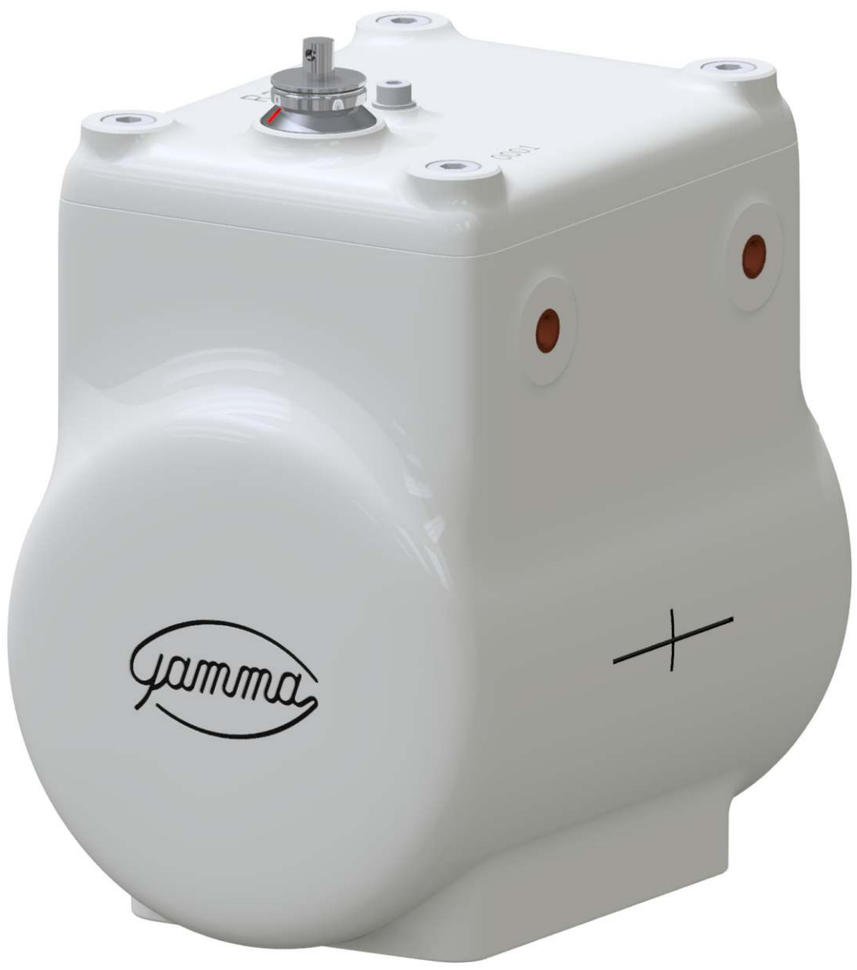
RadGM

Gamma dose rate transmitter

PLACES OF APPLICATION

- Nuclear facilities
- Radiation monitoring
- Environmental survey
- Mobile monitoring systems
- Process control: level-, concentration-, density measurement



FEATURES

- Environmental dose rate measurement, H*(10) measurement
- High sensitivity
- Wide measuring range
- Quick operation
- Full parameter programming
- Excellent reliability, self-diagnostics
- Adjustable fixed and dynamic alarm thresholds
- Dose rate dependent signal output for audible or visual signals
- Configurable outputs for warning and alarming purposes
- Input for acknowledging alarms

RadGM is a highly sensitive gamma radiation meter with a wide measurement range for measuring dose and radiation level. The device was designed for continuous operation even under extreme meteorological conditions. The instrument has a sealed housing, it can only be controlled remotely. RadGM can be installed on monitoring stations, ground and aerial vehicles. It is suitable for applications measuring the level of solid or liquid materials in tanks, containers and silos. Due to the applied radiation portal monitor algorithm, slight increases close to the background radiation level can be detected without rise in false alarm rate. RadGM can be connected to a PC, datalogger or PLC via standard industrial RS-485/MODBUS connection.

Technical parameters

Sensor
One or two GM tubes

Nuclear parameters
according to IEC 61017
environmental dose equivalent H*(10) and
environmental dose rate equivalent H*(10)

Measurement range
Two GM tubes: 60 nSv/h ... 100 Sv/h (-15% ... +22%)
One GM tube: 60 nSv/h ... 20 mSv/h or
10 mSv/h... 100 Sv/h (-15% ... +22%)

Dose: 50 nSv ... 1000 Sv

Indication range
40 nSv/h ... up to 120 Sv/h

Energy range
50 keV ... 1.5 MeV

Energy dependence
< ±30% in the effective energy range (83 keV ... 1.5

Angular dependence
< ±30% 2 π solid angle

Set-up time
5 s

Measuring time
Continuous, 2 s ... 3600 s

Manually started measurement
(with software): user initiated measurement with adjustable measurement time. Storage and query of measurement data.

Self-diagnostics, automatic recovery after the error is eliminated.

Communication
RS-485, max 115200 Bps speed (MODBUS protocol)

Number of devices on one cable
max. 32

Calibration and test
Through remote access

Power supply
9 VDC ... 32 VDC

Power consumption
12VDC @ 45 mA (540 mW)

Energy saving mode, after initiating a manually started measurement:
12VDC @ 5 mA (60 mW)

Operational temperature range
-40 °C ... +65 °C

Ingress protection
Sealed housing, IP67

Dimensions, weight:
HxWxL 150x125x90 mm, 0.78 kg

Software (optional)
Windows based software for querying instrument data, settings and control.

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