RAD SAFETY WATER MONITOR

Model # MEDA-SP

FEATURES:

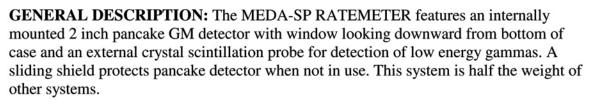
- TWO SEPARATE DETECTORS
- SUBMERSIBLE GAMMA DETECTOR
- T-1190 ALPHA, BETA DETECTOR
- LIGHTWEIGHT FITS IN BRIEFCASE

APPLICATION:

- Roadside Chemical Spill
- Industrial Accident
- Terrorist Water Poisoning
- Dumping of Medical/Industrial Waste

SITE LOCATION:

Use MEDA-SP <u>ANYWHERE</u>



MEASURMENT CAPABILITIES:

- Gamma emitters, submersible sensor probes for reservoir, stream or sump.
- Alpha and beta emitters in water samples
- Quick determination of water contamination
- Easy detection of surface contamination-alpha, beta, gamma; hands, boots, clothing, equipment
- Identify personnel needing decontamination
- Search out stored radioactive materials or dirty bombs using gamma probe

SPECIFICATIONS:

- Meter: Rugged, recessed 2-1/2" meter.
- Ranges: 4 linear for each detector:
 - > 0-500; 5,000; 50,000; 500,000 cpm for external
 - > 0-0.15; 1.5; 15; 150 mR/hr. for internal detector.
 - > Other scales and overlays available: Sieverts, etc.
- Range Switch Positions: Off; Battery Test; X1; X10; X100; X1,000.
- Detector Switch (Toggle): Internal (pancake), External (scintillator) PGS-3SUB
- Time Constant Switch: Fast, Slow (approx. 2 & 11 sec.)





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SPECIFICATIONS:

- Detectors:
 - > 2" O.D. Pancake Geiger for internal Alpha/beta emitters.
 - > Submersible, high sensitivity gamma scintillation probe 1"x1"Nal (Tl) crystal standard.
 - > 2"x2" crystal optional.
- Calibration: Single master Cal Pot for each detector, plus individual Cal Pot for each scale. Pots adjust from outside case.
- **Power:** 9V transistor battery (Eveready E1220 or equivalent).
 - > Battery life 100 hrs with normal operation.
- **Dimensions:** 3" (7.6cm) wide x 5-1/4" (13.3cm) long x2-1/4" (6cm) deep.
- **Total Weight:** 2.5 lbs. (including probe and battery)
- **Shipping Weight:** 4.4 lbs.

ACCESSORIES INCLUDE:

- EVAP-SP: Sample evaporator with vehicle adaptor.
- PAN-AL: Disposable aluminum planchets for sample evaporation.

OPTIONS:

- PAN-SP: Re-usable planchets.
 PGS-3LSUB: 2"x2" crystal probe.
- BAZ-EVAP: Battery for evaporation process.
- STB-3: Shielded pancake tube detector for enhanced alpha beta sensitivity.

DESCRIPTION OF USE:

- 1. Arrive at location of accident or attack
 - Throw gamma sensor into reservoir, stream or sump.
 - > Increasing count rate indicates contamination by gamma emitters.

2.Use PAN-AL (disposable planchet)

- ➤ Place sample of suspect water in evaporator (EVAP) for one minute
- Place sample under built-in pancake detector on bottom of ratemeter
- ➤ Increased count rate indicates contamination with alpha or beta emitters
- 3. If count rate exceeds 2 times background, water is not safe.
- 4. Use built-in pancake GM detector on bottom of ratemeter to check people, clothing and objects for surface contamination.
- 5. If count rate exceeds 2 times background, the person should take off the contaminated clothing. If count rate continues to exceed 2 times the background, hose them down and measure again.
- 6. Gamma probe count rate will increase as you approach a cache of radioactive materials. Knowing this you can search a car or check-out suspicious objects.



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MEDA-SP DETECTORS

	Internal Detector	External Detector
Radiation Detected	Alpha, Beta, Low energy	Gamma
	Gamma	
Sensor Size	2" dia x 1/2" thick	1" dia x 1" thick
Model	T-1190 Geiger tube	PGS-3SUB scintillator
Window	Mica 1.5 mg/cm ²	0.06" anodized aluminum
Optional	Alpha filter Shielded STB-3 detector	
Use/Method	Detects residue after quick evaporation of water in sample planchet	Submerge detector in reservoir, stream, or sump
Mounting	Faces-downward from	Clips onto side of
	inside ratemeter case	instrument
	Radiation Detected	
	T-1190	
No filter	1) Alpha, Beta,	
	Low energy Gamma	
Optional-Alpha filter	2) Beta,	
	Low Energy Gamma	
Optional-Beta filter	3) Higher energy Gamma,	
	Background radiation	
Formula	Net Alpha =1-2	
Formula	Net Beta =2-3	
Formula	Gross Counts =1	

