

# MIRA ENVINET



## **MIRA – Gamma Dose Rate Monitoring System**

MIRA is a highly versatile and very flexible gamma dose rate monitoring system. Due to its modular design, it can be configured and used in different ways and thus covers versatile applications. It facilitates not only a gamma probe but can be extended by means of internal and external options to become various types of gamma monitoring stations. MIRA can be deployed in both fixed installations and mobile applications. Its special features are autonomous operation capability and a highly reliable wireless data communication design.

# GAMMA DOSE RATE MONITORING SYSTEM

MIRA is the new generation of highly compact gamma dose rate monitoring systems, supporting a wide range of applications. MIRA offers versatile data communication capabilities and supports stationary or mobile applications, due to its autonomous power supply.

## APPLICATIONS

- Ring monitoring systems around nuclear facilities
- Nationwide monitoring networks
- Area monitoring
- Laboratory and system monitoring
- Temporary measurement
- Transport monitoring
- Civil defense and disaster control

## FEATURES

- Unlimited autonomous operation
- Wireless service via Bluetooth
- Lightweight and extremely mobile
- Easy to install and deploy
- Rugged design (IP68 / IP65)
- Different communication options: Ethernet, LTE/GPRS, Satellite, RS232, Radio etc.
- Redundant data communication
- Data synchronization with network monitoring center
- Integrated accuracy test
- Power supply or battery charging with standard cellphone power supply unit or by USB
- >10 years non-volatile storage of all readings
- Wide operational temperature range -40°C to +60°C
- Operation under harsh environmental conditions

## ACCESSORIES

- Tripod
- Weather station
- Carrying case
- Battery charger
- Test set



**Gamma Detector**

- Single application
- Ethernet, RS232 or RS485
- USB or 5V power



**Gamma Monitoring Station**

- Remote application
- LTE, RADIO, DSL, SAT, TETRA
- Mains or solar power supply



**Autonomous Monitoring Station**

- Different applications
- LTE/GPRS or/and RADIO
- Solar power supply



**Autonomous Mobile Monitoring Station**

- Temporary deployment
- LTE/GPRS or/and RADIO
- Solar power supply



**Gamma & Weather Monitoring Station**

- Mobile and permanent use
- LTE/GPRS or/and RADIO
- Solar or mains power supply

## DESCRIPTION

MIRA is a gamma dose rate detection system that uses two Geiger-Mueller detectors to cover a wide measurement range from 10 nSv/h to 10 Sv/h calibrated for Ambient Dose Rate Equivalent H\*(10). The technical design allows a wide range of applications, from standalone deployment right through to diverse and complex monitoring networks.

## FUNCTIONS

- Gamma dose rate detection at three user-configurable integration time intervals
- Count rate detection at three user-configurable integration times
- Temperature detection at at two user-configurable time intervals
- Battery state of charge detection at two user-configurable time intervals
- Data integrity is guaranteed for the product life time.
- Data acquisition in real time
- Intrinsic background correction
- Temperature compensation of detector response
- Local background correction
- Automatic switch-over between Low Dose and High Dose detectors
- Overload detection of High Dose detector
- Status supervision of detectors, battery and electronics
- Alarm management with two thresholds (spontaneous call)
- Notification of a threshold exceeded or a status changed



