

ERK-506

EMERGENCY RESPONSE KIT

The DSM-506 kit utilizes the DSM-506 Survey/Scaler meter to measure most alpha, beta, and gamma radiation & contamination fields from background to 2000mR/hr. An internal energy compensated GM detector, HP-265 GM pancake and the MRSP-1 near tissue equivalent scintillator are connected to the meter and can have dual (dose or cpm calibrations) that are switch selectable from the front panel. The timed count scaler function makes low level contamination measurements more accurate once the operator selects the desired probe. Automatic ranging and diagnostics make the system extremely user friendly. All components of the system are contained in a durable carrying case for easy storage and portability.

FEATURES:

- ◆ **LARGE DIGITAL DISPLAY**
- ◆ **AUTO RANGING UNITS**
- ◆ **DUAL MODE CAPACITY FOR DOSE RATE & COUNT RATE**
- ◆ **3 DETECTORS – INTERNAL GM, HP-265 and MRSP-1**



DSM-506 SPECIFICATIONS:

Dose/Counts Switch	Change Dose Rate to Count Rate by Toggling an External Switch
Display	LCD 4-Digit x .75" LCD w/LED Backlight
Internal Detector	Energy Compensated GM Tube
Energy Range	60 keV – 3 MeV
Internal Detector Dose Range	50 μ R/hr - 2000 mR/hr or equivalent Sv/hr
External Probes	HP-265 and MRSP-1
CPM Range	0-999.9 Kcpm or Kcps
Probe Linearization	Internal adjust for calibration constant and dead time
Scaler Ranges	0-999.9 Kcounts
Scaler Count Time Ranges	10-2550 Seconds (10 second increments)
Alarms	5-95% of Range
Diagnostics	Low Battery, Over-range - Audible & Visual Alarms
Range Adjustment	Auto-Ranging All Scales
Electrical Non-Linearity	< 5% Full Scale
Response Time	Fast - 10-2550 Seconds (adjustable) / Slow 10-250 seconds (adjustable)
Drift	< 5%
Environmental	-20°F[-28°C] to 140°F[60°C] 5-95% RH IPX4 Housing
High Voltage Adjustable	400-1250 VDC Regulation +-1%
Battery	6 - "AA" Alkaline (nominal 200hrs Operation)
Dimensions	5.25"(14cm) H X 4" (10cm) W x 7"(18cm) L
Weight	2.5 lbs. (1.2 Kilos)

HP-265 SPECIFICATIONS:

General Use	Alpha, Beta, Gamma Detection
Detector Type	Halogen-Quenched GM Pancake Tube
CPM Range	0-999.9 Kcpm or Kcps
Dose Range	0-200 mR/hr (Cs¹³⁷) - Requires linearization above 50 mR/hr
Window	1.7 ± 0.3 mg/cm² mica, protected by a Copper screen (79% open)
Window Area	Active – 15.5 cm ² (2.4 in ²) Open – 12.3 cm ² (1.9 in ²)
Efficiency (4π)	C ¹⁴ – 5%, SrY ⁹⁰ – 22%, Tc ⁹⁹ – 19%, P ³² - 32%
Energy Response	Energy Dependent
Sensitivity (Cs ¹³⁷ gamma)	≈ 3300 cpm/mR/hr
Operating Voltage	900 vdc
Dead Time	80 μsec
Normal Background	≈ 60 cpm
Environmental	-20°F [-28°C] to 140°F [60°C] 5-95% RH
Connector	BNC (other types available)
Dimensions	2.74" (7cm) Dia x 11" (28cm) L
Weight	1lbs (0.45 kg)

MRSP-1 SPECIFICATIONS:

General Use	Low Level Gamma Dose Rate Measurements
Detector Type	1.5" dia x 1" Plastic Scintillator
CPM Range	0-999.9 Kcpm
Dose Range	1 μR/hr - 10 mR/hr (Cs¹³⁷)
Energy Response	40keV – 2 MeV (near tissue equivalent)
Sensitivity (Cs ¹³⁷ gamma)	≈ 100 cpm/μR/hr
Efficiency (4π)	≈ 2%
Background (10 μR/hr)	≈ 900 cpm
Operating Voltage	600 - 1100 vdc
Dead Time	≈ 35 μsec
Compatibility	All Johnson Rate Meters
Environmental	-20°F [-28°C] to 140°F [60°C] 5-95% RH
Connector	BNC (other types available)
Dimensions	1.7" (4.25cm) Dia x 6" (15cm) L
Weight	4 oz (0.11 kg)