



RAMSYS™

GIM 204K™

Very Wide Range Gamma Area Monitor

Monitoring dose rate in nuclear facilities for personnel exposure or for process monitoring.

DESCRIPTION

The GIM 204K monitor forms part of the RAMSYS product line. It has been developed to monitor dose rate or equivalent dose rate in nuclear facilities for personnel exposure as well as for process monitoring.

This monitor is available in many versions: with or without display, integral or remote detector, dose rate or equivalent dose rate, fixed or portable, etc.



FEATURES

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

GIM 204K™ VERY WIDE RANGE GAMMA AREA MONITOR

PHYSICAL CHARACTERISTICS

- Radiation detected: gamma
- Detector: silicon (SG/Si(R)11 for Sv/h or SG/Si(R)21 for Gy/h)
- Energy range: 60 keV to 3 MeV
- Typical measurement range (according to IEC60532): 10^{-6} to 100 Gy/h or Sv/h (10^{-4} to 10^{+4} rad/h or rem/h)
- Measurement capability range: 10^{-8} to 10^{+3} Gy/h or Sv/h (10^{-6} to 10^{+5} rad/h or rem/h)

ENVIRONMENTAL CHARACTERISTICS

- Nomal 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: -20 °C to +55 °C (-4 °F to +131 °F)
- MTBF: > 50 000 hours
- TID:
 - Processing unit: 100 Gy (10^{+4} rad)
 - Detector: 500 Gy ($5 \cdot 10^{+4}$ rad)
- Protection index: IP65 and IK07

MECHANICAL CHARACTERISTICS

- Dimensions:
 - Processing unit: 391 mm x 196 mm x 209 mm (15.4 in x 7.7 in x 8.2 in)
 - Detector: 08 mm x 92 mm x 166 mm (4.3 in x 3.6 in x 6.5 in)
- Weight:
 - Processing unit: 8 kg (17.6 lb)
 - Detector: 0.6 kg (1.3 lb)
- Color: gray RAL 7030 (decontaminable paint)

ELECTRICAL CHARACTERISTICS

- Power supply: 230 Vac – 50 Hz or 120 Vac – 60 Hz
- Data link outputs: one RS232 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: IEC60532
- Environmental: IEC/IEEE 60780-323
- Seismic: IEEE344 and IEC60980
- EMC: 2014/30/EU and 2014/35/EU, IEPRI 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)
- With or without RS485 junction box
- Detector cable length: from 5 m (16.4 ft) to 100 m (328 ft)
- Junction box cable length: 2 m (6.56 ft), 5 m (16.4 ft) or 10 m (32.8 ft)
- Detector calibrated in Sv/h (Si11) or Gy/h (Si21)

ACCESSORIES

- Calibration tools
- Software: MASS2™, RAMVISION™, SIMS2™ applications...
- Ethernet (LPDU version only)
- USB converters
- Wall mounting bracket
- Carrying handle (GIM 204M™ mobile version)



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