LAMSE

eRIS2

eRIS2-M and eRIS2-G : the Multiprobe Radiation and Contamination Monitor

CE

Multiprobe with internal detector
External probes for alpha, beta, and gamma radioactive contamination, and probes for gamma and X-ray radiation. Compatible with probes of MS6020 monitor.

Rechargeable Ion-Li battery
Internal rechargeable Ion-Lithium battery of large capacity and with multiple recharge options (PC, electric network, vehicles, power-bank, etc).

Built-in GPS
Optional built-in high sensitivity GPS sensor. When activated, it allows recording the values of the measurements with the geographical location.

Data memory
Manual and automatic recording of the measurement values with the date, time and optionally with the geographical coordinates in the models with built-in GPS.

USB connectivity
It has a USB port for connection to the PC for downloading data. It also allows recharging the internal battery.

Software
For downloading memorized values and data management. Possibility to choose language (Spanish or English).

Several models
In order to adapt as much as possible to the needs of the user, there are available different options: a model without internal detector or two models with internal detector (maximum range of 10 mSv/h or 100 mSv/h).

Small and lightweight
Compact instrument of small dimensions, with only 220 g.

User friendly
The navigation through the menus is very intuitive and it has the possibility to choose language (Spanish or English). That makes it a very easy to use device.

Several measuring modes
Rate mode for the measurement of the current level of radiation, freeze mode of the maximum rate reached, search mode, dosimeter mode with accumulation of dose and time (in radiation), and counter / timer mode (in contamination).

Fast response
Stable measurement combined with fast response when a sudden variation of the radiation field greater than 3 times the standard deviation of the mean value.

Self-diagnosis
Continuous checking of the detector status, battery level and data memory, as well as alarm levels. Graphic indication by means of a bar of the measurement status relative to the alarm level.

Adjusted and calibrated
After manufacture, each instrument is adjusted and calibrated individually for ambient equivalent dose H*(10), with the reference radioisotope Cs137. A complete traceable Certificate is delivered with the instrument.

Accessories
It is supplied with charger, USB cable, software, user manual and manufacturer's calibration certificate. Optional accessories are a shoulder bag, suitcases, telescopic pole, probe cable, etc

After sales service
With the support of a fast and efficient technical service, both for repairs and calibrations or verifications.

eRIS2-M eRIS2-G

Multiprobe models:

ERIS2-M0	Multiprobe without internal detector	(ref. LAM046V01)
ERIS2-M10	Multiprobe with internal detector of max.10 mSv/h	(ref. LAM046V02)
ERIS2-M100	Multiprobe with internal detector of max.100 mSv/h	(ref. LAM046V03)
ERIS2-G0	Multiprobe without internal detector, with built-in GPS sensor	(ref. LAM047V01)
ERIS2-G10	Multiprobe with internal detector of max.10 mSv/h, with built-in GPS sensor	(ref. LAM047V02)
ERIS2-G100	Multiprobe with internal detector of max.100 mSv/h, with built-in GPS sensor	(ref. LAM047V03)

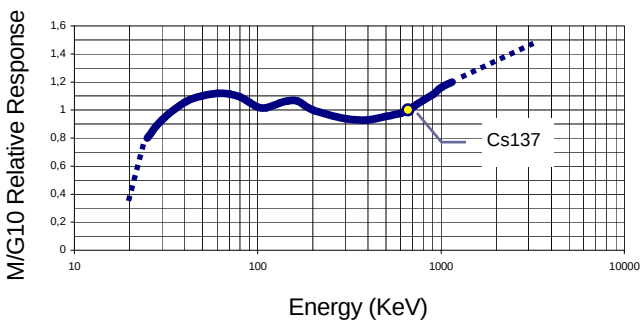
General technical specifications:

