

GG2W High Sensitivity Gamma GM Detector

Time-To-Count Detection Method

Wide Range

The GG2W Intelligent Gamma Probe is an integrated real-time Gamma radiation-monitoring device that provides highly accurate indication of ambient Gamma radiation over a wide range.

The GG2W uses a pair of halogen quenched Geiger Mueller tubes for sensitivity to ambient gamma radiation levels. The GM tubes are operated using a “Time-To-Count” method which removes the limitations associated with traditional ‘constant bias’ GM tube circuits.

The GG2W will detect gamma radiation from 50 keV to 3 MeV with a linearity of $\pm 5\%$. The detector provides a dynamic range of 1 μ R/hr to 1,000 R/hr. The GG2W is electrically connected via a multi-conductor shielded cable to an associated Apantec’s Display and Control unit.

The GG2W is housed in a rugged cylindrical aluminum housing with a NEMA 4 rating and is also available with SI Units of measurement Sv/hr ($H \times 10$)



SPECIFICATIONS:

Detector Type:	Geiger Mueller tube
Range:	1 μ R/hr to 1,000 R/hr
Energy Range:	50 keV to 3 MeV
Energy Response:	$\pm 20\%$ 80 keV to 1.5 MeV, Reference 137Cs
Saturation:	Will not saturate in fields up to 100,000 R/hr
Accuracy:	$\pm 15\%$ over entire range
Linearity:	$\pm 5\%$
Response Time:	4 s
Environment:	-31°F to 140°F (-35°C to +60°C), 0-95% RH
Operating Voltage:	12 VDC
Dimensions:	12”L x 2.5” diameter
Weight:	2 lb (1 kg) nominal, not including detector mount

TIME-TO-COUNT BENEFITS:

- Will not saturate in excess of 100,000 R/hr fields
- No fold-over/dead-time
- Extends GM tube life
- Allows wide range operation
- Single point calibration using a license-free source
- Linear response across the entire range