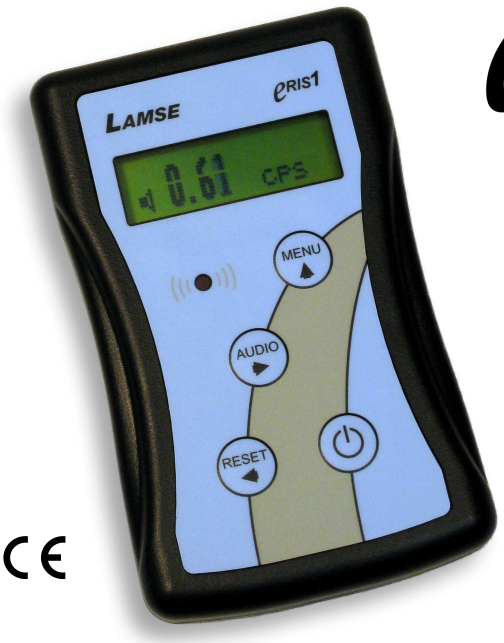
eRIS1C

Contamination Monitor



CE

- **Small, compact and lightweight.**
- **Measures Alpha, Beta and Gamma.**
- **Geiger-Müller detector, with a window of 7 cm^2.**
- **Units: cps, Bq y Bqcm^{-2}.**
- **Measure modes: Rate mode, Hold mode, and Counter mode.**
- **Isotope library.**
- **Alarm threshold values in cps and Bqcm^{-2}.**
- **Alarms and low battery, detector failure and overflow warnings.**

The Eris1C is a **handheld, small, compact and lightweight** contamination monitor to detect and measure the alpha, beta and gamma radioactive contamination, in counts rate (cps) and activity units (Bq, Bqcm^{-2}).

The monitor is ready to use as soon as it is turned on and the surfing on the menu is very **intuitive and user-friendly**. The language of texts and messages are all in English.

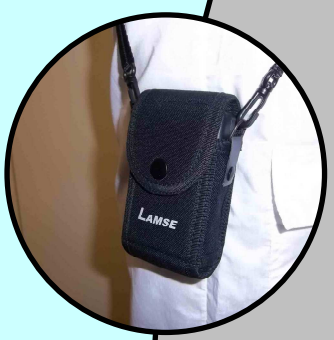
The monitor has three measures modes: the **Rate mode** in which the average value is updated each second, the **Hold mode** in which the maximum value reached is frozen on the display, and finally, the **Counter mode** with adjustable measuring time to do more accuracy measures.

Its sophisticated firmware calculates the average rate of the last seconds correcting the dead time of the detector. This reading is very stable, but it is automatically updated when the radiation field varies more than three times the standard deviation of the previous reading. This does the monitor has a **fast response time and stable readings**.

If the isotope to measure is known and the user wants measure directly in activity units, the Eris1C has a small isotope library, or calibration set, with factors to convert to **Bq and Bqcm^{-2}**, in accordance with ISO7503-1. The library has free positions that the user can set in case the isotope to measure is not in the library.

The counts rate (in cps) and activity rate (Bq, Bqcm^{-2}) have **alarm threshold values** that the user can set and save in the non-volatile memory. In case the counts rate or the activity is above its alarm threshold value, an alarm message will be displayed. The monitor also has **self-check routines** and displays a warning message if the battery level is low, if the detector fails or if the reading overflows.

After its manufacturing, the Eris1C is tested, adjusted and calibrated. The monitor is supplied with a transport case with strap and with a belt clip, with the user's manual (in English) and a certificate with the results of the calibration factors for some reference isotopes (ISO7503-1).



TECHNICAL SPECIFICATIONS

Detector	Geiger-Müller.
Window	7 cm^2, Mica of 1.5-2 mg/cm^2.
Measure type	Alpha+Beta+Gamma.
Sensibility γ(Cs137)	approx. 3 cps/µSv/h.
Measure units	cps, Bqcm^{-2}, Bq.
Measure range	max. 10000 cps.
Typical 2π efficiencies	Sr90+Y90 (β) ~ 54%
(in contact)	Cl36 (β) ~ 50%
	C14 (β) ~ 12%
	Am241 (α) ~ 10%
Response time	Automatic. 3-sigma criteria.
Measure modes	Rate, Hold and Counter with timer.
Display	12x2 LCD.
LED	Events frequency indication.
Audio	Controlled by keyboard.
Keyboard	Four membrane pushbuttons, ON/OFF, MENU↑, AUDIO→, RESET←.
Power	Alkaline 9 volts battery.
Dimensions	117 x 72 x 25 mm.
Weigth	200 g. (with battery)
Temperature range	-10 °C a +50 °C.
Humidity range	máx. 90% RH (non condensed).

Please note, due to our policy of continued development, specifications are subject to change without notice

LAMSE

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