ADM-300
Multi-Functional Survey Instrument

The ADM300 series of portable multi-functional survey instruments are rugged, reliable and designed for use in all environments.

With built-in GM detectors, the ADM300 will detect, measure, and digitally display both dose and dose rate levels of Gamma radiation from 10 µR/hr to 10,000 R/hr (0.1 µSv/hr to 100 Sv/hr) and Beta radiation from 10 µR/hr to 5 R/hr (0.1 µSv/hr to 0.05 Sv/hr). When coupled with optional external "smart" probes, the ADM300 series of instruments can be used to measure, store, and display Alpha, Beta, Gamma, Neutron and X-ray radiation. "Smart" probes store probe ID, calibration data and have an internal high voltage power supply.

FEATURES

- Internal GM detectors for Beta and Gamma detection
- Microprocessor based with easy-to-read LCD alpha-numeric display
- Beta window for ambient levels of for contamination on "samples" eliminating the need for a second unit
- Analog and digital displays provide both trending and accuracy
- Nine decades of operation (from environmental to accident levels) and will not saturate in over 100,000 R/hr field
- Patented "Time-To-Count" GM technology provides high accuracy and allows calibration with license free sources
- Displays and stores up to 100 data points
- Dose and dose rate alarms across entire measurement range
- Switch activated chirper provides audible "rate" for use in noisy work environments
- Predictive algorithm provides estimate of time in the field before alarm
- Illuminated display for operating in low light conditions
- RS232 serial port to interface with computer
- Contamination resistant sealed membrane keypad switch

SPECIFICATION

Gamma	10 µR/hr to 10,000 R/hr 0.1 µSv/hr to 100 Sv/hr
Beta	10 µR/hr to 5 R/hr 0.1 µSv/hr to 0.05 Sv/hr
Dose Rate	10 µR/hr to 10,000 R/hr 0.1 µSv/hr to 100 Sv/hr
Dose	10 µR/hr to 1,000 R/hr 0.1 µSv/hr to 10 Sv/hr
Saturation Characteristic	Will not saturate in radiation fields as high as 100,000 R/hr (1,000 Sv/hr)
Internal Detectors	Two GM detectors, covers both low and high range measurement Low range tube has a 2-3 mg/cm^2 end window for beta detection
Energy Response	Gamma: 80 keV to 3 MeV Beta: >200 keV (with shield open)
Accuracy	±10% of reading over entire range
Non-linearity	±5%
Response Time	Up to 1 mR/hr / 10 µSv/hr in 5 s, above 1 mR/hr / 10 µSv/hr in two seconds
Range	LCD, backlit for low light operation (optional SI units eg: Sv, Gy, Bq)
Battery	Sealed & leak proof. 100hr of continued operation in 10 R/hr / 0.1 Sv/hr field at 25°C
Battery check	Microprocessor controlled, low battery protection, and indication
Outputs	Serial Interface (RS-232C)
Function Switches	Power, mode, light, set, audio, and increment
Temperature	Operating: -22°F to +122°F / -30°C to +50°C Storage: -40°F to +140°F / -40°C to +60°C
Humidity	95% RH
Shock/Vibration	Tested to requirements of MIL-STD-801 USA
EMI/RFI	Tested to requirements of MIL-STD-461
Case Construction	Sealed cast aluminium housing, with semi-gloss enamel finish (safe for decontamination)
Dimensions	4" (w) x 1.75" (h) x 7.5" (d) / 101.6 x 44.5 x 190.5 mm
Weight	2.6 lbs / 1.17 kg

"SMART" PROBES*

- **ABP-100** alpha/beta 100 cm^2
- **BGP-100** gamma w/beta window
- **BP-100** beta (pancake GM)
- **GP-110** high sensitivity gamma
- **GSP-100** gamma sensitivity scintillator NaI(Ti) 1.5" x 1"
- **NP-100** BF_3 Neutron
- **NP-100** ^3He Neutron
- **PCD-100** sealed gas proportional
- **UWP-100** underwater GM with 100ft (30m) of cable and reel assembly
- **XP-100** CaF^2 (Eu) scintillator
- **XP-110** NaI(Ti) scintillator (5" dia) low energy X-rays

* ALL PROBES REQUIRE MODEL KC-100 COIL CORD FOR USE WITH THE ADM-300

ACCESSORIES

- ADM-COM Software (CSP-100)
- Alpha Repair Kit (ARK-100)
- Bar Code Reader (BCR-100)
- Calibration Fixture (GCF-100)
- Carrying Case (CC-100) / Pouch (CP-100) / Strap (CS-100)
- Coil Cord (KC-100)
- Earphone (EM-100)
- External Sounder (ES-100)
- Gun Handle (HG-100)
- Source Button (SB-100) ^{137}Cs
- Test Source Set (TS-100) ^{137}Cs and ^{232}Th
- Voltage Converter (CV-100)
- Wall Mount Unit (WM-100)

MODELS

- **ADM-300** (standard style)
- **ADM-300S** (shoebox style)
- **ADM-300SI** (SI units)
- **ADM-300SIS** (shoebox style SI units)

"TIME-TO-COUNT"

This patented technique removes limitations such as dead time, coincidence loss, fold-over, and saturation in high fields associated with conventional GM detectors. This allows wide range detection with unsurpassed accuracy and linearity.

The Radhound can be used with third party detectors, please contact us to check compatibility.

southern scientific

Scientific House, The Henfield Business Park, Shoreham Road, Henfield, West Sussex, BN5 9SL
Tel: +44 (0)1273 497600
Email: info@southernscientific.co.uk