

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 ANYWHERE

GENERAL DESCRIPTION: The MEDA-SP RATEMETER features an internally mounted 2 inch pancake GM detector with window looking downward from bottom of case and an external crystal scintillation probe for detection of low energy gammas. A sliding shield protects pancake detector when not in use. This system is half the weight of other systems.

MEASUREMENT 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.)



RAD SAFETY WATER MONITOR

Model # MEDA-SP

SPECIFICATIONS:

- **Detectors:**
 - 2" O.D. Pancake Geiger for internal Alpha/beta emitters.
 - Submersible, high sensitivity gamma scintillation probe 1"x1"Nal (TI) 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 x 2-1/4" (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.**

RAD SAFETY WATER MONITOR

Model # MEDA-SP

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 inside ratemeter case	Clips onto side of 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	