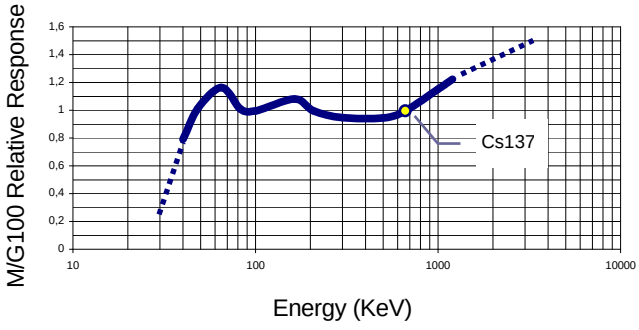
Data memory.....	Record of the date, time, measurement, parameters, and geographic coordinates (in models with GPS). Selection of manual, automatic or periodic recording. Capacity for approx. 8000 memory records (4000 if coordinates included)
Measuring units.....	-in radiation: rate (Sv/h) and accumulated dose (Sv) with time of accumulation. -in contamination: cps, Bq, Bq/cm^2.
Measuring types and ranges...	Depending on the characteristics of the internal detector or the connected external probe.
GPS sensor (optional).....	In models G: Built-in, of high sensibility.
Connectivity.....	-USB 2.0, type Mini-B connector, for communication and battery recharge. -Connector for compatible external probes.
Power.....	Internal rechargeable large-capacity Ion-Li battery. Maximum autonomy without recharging of approx. 300 hours (with internal detector, <1 µSv/h). Minimum autonomy of 60 hours (with external probe, measuring background).
Alarms and warnings.....	Acoustic and visual alarm in rate, accumulated dose, cps and Bq/cm^2, adjustable by advanced user by password. Warnings of battery level, full memory, detector failure and saturation of the measuring range.
Response time.....	Dynamic, minimum 2 s, 3-sigma criterion (standard deviation of the mean value)
Pushbuttons.....	Membrane keypad (4)
LED.....	Bi-color, alarm indication (red), and battery recharge (blue)
Display.....	Graphic LCD, with backlight controlled by keypad
Audio.....	Piezoelectric, alarm indication.
Case.....	ABS. IP51
Dimensions.....	11.7 x 7.2 x 2.5 cm.
Weight.....	220 g
Temperature range.....	-10 ^{o}C to +50 ^{o}C
Humidity range.....	max. 90% RH (not condensed).

Technical specifications of models with internal detector (M/G10, M/G100)

Measuring type.....	Gamma and X-rays, H*(10). Calibration related to Cs137 (662 KeV)	
Detector.....	Energy compensated Geiger-Müller	
Measuring modes.....	Dose rate and maximum dose rate (Sv/h). Search mode (graphic). Accumulated dose (Sv) with accumulation time (h)	
Optimal energy range.....	*M/G10:*	25 KeV to 1.3 MeV
	M/G100:	40 KeV to 1.3 MeV
Energy dependence.....	max. ±20% in the optimum energy range (relative to Cs137). greater than ±20% outside the optimal energy range	
Rate indication range.....	*M/G10:*	0.01 µSv/h to 10 mSv/h.
	M/G100:	0.01 µSv/h to 100 mSv/h.
Dose indication range.....	0.01 µSv to 1 Sv (0.01h to 9999 h)	
Gamma sensibility.....	*M/G10:*	approx. 1.7 cps/µSv/h
(related to Cs137)	*M/G100:*	approx. 0.7 cps/µSv/h
Accuracy.....	Maximum deviation ±15% over the entire measuring range (related to Cs137).	

Standard relative response curves of the M/G10 and M/G100 models according to the emission energy:





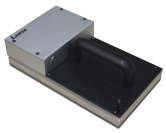
ARL032V01R01-200422-ERIS2MG

eRIS2-M eRIS2-G

The ERiS2-M / G allows the connection of an external probe, for radioactive contamination or radiation. The ERiS2 is fully compatible with the probes of the MS6020 multiprobe monitor model. When the monitor is turned on, it detects the connected probe and reads all its operating parameters, factors and alarm levels to apply them to the measurement. The navigation and ERiS2 menus are adapted according to the type of probe connected, whether it is contamination or radiation. In addition, it is possible to switch between the measurement of the external probe and that of the ERiS2 internal detector.

Contamination probes:

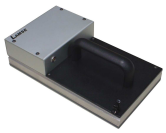
CT115BG
(ref. LAM010V01)



Probe with large area proportional detector, ideal for measuring beta and gamma, especially low energy gamma such as I-125

Type of detector:	Proportional (Xenon)
Measuring type:	-only Alphas -Alpha+Beta+Gamma
Case material:	Aluminium
Window material:	Aluminium, 3 mg/cm^2
Window area:	170 cm^2
Measuring range:	50000 cps
Gamma sensibility (Cs137):	60 cps/µSv/h
Dimensions:	212 x 119 x 85 mm
Weight:	800 g

CT115AB
(ref. LAM006V01)



Probe with large area proportional detector, ideal for measuring alpha, beta and gamma.

