NuGUARD RADIOLOGICAL BEACON

NuGUARD monitors and alerts about radiological conditions concerning an area. Quick and easy to install, NuGUARD deployment does not involve any cable or construction work.
NuGUARD delivers real-time and simultaneous information to operators, locally, and at distance to a central command station, thanks to its long-range communication system. Aware of the danger, operators can work safely with NuGUARD.

Benefits

· Sensor adaptable to your measuring needs
· Dose rate measurement
· Gamma spectrometry acquisition
· Real-time iterative measurement
· Visual and audio indications of danger
· Real-time alert transmission
· Thresholds configurable at a distance
· GPS or manual localisation
· Wired or wireless communication
· Battery, cable or solar powered
· Data history and traceability

Key Figures

CZT-Si-CsI (Tl)
➟ *Modular Sensor*

IP63
➟ *Ingress protection*

12 hours
➟ *Autonomy*

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Supporting your energy

Measure: Modular Sensor

	Gamma spectrometry		Dose rate		
	S-60	**S-500**	**DR-H**	**DR-M**	**DR-L**
Sensor	CZT (60 mm³)	CZT (500 mm³)	Si	Si	Csl (Tl)
Emitter	Gamma	Gamma	Gamma	Gamma	Gamma
Unit	Count / keV	Count / keV	Gy.h^{-1}	Gy.h^{-1}	Gy.h^{-1}
Measure range	≤ 10 mGy.h^{-1}	≤ 1 mGy.h^{-1}	1 μGy.h^{-1} to 10 Gy.h^{-1}	1 μGy.h^{-1} to 100 mGy.h^{-1}	10 nGy.h^{-1} to 1 mGy.h^{-1}
Energy range	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV	59 keV to 2 MeV
Channels	1024	1024	-	-	-
Energy resolution	<2.5% at 662 keV	<3% at 662 keV	-	-	-

Applications

➥ *Deployment of a network of beacons on worksites or other areas*

➥ *Automatic recurring checkpoint monitoring*

➥ *Storage area monitoring, zone or site limit monitoring*

➥ *Decision support to reduce operator exposure to risk*

Related Material

- Transport case
- NuISYSoft
- Option: Solar power source
- Connected vision (Optional)

Electrical Data

Battery..**Lithium Polymer**

Voltage...**3.7 V**

Battery power..**6 Ah**

Charging time...**6 hours**

Autonomy..**36 hours on battery, wall-power or solar available**

Monthly discharge................................**< 1%**

Charging system.....................................**Charger 85-264 VAC @ 50/60Hz**

Mechanical Data

Ingress protection................................**IP63**

Dimensions..**H 280 mm, Ø 60 mm**

Weight...**500 g**

Communication

Name..**iCOM**

Long-range communication ....**LoRa (868 MHz), 4G LTG, 5G ready**

Short-range communication ....**BLE, Wifi (optional)**

Outdoor localisation ....**GPS (+/- 3 m)**

Indoor localisation ....**Pseudolites**

Security...**AES-256 / RSA-1024**

Environment

Operational temperature ....**-20°C to +60°C**

Storage temperature..............................**-20°C to +60°C**

Charging temperature...........................**0°C to +45°C**

Ergonomics

Alerts...**LED green / orange / red, sound alerts**

Display..**LCD screen, Supervision PC, Android devices (smartwatch, smartphone or tablet).**

Norms

Conform to CE et RED Directive (2014 /UE)