



Radiation Detection

- **SVGps** - Hand-held Radiation Survey Meter

• Choose Innovation - Choose Bruker

Bruker is recognised as the leading authority on the use of detection and identification technologies to mitigate the threat from the accidental or deliberate release of toxic gases, explosives and radioactive materials that could kill and injure civilians.

We offer the world's most comprehensive range of threat detection and identification solutions and can help you to assess how these can be best employed to protect people and property.

We develop, manufacture and supply technology worldwide for a range of customers and end users that need to protect people and property.

These include, but are not limited to governments, commercial enterprises and multi-national corporations who need to protect their employees and clients from the ever-increasing threat from terrorism.

Bruker is strongly committed to meeting its customers' needs by continuing to revolutionise the design, manufacture and distribution of detection tools based on our core technologies; by providing solutions that are regarded as the 'Gold Standard' by threat mitigation experts.



• α , β , γ Radiation Detection: the SVGps

The Bruker SVGps Radiation Survey Meter is a high precision, handheld system that uses a combination of Geiger-Mueller counting tubes and semiconductor detectors. The system includes a lightweight external probe that detects alpha-, beta-, gamma- and x-ray radiation simultaneously. For users who need an extended range for beta-/gamma- measurements, a dedicated probe is available as an option, which extends the upper detection limit by a factor of five. Neutron radiation is detectable with an optional probe. When either probe is connected, the SVGps recognises that particular probe and sets the measurement parameters accordingly.

The utility of the SVGps is further enhanced by the inclusion of an integrated GPS/GLOSNASS module linked to an internal data logger. Radiation measurements at specific GPS locations may be downloaded from the unit using the IR data transfer module and displayed directly on a map of the world. The map scale can be adjusted to suit requirements, and contains street level data to allow accurate co-ordinates to be established for the recorded data.

Running from a single, standard rechargeable Li-Ion battery, the system includes a solar panel to help maintain the battery charge level. For transport or storage, the SVGps is supplied in a robust case along with a comprehensive accessories pack.

APPLICATIONS

Key applications for this new product include direct use by the military, by civil defence and by first responders to assist in locating threats from ionising radiation. SVGps also has numerous civil applications in nuclear waste storage sites, nuclear power plants and radioanalytical facilities.



SVGps Transport/Storage case with dual probes.

*This simulation shows an example map with a series of overlaid low-level detection events.



The standard GPS/GLOASS feature integrates with the supplied mapping system to pinpoint your detection events

• SVGps: At a Glance



KEY ATTRIBUTES

- Detection of α , β , γ and x-ray ionising radiation
- Standard α , β , γ probe with extension and wrist rest
- Extended range β , γ probe with extension and wrist rest
- Automatic sensing of connected probe
- User set acoustic and visual alarms
- Integrated GPS/GLOSNASS module and data logger
- GPS/GLOSNASS mapping software
- Convenient operation from just four push button controls
- Operates from a single rechargeable Li-ion battery
- Integrated solar panel helps maintain battery charge
- CE Approved
- Lightweight; the SVGps basic device weighs only 1.5 kg

OUTLINE SPECIFICATIONS

Basic Device (without external probe)

Stand-alone device detects γ and x-ray ionising radiation.

Dose rate	0.1 μ Gy/h to 1Gy/h
Pulse rate	0 to 9,999cps
Dose	1 μ Gy to 9.99 Gy
Energy range	50keV to 3MeV

Standard α , β , γ , x-ray probe

Gamma and X-ray dose rate	0.1 μ Gy/h to 2Gy/h
Gamma and X-ray pulse rate	0 to 9,999cps
Gamma energy range	50keV to 3MeV
Beta pulse rate	0 to 9,999cps
Beta radiation	0 to 300,000 (1/(cm ² x min))
Beta energy range	150keV to 3MeV
Alpha pulse rate	0 to 9,999cps
Alpha radiation	0 to 300,000 (1/(cm ² x min))
Alpha energy range	4MeV to 8MeV

Extended range β , γ , x-ray probe

Gamma and X-ray dose rate	0.1 μ Gy/h to 10Gy/h
Gamma and X-ray pulse rate	0 to 9,999cps
Gamma energy range	50keV to 3MeV
Beta pulse rate	0 to 9,999cps
Beta radiation	10 to 200,000 (1/(cm ² x min))
Beta energy range	300keV to 3MeV

Current specifications of the SVGps can be found in the Product Specification Sheet (PSS), a copy of which is available on request.

Global Resources – Local Focus



Bruker has support centres of technical expertise in every major area of the world providing sales, applications and engineering support for our complete product range. With more than 6,000 employees at 90 locations worldwide you can be confident that the support team fronts a uniquely integrated global resource. Research and development specialists, applications professionals and highly trained engineers in every field are dedicated to your investment in our equipment.

Superior Detector Performance

For highly sensitive detection, identification and quantification of chemical, biological, explosive and radiation threats. Superior performance and high reliability comes as standard.

Applications Support

Systems are configured to meet your needs and result from our detailed evaluation of your requirements.

Standards & Compliance

All our systems are manufactured in ISO9001 compliant factories; so you can be assured of superior quality and performance.

Software & Data Systems

Designed to industry standards on the Microsoft® platform, our software can be integrated with your security management software.

Training

User Training and User-Level Maintenance is part of our standard Scope of Supply. Our goal is simple; to minimise your cost of ownership.

Low Maintenance

All our systems are designed for extended maintenance periods and reduce the through-life-costs of your investment.

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