# SYSTEM FOR THE MEASUREMENT OF THE HOSPITAL RADIOACTIVE WASTE

Through the measurement of the rate dose performed by a pair of plastic scintillators with high sensitivity, and to an electronic balance, FOX is able to determine the concentration (in Bq/g) present inside the waste containers. Different calibration factors can be used, based on the containers used.

The system measures the level of activity and it is possible to compare the measured value with the preset thresholds alarm, providing the operator with a visually and acoustically information.

The system can be connected to the network and it is possible the storage and export of data.

A self-adhesive label printer allows you to identify and track containers measured.



## **SPECIFICATIONS**

- Large LCD Touch-Screen display
- Functionality routine daily quality checks
- Data of measurements and quality control permanently saved in a SQL database
- Data exportable to USB support
- Ethernet connection

- Password levels
- Main isotopes stored
- o Two scintillation independent probe adjustable in width
- Frame in stainless steel with decontaminated surface area



### **GENERAL FEATURES**

The system uses scintillation probes (plastic scintillators) coupled to a photomultiplier with high gain.

The thickness of the detectors (20 mm) allows a good efficiency, even with  $\gamma$  emitting high energy isotopes and is able to reveal even  $\beta$  radiation with energy > 500 KeV.

The two detectors have a shield on the outer side so as to increase the sensitivity of measurement.

The limit of detection for the most common isotopes used in nuclear medicine lags far 1Bq/g with measurement time of 10 seconds.

It is possible to use a password for each operator so that the system stores measurements and alarms related to the login has been made.

Surface of each detector: 150 mm x 350



#### **BALANCE**

Electronic balance with integrated measuring range up to 30 Kg

The display shows the weight of the sample analysed.

There is also an indicator of the presence of the container.

The probes have an operating range of 260 to 520 mm



#### LARFIS

FOX is able to print customizable labels containing all the information needed to track down the measured container, set the isotope, date, time, weight of the sample. The label is easily customizable through the menu present in the control panel of the instrument.



#### **TECHNICAL SPECIFICATIONS**

Power supply 110-230 V -50 / 60 Hz

Maximum current consumption 0.6 A @ 110 Vac, 0.3 A @ 230 Vac

LCD Display 6.5 "touch screen color

Temperature range 0-40 ° C

Mouse interface and virtual keyboard (on touch-screen monitor)

alarms can be set

Startup system 25 sec

Cat.5E Ethernet network connection (RJ45 female)

4 dry contact relay output for alarm

Subtraction and automatic background compensation.

Measures c.p.s. or Bq/g

Bookcase with radionuclides preset

Calibration factors can be set for different geometries and different isotopes.



