

HFC-Monitor

**Hand-Foot-Clothing Contamination Monitor
with large-area, thin-layer plastic scintillation detectors**



*Monitor for checking personnel
before leaving a radiation controlled area.*

System Characteristics

- modern detector technology based on thin-layer plastic scintillation detectors
 - no gas-filled detectors - therefore considerable reduction of operating costs
 - no gas supply required
- suitable for α and β/γ -contamination measurement
- measuring electronics based on industrial grade PC
- operator-friendly user interface, large-area colour-LCD display for indication of measurement values
- nuclide selection menu, user-related nuclide pre-selection possible
- hand probe detachable - therefore no additional frisker probe required
- integrated calibration software for quality check
- ergonomic housing design
- network-compatible
- link of HFC-monitors to central database with parameter setting features

M | E | D

Technical Data

Detector type: large-area, thin-layer plastic scintillation detectors (PSD) with ZnS-coating for α and β/γ measurements with integrated photomultiplier and detector electronics
For typical sensitivities see chart

Measuring channels:
 • hands 2 PS-detectors (as desired also with 4 hand detectors)
 1 detector per hand
 Start of measurement through light barriers
 • feet 2 PS-detectors, 1 detector per foot
 • body right hand detector detachable for body measurement

Background subtraction: with adjustable BG-measuring time, σ -threshold for new BG-measurement
 Measuring electronics: integrated industrial grade computer based on PC 104
 Keyboard: foil keyboard
 Alarm: separately adjustable for each detector
 Measuring value display: selectable in cps or nuclide-related in Bq or Bq/cm², integrated nuclide library
 Measuring time: adjustable in s
 Display: large-area, graphic colour LCD display 10.4"
 Power requirement: 110 - 240 V, 50 - 60 Hz, 60 VA
 Dimensions: approx. 1160 mm x 830 mm x 700 mm (h x w x d)
 Weight: approx. 45 kg
 Housing: ergonomically shaped plastic/stainless steel housing
 Interfaces:
 - serial interface RS 232
 - parallel printer interface
 - external keyboard
 - USB-port
 - network connection
 - relay output for alarms

Typical sensitivities:

C-14	8 %
Cl-36	42 %
Co-60	22 %
Sr/Y-90	45 %
Tc-99m	4 %
I-125	13 %
I-131	20 %
Am-241 α	13 %

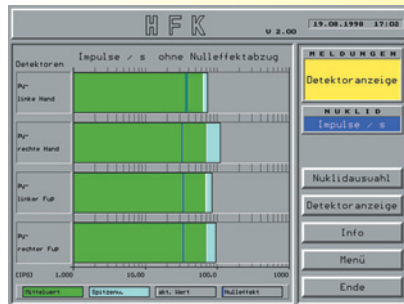


Fig. 1: Detector display
count rates of all detectors
for function check



Fig. 2: Transponder for person-
related measurement



Fig. 3: Version with 2 detectors per hand,
horizontally mounted



Fig. 4: Version with 2 detectors per hand,
vertically mounted