

# DOSISTEMPO MONITORING



# Table of contents

|                                                                 |           |
|-----------------------------------------------------------------|-----------|
| <b>Bertin Technologies</b>                                      | <b>3</b>  |
| Skydose Dosimetry System – Bertin Instruments                   | 4         |
| RadTRACE – Bertin Instruments                                   | 6         |
| MiniTRACE S5 – Saphymo                                          | 7         |
| <b>Tracerco</b>                                                 | <b>7</b>  |
| Dose Rate Monitor T402 & T402HR – Tracerco                      | 9         |
| Intrinsically Safe Radiation Dose Rate Monitor (T202) Tracerco™ | 10        |
| <b>Sun Nuclear Corporation</b>                                  | <b>10</b> |
| Model 330 – Digital kV, Dose and Time Meter – Sun Nuclear       | 12        |
| <b>Ludlum Medical Physics (LMP)</b>                             | <b>12</b> |
| Model 3019 Digital Background Survey Meter – Ludlum             | 14        |
| Model 3001 Multi-Detector Survey Meter – Ludlum                 | 15        |
| Model 9DP Ambient Dose Ion Chamber Survey Meter – Ludlum        | 16        |
| Model 9DP-1 Ion Chamber Survey Meter – Ludlum                   | 18        |
| <b>Centronic Nuclear</b>                                        | <b>19</b> |
| Beta & Gamma Detectors – Centronic                              | 21        |
| <b>Other</b>                                                    | <b>21</b> |
| MiniTRACE Family – Saphymo                                      | 23        |



Bertin Technologies is a global provider of advanced radiation detection and environmental monitoring solutions, specializing in handheld monitors, personal electronic dosimeters, environmental monitoring systems, and waste & recycling management technologies. Their instruments are designed to meet the rigorous demands of nuclear facilities, emergency response teams, and environmental agencies.

## Product offering

### Skydose Dosimetry System - Bertin Instruments



### RadTRACE - Bertin Instruments



### MiniTRACE S5 - Saphymo



# Skydose Dosimetry System - Bertin Instruments



Skydose is an operational dosimetry system, designed to measure & monitor, in real time, the ambient dose level received by response teams in high exposure areas.



The operational dosimetry system Skydose consists in eight Saphydose yi RT teledosimeters, one Personal Digital Assistant (PDA), one Easydose configuration software, one Saphyr portable reader, as well as one to three RT-ZB05 routers.

The Skydose system is part of an ongoing approach based on the reduction of both collective and individual doses, in compliance with the ALARA principle (As Low As Reasonably Achievable). By optimizing the exposition to ionizing radiation, it aims at improving the operators' conditions of intervention, who will thus be able to focus safely on the objectives of their mission. The Skydose system only takes a **few minutes to install**. Thanks to the PDA, it ensures the in-field monitoring of an eight-person team equipped with Saphydose yi RT teledosimeters using mesh networking.

**Flexible & robust**, the Skydose system can reliably cover an entire infrastructure (a nuclear power plant, for example), thanks to one or more RT-ZB05 dedicated routers.

**Fast & easy to deploy**, the Skydose system can be used by operators, first-responders & non-specialists, inside & outside the risk areas.

## Features

- easy and quick setting even by non-specialized staff
- automatic network synchronization
- suitable for indoor and outdoor use including reactor buildings
- suitable for emergency situations (sturdy - high dose and dose rate range)
- real-time hotspots detection to reduce the mission dose received by workers
- compliant with use in nuclear facilities (CEI 61526)
- low maintenance costs
- real-time, remote & simultaneous monitoring of the Saphydose yi RT dosimeters, for the team to react immediately in case of emergency
- the Skydose system can be installed and configured in a few minutes, and be safely stored in a ruggedized pelicase - several systems can operate simultaneously, without interference

## Specifications

- detector: 2 energy-compensated silicon diodes
- energy range: **from 50 keV. to 7 MeV!**

- dose rate measurement range: 0.5  $\mu$ Sv. to 9,999.99 mSv
- dose measurement range: 1  $\mu$ Sv. to 9,999.99 mSv
- alarms: sound & visual
- battery lifetime in operation: 4,000 hours
- radio range: 300 m

## RadTRACE – Bertin Instruments



RadTRACE is a gamma survey meter dedicated to workers and non-specialized staff subject to radiation exposure in professional applications.



