

# 라돈 측정기 (Radon Monitor)

환경부 형식승인 IAMS-2007-17호

## 용 도(Applications)

- 실내 공기 중의 라돈 가스 농도 측정
- 건축 및 토목 자재의 라돈 방출량 측정
- 지하수 및 하천수 등의 라돈 가스 농도 측정 (선택사양)

## 특 징(Features)

- 환경부 형식 승인 제품
- 표준 교정 장치로 국내에서 검정 가능
- 단시간 측정 및 연속 장기간 측정 가능
- 라돈 및 Thoron 측정 및 그래프 출력 가능
- 1시간 이내에 EPA Action Level인 4pCi/L 측정 가능
- 0.2 pCi/L의 고감도 측정 가능
- 펌프 및 프린터 기본 탑재



## SPECIFICATIONS

Modes of Operation	<b>SMIFF</b> Rapid response and rapid recovery radon measurement <b>THORON</b> Radon and thoron measured simultaneously and independently <b>NORMAL</b> High sensitivity <b>AUTO</b> Automatic switch from SNIFF to NORMAL after three hours run <b>GRAB</b> Analysis of grab samples <b>WAT</b> Automatic analysis of water samples with RAD H2O accessory
Multi-Measurements	Measures radon in air, soil and water (with RAD H2O accessory)
Principle of Operation	Electrostatic collection of alpha-emitters with spectral analysis Passivated Ion-implanted Planar Silicon detector SNIFF mode counts polonium-218 decays NORMAL mode counts both polonium 218 and polonium 214 decays
Built-In Air Pump	Nominal 1 liter/minute flow rate Inlet and outlet Luer connectors
Connectivity	RS-232 port up to 19,200 baud rate USB adaptor is included with every RAD7
Measurement Accuracy	±5% absolute accuracy 0% - 100% RH
Nominal Sensitivity	SNIFF mode : 0.25 cpm/(pCi/L), 0.0067 cpm/(Bq/m3) NORMAL mode : 0.5 cpm/(pCi/L), 0.013 cpm/(Bq/m3)
Range	0.1 - 20,000 pCi/L (4.0 - 750,000 Bq/m3)
Intrinsic Background	0.005 pCi/L (0.2 Bq/m3) or less, for the life of the instrument
Recovery Time	Residual activity in Sniff mode drops by factor of 1,000 in 30 minutes
Operating Ranges	Temperature : 0° ~ 45° C Humidity : 0% - 100%, non-condensing
Cycle Range	User controllable number of cycles, from 1 to 99 to unlimited, per run User controllable cycle time, from 2 minutes to 24 hours

Data Storage	1,000 records, each with 23 fields of data Log of printer output also stored
Sample Pumping	Built-in pump draws sample from chosen sampling point Flow rate typically 800mL/min
Print Output	Short, medium or long format data printed after each cycle Run summary printed at end of run, including averages and spectrum
PC Connectivity	RS232 serial port, full remote control implemented in CAPTURE Software
Audio Output	<b>GEIGER</b> Tone beeps for radon and thoron counts <b>CHIME</b> Chime only at the end of each cycle, otherwise silent <b>OFF</b> No sound
Tamper Resistance	TEST LOCK command locks keypad to secure against tampering
Dimensions	29.5 cm x 21.5 cm x 27.9 cm
Weight	4.35 kg
LCD Display Output	2 line x 16 character, alpha-numeric display
Case Material	High density polyethylene
Infrared Printer	Omniprint OM1000 Wireless Infrared Printer included
Power Supply	11-15V DC (12V nominal) @ 1.25A, center pin positive, or included internal EnerSys sealed lead acid rechargeable battery pack (6V nominal, 30Wh, 5Ah)
Battery Longevity	24 hours in SNIFF mode 72 hours in Monitor mode

## CONFIGURATIONS

Main body and Data Link & Graphic Software include remote software	1 ea
Newhandy Infrared Printer, Battery Charger, rechargeable batteries & 3 extra rolls paper	1 set
External 12V Power Input	1 ea
Velcro Tabs	2 ea
Drying Tubes	4 ea
Gas Drying Unit	1 ea
5 lb Desiccant	1 ea
1 Dust Filter & 6 Uniflow Filters	1 set
Vinyl Tubing	1 ea
Startech USB to Serial Adaptor	1 ea
Designated Certificate by NIER (copy)	1 ea
Operation manual (한글)	1 ea

## OPTIONAL ACCESSORIES

RAD H2O Water Accessory	1 set
RAD AQUA Continuous Radon-in-Water Accessory	1 set
Soil Gas Probe (AMS Stainless Steel Probe)	1 set