



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.

DESCRIPTION

The GIM 201K monitor 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 operating conditions.



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

GIM 201K™ LOW RANGE GAMMA AREA MONITOR

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 Ø 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: one RS232 (LPDU only) and two isolated RS485
- Alarm relays: three SPDT relays
- I/O: two isolated analog outputs and one 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: three lights (red, yellow, green)

REFERENCE STANDARDS

- Nuclear: IEC 60532
- Environmental: IEC/IEEE 60780-323
- Seismic: IEEE 344 and IEC 60980
- EMC: 2014/30/EU and 2014/35/EU, EPRI 102323, RG 1.180, IEC 61000-6-2 and IEC 61000-6-4

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™ applications...
- Ethernet (LPDU version only)
- USB converters
- Seismic qualified wall mounting brackets (for electronics and detector)



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