RadTRACE is a reliable dose rate meter designed to improve the safety of workers exposed to radiation. Robust, compact and easy to use, this instrument allows the measurement of gamma dose and dose rate on a wide range, with a very fast response time (1 sec.).

The data are automatically displayed on an LCD backlit interface with an auto scale function switching between  $\mu\text{Sv/h}$  and  $\text{mSv/h}$  for more accuracy. Initially designed for the French nuclear industry, it also offers a vibration alarm and an internal memory for measurement results. The internal data storage allows users to record the dose and dose rate for later readout (interval free adjustable).

### Advantages

- high sensitivity
- fast response time (1 sec)
- light, robust and pocket design
- easy to use
- long battery lifetime: 1,000 h

[RadTRACE](#)

## MiniTRACE S5 - Saphymo



The MiniTRACE S5 is a contamination meter designed to improve the safety of workers in all different kinds of fields. It's very sensitive and responds within a second.

Because the device is very user-friendly, it's very easy to detect possible spots of contamination in the controlling areas. The 6-digit display shows the activity value with a fixed decimal point.

The MiniTRACE has four pre-programmed alarm thresholds, but users can also adjust these to their personal needs.



This contamination meter is not only easy to use, but it's also very fast. If the device detects something, it will respond within a second. The device is applicable to many fields, like nuclear power plants, research centers, hospitals, police, fire brigades and the army.

### **BENEFITS OF THE MINITRACE S5**

- High sensitivity
- Fast response time
- Compact and robust
- Ergonomic design
- Easy two-button operation
- 4 alarm thresholds
- Visual and audible alarm output
- Infrared interface
- X-ray sensitivity of >5 keV

If you want to read more about dose rate meters from Bertin, visit [their website!](#)

**If you are in doubt about what MiniTRACE suits you best...**

[Read this!](#)



Tracerco is a trusted global provider of radiation monitoring solutions, offering specialized instruments for contamination monitoring, dose rate measurement, and personal dosimetry. Their technologies are widely adopted in the medical field, supporting hospitals, radiology departments, and nuclear medicine facilities in maintaining safety and meeting regulatory standards.

## Product offering

**Dose Rate Monitor  
T402 & T402HR -  
Tracerco**



**Intrinsically Safe  
Radiation Dose Rate  
Monitor (T202)  
Tracerco™**



## Dose Rate Monitor T402 & T402HR - Tracerco



The non-intrinsically safe radiation (contamination) Dose Rate Monitors T402 & T402HR offers an alternative to the Tracerco™ T202 Dose Rate Monitor. The instrument is designed for use in a wide range of industrial applications where radioactive substances are present.



### Specifications Dose Rate Monitor T402 & T402HR Tracerco

Contamination Dose Rate Monitor T402 & T402HR

# Intrinsically Safe Radiation Dose Rate Monitor (T202) Tracerco™



The Tracerco T202 dose rate monitor provides key operational features like peak dose rate memory and personal dose integration. Tracerco designed the monitor specifically to combine intrinsic safety with robust and reliable characteristics.

The monitor is suitable for all kinds of markets like:

- Oil and gas
- First responders
- Military
- Life sciences
- Mining
- Nuclear
- Medical
- Environmental agencies



## TRACERCO DOSE RATE MONITOR BENEFITS

- Intrinsically safe, so no need for a hot work permit
- Reads and records peak measurements so you can measure radiation levels remotely
- It can be used in every weather
- Adjustable alarm thresholds
- Lightweight
- Digital bar graph display and dose rate integration
- Easy to decontamination

If you want to know more about Tracerco Dose rate monitors, take a look at [our partner's site!](#)



**Need advice or do you have a question?**

**Contact PEO!**



Sun Nuclear is a leading provider of comprehensive Quality Management solutions for radiation therapy and diagnostic imaging. Their portfolio encompasses positioning systems, dosimetry tools, QA phantoms, detectors, dose rate monitoring devices, analysis software, and training phantoms. These solutions are designed to support medical professionals in ensuring accurate, safe, and efficient patient care.

