

# WASTE CONTROL MONITOR



The waste control monitor is designed for simple and safe monitoring of waste for radioactive contamination or components. It is used in nuclear medicine, for example, in radioiodine therapy wards, to separate contaminated radioactive waste from conventional waste during the daily disposal of waste. The waste monitor can be used for the metrological control of waste packages.

## Benefits

- Automatic start of measurement via light barrier
- Housing open at the front to allow easy loading
- Designed for waste bags
- Simple and safe handling for routine operation by cleaning staff
- End of measurement signalled by three beeps
- Red-yellow-green signalling of the measurement result on the display and LED lights on the membrane keypad
- External traffic light connectable
- Automatic calculation of alarm threshold depending on the background

## Key figures

4 NaI(Tl)  $\rightarrow$  Scintillation detectors

Up to 40,000 cps  
 $\rightarrow$  Measuring range per detector

10 s  $\rightarrow$  Measuring time

## Scope of application

- Checking waste for contamination or radioactive components

## Functionalities

- Net measured value displayed in cps (counts per second)
- Measuring time information
- $\mu$ -controller-based measuring electronics; with colour touch graphic display
- Background measurement configurable
- Menu level for parameterisation of the measuring system can be protected by code so that only authorised persons can change the settings

## Product description

- U-shaped detector array of 4 highly sensitive NaI(Tl) scintillation detectors
- Combined stainless steel/plastic housing with handles and transport wheels
- Integrated light barrier for automatic switching from background to activity measurement

## Extensions and options

- Optional: Label printer can be connected for printing the measurement results on labels

## Technical data

Detector type	NaI(Tl) probe with flanged photomultiplier, magnetically shielded
Measuring channels	4 detectors: right, left, in the rear wall and on the floor
Type of radiation	for gamma radiation measurement
Energy range	from approx. 25 keV
Background	approx. 100 cps (at 0.1 $\mu$ Sv/h); per detector
Background subtraction	with adjustable background measurement time
Measuring electronics	Microcontroller 16 bit
Measurement trigger	by a light barrier below the side detectors
Operation	via membrane keypad or touch display (320x240 pixels)
Measured value display	Net value in cps (counts per second above background)
Alarm	four alarm thresholds; two alarm thresholds each as absolute value and in sigma levels (all adjustable and activatable)
Measuring time	adjustable in s (1 s - 999 s)
Measuring range	up to 40 000 cps
Power supply	via external power supply unit; input: 100-240 V AC / 1.5 A; output: 24 V DC / 2.5 A
Use	indoors only
Dimensions	Total measuring system: approx. 970 mm x 600 mm x 600 mm (H x W x D) Measuring chamber: approx. 600 mm x 480 mm x 500 mm (H x W x D) Detectors: 70 mm x 70 mm x 13 mm
Weight	approx. 70 kg
Nominal temperature operating range	Operation: between 10 °C and 40 °C, non-condensing Storage: between 0 °C and 50 °C