

# SPECTROTRACER



## Spectroscopic measuring probe

- Automatic radionuclide identification
- Adapted to air, soil or water applications
- Data transmission for long routine and emergency surveillance
- Very low maintenance

# SPECTROTRACER



## Spectroscopic solution for routine and emergency monitoring

SpectroTRACER is a continuous operating measurement system for nuclide specific identification and low level gamma contamination monitoring in air/soil (SpectroTRACER Air/Soil) and liquids (SpectroTRACER Aqua). The monitor calculates the ground contamination (Bq/m<sup>2</sup>) and the air concentration (Bq/m<sup>3</sup>) for each identified nuclide as well as the dose rate H\*(10).

Seismic test approved, SpectroTRACER is suitable both for day-to-day or emergency monitoring. It includes also as option redundant data transmission (incl. satellite data communication) in case of electrical blackout disabling mobile phone networks.

The hermetically sealed SpectroTRACER probe is designed for operation under harsh conditions demanding minimum maintenance. Low power consumption enables stationary or mobile applications using battery back-up or solar supply.

## Versatile solution

### Air monitoring



From very low to increasing radioactivity levels in the air

### Soil monitoring



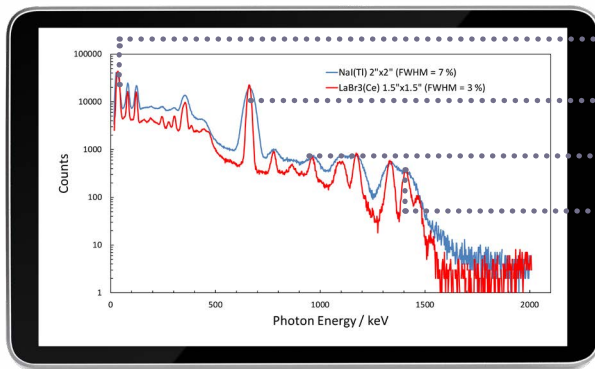
For ground contamination even in accidental conditions

### Water monitoring



In nuclear facilities, water purification centers or outdoors (river, sea...) with special coating

## Identify several nuclides in one measurement



..... Ba-133 peaks

..... Cs-137 peaks

..... Eu-152 peaks

..... Co-60 peaks

Figure: comparison between LaBr<sub>3</sub>(Ce) and NaI(Tl) detectors sensitivity to identify nuclides

SpectroTRACER is available with 3 types of detector - NaI(Tl), CeBr<sub>3</sub> and LaBr<sub>3</sub>(Ce) - depending on the expected sensitivity. All detectors allow the identification of several radionuclides in one measurement.

## Environmental monitoring range

Discover Bertin Instruments' other products

### GammaTRACER Spider



Emergency probe for gamma monitoring

## Secured & centralized surveillance system



From one probe to turnkey solutions, your data can be secured and saved in a MS-SQL central server and easily integrated in your internal processes or systems. Web based central data management is also available



## Technical features

### DETECTION PRINCIPLE

NaI(Tl), CeBr<sub>3</sub> or LaBr<sub>3</sub>(Ce) detector

### ENERGY RANGE

From 30 keV to 3 MeV (configurable)

### MEASUREMENT RANGE

NaI(Tl) 3"x3" up to 100 µSv/h  
CeBr<sub>3</sub> 1,5"x1,5" up to 1 mSv/h  
LaBr<sub>3</sub>(Ce) 1,5"x1,5" up to 1 mSv/h  
(all up to 1 Sv/h with optional GM tube, other crystals sizes available)

### DATA STORAGE

2 GB storage (allows up to 1-year local storage in 10 min mode)

### ADDITIONAL SENSORS

Built-in: temperature, humidity  
Optional: rain, wind

### HOUSING MATERIAL

Nano-painted Aluminum (teflonized in option for water monitoring)

### COMMUNICATION INTERFACES

Ethernet, 4G/LTE, radio, WiFi, satellite (on request)

### DIMENSIONS / WEIGHT

Ø175x567 mm / 6,4 kg max.  
(more compact version in option)