## Product offering

**Model 330 - Digital  
kV, Dose and Time  
Meter - Sun Nuclear**



## Model 330 - Digital kV, Dose and Time Meter - Sun Nuclear



The Gammex 330 Digital kV, Dose and Time Meter is a test device for quality control and acceptance testing in radiographic, mammographic and fluoroscopic x-ray systems.

### Digital kV, Dose and Time Meter features:

- includes digital display of the quantity PPV (practical peak voltage) according to IEC 61676
- compact and light-weight
- easy-to-read LC Display
- measures kVp, dose and time non-invasively
- touch key controls





Ludlum Medical Physics (LMP), a division of Ludlum Measurements, Inc., specializes in radiation safety and medical imaging quality assurance (QA) solutions. Their comprehensive product line supports healthcare professionals in maintaining high standards of patient safety and diagnostic accuracy across various medical disciplines.

## Product offering

**Model 3019 Digital Background Survey Meter - Ludlum**



**Model 3001 Multi-Detector Survey Meter - Ludlum**



**Model 9DP Ambient Dose Ion Chamber Survey Meter - Ludlum**



**Model 9DP-1 Ion Chamber Survey Meter - Ludlum**



## Model 3019 Digital Background Survey Meter - Ludlum



The Model 3019 Digital Background Survey Meter (Ludlum) is a device with an internal scintillation detector used for gamma radiation survey for background to 500  $\mu\text{Sv/hr}$ .



### Model 3019 Digital Background Survey Meter features:

- internal CsI, scintillator with 175 cpm/ $\mu\text{R/hr}$  sensitivity detector
- count, rate and max
- 4-button intuitive interface for easy operation
- ruggedly built and light weight
- splash-resistant construction
- bright LED and sigma audio simplifies searching
- large backlit LCD for ease of reading
- USB port
- autoranging

Read more about the Model 3019 Digital Background Survey Meter on the [Ludlum website](#)



## Model 3001 Multi-Detector Survey Meter - Ludlum

The Model 3001 Multi-Detector Survey Meter (Ludlum) is an ergonomically-designed, versatile, lightweight instrument which can support up to 4 external detectors. Each detector with its own user parameters and set of calibration.



Choose from a wide range of probes for any application: [Ludlum probes](#)

### Model 3001 Multi-Detector Survey Meter features:

- max, rate and count modes of operation
- datalogging and headphone options
- large backlit LCD for ease of reading
- USB port
- ruggedly built and lighter weight
- splash-resistant construction for outdoor use
- Geiger-Mueller (GM), scintillator or proportional detector

Read more about the Model 3001 Multi-Detector Survey Meter on the [Ludlum website](#)

# Model 9DP Ambient Dose Ion Chamber Survey Meter - Ludlum



The Model 9DP Ion Chamber Survey Meter is a highly sensitive pressurised ion chamber meter. It doesn't only provide a measurement of exposure, but also of exposure rate. The meter measures and displays data conform the ICRU (International Commission on Radiation Units) tissue equivalent.

## AMBIENT DOSE EQUIVALENT

Ambient dose equivalent, is the dose equivalent readout that would be measured at a tissue depth of 10 mm. To measure this, the device requires a special ion chamber to provide a conversion of the exposure rate.

This model can simultaneously display the rate, integrated value and highest rate seen by the instrument. If desired, the user can reset the integrated value.



## FEATURES

This chamber survey meter has a nice 256K colour, bit-mapped display, which provides an optimised presentation of the data. The screen is also accompanied with icons that inform the user of the active functions and instrument status. The device can write all logged data in csv format.

