NUVIATECH INSTRUMENTS

SPECIFICATION

NuDET EGM-FLEX

Portable Dose Rate Monitor

The NuDET EGM-FLEX probe is a portable gamma radiation dose rate monitor designed for long-term autonomous monitoring of the radiation situation. It combines reliable NuDET EGM measuring electronics with modern communication technologies (LTE/GPRS, optional Ethernet) and an integrated GPS module. Thanks to its robust design with IP66 protection and built-in battery operation, it is suitable for both stationary installation in monitoring networks and rapid deployment in the field during emergencies.

Benefits

- Reliable and accurate measurements thanks to the dual-channel GM tube system.
- Long-term operation without the need for an external power supply.
- Instant data transfer to the central system via LTE
- Easy integration into existing monitoring networks.
- Durable construction with IP66 protection suitable for outdoor use.

Key figures

IP66

Ingress Protection

100 h

Long independent battery life

LTE/GPRS + GPS

Reliable data transfer and localization.

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Supporting your energy

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NuDET EGM-FLEX

Portable Dose Rate Monitor

Product description

The NuDET EGM-FLEX is a portable gamma dose rate monitor designed for autonomous and long-term radiation monitoring. The device is based on the proven NuDET EGM measuring electronics and uses two Geiger-Müller tubes to provide a wide measuring range from 50 nSv/h up to 2 Sv/h. The system integrates a LTE/GPRS communication module with GPS for automatic data transfer and localization. Optionally, an Ethernet interface can be added.
The probe is powered by a 50 Wh LiFePO4 battery pack, ensuring more than 100 hours of independent operation. Integrated charging electronics allow continuous use when connected to an external power supply. Data are transmitted to the server in adjustable integration intervals (typically 10 minutes) using the NuXML protocol over HTTP/HTTPS.
The device features a rugged IP66 enclosure, LED status indicators, and a keylock switch for operation modes (OFF, Charging, ON). With its robust design, reliable electronics, and advanced communication capabilities, the NuDET EGM-FLEX is suitable for fixed monitoring stations, mobile deployments, and emergency radiation surveys.

Technical specifications

Detector types:	LND 71210 (LD) LND 7149 (HD)
Measuring range:	50 nSv/h - 20 mSv/h (LD)
	1 µSv/h - 2 Sv/h (HD)
Sensitivity:	1.4 CPS per 1 µSv/h (LD) @ 661 keV
	0.15 CPS per 1 µSv/h (HD) @ 661 keV
Measured Quantity:	Ambient Dose Equivalent Rate
Energy Range:	80 keV to 1.5 MeV (according IEC61017)
Integration period:	Adjustable (typically 10 minutes)
Uncertainty:	10 % for background level (100 nSv/h) and 10 minutes integration time
Linearity and energy dependence:	<15 %
Power supply:	5 – 18 V / 2A
Batteries:	50 Wh (4 x $LiFePO_4$ 26650)
Power consumption:	3 W peak / 350 mW average (10 minutes integration period)
Charging temperature range:	0 – 50 ° C (temperature at the batteries)

Product applications

- Monitoring of radiation levels within radiation monitoring networks
- Mobile and stationary deployment in industry and research
- Emergency measurements and rapid deployment in the field