



## MIRA – PORTABLE Gamma Monitoring Station

The MIRA Gamma Dose Rate Detector can be used in various applications for quick set-up in the field.

A MIRA Gamma Detector with the optional GPRS/LTE, satellite or Radio communication interface for wireless communication can be used as Autonomous Monitoring Station, which needs no external power or communication infrastructure. The Autonomous Monitoring Station becomes to an Autonomous Mobile Monitoring Station by using the optional tripod (plastic or steel).



For fixed outdoor installation the MIRA Gamma detector can be simply fixed to a pole or wall using the brackets and can be used as a Gamma Monitoring Station. The base unit is also used if other communication interfaces as DSL are used. The base unit can be ordered with an optional backup battery (standard: 12 V/10 Ah) and solar panel (standard: 5 W). Other battery and/or solar panel are possible on request.

The MIRA system bases on Geiger Muller detectors for ambient gamma dose rate measurements. To cover the full measurement range from 10 nSv/h to 10 Sv/h two detectors are needed. The lower part of the detector is used for the electronic like processor unit, SD card, radio module, GPS, satellite and GPRS/LTE.

At the bottom, the connectors for power supply, LAN, Radio antenna and service interface are placed.

▪ Gamma dose rate detection at three user configurable time intervals\*

- Count rate detection at three user configurable time intervals\*
- Temperature detection at two user configurable time intervals\*
- Battery state of charge detection at two user configurable time intervals\*
- Storage of all measured values for an unlimited time (>10 years)
- Data acquisition on real time
- Intrinsic background correction
- Temperature compensation of intrinsic background
- Temperature compensation of LD/HD characteristic
- Local background correction
- Automatic switch-over between LD and HD
- Overload detection of HD detector
- In case of version with 2 LD comparison of LD values and difference evaluation for malfunction detection
- Secured VPN data transmission with external router (option, only with monitoring station)
- Status supervision of detectors, battery and electronic
- Alarm management with two thresholds
- Notification on threshold exceeding or status change (spontaneous call)
- The MIRA can be combined with Weather Station and transmit the radiation data and weather data in one data communication

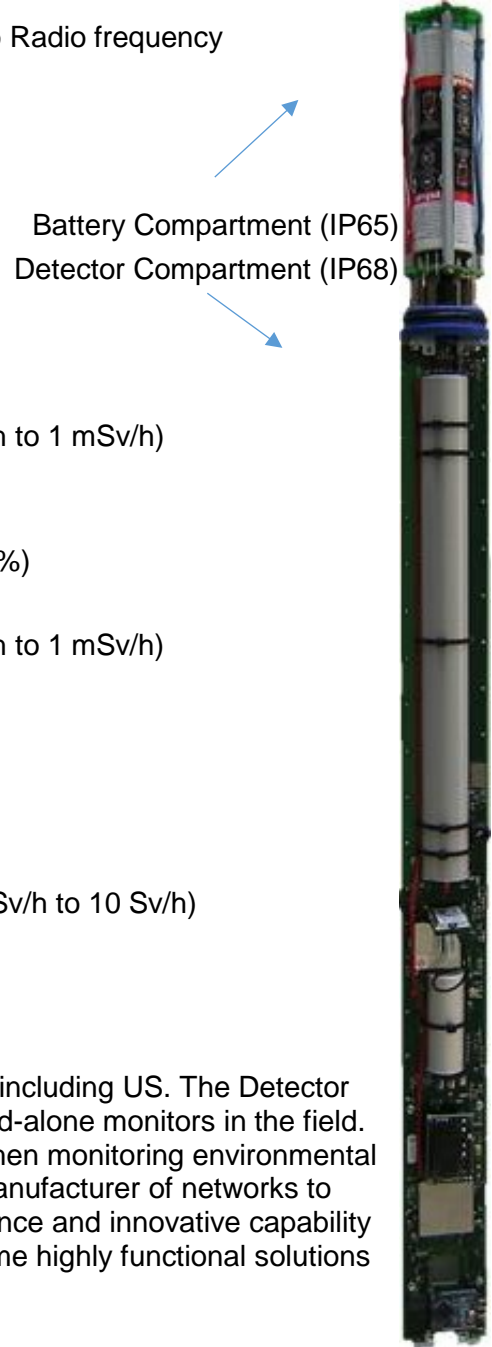




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## Specifications of the MIRA gamma detector

Detection range	1uR/h to 1000 R/h (10 nSv/h to 10 Sv/h)
Accuracy	15% (calibrated to Cs-137)
Operating Temperature	-40° F to +140°F (-40°C to +60°C)
Power Consumption	1 mV;
Data Communication	LAN, GPRS/LTE, satellite or/and radio Radio frequency
Height	876 mm (34.49 in.)
Weight	5.1 lbs (2.3kg)
Diameter	2.36 in. (60mm)
Protection class	IP65



### TECHNICAL DATA – LOW DOSE RANGE (LD)

#### GM type 70031A

Range	1uR/hr. to 100mR/hr. (10 nSv/h to 1 mSv/h)
Sensitivity	823 counts min <sup>-1</sup> / μSv/h
Detector background	47 nSv/h (38 counts min <sup>-1</sup> )
Energy range	35 keV -2.5 MeV (-29 % / +67 %)

#### GM type ZP1221/02

Range	1uR/hr. to 100mR/hr. (10 nSv/h to 1 mSv/h)
Sensitivity	770 counts min <sup>-1</sup> / μSv/h
Energy range	55 keV-1.25
MeV (±25 %)	

### TECHNICAL DATA – HIGH DOSE RANGE (HD)

#### GM type 70018A

Range	1mR/hr. to 1000 R/hr. (0.01 mSv/h to 10 Sv/h)
Sensitivity	1.03 counts min <sup>-1</sup> / μSv/h
Energy range	70 keV -1.3 MeV (+15 %)

The MIRA Gamma Dose Rate Detector has been utilized throughout the world including US. The Detector contains all important functions for operation and data communications as stand-alone monitors in the field. For over 30 years our customers have been relying on ENVINET’s solutions when monitoring environmental parameters. With over 4000 online detectors in the field, we are the leading manufacturer of networks to monitor environmental radiation. Our products and solutions reflect our experience and innovative capability of our team thus guaranteeing top quality extremely reliable yet, at the same time highly functional solutions at reasonable pricing.