When the device's alarms go off, the display will flash colours and, if the user wants, it can also make an acknowledgeable sound.

If you want more information about this Ion chamber survey meter, go to [our partner's website!](#)

## BENEFITS

- Provides ICRU-Based ambient dose measures
- The colour display is also readable in sunlight
- Auto zeroing and ranging
- Rechargeable batteries
- Alarm function
- USB Connectivity
- Data logging
- Chamber volume of 230 cc volume pressurised to 8 atmospheres (117 psi)
- 4-button control



**Model 9DP Overview** [https://youtu.be/UYPJQNVeC\\_I](https://youtu.be/UYPJQNVeC_I)



Model 9DP\* overview  
**9DP Control Panel Overview** <https://youtu.be/HusnR4e90yA>



Model 9DP Control Panel Overview



SCAN TO VIEW  
VIDEO



SCAN TO VIEW  
VIDEO

If you want to know more about this model...

Read our article!

Or contact PEO!

# Model 9DP-1 Ion Chamber Survey Meter - Ludlum



Ludlum designed the Model 9DP-1 Ion Chamber Survey Meter for radiography work where pulsed fields are being measured. This instrument correctly integrates 50 nanosecond pulses (and wider) that other systems typically miss or measure incorrectly.

The detector chamber is only pressurised to 1,36 atm (20 psi). The device has a nice 256-colour, bit mapped display, which provides an optimised presentation of the data. The instrument also has with icons that inform the user of the active functions and instrument status and which make it simple to use.



## FEATURES

This chamber survey meter has an alarm that uses colour changes in the screen and an acknowledgeable audio output. It also has a rechargeable battery that delivers up to 30 hours of operation between charges.

The instrument writes the data in csv format for convenient retrieval.

The device measures both exposure and exposure rate, and can simultaneously display the exposure rate, integrated value and highest rate seen by the instrument.

## BENEFITS

- Special design for measuring pulsed fields
- Low pressure chamber is non-hazmat
- Range from 0-500 mGy/h
- Sunlight readable colour display
- Auto zeroing & rangin
- Rechargeable batteries
- Alarming capability
- Data logging

If you want to know more, read [our article](#), or take a look at [our partner's website](#)!



**Model 9DP Overview** [https://youtu.be/UYPJQNVeC\\_I](https://youtu.be/UYPJQNVeC_I)



9DP instrument overview

**9DP Control Panel Overview** <https://youtu.be/HusnR4e90yA>



SCAN TO VIEW  
VIDEO



9DP control panel overview

**How To Decompress the Model 9DP** <https://youtu.be/jzbUaH9kfjU>



SCAN TO VIEW  
VIDEO



Decompressing the Ion Chamber



SCAN TO VIEW  
VIDEO



Centronic Nuclear was founded more than 70 years ago and has over 40 years experience in the development of semiconductor and gas-filled detectors. For example GM, X-ray, He3 / BF3 neutron and ion chambers for a wide range of applications in Electro-Optical and ionizing radiation detection.

## Product offering

### Beta & Gamma Detectors - Centronic



## Beta & Gamma Detectors - Centronic



The Beta & Gamma Detectors (Centronic) are used for the detection of radiation at low, intermediate and high dose rates. These types have a wide range of applications e.g. personal dosimetry, military and defence equipments.



### Beta & Gamma Detectors features:

- robust construction
- simple circuitry

Contact our product specialist or download the datasheet below.



## Product offering

### MiniTRACE Family - Saphymo



## MiniTRACE Family - Saphymo



The MiniTRACE Family (Saphymo) is a range of dosimeters, dose rate meters and contamination meters for Alpha, Beta, Gamma and X-ray detection. The Minitrace is designed to improve the safety of the workers in the control areas of nuclear power plants, reprocessing plants, research centers and hospitals.



### MiniTRACE Family features:

- fast response time
- integration time adapted to change of measure value
- additional 'mean value mode' for precise measurement of low radiation levels
- long battery lifetime
- four alarm threshold settings
- audible pulse output
- infrared interface