



**HELGESON**  
SCIENTIFIC SERVICES

# HS-BEX 6 +1

The HS-BEX monitors are multitasking equipment designed for the detection and measurement of radiation on the hands and feet of potentially exposed personnel through a fully automatic operation. An equipment that complies with the highest quality standards, designed and assembled in Spain.



It has 7 large-area plastic scintillation detectors. These are distributed according to 2 for the left hand, 2 for the right hand, 1 for the left foot, 1 for the right foot and a external probe for manual sampling of different parts of the body, creating, in its standard configuration, 5 sensitive areas (1 left hand, 1 right hand, 1 left foot, 1 right foot and 1 external/clothing) that work autonomously and independently, allowing simultaneous measurements with different levels of alarm, both individual and accumulative.

## Detectors:

- Detection technology: thin plastic scintillators for beta and gamma.
- Number of detectors: 4 detectors for hands and 2 detectors for feet. 1 additional external probe
- Detectors area: 2 x 225 cm<sup>2</sup> for each hand, 525 cm<sup>2</sup> for each feet, 225 cm<sup>2</sup> for external probe
- Efficiency 4π in contact with grid (beta gamma): 9% Tc99; 25% Co60
- MDA: < 0,4 Bq/cm<sup>2</sup> for beta and gamma,

## Electronics:

- Individual HV source up to 1200 V for each detector
- Digital parameter adjustment
- Shaping constant: 1,2 μs
- Programmable gain: 0 – 4095
- Channel threshold resolution 32 mV
- Input count rate: up to 200.000 cps
- 16 bits @ 48 MHz microprocessor

## External:

- Industrial PC with Windows 10
- LCD screen 8"
- TCP / IP and/or RS232 / RS485 communication available

## Included features:

- Feet and hand sensors for detecting the correct position of the person
- Automatic background subtraction
- High and low background alarm
- Easy alarms and zone configuration
- Includes calibration module
- Software, HSRAD, customizable in all its functions and languages (French, English, etc.)
- Critical routines such as calibration, algorithms, etc., protected by password
- Allows its remote operation (TCP / IP). Optional module for ADR interconnection
- Texts, tone and volume of voice messages configurable by the user
- Record of events, backgrounds, measures, alarms, operation failures, etc.
- It has a standard USB port for data and historical export in any USB external support (memory stick, disk, etc.) as well as TCP / IP connector

## Additional Info:

- Dimensions: 130 x 50 x 60 cm (H x W x D) approx.
- Weight: 50 kg
- Power: 220 V 50 Hz or 110 V 60 Hz

