

The Contamat performs alpha and beta/gamma contamination measurements

Contamat FHT 111 M

Radiation protection in isotope laboratories, in nuclear medicine, physics, and civil defense



User-friendly software

Counter tubes for alpha, beta, gamma; 100 or 166 cm² window area

Windowless counter tube for tritium

ADF-Mode in ratemeter operation

Counter mode

Pushbutton counter tube change

Adaptable nuclide configuration

Separate alpha and beta/gamma alarm values monitored simultaneously

Lockable keyboard eliminates accidental operating errors

Analog and digital measured value display in pulses/second, Becquerel or Becquerel/square centimeter

Freely adjustable alarm thresholds

Highly transparent hexagon grid

The Contamat performs alpha and beta/gamma contamination measurements. Separate alpha and beta/gamma alarm values are monitored simultaneously. The measurement results are displayed in analog and digital form in s⁻¹, Bq or Bq/cm². In counter mode, the elapsed measurement time is displayed in addition to the measured value. Accuracy of measurement can be checked by pushbutton. Calibration factors of 10 nuclides most commonly in use are programmed as standard. Modifications can be done quickly.

Easy to operate

The Contamat is operated by means of a membrane keyboard. Only a few steps are necessary to activate measurement mode, the reference nuclide, the dimension and functions such as illumination, speaker and alarm disengagement. A second operator level enables additional functions, such as for example nuclide preset, display of calibration factor or alarm setting.

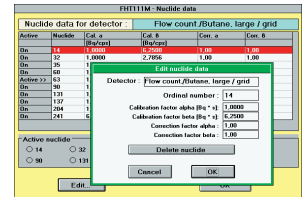
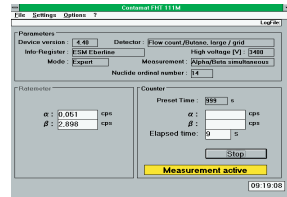
All measured values and information appear on a high-contrast LC display. This makes life easier for the less experienced user. The illuminated display provides assistance in unfavorable light conditions.

No tools are necessary for counter tube change; there are neither screw fastenings nor cable connections. The microprocessor identifies the different counter tubes immediately, and the meter is ready to operate after just a few seconds. A set of batteries is sufficient for approx. 150 hours of continuous operation with natural background. The display tells you when a battery change is necessary. All parameters like nuclides and alarm thresholds remain stored. If there is a stationary gas supply with argon/methane, argon/CO₂, natural gas or methane, it is recommended to use the Contamat basic station. The contamination meter (with rechargeable batteries) is ready to operate at any time, even with flow-type counter tube. Plugged into basic station, the Contamat is able to monitor the current gamma radiation level.

Software

Up to ten freely selectable nuclides with their specific mass numbers and efficiencies can be stored. A separate alarm threshold is available for each nuclide. The number of nuclides can be reduced to any desired subset; if, for example, only S-35 and P-32 are present, the other nuclides can be masked out.

- All parameters remain stored e. g. in case of a counter tube change.
- Program controlled plateau measurement (storage, print out)
- Reading out measured values
- Measurements in counter mode
- Storing measured values
- Reading device history
- Configuration of measurement parameters
- Storage and easy change of parameters for multiple jobs (nuclides, calibration factors, measurement time)
- Windows based 16 bit application running under Windows™ 95/98/2000 and Windows XP
- Context sensitive online-help

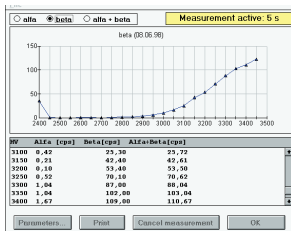


Remote control and data transfer

The Contamat FHT 111 M is fitted with a serial interface for readout stored measuring data and for configuration via PC (RS232 interface).

Possible Configurations

- Contamat with ten fixed nuclides per counter tube (standard)
- Xenon counter-tube: C-14, P-32, S-35, Co-60, SR-90/Y-90, Tc-99m, I-123, I-125, I-131, Cs-137
- Butane flow-type counter tubes: C-14, P-32, S-35, Co-60, Ni-63, Sr-90/Y-90, I-131, Cs-137, Tl-204, Am-241
- The number of selected nuclides can be limited to the source of interest
- Input of freely selectable nuclides and their efficiencies
- User-specific isotope installation via Windows™ program



Nuclide	Alarm A (Bq/cm²)	Alarm B (Bq/cm²)	Alarm unit B alarm (Bq/cm²)
14	0.5000	1.0000	0.15
32	0.5000	0.5000	0.15
35	0.5000	0.5000	0.15
60	0.5000	0.5000	0.15
63	0.0500	0.5000	0.15
90	0.5000	0.5000	0.15
131	0.5000	0.5000	0.15
137	0.5000	0.5000	0.15
204	0.5000	0.5000	0.15
241	0.5000	0.5000	0.15

Specification

Contamat FHT 111 M

Display range:	0 to 19,999 s-1; 0 to 19,999 Bq/cm²; 0 to 19,999 or to 19,999 x 10³ Bq
Power supply:	5 AA cells or 5 NiCd rechargeable cells
Operating time:	approx. 150 h with batteries at background radiation
Detectors:	butane-flow-type counter tubes with refillable gas reservoir, window area 100 or 166 cm² xenon counter tubes with permanent gas filling, windows area 100 or 166 cm² tritium counter tube with refillable gas reservoir
Operating temperature:	-10 °C to +50 °C (14 °F to 122 °F), butane: +10 °C to +40 °C (50 °F to 104 °F)
Storage temperature:	-25 °C to +60 °C (-13 °F to 140 °F)
Air pressure:	700 to 1060 hPa
Humidity:	up to 90% rh, non condensing
Dimension:	216 x 138 x 111 mm (8.5" x 5.4" x 4.4")
Weight:	approx. 950 g (2.1 lb)

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