



NUVIA
INSTRUMENTS
The new name of:
SEA MED

HFC

HAND-FOOT-CLOTHING CONTAMINATION MONITOR
WITH PLASTIC SCINTILLATION DETECTORS



HFC

Contamination can occur wherever unsealed radioactive material is used. An HFC contamination monitor should be used to check personnel exiting controlled areas (German Radiation Protection Ordinance, § 44 StrlSchV). The limit values of surface contamination are defined specifically for each nuclide. Our range of HFC monitors includes a variety of models, all of which are developed and manufactured in-house.

BENEFITS

- No gas-filled or gas-flushed detector
- 2 in 1 instrument: α - and β -/ γ -contamination measurement with only one detector, no detector change required
- Detachable Hand probe, means no additional frisker probe required
- Optional setting allows measurement and subtraction of the background possible (net value)
- User-friendly graphical interface operated via keyboard or touch screen
- Network-compatible

KEY FIGURES

**Gas-free
detectors**

**Various
versions**

**Small width
from 43 cm**

FIVE BASIC MODELS

Depending on client requirements and the space available, you can choose one of the following models from our (standard) product portfolio.

BaseLine

Our HFC Baseline models are designed to meet all expectations for a hand-foot-clothing contamination monitor in an easy to use way. Furthermore, our HFC models can be upgraded with a number of options (see below) and individually adapted to meet client requirements.



SlimLine

The HFC Slimline with the hand detectors integrated into the front panel is ideal for use in confined areas. Transport wheels and a handle allow the system to be easily relocated. As with the Baseline version, models with one or two hand detectors are available. You can even choose between vertically or horizontally mounted detectors.

TrendLine

The HFC Trendline incorporates the latest result of our continuous product development. The sleek, elegant housing of the HFC Trendline, combined with state-of-the-art PC technology which is used in all our Windows-based HFC monitors, allows intuitive operation via the large touchscreen, and provides virtually unlimited networking and data transfer options, as well as connection of printers, transponders or card readers.



CrossLine

The HFC Crossline is designed for use as a walk through monitor. As with all HFC monitors in our range, the output relays of the monitor can be connected to door controls or other interlocks to ensure everyone is free of contamination before leaving the area.

EcoLine

The HFC EcoLine is a compact, cost effective solution where only the hands need to be measured. This version is based on the same technology and electronics as the entire HFC line.



HFC

HAND-FOOT-CLOTHING CONTAMINATION MONITOR WITH PLASTIC SCINTILLATION DETECTORS

SYSTEM FEATURES

- Innovative detector technology based on thin-layer plastic scintillation detectors
 - ✓ No gas-filled or gas-flushed detectors. Low operating and maintenance costs.
 - ✓ Simultaneous, selective α - and β/γ -contamination measurement. No need to change detector.
 - ✓ Measuring system automatically detects and indicates whether α -radiation is present
- Suitable for α and β/γ contamination measurements
- Measuring electronic based on industrial grade PC
- Operator-friendly user interface, large-area color display for display of measurement values
- Nuclide selection menu, user-configurable pre-selection of nuclides possible
- Personal contamination measurement via selection menu, card, barcode or transponder
- Hand probe detachable for clothing measurement, no additional frisker probe required
- Integrated calibration software (auto-calibration) for quality control
- Ergonomic housing design with stainless steel front
- Network-compatible
- Software available for data storage, access control & parameter settings
- Linking of HFC monitors with a central database / access control and parameter setting functions
- Selected nuclides stored with calibration factors according to DIN ISO 7503-1 and A-100 (DIN 44801)
- Detection limits and characteristic limits are calculated for each measured value according to DIN ISO 11929 and stored in relation to the measured values

VERSIONS

Our HFC monitors are available in various versions. You can select the number and position of the hand detectors, the size of the foot detectors and the operating system.

The following table lists the different options per basic model. The combination of the letters shows the version.

Example: Baseline HFT is the Baseline basic model in the version with 2 hand detectors, 2 foot detectors (normal) and Windows operating system.

Basic equipment	2 hand horiz.	4 hand horiz.	4 hand vert.	2 feet normal	2 feet bigfoot	Non-Windows (keypad)	Windows (touch)
Baseline	H	D	V	F	B	K	T
Slimline	H	D	V	F	B	K	T
Trendline	H	D		F	B		T
Crossline			V	F	B	K	T
Ecoline	H						T

OPTIONS

Basic equipment	Transport wheels	Transponder	Admin software	Special card reader barcode
Baseline	✓	✓	✓	✓
Slimline	✓	✓	✓	✓
Trendline	✓	✓	✓	✓
Crossline		✓	✓	✓
Ecoline		✓	✓	✓

Radionuclide efficiency for hand detector

(calibrated by activity)

Am-241 α	approx. 20%	K-40	approx. 30%
Au-198	approx. 23%	P-32	approx. 25%
C-14	approx. 13%	Pu-238 α	approx. 12%
Cl-36	approx. 42%	Re-188	approx. 20%
Co-57	approx. 8%	S-35	approx. 5%
Co-60	approx. 30%	Sr-90 / Y-90 (based on Sr-90)	approx. 93%
I-123	approx. 7%	Tc-99 m	approx. 4%
I-125	approx. 12%	Tl-201	approx. 6%
I-131	approx. 20%	Tl-204	approx. 23%

Radionuclide efficiency for foot detector

(calibrated by activity)

Am-241 α	approx. 13%	K-40	approx. 18%
Au-198	approx. 14%	P-32	approx. 15%
C-14	approx. 6%	Pu-238 α	approx. 7%
Cl-36	approx. 27%	Re-188	approx. 12%
Co-57	approx. 5%	S-35	approx. 3%
Co-60	approx. 17%	Sr-90 / Y-90 (based on Sr-90)	approx. 62%
I-123	approx. 5%	Tc-99 m	approx. 2%
I-125	approx. 7%	Tl-201	approx. 4%
I-131	approx. 12%	Tl-204	approx. 14%

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