



# GMP-25

External Pancake Beta Probe for RDS-31



Nuclear  
Power



Homeland  
Security  
& Defense



Industrial and  
Manufacturing



Healthcare



Labs and  
Education

## OVERVIEW

The GMP-25 probe is intended for monitoring alpha, beta, gamma and X-ray radiation. The GMP-25 is used as an external detector with the RDS-31/ iTx/iTxSD multi-purpose Radiation Survey Meters especially for surface contamination monitoring and source localization applications.

The GMP-25 probe is equipped with a Binder connector and connected to the mating bulk connector interface at the bottom of RDS-31 family survey meters.

Like other Mirion external probes, also the GMP-25 is a "smart" probe, having an internal high voltage generator and non-volatile memory for calibration coefficients and probe identification data. Thus the probe can be connected "on-the-fly" without the need for switching off the meter, which automatically recognizes the probe type and sets the meter reading to defined measuring unit.

## KEY FEATURES

- remote pulse rate measurements
- for alpha /beta/gamma surface contamination measurements
- converts the meter into contamination monitor
- sensitive for low levels of alpha, beta and gamma radiation
- for general contamination and frisking applications
- cord lengths up to 15 meters upon request

Health Physics

## RADIOLOGICAL CHARACTERISTICS

- radiation detected: gamma-, beta- and alpha-rays
- energy range: gamma > 6 keV, betaEmax > 100 keV, and alpha > 2 MeV
- detector type: GM tube 7313
- pulse rate range: 0 - 50 000 cps
- mica window with active area: 15.5 cm<sup>2</sup> (6.1 in<sup>2</sup>); window thickness: 1.5 - 2 mg/cm<sup>2</sup>
- sensitivity: 2.8 cps (170cpm) for 90Sr/90Y uniform source of 0.37 Bq/cm<sup>2</sup>

## MECHANICAL CHARACTERISTICS

- equipped with retractable cord, length 300 mm - 1200 mm (11.81 in - 47.24 in)
- temperature range: operation: -25°C to +55°C (-13°F to +131°F); storage: -40°C to +70°C (-40°F to +158°F)
- humidity: 0 - 95% relative humidity, non-condensing
- Casing of durable ABS/polycarbonate, length 375 mm (14.8 in), width 70 mm (2.75 in) (max)
- weight: 490 g (1.08 lb)

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Other versions with IKELITE 7 bulk connector and a separate straight cable (various lengths) are available upon request.

### GMP-25 MDA

parameter / settings	Self Count Rate	BG	Sensitivity	Meas. Time
	30 cpm	0.1 µSv/h	300 cpm / µSv/h	tb = 60 s ; ts = 60 s
detectors : GM Tube	source to grid separation 1 cm; Grid open area to surface = 71%			
	efficiency (cps / Bq)	MDA		
Am-241, α E: 5,4 MeV	> 15%	< ~ 0,26 Bq/cm <sup>2</sup>		
C-14 β, E <sub>mean</sub> : 50 KeV	> 7 ± 1%	< ~ 0,55 Bq/cm <sup>2</sup>		
Sr-90/Y-90, β, E <sub>mean</sub> :0,8 MeV	> 35 ± 4%	< ~ 0,11 Bq/cm <sup>2</sup>		
Cl-36, β, E <sub>mean</sub> : 0,27 MeV	> 29 ± 4%	< ~ 0,13 Bq/cm <sup>2</sup>		

GMP-25 end window grid



GMP-25 with protective end window cap



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