylindrical lead shield, 1 cm	[2]
Results	Activity (Bq), activity concentration (Bq/m³), MDA and dose rate (µSv/h); visual and acoustic alarms at user-set thresholds	[2]
MDA	1 mm glass-fibre filter, 100 nSv/h background – ^{131}I: 4.92 Bq (5 min), 3.46 Bq (10 min), 1.71 Bq (40 min); ^{133}Ba: 7.94, 5.58 and 2.76 Bq; ^{137}Cs: 7.70, 5.40 and 2.67 Bq	[2]
Startup time	<2 minutes	[2]

Sources

[1] **AERIS Field Gamma Spectrometer for Air Filter Analysis**
ELSE NUCLEAR · product-page · Product page · checked 2026-10-16
https://www.elsenuclear.com/portfolio/aeris/

[2] **AERIS Field Gamma Spectrometer for Air Filter Analysis (datasheet)**
ELSE NUCLEAR · datasheet · p. 2, Technical Specifications; p. 2, Minimum Detectable Activity · checked 2026-10-16
https://www.elsenuclear.com/wp-content/uploads/2026/09/DAT_AERIS_EN_1.00.pdf

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.