

This product is available through:

JRT Associates

5 Nepperhan Avenue, Suite 2B
Elmsford, NY 10523
800-221-0111

The Contamat performs alpha and beta/gamma contamination measurements.

Contamat FHT 111 M

Radiation protection in isotope laboratories, nuclear medicine, physics, and in 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
- Push-button 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 push-button.

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

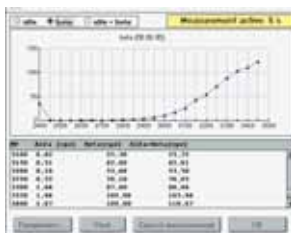


Remote control and data transfer

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



Specifications

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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Part Number	Description
Model CONTAMAT FHT 111 M	
Instrument	
4249601	FHT 111 M CONTAMAT, as described in Technical Specification ZT-019. Basic electronic with digital LC-display which can be illuminated and with serial interface, without detector
Detectors	
4249620	Flow counter tube window area: 166 cm ² , counting gas CH ₄ / Ar-CH ₄ / Ar-CO ₂ (external gas supply and basic unit is required). Max. pressure 10mbar; otherwise pressure reducer is required. By ordering indicate counting gas
4249627	Flow counter tube butane with additional protection grid window area: 166 cm ²
4249635	Xenon large-area counter tube window area: 166 cm ²
4249640	Xenon large-area counter tube with additional protection grid, window area: 166 cm ²
4249660	Xenon large-area counter tube window area: 100 cm ²
4249667	Counter tube adapter 166 cm ² - 100 cm ²
Basic Units	
4249670	FHT 111 M Contamat, Basic unit for wall mount or desk top operation for the connection to a central gas supply incl. Automatic valves for gas flow, switch for fast gas flow. An additional mains adapter is required for battery charging.
Accessories	
424960104	Plastic transport box incl. foamed insert for transport box, for taking up one basic unit with counter tube and 5 batteries and 1 gas cartridge
424960105	Case for taking up the Contamat and accessories, lockable
424969901	PC-Software for Contamat FHT 111 M, requires Contamat Firmware version(s) > 3.0
424960130	Data cable FHT 111 M - PC incl. adapter 25/9 pin
4249668	Holding device (light metal) for Contamat FHT 111 M for use as wall mounting or as bench-top
424969013	Set of spare foil frames (5 pieces)