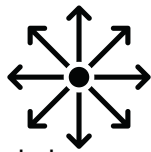
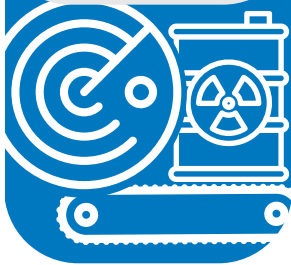


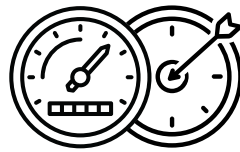


# BOX COUNTER

## CONTAMINATION MONITOR FOR SMALL ITEMS



Mobile, easily  
deployable system



Fast and accurate  
contamination measurements



Fully accessible  
measurement chamber

Detectors: up to 6 large  
plastic scintillators

NORM version with NaI(Tl)  
detector and MCA

Easy decontamination of  
internal and external surfaces

70 x 70 x 83 cm  
measurement chamber

Ethernet connection  
for data exporting

The **BOX COUNTER** system is designed to perform a fast gamma contamination check of laundry, waste bags, tools and other small objects, to be placed inside a shielded measurement chamber (M.C.).

Measurement results, alarms and malfunctions are visualised by the control console and also signalled by a built-in alarm column. A digital scale allows to acquire the weight of the objects to be measured.

The measurement chamber is accessible through 4 side doors.

**BOX COUNTER** is equipped with large plastic scintillators, shielded with 10 mm lead sheets to minimize the environmental radiation background. Up to six detectors can be installed: 4 in the doors, 1 in the top and 1 in the bottom side. The system can reach an MDA as low as 4 kBq (Cs-137) in 10 seconds. The available versions are:

- **2U** - two plastic detectors each installed in a side door
- **4U** - four plastic detectors each installed in a side door
- **6U** - six plastic detectors, four of which installed in the side doors, and two in the top and bottom of the M.C.
- **6U NORM** - five plastic detectors in the side doors and in the bottom of the M.C., and a 2"x2" NaI(Tl) detector with MCA in the top

**BOX COUNTER** can be easily moved and relocated by the user thanks to 4 pivoting, lockable wheels. The internal and external surfaces of the stainless steel mechanical structure are specifically designed to be easily cleaned and decontaminated.

The control console consists in a touch-screen PC installed on the top of the system, equipped with an ELSE NUCLEAR management software.

The software allows to:

- start the measurements, analyze, display and save the measurement data
- set the operational parameters such as alarm thresholds, detector enabling and calibration factors
- activate, mute and reset the alarm and malfunction statuses through relay switches
- perform a quality check to verify the proper functioning of the system

## TECHNICAL SPECIFICATIONS

### Measurement features

- Energy range: 35 keV ÷ 2 MeV
- Temperature range: 0 ÷ 50 °C

### Detectors

- Type: plastic scintillators (50 x 50 x 5 cm)
- Number of units: up to 6
- Surface: 2500 cm<sup>2</sup>
- Shielding: Pb 10 mm

### Mechanical characteristics

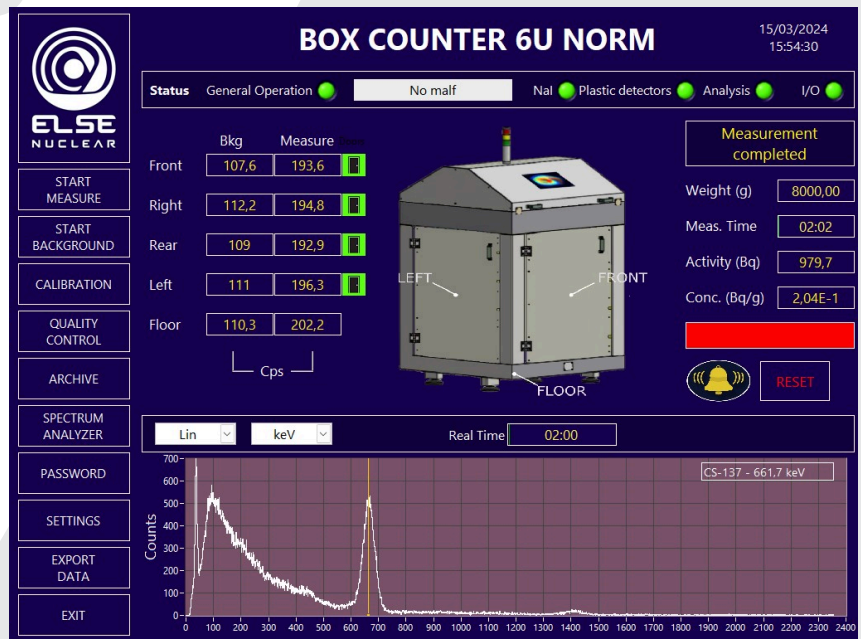
- Overall dimensions: 98 x 98 x 181 cm
- Total weight: approx. 700 kg (6U version)
- Measurement chamber internal dimensions: 70 x 70 x 83 cm
- Side doors dimensions: 70 x 83 cm
- Material: stainless steel
- Protection grade: IP55
- Handling: 4 pivoting wheels (2 lockable)

### Electronics

- From 2 to 6 input counter modules
- 4 NO/NC relays for status management

### Control console

- Industrial touch-screen panel PC
- LCD TFT 10.4" display



Examples of BOX COUNTER software interface  
(6U NORM)

## OPTIONS

- 2U, 4U and 6U versions
- 6U NORM version: including a 2"x2" NaI(Tl) detector with MCA for NORM detectability

## ACCESSORIES AVAILABLE UPON REQUEST

- Warranty extension from 12 months to 24 months

