



## CORAPI

### Radiological control gates for pedestrian

- Whole body gamma control
- Fast walk through time
- Automatic processing

#### CORAPI :

- **detects** the presence of radioactive material on everybody leaving your controlled area site by using four large plastic scintillation detectors.
- **allows** a very fast and reliable control, with very low minimum detectable activities.

The walk through time will be close to 10 seconds for a minimum detectable activity of 800 Bq of  $^{60}\text{Co}$ .

The central processing unit monitors each detector individually. The specific Saphymo software allows the most reliable control in a  $200 \times 50 \times 60 \text{ cm}^3$  volume.

The pedestrian is automatically kept in the detection volume by electrically powered gates.

When a nuclear alarm occurs, the pedestrian must exit through the entrance gate. Your empowered personnel is warned by the CORAPI supervisor.



Visual signals displays	: Outside and inside		
Visual Alarms	: 2 flashing lights		
Power supply	: 110 or 230 VAC / 1 kW		
Temperature range	: 0 to 50 °C ; RH up to 90% (40°C)		
Weight	: 1200 kg		
Dimensions	:		
Inside Height	: 200 cm	Outside height	: 240 cm
Inside Width	: 115 cm	Outside Width	: 60 cm
Inside Length	: 90 cm	Outside Length	: 75 cm



➤ **Minimal detectable activity :**

The CORAPI gate detects contaminated spots or radioactive sources with the following  $^{60}\text{Co}$  equivalent activities :

- 800 Bq in 5 seconds,
- 3000 Bq in 1 second.

In the worst position i.e. at the center top (head) or bottom (foot) of CORAPI with the following conditions :

➤ **Measurement Conditions = operating conditions :**

- Environment background : < 70 nGy/h,
- False alarm rate : < 0.15%,
- Non detection probability : < 2.5 %.

➤ **Background acquisition :**

The background is automatically updated when no pedestrian is inside the CORAPI. The measurement time is automatically set according to the background value in order to keep the same minimum detectable activity.

The CORAPI is not available when the minimum detectable activity cannot be guaranteed.

A contamination control of the CORAPI is done automatically after each nuclear alarm to check that the CORAPI is not contaminated.

➤ **Supervisor :**

The supervision of several CORAPI (1 to 14) can be done with a personal computer and a specific Saphymo software through an RS 485 communication bus.

Supervision software main functions :

- Background monitoring
- Data transmission of control results
- CORAPI parameters setting and back up
- 50 000 last controls history
- Nuclear alarms display and acknowledgement
- Automatic calibration

