

## SHF - SHI - SEC

### $\gamma$ and X probes for the IF104 dose rate meter

- Probes for the IF104 monitor
- Interchangeable probes
- Automatic probe recognition
- Automatic switch between the measuring ranges
- Wide dose rate range (from 1  $\mu$ Gy/h to 300 Gy/h)
- 20-meter waterproof probes
- High total integrated dose life time



The IF104 monitor can be equipped with various types of probes, which allows to measure  $\gamma$  and X dose rate according to the desired measuring range.

The following probes are available:

- |                           |                               |
|---------------------------|-------------------------------|
| ➤ SHF for high dose rate: | from 1 mGy/h to 300 Gy/h      |
| ➤ SHI for high dose rate: | from 10 $\mu$ Gy/h to 50 Gy/h |
| ➤ SEC for wide range:     | from 1 $\mu$ Gy/h to 10 Gy/h  |

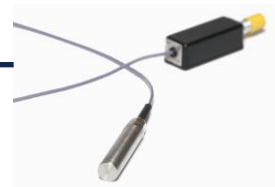
The SHF and SHI probes are designed to measure high  $\gamma$  and X dose rate by mean of a silicon diode detector housed in a stainless steel casing for easy decontamination. The probes connect to the IF104 monitor through a 25-meter cable (others lengths available till 100 m) ended with the appropriate interface electronic box.

Most of the electronic circuits including calibration parameters are housed in the interface box in order to maximize the probe lifetime vis-à-vis the integrated dose.

The SEC probe comprises two energy-compensated GM tubes switching automatically back-and-forth, so that a very wide range of dose rate and energy is covered. Contrary to the SHF / SHI probes, the SEC probe includes all the electronics since it would at a lower level of dose rate.

# SHF / SHI

## PHYSICAL CHARACTERISTICS



- **Detectors:** Energy-compensated Si-Diode
- **Detected Radiation:**  $\gamma$  and X
- **Measuring range:**
  - **Probe SHF:** from 1mGy/h to 300 Gy/h
  - **Probe SHI:** from 10  $\mu$ Gy/h to 50 Gy/h
- **Energy range:** from 60 keV to 1,3 MeV
- **Life time:** 5000 Gy

## ENVIRONMENTAL CHARACTERISTICS

- **Working temperature range :** from -30 ° C to +60 ° C

## MECHANICAL CHARACTERISTICS

- **Probe housing:**
  - **Material:** stainless steel
  - **Dimensions:** Ø 20 mm, leng. 85 mm
  - **Waterproof depth:** 20 m
- **Weight:** 500g (probe with 25-m cable)
- **Interface housing:**
  - **Material:** nickel aluminum
  - **Dimensions:** 90 mm x 35 mm x 35 mm
- **Cable length:** 25 m (standard)

## ELECTRICAL CHARACTERISTICS

- **Power supplied and processed by the IF104**

## ACCESSORIES & RELATED PRODUCTS

- Cable with withdrawable connectors
- Small-diameter housing for the probe
- ANDREA TCR processing unit for multi-probe applications (up to 6 probes can be connected)

# SEC

## PHYSICAL CHARACTERISTICS

**Detectors:** 2 energy-compensated GM tubes  
**Measuring range:** from 1  $\mu$ Gy/h to 10 Gy/h  
**Energy range:** from 50 keV to 1.3 MeV.



## ENVIRONMENTAL CHARACTERISTICS

- **Working temperature range:** from 0 ° C to +50 ° C

## MECHANICAL CHARACTERISTICS

- **Housing:** aluminum, 20-m waterproof
- **Weight:** 3.5 kg (probe with 25-m cable)
- **Dimensions:**
  - **Probe:** Ø 32 mm, leng. 280 mm
  - **Cable:** Ø 6,5 mm, leng. 25 m

## ELECTRICAL CHARACTERISTICS

- **Power supplied and processed by the IF104**

## ACCESSORIES & RELATED PRODUCTS

- Cable with withdrawable connectors

### SAPHYMO FRANCE - Headquarters

Parc d'activité du Pas du Lac  
10 bis avenue Ampère  
78180 Montigny-le-Bretonneux  
**Tél.: +33 (0)1 69 53 73 00**

Contact: [nuclearsales@saphymo.fr](mailto:nuclearsales@saphymo.fr)

### SAPHYMO GmbH

Heerstrasse 149  
D-60488 Frankfurt am Main  
**Tél.: +49 (0)69 976 514 0**  
Contact: [sales@saphymo.de](mailto:sales@saphymo.de)

### SAPHYMO Italia

Vico Chiuso Paggi, 4/11  
I-16128 Genova  
**Tél.: +39 (0)010 25 12 978**  
Contact: [mail@saphymoitalia.com](mailto:mail@saphymoitalia.com)