Type of detector:	Proportional (Argon)
Measuring type:	-only Alphas -Alpha+Beta+Gamma
Case material:	Aluminium
Window material:	Aluminium, 2 mg/cm^2
Window area:	170 cm^2
Measuring range:	50000 cps
Gamma sensibility (Cs137):	30 cps/µSv/h
Dimensions:	212 x 119 x 85 mm
Weight:	800 g

CT15
(ref. LAM005V01)

Probe with Geiger detector with window of 15 cm^2, for measuring Alpha+Beta+Gamma

Type of detector:	Geiger-Müller
Measuring type:	Alpha+Beta+Gamma
Case material:	Aluminium
Window material:	Mica, 1.5-2 mg/cm^2
Window area:	15 cm^2
Measuring range:	10000 cps
Gamma sensibility (Cs137):	60 cps/µSv/h
Dimensions:	140 x Ø65 mm
Weight:	250 g

CT1C
(ref. LAM015V01)

Probe with scintillation detector, optimal for measuring Beta+Gamma+X-Rays low energy

Type of detector:	Scintillation NaI(Tl) 25x2.5 mm.
Measuring type:	Beta, Gamma, X-Rays
Energy range:	10 KeV – 200 KeV
Case material:	Aluminium
Window material:	Aluminium, 0.025 mm.
Window area:	5 cm^2
Measuring range:	10000 cps
Dimensions:	200 mm. x Ø 35 mm
Weight:	190 g

Radiation probes:

RD1L
(ref. LAM009V01)

Radiation probe with Geiger detector, for measuring Gamma and X-rays up to 10 mSv/h

Type of detector:	Energy compensated Geiger-Müller
Measuring type:	Gamma, X-Rays
Measuring range:	0.1 µSv/h -10 mSv/h
Indication range:	0.01 µSv/h -10 mSv/h
Sensibility (^{137}Cs):	1.8 cps/µSv/h
Energy range (^{137}Cs):	40 KeV - 1.3 MeV
Dimensions:	135 mm. x Ø 35 mm
Weight:	150 g
Case:	Aluminium. IP51

RD1W
(ref. LAM031V01)

Radiation probe similar to the RD1L model, but with waterproof housing that allows outdoor measurements or submerged in water.

Type of detector:	Energy compensated Geiger-Müller
Measuring type:	Gamma, X-Rays
Measuring range:	0.1 µSv/h -10 mSv/h
Indication range:	0.01 µSv/h -10 mSv/h
Sensibility (^{137}Cs):	1.8 cps/µSv/h
Energy range (^{137}Cs):	40 KeV - 1.3 MeV
Dimensions:	135 mm. x Ø 35 mm
Weight:	150 g
Case:	Alum., waterproof IP68

RD2H
(ref. LAM020V01)

Radiation probe with Geiger detector, for measuring Gamma and X-rays up to 200 mSv/h (Optional: extended range at 1Sv/h)

Type of detector:	Energy compensated Geiger-Müller
Measuring type:	Gamma, X-Rays
Measuring range:	1 µSv/h - 200 mSv/h (optional max: 1Sv/h)
Indication range:	0.1 µSv/h - 200mSv/h (1 Sv/h)
Sensibility (^{137}Cs):	0.18 cps/µSv/h
Energy range (^{137}Cs):	50 KeV - 1.3 MeV
Dimensions:	135 mm. x Ø 35 mm
Weight:	150 g
Case:	Aluminium. IP51

RD2W
(ref. LAM032V01)

Radiation probe similar to the RD2H model, but with waterproof housing that allows outdoor measurements or submerged in water.

Type of detector:	Energy compensated Geiger-Müller
Measuring type:	Gamma, X-Rays
Measuring range:	1 µSv/h - 200 mSv/h (optional max: 1Sv/h)
Indication range:	0.1 µSv/h - 200 mSv/h (1 Sv/h)
Sensibility (^{137}Cs):	0.18 cps/µSv/h
Energy range (^{137}Cs):	50 KeV - 1.3 MeV
Dimensions:	148 mm. x Ø 35 mm
Weight:	165 g
Case:	Alum., waterproof IP68

RD2L
(ref. LAM012V01)

Radiation probe similar to the RD1L model, but with an opened window that allows the detection of beta radiation.