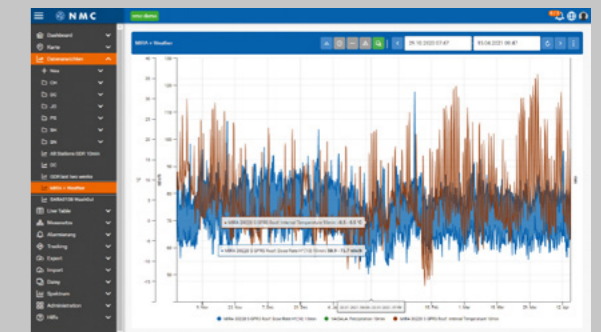
MIRA Tablet with MIRA App

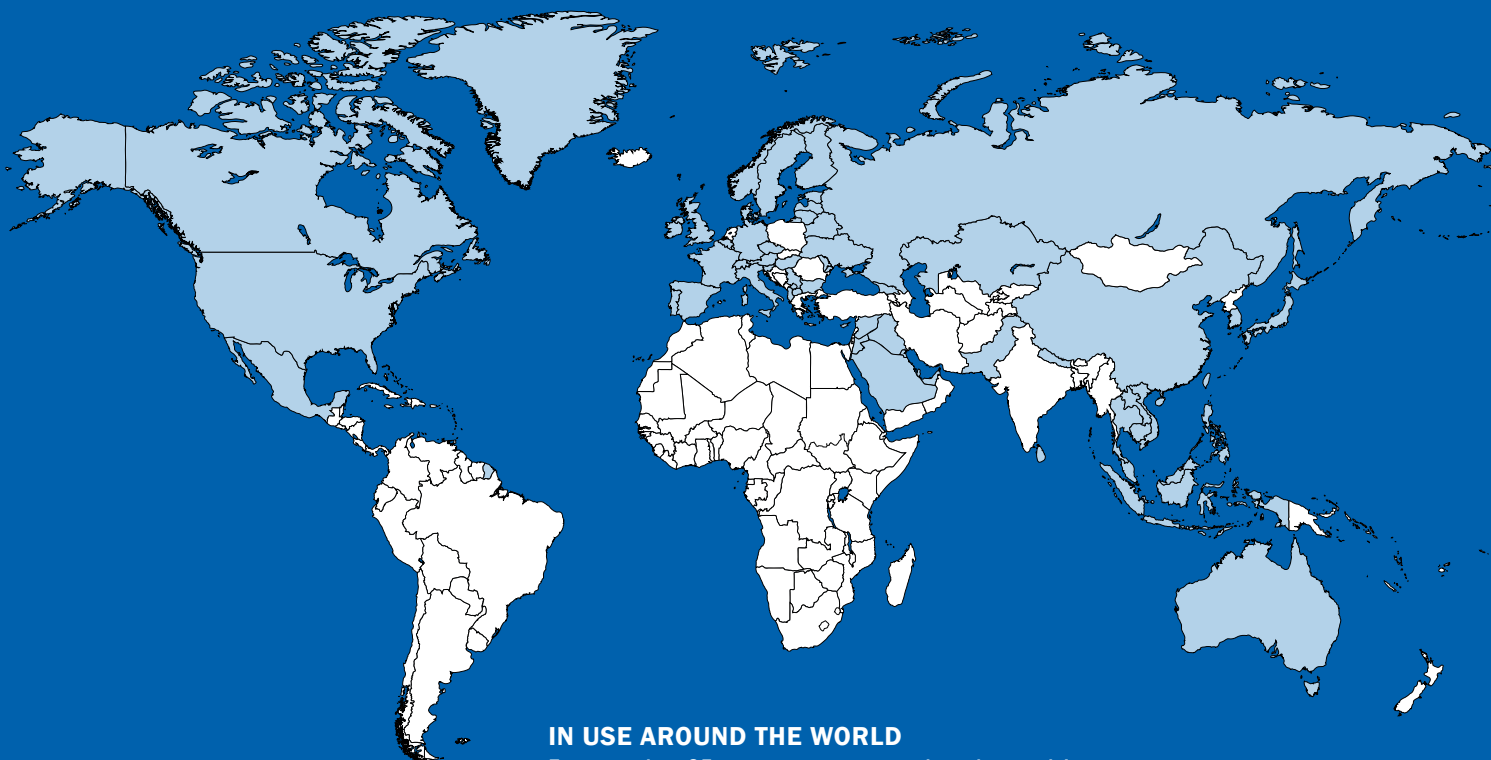
## BENEFITS

- Low cost investment
  - No infrastructure necessary due to battery or solar power and wireless data communication
  - Cost-effective and easy to install
- Low cost of operation
  - Minimal service expenses
  - Autonomous operation
  - Remote configuration and control capability
  - Maintenance free operation
- Extensive product range supports versatile applications

## DATA ANALYSIS

All applications - from a single detector to a nationwide monitoring network with hundreds of monitoring stations - are supported by Scientia Envinet's monitoring center software NMC. Through NMC all MIRAs in a monitoring network can be managed, configured and supervised. NMC polls the measured data continuously and archives it; furthermore it offers versatile data analysis and presentation capabilities. In addition, it provides several alarm management functions.





### IN USE AROUND THE WORLD

For more than 35 years, our customers have been relying on Scienta Environet's solutions for monitoring environmental parameters with more than 5,000 stations.



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