ELSE NUCLEAR

CARONTE

Conveyor-belt contamination monitor for small objects

Gamma monitor that measures the radioactivity of small objects, such as boxes, tools and laundry bags, while a conveyor belt carries them through a tunnel-shaped measurement area. Up to four shielded plastic scintillators surround the object, and photocells drive the measurement cycle automatically; uncontaminated objects move on while alarms are given visually and acoustically. The monitor stands on locking wheels.



Detector type

Up to four plastic scintillators 40 × 40 × 5 cm: one at each side, one under the belt and one at the top [2]

Weight

1200 kg [2]

Specifications

DETECTOR

Detector type	Up to four plastic scintillators 40 × 40 × 5 cm: one at each side, one under the belt and one at the top	[2]
Detector spacing	Motorised upper detector; 8–80 cm between upper and lower detector	[2]

SOFTWARE & DATA

Software	Compares the measured background with the preset threshold, displays detector count rates and calculates activity in Bq or Bq/g	[2]

MECHANICAL

Dimensions	2100 × 1700 × 700 mm (W × H × D)	[2]
Weight	1200 kg	[2]

GENERAL

Use	Measuring the radioactivity of small objects – boxes, tools and laundry bags – carried through the measurement area by a conveyor belt	[1]
Lead shielding	Lead 10 mm on the external sides	[2]
MDA	200 Bq for ^{60}Co (10 s)	[2]
Belt speed	13 cm/s	[2]
Measurement sequence	Photocells track the object: its length is calculated, data are acquired for a preset time, results are shown and uncontaminated objects go to the end of the belt; long objects are scanned in consecutive steps; a static operator-guided mode is available	[1]
Construction	Frame on four locking wheels; belt cover resistant to cuts and chemical corrosion	[2]

Sources

[1] **CARONTE Conveyor Belt Gamma Contamination Monitor**
ELSE NUCLEAR · product-page · Product page · checked 2026-10-16
https://www.elsenuclear.com/portfolio/caronte/

[2] **CARONTE Conveyor Belt Gamma Contamination Monitor (datasheet)**
ELSE NUCLEAR · datasheet · p. 2, Configuration; Technical Specifications; p. 2; p. 1 · checked 2026-10-16
https://www.elsenuclear.com/wp-content/uploads/2026/01/DAT_CARONTE_EN_1.07.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.