



RAMSYS

GIM 202K™

Wide Range Gamma Area Monitor

Continuous monitoring of gamma dose rate under mild or post-accident environmental conditions.



FEATURES

- Wide measurement range
- Compact and reliable
- Available with or without display and local signalling
- Available under 10 CFR 50 App.B, ASME NQA-1 and IEC61226 programs for safety related applications

DESCRIPTION

The GIM 202K forms part of the RAMSYS product line. It has been developed to monitor kerma dose rate (in Gy/h or rad/h) or ambient equivalent dose rate $H(^*10)$ (in Sv/h or rem/h) in nuclear facilities under mild operating or post-accident conditions.

The very simple concept of its ionization chamber allows this monitor to have a great reliability of prime importance in the safety related applications.

PHYSICAL CHARACTERISTICS

- Radiation detected: gamma
- Detector: stainless steel ionization chamber (KG 220 SEF-Gy for Gy/h or KG 220 SEF-Sv for Sv/h)
- Energy range: 80 keV to 1.5 MeV according to IEC60532
- Energy range capability: up to 7 MeV ($\pm 60\%$)
- Typical measurement range: 10^{-7} to 10^{+2} Gy/h or Sv/h (10^{-5} to 10^{+4} rad/h or rem/h)

ENVIRONMENTAL CHARACTERISTICS

- Normal temperature:
 - Processing unit: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ ($+41^{\circ}\text{F}$ to $+104^{\circ}\text{F}$)
 - Detector: -30°C to $+100^{\circ}\text{C}$ (-22°F to $+212^{\circ}\text{F}$)
- Temperature limit:
 - Processing unit: -5°C to $+55^{\circ}\text{C}$ ($+23^{\circ}\text{F}$ to $+131^{\circ}\text{F}$)
 - Detector: 120°C (248°F) during 1 hour
- MTBF: > 50 000 hours
- TID:
 - Processing unit: 100 Gy (10^{+4} rad)
 - Detector: $2.5 \cdot 10^{+5}$ Gy ($2.5 \cdot 10^{+7}$ rad)
- Protection index:
 - Processing unit: IP65 and IK07
 - Detector: IP65, IP67 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: 240 mm (9.5 in) x \varnothing 280 mm (11 in)
- Weight:
 - Processing unit: 8.5 kg (18.7 lb)
 - Detector: 23 kg (51 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 (LPDU only) 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
- Seimisc: IEEE344 and IEC60980
- EMC: 2014/30/EU and 2014/35/EU, EPRI 102323, RG1.180, IEC61000-6-2 and IEC61000-6-4

VERSIONS

- 230 Vac or 120 Vac
- Local processing and display unit (LPDU) or local processing unit (LPU)
- KG 220 SEF-Gy or KG 220 SEF-Sv
- With or without RS485 junction box
- Detector cable length: from 10 m (32.8 ft) to 70 m (229.6 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...
- USB converters
- Seismic qualified wall mounting bracket for LP(D)U
- Ethernet (LPDU only)

Featuring:

