GIM 201K
Low Range Gamma Area Monitor

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.

APPLICATIONS

- Radioprotection of workers
  - Containment atmosphere
  - Control room air, etc.
- Operational process monitoring

RELATED MONITORS

- GIM 202K: wide range gamma area monitor
- GIM 203K: wide range gamma area monitor
- GIM 205K: medium range gamma area monitor
- GIM 206K: high range gamma area monitor

FEATURES

- Wide measurement range
- Wide detector temperature range
- High detector TID
- Up to 1000 meters (3000 ft) between detector and processing unit
- Available with or without display and local signaling
- Suitable for continuous and pulsed radiation fields
- Compact and reliable

radiation monitoring systems

A Mirion Technologies Division

Featuring:

PHYSICAL CHARACTERISTICS

- Radiation detected: gamma
- Detector: plastic (HDPE) ionization chamber
- 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

- Long term temperature (processing unit): +10°C to +40°C (+50°F to +104°F)
- Maximum periodic ambient temperature (processing unit): +0°C to +55°C (+32°F to +131°F)
- Temperature range (detector): -40°C to +80°C (-40°F to +176°F)
- MTBF: > 20 000 hours
- TID (processing unit): 25 Gy (2.5 10^{+3} rad)
- TID (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 Ø 160 mm (6.3 in)
- Weight: 8.5 kg (18.7 lb)
- Color: gray RAL 7030 (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 and IEC60846
- Environmental: IEE323 and IEC60780
- Seismic: IEEE344 and IEC60980
- EMC: 2006/95/CE and 2004/108/CE, EPRI 102323, MIL STD 461 E, IEC61000-6-2 and IEC61000-6-4

VERSIONS

- 230 Vac or 120 Vac
- LPDU or LPU
- With or without RS485 junction box
- Detector cable length: from 10 m (32.8 ft) to 1000 m (3280 ft)
- Junction box cable length: 5 m (16.4 ft) or 10 m (32.8 ft)

ACCESSORIES

- Calibration tools
- Software
- Ethernet
- USB converters
- Seismic qualified wall mounting brackets (for electronics and detector)

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