

# HFC HeadLine

HAND-FOOT-CLOTHING MONITOR WITH HEAD-DETECTOR



Contamination can occur wherever open radioactive material is used. To secure the safety of the humans and the environment, an HFC monitor is a possibility to check personnel leaving controlled areas for radioactive contaminations. While standard hand & foot monitors concentrate on the contamination of extremities, the HFC HeadLine provides additional safety with an extra head detection unit comprised of two head detectors. This additional feature adds contamination results from the head - another contamination risk area, while keeping all the benefits from NUVIATech Instruments' successful HFC line whilst providing a less expensive option compared to full body contamination monitors.

## Benefits

- Additional head detector for extra safety
- Completely gas-free detectors
- Extension of the industry proven HFC BaseLine
- Measurement of  $\alpha$ - and  $\beta$ - $\gamma$ -radiation
- More cost effective option than full body contamination monitor
- Detachable hand probe, no additional frisker probe required

## Key Figures

6-8 detectors

1.50 - 2.05 m

↳ Body height

12 Bq

↳ detection threshold (Cs-137; 10 sec)

## Product Description

The industry proven HFC BaseLine is the basis of the new HFC HeadLine. It meets all expectations for a user-friendly hand-foot-clothing contamination monitor. The large-area plastic scintillation detectors are completely gas-free, allow an easy maintenance and can discriminate between  $\alpha$ - and  $\beta$ -/ $\gamma$ - radiation. The user is guided through the measurement via a colour touch-display with an intuitive interface and clearly displayed measurement results.

The innovative additional head detector facilitates measurement of contamination on the head which can easily occur e.g. by touching the face or changing masks or safety glasses. The height of the head detector unit can be adjusted simply through the handle. The correct position is confirmed by light barriers and an audible signal. After the measurement is over, the unit automatically moves back to its starting position.

## Performance Characteristics

- Innovative detector technology based on thin-layer large-area plastic scintillation detectors
- Fast and reliable contamination measurements with 6-8 detectors
- Completely gas-free detectors
- Simultaneous and selective measurement of  $\alpha$ - and  $\beta$ -/ $\gamma$ - radiation
- Continuous background measurement
- Configurable nuclide library
- Measurements related to individuals via selection menu, card, barcode or transponder
- Detachable hand probe for clothing measurement
- Procedure for quality control integrated into software
- Integration of DIN ISO 11929 optional
- Programmable alarm thresholds (password protected)

## Technical Data

Analysis and display of measurements	Microprocessor-controlled electronics
Weight	90 kg
Dimensions	2300 x 820 x 70 mm (H x W x D)
Detectors - Dimensions per detector (Hand: 2-4x, Foot: 2x, Head: 2x)	Hand: 240 mm x 140 mm (approx. 340 cm <sup>2</sup> ) Foot: 290 mm x 140 mm (approx. 410 cm <sup>2</sup> ) Head: 290 mm x 140 mm (approx. 410 cm <sup>2</sup> )
Efficiencies [%] (Hand/Foot/Head) calculations based on activity (4 $\pi$ )	C-14: 12.6 / 5.7 / 11.0 Co-60: 30.4 / 16.8 / 26.5 Cs-137: 39.3 / 23.8 / 34.5 Am-241 (a): 19.6 / 12.7 / 22.5
Detection threshold [Bq/cm <sup>2</sup> ] (Hand/Foot) Calculations based on activity (4 $\pi$ ) - (10 sec measurement time; 50 nSv/h background; automatic 300 sec background measurement; Diam. 100 cm <sup>2</sup> )	C-14: 0.38 / 0.93 Co-60: 0.16 / 0.31 Cs-137: 0.12 / 0.22 Am-241 (a) : 0.03 / 0.05
Power supply	100-240V, 50/60 Hz, 65 VA
Optional equipment	Transponder/ID control, double hand detectors, extra-large foot detectors (590 cm <sup>2</sup> ), admins software, ...