Type of detector:	Energy compensated Geiger, window 9mm
Measuring type:	Beta, Gamma, X-Rays
Measuring range:	0.1 µSv/h -10 mSv/h
Indication range:	0.01 µSv/h -10 mSv/h
Sensibility (^{137}Cs):	1.8 cps/µSv/h
Energy range (^{137}Cs):	40 KeV - 1.3 MeV
Dimensions:	135 mm. x Ø 35 mm
Weight:	150 g
Case:	Aluminium

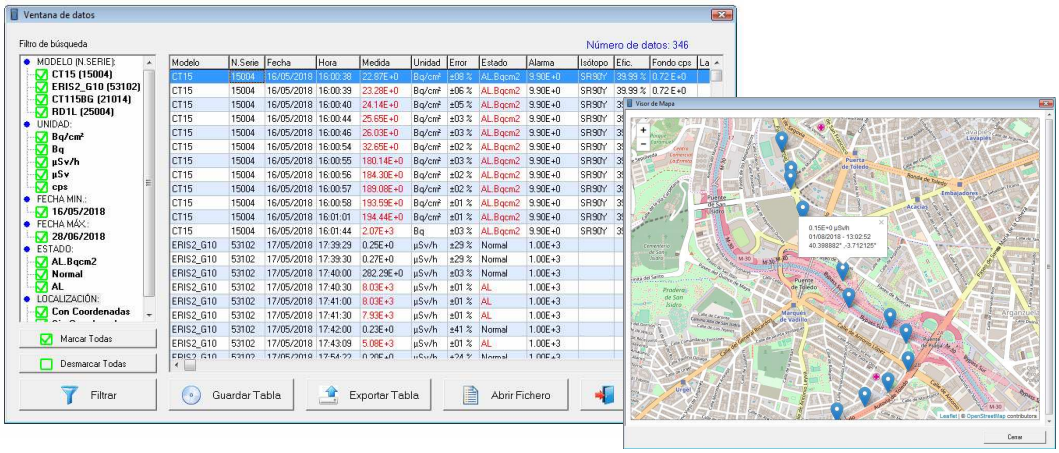
RD4L
(ref. LAM014V01)

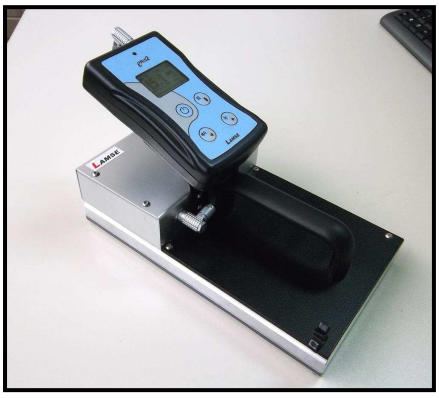
Radiation probe with high sensitivity scintillation detector, optimal for measuring Gamma, X-rays up to 100 µSv/h.

Type of detector:	Scintillation NaI(Tl) 25x25 mm.
Measuring type:	Gamma, X-Rays
Measuring range:	0.05 µSv/h -100 µSv/h
Indication range:	0.01 µSv/h -100 µSv/h
Sensibility (^{137}Cs):	290 cps/µSv/h
Energy range (^{137}Cs):	20 KeV - 2 MeV
Dimensions:	217 mm. x Ø 35 mm
Weight:	270 g
Case:	Aluminium. IP50

eRIS2-M eRIS2-G

The ERiS2 has a user friendly software application in English, for downloading and recording stored data. Data filtering and recording can be done, as well as exportation to other formats. In ERiS2 with buit-in GPS, the data with associated location coordinates can be displayed on a map.





The fixing thread on the rear of the ERiS2 allows its coupling, for example, to the CT115 probe. The set weights only 1250 grams, so it is very manageable.
The switching between the measurement of the contamination probe and the measurement of internal detector can be performed.

In addition, the system composed of the ERiS2 and the CT115 probe has a wall bracket, in which it can be easily attached and removed. Thanks to the opening window, it allows you to check your hands and be able to evaluate a possible contamination. It can then be easily removed to check clothes, tools or take measurements at any other location.

The ERiS2 monitor can be coupled to the telescopic pole, so that the measurements can be made at a distance of 2 meters.
With the detector change function, the operator can switch between the measurement of the pole end probe and the internal detector, where the operator is located.

LAMSE

ISO9001 Certified Company

LAMSE S.L. Paseo Imperial 6, 2-A 28005 Madrid (Spain) Tel: +34913669601 Email: info@lamse.es Web: www.lamse.es