

TECHNICAL DATA

	GM-40	GM-41	GM-42	
Counting tubes	ZP1301	ZP1313	ZP1201	
Measuring range	250 μ Sv/h—10 Sv/h (25 mR/h—1000 R/h)	50 μ Sv/h—1 Sv/h (5 mR/h—100 R/h)	0.5 μ Sv/h—10 mSv/h (50 μ R/h—1 R/h)	
Display range	10 μ Sv/h—10 Sv/h (1 mR/h—1000 R/h)	2 μ Sv/h—1 Sv/h (0.2 mR/h—100 R/h)	0.05 μ Sv/h—10 mSv/h (5 μ R/h—1 R/h)	
Sensitivity ⁽¹⁾	30 cps/mSv/h (0.3 cps/mR/h)	200 cps/mSv/h (2 cps/mR/h)	1800 cps/mSv/h (18 cps/mR/h)	
Accuracy	\pm 15% of reading within the measuring range			
Energy range	70 keV—1.3 MeV	50 keV—1.3 MeV	50 keV—1.3 MeV	
Energy dependence ⁽¹⁾	\pm 20%	\pm 15%	\pm 20%	
Angular dependence ⁽¹⁾	Less than \pm 20% for \pm 45° of preferred direction			
Output signals	TTL pulses (5 V, 5 μ s) Detector status logic: — identification — correct operation — malfunction — GM saturation			
Temperature range	Operation: -10°C to +50°C (15°F to 122°F) Storage : -20°C to +60°C (-5°F to +140°F)			
Humidity range	40% to 95% RH (non condensing)			
Dimensions	Length Diameter	170 mm (6.7") 38 mm (1.5")	170 mm (6.7") 38 mm (1.5")	197 mm (7.75") 38 mm (1.5")
Weight		220 gr (0.48 lb)	200 gr (0.44 lb)	250 gr (0.55 lb)
Casing	Aluminum, splash proof			
Hook-up cable length	up to 100 m			

⁽¹⁾ Related to ¹³⁷Cs

Ordering #	GM-40	GM-41	GM-42
	3-0050	3-0051	3-0052

ROTEM INDUSTRIES reserves the right to change specifications without advance notice

Further enquiries are encouraged. Please write to the address below, or call direct:

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The GM-40 Series for Improved Gamma Radiation Measurement



The GM-40 series of detectors are designed to be used with the RAM series of radiation monitors, for measuring gamma radiation over a very wide range. Combined with the special features of RAM monitors, they make an excellent choice for maintaining the highest safety standards in facilities of nuclear power plants, nuclear research centers, transport of nuclear materials, public safety installations, nuclear medicine, radiochemistry and other health physics applications.

Each detector of the GM-40 series contains an appropriate Geiger-Muller tube, and the following electronic circuits:

- High voltage power supply
- Pulse shaper
- GM tube saturation indicator
- Detector identifier
- Malfunction indicators

The proximity of the GM tube to the electronic circuits minimizes stray capacitance and ensures better performance. In case of HV failure or GM tube overflow, an alarm signal is automatically triggered in the monitor. A saturation indicator circuit is a special feature of the GM-40 series of detectors, which makes them extremely reliable, even in very high fluxes. The wide range of measurement is achieved by dead time correction routine in the monitor.

Each detector is encased in a rugged, splash-proof housing for protection against shock, vibration and humidity, to conform with the highest standards incorporated into the RAM monitors and its previously available group of compatible detectors.

Each of the GM-40 series of detectors is capable of operating over full performance, with an extended hook-up cable up to 100 meters length.