



**RAMSYS**

# GIM 201K™

*Low Range Gamma Area Monitor*

Low range gamma area monitor developed to monitor absorbed equivalent dose rate in nuclear facilities or laboratories for personnel exposure.



## FEATURES

- Wide measurement range
- High detector TID
- Up to 150 meters (492 ft) between detector and processing unit
- Available with or without display and local signaling
- Suitable for continuous and pulsed radiation fields
- Compact and reliable

## DESCRIPTION

The GIM 201K forms part of the RAMSYS product line.

It has been developed to monitor absorbed dose rate in nuclear facilities for personnel exposure. Its design makes it especially suited for operation in accelerators.

Ionization chamber made of high density polyethylene allows the measure of short duration pulsed radiation fields when halogenated and/or material activation is an issue.

## PHYSICAL CHARACTERISTICS

- Radiation detected: gamma
- Detector: plastic (HDPE) ionization chamber (SG/IC21)
- Energy range: 50 keV to 7 MeV
- Typical measurement range:  $10^{-6}$  to 10 Sv/h ( $10^{-4}$  to  $10^{+3}$  rem/h)

## ENVIRONMENTAL CHARACTERISTICS

- Normal temperature: +5°C to +40°C (+41°F to +104°F)
- Temperature limit:
  - Processing unit: -5°C to +55°C (+23°F to +131°F)
  - Detector: -40°C to +55°C (-40°F to +131°F)
- MTBF: > 50 000 hours
- TID:
  - Processing unit: 100 Gy ( $10^{+4}$  rad)
  - Detector:  $10^{+5}$  Gy ( $10^{+7}$  rad)
- Protection index: IP65 and IK07

## MECHANICAL CHARACTERISTICS

- Dimensions:
  - Processing unit: 390 mm x 196 mm x 187 mm (15.3 in x 7.7 in x 7.3 in)
  - Detector: 288 mm (11.3 in) x  $\varnothing$  160 mm (6.3 in)
- Weight:
  - Processing unit: 8.5 kg (18.7 lb)
  - Detector: 1 kg (2.2 lb)
- Color:
  - Processing unit: gray RAL 7030 (decontaminable paint)
  - Detector: matt black (decontaminable paint)

## ELECTRICAL CHARACTERISTICS

- Power supply: 230 Vac – 50 Hz or 120 Vac – 60 Hz
- Data link outputs: 1 RS232 and 2 isolated RS485
- Alarm relays: 3 SPDT relays
- I/O: 2 isolated analog outputs and 1 isolated analog input (0/4-20 mA)

## SIGNALING (Applicable to LPDU only)

- Alphanumeric display: measurement, status...
- Sound alarm: buzzer 90 dBA at 1 meter
- Visual alarm: 3 lights (red, yellow, green)

## REFERENCE STANDARDS

- Nuclear: IEC60532
- Environmental: IEC/IEEE 60780-323
- Seismic: IEEE344 and IEC60980
- EMC: 2014/30/EU and 2014/35/EU, EPRI 102323, RG 1.180, IEC61000-6-2 and IEC61000-6-4

## VERSIONS

- 230 Vac or 120 Vac
- Local processing and display unit (LPDU) or local processing unit (LPU)
- With or without RS485 junction box
- Detector cable length: from 10 m (32.8 ft) to 150 m (492 ft)
- Junction box cable length: 2 m (6.56 ft), 5 m (16.4 ft) or 10 m (32.8 ft)

## ACCESSORIES

- Calibration tools
- Software: MASS2, RAMVISION, SIMS2...
- Ethernet (LPDU version only)
- USB converters
- Seismic qualified wall mounting brackets (for electronics and detector)

Featuring:

